EXECUTIVE SUMMARY

RESEARCH AND RECOMMENDATIONS ON COMPETITION CONDITIONS IN THE FINANCIAL SECTOR AND ITS MARKETS

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PREFATORY NOTE

This document is a synthesis of Trabajo de Investigación y Recomendaciones sobre las Condiciones de Competencia en el Sector Financiero y sus Mercados (Research and Recommendations on Competition Conditions in the Financial Sector and its Markets). Its purpose is to offer readers a general vision of characteristic structures and behaviors in the financial services the present study considers. In each case a brief description of the financial service is presented, along with its current situation and problematics, some pertinent evidence and considerations of appropriateness as well as conclusions or recommendations that the study suggests. For more details, the original study and official accord document CFCE-150-2014 as issued by the Plenum of the Federal Commission for Economic Competition—featuring its recommendations to the Mexican Federal Congress—can be accessed at the following microsite:

http://www.cofece.mx/index.php/prensa/noticias/trab-inv-recom-sec-fin.

SPANISH-LANGUAGE ABBREVIATIONS AND ACRONYMS USED IN THE PRESENT SUMMARY (WITH THEIR ENGLISH-LANGUAGE TRANSLATIONS)

ABCD	*adquisición de bienes de consumo duradero* (durable goods acquisition)
Afores	*administradoras de fondos para el retiro* (retirement-fund administrators)
AMIS	*Asociación Mexicana de Instituciones de Seguro*s (Mexican Association of Insurance Institutions)
Bancomext	*Banco Nacional de Comercio Exterior* (National Bank of Foreign Trade)
Banjército	*Banco Nacional del Ejército, Fuerza Aérea y Armada* (The National Bank of the Army, Air Force and Navy)
Banobras	*Banco Nacional de Obras y Servicios Públicos* (National Bank of Public Works and Services)
Bansefi	*Banco del Ahorro Nacional y Servicios Financieros* (National Savings and Financial Services Bank)
Banxico	*Banco de México* (i.e., Mexico's central bank)
BMV	*Bolsa Mexicana de Valores* (i.e., Mexican Stock Exchange)
CAT	*costo anual total* (total annual cost)
CNBV	*Comisión Nacional Bancaria y de Valores* (National Banking and Securities Commission)
CNSF	*Comisión Nacional de Seguros y Fianzas* (Insurance and Surety National Commission)
Cofece	*Comisión Federal de Competencia Económica* (Federal Commission for Economic Competition)
Cofemer	*Comisión Federal de Mejora Regulatoria* (Federal Commission for Regulatory Improvement)
Condusef	*Comisión Nacional para la Protección y Defensa de los Usuarios de Servicios Financieros* (National Commission for the Protection of Users of Financial Services)
Consar	*Comisión Nacional de Sistemas de Ahorro para el Retiro* (National Commission for the Pension System)
CR	concentration ratio (as in English)
Enafin	*Encuesta Nacional de Competitividad, Fuentes de Financiamiento y Uso de Servicios Financieros de las Empresas* (National Survey on Competition, Financing Sources and Business Financial Services Use)
ENIF	*Encuesta Nacional de Inclusión Financiera* (National Survey on Financial Inclusion)
Financiera	*Financiera Nacional de Desarrollo Agropecuario, Rural, Forestal y Pesquero* (Farm and Ranch, Rural, Forestry, and Fisheries Development Financing Agency)
Finrural	*Financiera Rural* (The Rural Finance Agency)

FIRA	*Fideicomisos Instituidos en Relación con la Agricultura* (Trust Funds for Rural Development)
Fovissste	*Fondo de la Vivienda del Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado* (Housing Fund of the Social Security and Services Institute for State Workers)
GAT	*ganancia anual total* (total annual return)
GDP	gross domestic product (as in English)
IAP	*Institución de asistencia privada* (private assistance institution)
IMSS	*Instituto Mexicano del Seguro Social* (Mexican Social Security Institute)
Indeval	The corporation officially known as Indeval, S. A.de C. V.
INEGI	*Instituto Nacional de Estadística, Geografía e Informática* (National Institute of Statistics and Geography)
Infonavit	*Instituto del Fondo Nacional de la Vivienda para los Trabajadores* (National Worker Housing Fund Institute)
IPAB	*Instituto para la Protección del Ahorro Bancario* (Institute for the Protection of Bank Savings)
ISSFAM	*Instituto de Seguridad Social para las Fuerzas Armadas Mexicanas* (Mexican Armed Forces Social Security Institute)
ISSSTE	*Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado*(Institute for Social Security and Services for State Workers)
LACP	*Ley de Ahorro y Crédito Popular* (Mexico's Law for Savings and Popular Credit)
LFCE	*Ley Federal de Competencia Económica* (Mexico's Federal Law for Economic Competition)
LFI	*Ley de Fondos de Inversión* (Mexico's Law for Investment Funds)
LIC	*Ley de Instituciones de Crédito* (Mexico's Law for Credit Institutions)
LFPC	*Ley Federal de Protección al Consumidor* (Mexico's Federal Consumer- Protection Law)
LMV	*Ley del Mercado de Valores* (Mexico's Stock Market Law)
LRAF	*Ley para Regular las Agrupaciones Financieras* (Mexico's Law for the Regulation of Financial Groups)
LSAR	*Ley del Sistema de Ahorro para el Retiro* (Mexico's Law for the Retirement Savings System)
LSS	*Ley del Seguro Social* (Mexico's Social Security Law)
LTOSF	*Ley para la Transparencia y Ordenamiento de los Servicios Financieros* (Transparency and Financial Services Arrangement Law)
Mipymes	*micro, pequeñas y medianas empresas* (micro-, small and medium-sized enterprises)
Nafin	*Nacional Financiera* (National Finance Company)
OCC	Office of the Comptroller of the Currency (as in English)

OCDE or OECD	*Organización para la Cooperación y el Desarrollo Económicos* (Organization for Economic Cooperation and Development
Onavis	*organismos nacionales de vivienda* (national housing organizations)
Procesar	The corporation officially known as Procesar, S.A. de C.V.
Profeco	*Procuraduría Federal del Consumidor* (Mexico's Federal Attorney's Office for Consumers Defense)
Pymes	*pequeñas y medianas empresas* (small and medium-sized enterprises)
ROA	return on assets (as in English)
ROE	return on equity (as in English)
SAR	*sistema de ahorro para el retiro* (retirement savings system)
SHCP	*Secretaría de Hacienda y Crédito Público* (Ministry of Finance and Public Credit)
SHF	*Sociedad Hipotecaria Federal* (Federal Mortgage Association)
SICs	*sociedades de información crediticia* (credit-reporting agencies)
Siefores	*sociedades de inversión especializada en fondos para el retiro* (retirement-fund specialized investment associations)
SMS	short message service (as in English)
SMGVDF	*salario mínimo general vigente para el Distrito Federal* (current general minimum wage in Mexico City)
Socaps	*sociedades cooperativas de ahorro y préstamo* (cooperative savings-and-loan associations)
Sofincos	*sociedades financieras comunitarias* (community financial associations)
Sofipos	*sociedades financieras populares* (popular financial associations)
Sofomes ENR	*sociedad financiera de objeto múltiple, entidad no regulada* (private general financial services association, non-regulated-entity)
Sofomes	*sociedades financieras de objeto múltiple* (private general financial services association)
SPEI	*Sistemas de Pago Electrónicos Interbancarios* (Inter-banking Electronic Payment System)
"The Study"	*Trabajo de Investigación y Recomendaciones sobre las Condiciones de Competencia en el Sector Financiero y sus Mercados* (Research and Recommendations on Competition Conditions in the Financial Sector and Its Markets)
TEF	*transferencias electrónicas de fondos* (electronic funds transfer)
TMCA	*tasa media de crecimiento anual* (average annual growth rate)
TPV	*terminal punto de venta* (point-of-sales (POS) terminal)
Udis	*unidades de inversion* (investment units)
VSM	*veces el salario mínimo* (X times the minimum wage)

EXECUTIVE SUMMARY

RESEARCH AND RECOMMENDATIONS ON COMPETITION CONDITIONS IN THE FINANCIAL SECTOR AND ITS MARKETS

1. Introduction

1.1 Study Antecedents

On May 8, 2013, Mexico's Executive Branch presented its Financial Reform Decree Project (*Proyecto de Decreto de Reforma Financiera*), calling for reform to 34 legal codes. The reforms centered on four major considerations:

1. Fomenting credit through development banking;
2. Increasing sector competition;
3. Expanding private financial institution credit; and
4. Guaranteeing financial sector solidity and prudence.

Such considerations sought to endow the financial system with greater flexibility as a means of granting more credit and improving consumer financial services' overall conditions, thus contributing to Mexico's economic and social growth. To achieve these objectives, the reform's second consideration contemplated a need to boost sector competition.

Given the above, the Decree's transitory Article 5, section I—by which numerous finance-related regulations were reformed, expanded and repealed, and by which the Law for the Regulation of Financial Groups was issued and which entered into effect on January 11, 2014—stipulated that the Federal Commission for Economic Competition (Cofece or "the Commission") was to analyze the financial sector and its markets' conditions of competition. Specifically, the abovementioned decree declared:

"The Federal Commission for Economic Competition will be granted 180 calendar days from the present Decree's effective date to carry out ***research on the financial system and its markets' competition conditions****, to which end it should consider the non-binding opinion of the Ministry of Finance and Public Credit. As a result of this research, the Federal Commission for Economic Competition, may, as appropriate,* ***formulate recommendations to financial authorities to enhance competition in the system and its markets*** *as well as exercise any remaining powers with which Mexico's Law for Economic Competition endows it as a means of avoiding monopolistic practices, mergers, and other restrictions to the efficient functioning of the markets in this system, including, as may be the case,*

ordering measures to eliminate barriers to free market entry and competition; ordering de-incorporation of economic agents' assets, rights, partner contributions or stock holdings in necessary proportions to eliminate anti-competitive effects; as well as all remaining measures authorized by Mexico's Constitution and applicable law.

In response to this mandate and in compliance with that established in section XVIII *bis* 2 and the last paragraph of Article 24 of the Federal Law for Economic Competition, effective as of the institution of financial reform[1] on 16 January 2014, the Federal Commission for Economic Competition agreed to take up research work regarding competition conditions surrounding a number of the financial system and its markets' products and services.

1.2. Study Description and Elaboration Process

In order to carry out research on competition conditions in the financial sector and its markets, as well as to be able to make recommendations to financial authorities with regard to enhancing competition, the Commission focused on completing a market study on a number of financial sector segments, following best international practices as used by authorities in the United Kingdom and Spain as well as by the European Commission.

A market study is a diagnostic on the causes as to why a market may not be functioning properly in terms of efficiency, competition, and consumer welfare that also proposes improvements. To reach that diagnostic, a number of analytical elements are considered such as the current structure and characteristics of the sector being studied (numbers of supply and demand entities, products and services differentiation, mobility barriers, and degree of vertical integration, among others); financial sector entry regulation (for example, minimum paid-up capital requirements, credit information, business history); current operations (for example, prudential regulation, transparency and consumer information regulation; credit-information-sharing regulation); as well as conduct on the part of sector economic agents. Such studies' results are used to issue a portfolio of non-binding recommendations largely aimed at sector regulators—as well as other economic agents—in order to promote policies in favor of competition, efficiency and consumer welfare.

The term *market study* does not necessarily refer to the delimitation of a relevant market in the classic sense of a **competition** investigation. Market studies frequently present a more generalized outlook within the context of a given sector, in comparison to research on particular behaviors in a specific market.

1 Mexico's Federal Law for Economic Competition, as reformed by decree published in Mexico's Official Federal Gazette on 9 April 2012.

In order to select the products and services to be analyzed, the Commission identified activities that have the greatest impact on the Mexican financial system's overall functioning, particularly with regard to consumer welfare.

The following typology of the financial products and services that make up the present study was devised:

1) Relevant cross-cutting aspects
- Financial entity constitution and operations requirements
- Prudential regulation
- Systemic risk: resolution of financial institutions in crisis
- Concurrent powers: trade practices sanctions
- Payment systems
- Credit-reporting agencies (acronym in Spanish: SICs)
- Trusts
- Government intervention (development banks and subsidies)

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2) Credit
- Consumer credit
  - Credit cards
  - Payroll credit
  - Personal credit
  - Car loans
  - Other (apparel-related, ABCD, department store credit cards)
- Housing credit
- Commercial credit
  - Business loans
  - Farming and ranching sector business commercial credit
  - Credit to federal and local entities
  - Other (non-banking financial intermediary credit)

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3) Savings
- Deposits in regulated entities
- *Afore* retirement funds
- Investment funds

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4) Stock-exchange related financing

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5) Insurance

1.3 Financial Sector Relevance

The financial system is the sum of the entities and markets that attract the savings from society to manage them and to channel them toward financing productive or personal projects. Thus financial entities and markets are fundamental to any nation's economic and social development. This relationship has been documented broadly in studies that have demonstrated a direct correlation between financial-system competition and GDP growth. First, it is observed that nations with efficient financial systems and markets grow more rapidly. Secondly, economies with higher growth and wellbeing levels drive more solid, deeper financial systems.

The financial system is made up of numerous financial intermediaries such as banks, non-banking intermediaries (that undertake complementary activities in parallel with banks), insurers, stock exchanges, investment- and pension-fund managers as well as other institutions that realize complementary activities on behalf of those financial services. That said, because of their public-facing nature, banks are the best known among such entities and are therefore essential to the existence and proper functioning of any financial system.

Within financial markets, consumers or users such as households, businesses and various layers of governmental entities create demand. The principal needs consumers seek to satisfy within financial markets include the following:

1) Financial products that facilitate resource transactions;
2) Financial services that facilitate information transactions;
3) Financial products and services for obtaining credit and financing;
4) Financial products and services for saving, accumulating assets or investing; and
5) Financial products and services that provide protection against chance events and situations.

The section entitled "The Nature of the Financial System for Responding to Consumer Needs," in the present study's section 1, offers additional details on attributes present in products and services offered in response to specific consumer needs.

1.4. Mexico's Financial System: Recent Evolution and Structure

Mexico's financial system enjoys several advantages with respect to other global systems: its private financial institutions meet the capitalization levels the law requires and their activity presents low credit delinquency rates. These two conditions have endowed financial markets with a stability to absorb financial shocks. Nevertheless, that environment of stability has not been sufficient to boost general-economy financial intermediation levels nor levels of financial inclusion with regard to the population that does not have financial market access. The financial reforms Mexico approved in January 2014 aim towards correcting these limitations.

Some relevant financial system data is presented below, all of which can be consulted in greater detail in Chapter 1, section 1.4.2 of the study. In September 2013, the banking capitalization rate was 16.3%, whereas the CNBV standard, according to the Basel III Accords, was 10.5%. The banking industry's total portfolio delinquency rate was 3.2%. Due to such strengths, the Mexican banking system was able to maintain its stability during the 2008-2009 international financial crisis and did not suffer from problems reported in other world economies, even if during those years a deceleration of consumer, housing and business credit was observed.

Despite enjoying a well-capitalized financial system, intermediation levels have ultimately been low, which means the financial system has not reached its potential to promote national economic development. Seen in terms of current to-private-sector financing levels, bank credit granted to the private sector as a percentage of GDP rose to 18% in 2011. Thus Mexico is among the nations that grant less credit, even compared to nations whose economies support income levels that are similar to those of Mexico, such as Brazil, Colombia and Chile in Latin America or other nations whose trade relations or economic potential lead to a close relationship with Mexico (e.g., Panama (79%), Chile (66%), the United States (55%), Brazil (52%), and Colombia (32%)).

1.5 Banking System Market Concentration and Profitability

Despite the fact that eleven banking licenses were issued between 2007 and 2103[2] there is high concentration among financial products and services providers. In 2011, five banks controlled nearly 72% of total banking system assets.[3] Mexico's banking assets concentration ratio is higher than those in nations such as Argentina, the United States, China and Colombia, even if in nations such as South Africa, Peru and Canada the five largest banks control over 90% of assets.

Based on CNBV data for Mexico, at the end of 2013, 74% of credit and 77% of **retail deposit base** were concentrated within five institutions.[4] Financial system infrastructure was also owned by a reduced number of economic agents, given that five institutions controlled 85% of branches, 80% of ATMs and 72% of non-branch banking offices. This reflects potential limitation to free market entry and competition conditions that have a negative effect on consumer welfare when it comes to the price, quality and variety of financial services they acquire.

2 As of December 2012 there were 42 private general banking institutions in Mexico.
3 BBVA Bancomer 21.1%, Banamex 19.3%, Santander 12.8%, Banorte 10.6% and HSBC 8.4% (in round numbers).
4 BBVA Bancomer 22.7, Banamex 17.0%, Banorte 14.2%, Santander 13.5% and HSBC 9.5%. (in round numbers).

This concentration can be explained to the degree that the financial system tends to exhibit market failures and restrictions to competition that are both structural (e.g., the presence of economies of scale, scope or network, product differentiation, or **switching costs**) as well as related to behavior. Such restrictions have contributed to maintain high margins. In terms of profitability, during the 2007-2013 period, operative outcomes registered an average annual growth rate in real terms of 2.2%, similar to GDP growth. This growth is due to a marginal increase of 0.6% in revenue and expenses. It should be noted that net interest revenue was subject to average annual growth of 2.4%; nevertheless, net commissions and fees were reduced to an average annual growth rate of 4.8% in the 2007-2013 period.

With respect to capital and assets, Mexico's 2012 banking profitability comes in higher than that seen in nations such as Brazil, Chile and Uruguay. Argentina demonstrated 2.4 times more ROA profitability and 2.2 times more ROE profitability than Mexico.

2. Elements of the Competition Analysis

There is no single theoretical approximation for studying industrial organization and competition. A classic competition analysis starts out by studying an industry or sector's structure, determined by the number of buying and selling agents, entry barriers, technologies, and production chain integration, among other features. Such structural conditions influence businesses' behavior including that related to commercial strategies, investment or expansion plans. As an outcome of these behaviors, the industry in question presents a performance measured in different dimensions: price, quality, volume, variety, and business profits, among others.

Those three elements (structure-behavior-performance) can feed back each other; i.e., performance can influence behavior, which in turn can modify structure.[5] In this regard, new developments in economic theory (known as "new industrial organization") consider that competition between businesses involves strategic decisions that have effects on competitors, clients, providers or distributors, including investment decisions or potential competitors' market entrance/exit decisions. The main objective of enterprises' strategic interactions is to maximize benefits.

The role that competition authorities play is to oversee that this search for benefits is developed under competitive market parameters and not by means of market power. To achieve this, authorities employ a number of analysis tools that expand the classic focus of the industrial organization study (structure-behavior-performance) to incorporate elements of new industrial organization. The selection of the methodological focus to be employed responds to the problems, data and theories that characterize each case; considering both models as analytical complements constitutes best practice.

The main characteristics of the financial sector's structure and behavior are synthesized below with examples that will provide a better understanding. It is important to note that Chapter 2 of the present study offers additional theoretical details as well as additional examples of structures and behaviors that characterize the financial sector.

2.1. Financial Sector Structural Characteristics

A sector's structure can be described based on a set of elements, notably the number of participants, technologies, cost structures, entry- or exit-barriers, productive chain phase integration and many others.

5 Fernández de Castro and Duch (2003).

2.1.1. Economies of Scale

The term *economies of scale* refers to the phenomenon wherein the average per-unit cost of a delivered product or service decreases with an increase to the scale or size of exchanged quantities or the number of users served.[6] For example, in the case of the financial system, establishing a bank branch requires a considerable initial monetary investment, nevertheless, once this has been done, it allows for processing large transaction volumes at a low by-operation additional cost.

Thus, a large or established institution that enjoys higher client or operations volumes exhibits a low product or service-by-unit cost in comparison to a newer provider, who faces a higher average cost due to having a smaller volume of customers or transactions to absorb an equal amount of infrastructure. Therefore, in many cases a new provider cannot offer services and products at the same prices than established providers. Thus, economies of scale may constitute an entry barrier to new providers who lack the required size to achieve lower unitary costs or more efficient operations.

2.1.2. Sunken Costs

Sunken costs are costs that have already been incurred and thus cannot be recovered. Sunken costs emerge because some activities require special assets that cannot be leveraged for other uses.[7]

In general, reputation and brand-presence investments are typical cases of sunken costs. A good reputation and a well-known name are often perceived as quality indicators, for which reason consumers may not be willing to switch to a new provider who has not established a good reputation. Especially as regards financial products and services supply, provider reputation and the trust it elicits can be important for guaranteeing the provider's viability in the activity; yet should the provider cease participating in that activity, reputation investments generally turn out to be un-recoverable. It is thus that the phenomenon may limit participants' entry.

2.1.3. Economies of Scope and Multi-Product Enterprises

Economies of scope exist when it is cheaper to provide two or more goods or services together than it is to produce them separately.[8] Economies of scope in goods or services production are a reason for the existence of multi-product businesses. Production costs are less if producing various goods and services is done simultaneously.

6 OECD (2003).

7 *Ibidem*

8 *Ibidem*

For example, a bank branch—in addition to receive payments and deposits—can be used to attend to clients in search of credit, insurance or a retirement fund. By combining more than one activity in a single branch, average costs go down since infrastructure and personnel can be better exploited. At the same time, it is less attractive to users to switch service providers when they have contracted several services with a single provider.

2.1.4. Regulatory Costs

Regulations to which financial sector service providers are subject create costs, both for new participants who seek to provide those services as well as for businesses already in operation.

Thus, it is desirable that regulators eliminate or alter any regulatory norm identified as limiting competition, though not if this puts other legitimate objectives that the State seeks to do through regulation at risk, such as those regarding money laundering, prudential regulation or systemic risk.

2.1.5. Switching Costs

It is common that in many markets, an enterprise's clients are subject to or perceive a cost to switch to another enterprise, even when the goods acquired at either enterprise may be functionally identical.[9]

Switching costs arise when consumers encounter difficulties replacing a goods provider. In financial markets it is common for consumers to acquire more than one financial service at the same bank (e.g., a payroll account, credit cards, mortgage credit and insurance) or become subject to costs to cancel one service and switch for another; these costs most often involve time, money (for product switching) and searching (time spent investigating and comparing different available products). The existence of such costs may offer enterprises the ability to increase prices or practice price discrimination based on customer profiles without customers being able to react by changing providers,[10] thus reducing new-provider's ability to compete since it becomes tricky to attract consumers that are already established at other institutions.

2.1.6. Information Asymmetry

Information asymmetry refers to a situation in which an agent involved in transactions possess information that their counterparts do not.[11] This creates an imbalance of power in transactions that can prevent the transaction from being realized or be realized in a way that is disadvantageous for the less informed party.

9 Klemperer (1995).
10 *Ibidem*
11 World Bank (2003).

In the case of the financial system, this problem arises, for example, with regard to health insurance, since the consumer has better information than that of the insurer when it comes to family history or habits that can affect the consumer's health.[12] This divergence in information can lead to higher prices than those in a perfectly competitive market since the insurer must consider this "risky" situation when establishing insurance prices.

2.1.7. Network Economies[13]

A product is said to exhibit network effects if its use-value to users grows as the total users of that product —or other compatible product's— grows.[14]

Network effects can occur in physical networks, such as telecommunications networks, where the value for the user when consuming the product (for example, telephone service) grows to the degree there are more users associated with that service (more people who have telephones). In card-payment systems, the adoption of security technologies like magnetic strips or PIN chips on the part of issuers is also associated with this type of network.

When two or more networks produce similar but incompatible goods or services, the larger network enjoys an advantage over smaller ones, since the larger-sized network will better exploit the network effect. As a result, the larger network will be more attractive to consumers.

In industries where a number of networks exists, it is possible that interconnectivity and interoperability enhance social welfare. Nevertheless, providers that have participated in setting up a network will have achieved advantages that allow them to offer more attractive goods and services that possibly enjoy lower unit costs in comparison to competitors just entering the market. In such scenario, the entrants—and market competition—may not be viable from an economic point of view unless obligatory interconnectivity, interoperability or network sharing among established networks is established.

Another example that exhibits network economies is credit reporting agencies, since as more users are added to the system, and report credit information, the value of the service provided to users subscribed to that agency increases. In terms of competition, credit-reporting agencies are networks or platforms mostly subscribed to by credit or commercial institutions. Currently, users control Mexico's credit reporting agencies, creating the risk that provided data may be insufficient, e.g., discriminatory or incomplete, or in some way avoids creating value-added services.

12 Asymmetrical information can give rise to cases of adverse selection and/or moral risk. Adverse selection arises when an agent holds relevant information that the principal agent does not. Moral risk is when the main agent cannot control the actions of other involved agents since the actions the latter realize cannot be directly observed and only action outcomes can be observed.

13 Claessens, Dobos, Klingebiel and Laeven (2003).

14 Belleflamme and Paitz, M. (2010).

2.1.8. Two-Sided Markets

In general terms, a two-sided platform is a system that responds to interdependent demands on the part of two groups of clients. Demand and decisions on the part of one group of agents affect the other group, and vice-versa. Typically, this interdependence gives rise to network externalities on both sides. The platform's existence allows for a reduction in transaction costs and an internalization of those externalities wherever possible.[15]

In particular, payment services provision is organized around two-sided platforms. For example, in the case of a credit-card payment, the cardholder pays in a place of business and the corresponding financial institutions must coordinate technologies and standards to assure the payment flow is completed. In this case there are network externalities between both sides: the greater number of businesses that accept their cards (credit or debit), the more cardholders will value them, while to the degree that cardholders are willing to use their cards more, the more value merchants will assign to their affiliation contracts.

The risk to competition is that these systems may interact inefficiently in terms of interconnectivity or that there may be an absolute lack of interconnectivity. Established providers may impose fees or inefficient interconnectivity and interoperability conditions; or conditions that are particularly unfavorable to small providers or new entrants.

2.2 Economic Agent Behavior

As already noted, familiarity with a sector or industry's structure is not sufficient to understanding the degree of competition players face within it. Analyses must also include the behavior of the agents involved in relation to prevailing market structures. There is currently international consensus that a sector or industry's structure conditions—but does not determine—behavior on the part of its economic agents and that this behavior, in turn, can influence or further reinforce a given sector's structure.[16]

Economic agents must make strategic decisions, i.e., decisions that will have important effects on performance, and on the performance and actions of other sector participants, be they rivals, providers or distributors. As a result, making a given decision inevitably involves an explicit consideration of how other sector participants will react.[17] In economic terms, existing interdependence between industry or sector economic agents' decisions is known as *strategic interaction*, since generally speaking, economic agents are aware of their actions' interdependence. For this reason, a sector participant's decisions with regard to actions will incorporate conjecture about the response it expects from its competitors in relation to a determined action. As well, that response will depend on the way in which rivals consider or conjecture that the first party will react.

15 Rysman (2009).
16 Fernández de Castro and Duch (2003).
17 Pepall, Richards and Norman (2006).

The following sections briefly describe the main factors associated with financial sector economic agent behaviors identified in the present study, alongside selected examples that will facilitate their comprehension. See the study's Chapter 2 for additional examples.

2.2.1. Business Incentives to bundle Services

The practice of *bundling products or services* arises frequently in market structures where there are economies of scope that support multi-product enterprises and the term refers to selling two or more goods in a single transaction and for a sole bundle price. Bundling sometimes offer the benefit of a lower price in relation to the products' separate prices; in other cases, bundling arises to facilitate consumer acquisitions. Sometimes bundle purchasing is the only available option and neither product can be purchased separately.[18]

In general, the practice of bundling can offer efficiency benefits to businesses and/or consumers. Nevertheless, businesses can also use these strategies to elevate switching costs to another provider or push out competitors, which can have anticompetitive effects.[19]

An example of bundling can be found in bank deposit accounts, which tend to come with a given number of associated services such as withdrawals at teller windows or ATMs, direct-debit payments (*domiciliaciones*) or electronic transfers. Another example involves some kinds of credit acquisition where bundling sales strategies are observed, as when opening a savings account is required to receive credit or an obligatory purchase of durable goods is linked to a loan.

2.2.2. Situations Where Vertical or Horizontal Integration Can Displace Competitors

As enterprises carry out a final good's production process can choose to realize that production process's different phases via market transactions or vertically integrate these into the production chain. Vertical integration of a final product's different production phases, in most cases, arises when performing these independent activities jointly under sole management creates efficiency gains. As well, vertical integration can have positive effects for consumers if, through an alignment of incentives between a provider and its distributor, double marginalization is avoided.[20] Nevertheless, vertical integration can have adverse effects on the competition process and free market entry, mainly when the object or effect of such integration is to exclude downstream competitors from the market;

18 *Ibidem.*

19 Based on information from the Comisión Nacional de la Competencia (2012).

20 The phenomenon of double marginalization can be understood as a situation in which the producer would like a distributor to sell the product to the general public at a lower price than the distributor would like to charge. This difference of opinion is based on the fact that when a price is fixed, the distributor thinks exclusively about maximizing its own benefits and does not consider the producer's benefits (nor indeed its negative externalities). The solution to this problem lies in imposing a vertical restriction that can range from complete integration between the producer and distributor (such that the transaction between them is eliminated and the retail price that creates the greatest mutual benefit is arrived at jointly) to establishing an agency contract in which the producer sells directly to the end consumer and the distributor earns a commission on the retail price.

to avoid upstream agents entering the market; or when it facilitates collusion competing agents. Thus vertical integration's effects on competition and free marker entry process must be evaluated in light of the facts surrounding each market.

Anticompetitive behavior can consist of refusing access to a raw material in a non-competitive (upstream) segment; that raw material may be necessary for competition in a potentially competitive (downstream) segment; or in making access to that material more expensive through excessive pricing or inferior quality. If there are no substitutes for the material in question, refusing access *de facto* eliminates competition in the competitive segment and harms the end-consumer.

Additionally, when a number of competitors exclusively control access to a raw material needed for their products and services' production, distribution or commercialization among themselves, it can create conditions that make competition more lax or facilitate downstream collusion. For example, the credit information services segment that credit reporting agencies offer is characterized by a predominating player who accumulates most banks' credit information. This agent is vertically integrated with some of the nation's largest banks, which collectively control the board of directors. The segment structure and the banks' control of the predominant credit agency's board of directors can lead to credit information not being shared in competitive terms.

On the other hand, as with vertical integration, horizontal integration—or a concentration of the same good or service among providers—can lead to efficiencies and cost reductions to the ultimate benefit of consumers. Nevertheless, under some circumstances, concentration can work against competition. Such is the case, for example, when an agent accumulates a high percentage of the goods or services supply and there are structural, regulatory or conduct-related barriers to supplier entry into that segment.

2.2.3. Too Many Points of Contact Between Competitors Can Lead to Collusion

Coordinated effects are strategies that market competitors follow that can harm competition and translate into higher prices or fewer goods and services. Multiple points of contact between agents in the same sector facilitate information exchange as well as strategy coordination, be these explicit or implicit. In the former case we face an anticompetitive practice because of the existence of a tacit agreement between competitors to fix prices, restrict supply, segment markets or coordinate bidding or public auction positions. In the latter case there is no explicit agreement, but competing economic agents behave similarly, avoiding competition among one another to maximize profits or maintain these at optimal levels to the detriment of the consumer.[21]

21 Motta (2009).

It is important to remember that regulation itself can be an element that fosters contact between competitors. If regulation facilitates—or worse, foments—points of contact, it can have a negative effect on markets and lead to anticompetitive conduct that could translate into higher prices, inferior services or reduced use of that service.

2.2.4. Artificial Transaction and Switching Cost Increases

With relation to financial services provision, customers tend to incur costs when switching from one provider to another. The greater these costs are, the less vigorous financial services provision competition tends to be, since customers are less likely to switch providers when conditions of service change, particularly prices. Though the existence of these costs may result from the nature of the good or service provided (for example, requirements designed to prevent money-laundering), at times the situation can be aggravated when such costs have been brought on by provider conduct, i.e., when costs are artificially increased to create "captive" customers who may not respond to competitors' offers. It implies that providers will have a greater ability to raise prices or reduce service quality.

Some transaction costs that can discourage customers from switching providers include costs that banks may establish as an exit barrier (administrative protocols and procedures, among others); costs to gathering information about new-provider quality; costs that create obstacles to adopting electronic payment media (e.g., micro-credit direct payment); displacement costs (i.e., the provider's proximity) when it comes to obtaining bank transactional services; and costs associated with learning about how the new provider operates, among others.

For example, in the case of bank deposits, it is observed that accountholders present very little mobility between providers, such that most depositors show a very low reaction to price (performance) changes that banks and other regulated savings-deposits entities offer. This low sensibility to pricing—together with the abovementioned customer switching costs—makes it hard for new competitors to attract customers. A provider may oblige accountholders to dedicate a specific amount of time to preparing documentation or visit the branch to cancel their accounts, in addition to the time that must be dedicated to visiting the other provider's branch to open the new account. Additionally, the institution where accountholders maintain their accounts can establish bureaucratic obstacles such as unnecessary documentation requirements, deficient cancellation protocols or even long waits on line.

2.2.5. Resistance to Sharing Information to Mitigate an Asymmetric Information Problem

One of the basic economic givens of a competitive sector is that suppliers and consumers are aware of the prices and the qualities of the goods and services that are being exchanged. Nevertheless, economic agents may not have all the information they need to make the best decisions. The more information that needs to be gathered before completing a purchase, the harder or more difficult it is for consumers to correctly evaluate the costs and benefits of a given product or service in comparison with alternatives.

In the case of consumers, having less information means incurring greater transaction and information-discovery costs and more difficulty with regard to final selections. In this sort of situation, it is said the economic agent only has incomplete information. As well, for agents who are providers and who enjoy more information, this facilitates opportunities for obtaining greater advantage in a transaction, to the detriment of the second party. In short, these providers leverage the existence of asymmetric information.

The financial system is characterized by offering products and services that are complex to consumers, and in some cases, offering a wide variety of products that may appear to be quite similar. Therefore, since information is an exceedingly important “raw material” in the financial system, it is likely that suppliers that enjoy greater amounts of information will wish to maintain market position and will resist unilaterally mitigating the asymmetric information problem, whether that means sharing information with market rivals or prospective clients. For example, credit providers who may be better informed about the nature of the risk a group of clients’ presents are able to create an offer that is more aligned with those clients’ needs or ability to pay, which can impede competition from another provider who does not have access to the same information.

Similarly, poorly informed consumers can find themselves at a disadvantage when choosing to take on a given product or service, or at the time of switching providers. Take for example the case of credit for durable goods acquisition. The financial institutions associated with retailers tend to hide financing costs via the price of the financed product, which distorts an estimation of the financial product’s total annual cost. In the case of car loans and mortgages it is impossible to dismiss analogous practices that hide credit costs by means of related insurance costs.

2.2.6. Price Discrimination as an Outcome of High Switching Costs and Asymmetric Information

The existence of significant switching costs for users, added to the problem of asymmetric information, which characterizes a number of the analyzed financial sector products and services, are elements that can facilitate an economic agent’s ability to sell similar goods and services at different prices. This is called *price discrimination* or *non-linear pricing policy.*[22]

22 Varian (2007).

An example of price discrimination with potentially adverse effects to competition is related to investment fund management and distribution that forms part of a financial group. Currently, almost all investment funds that are operated by any bank are distributed exclusively via channels that belong to the group, meaning they leverage on their established branch network, which they share with the traditional deposits business. It is additionally observed that independent fund managers experience great difficulty to access banking-industry-developed distribution channels, or if they do manage to gain access, they do so under unfavorable pricing conditions, which limit their development as a potential competitor for the saving public.

2.2.7. Economic Agents' Incentives for Breaking Up Networks

Financial entities depend on networks for the provision and distribution of their products. Additionally, platforms that existing branch and ATM networks form constitute a significant barrier to new financial sector competitors because they increase the investment required to enter the sector and attract customers. Thus large, established banks maintain an important presence via branch networks; ATMs; POS terminals for debit and credit card payments in retail outlets; branches in retail outlets; and in the provision of mobile payment services.

Controlling the largest, most complete network could provide large banks an incentive to avoid interconnectivity and interoperability and instead operate separate proprietary—rather than integrated—networks. Such conduct would inhibit new- or small-bank access, as well as access for other financial intermediaries, and prevent them from offering products and services along the existing network, reducing competition with and between banks. For major banks, platform sharing would imply allowing competitors who would seek to attract current or potential customers to enter markets. Thus, the very dynamic of the financial sector consolidates large-scale players and weakens small competitors and newcomers and led the sector to adopt one or a few predominant networks.[23]

The existence of predominating networks can be supported via the control of a technology, technological standards or protocols, or in the advantage that centralized administration of some network functions affords. Examples include control of payment cards transaction processing protocols; or control of central compensation and settlement processing among issuers and acquirers that clearing houses have for card payments. These stakeholders may not be interested in the adoption of an open standard, which can lead to restricted use of the platform through maintenance of a proprietary standard.

23 The phenomenon in which a single technology consolidates itself as the predominant sector technology is known as "winner takes all."

In the financial sector, for example, one major interconnectivity problem arises in the nation's ATM and branch networks. Traditional banking institutions have been the sole financial intermediary authorized to carry out the public's deposit and savings operations, which led to the development of an infrastructure and technology network that belonged to the banks. Most operations that are carried out in branches and at ATMs are "same bank" and not "interbank;" i.e., they have more to do with operations between accounts residing within the same bank than between separate banks. More recently, banks have been the first institutions allowed to set up correspondents in non-financial commercial establishments as a means of expanding points-of-service for financial services users, which in turn has led to already established banks being those that have rolled out the largest network of non-bank correspondents.

3. Relevant Cross-Cutting Considerations

3.1 Regulatory Considerations

3.1.1. Requirements for Financial Entity Constitution and Operation

Financial sector regulatory guidelines establish—among other provisions—the denomination and requirements that any entity that seeks to provide financial service must meet in order to constitute itself and operate. These stipulations call for greater or fewer requirements in proportion to the number and nature of the services to be provided. That is, the more activities that are legally permitted, the greater number of requirements that must be met, in accordance with the kind of financial entity to be constituted and the risks implied.

Requirements That Could Constitute Entry Barriers
This section is designed to analyze the requirements that financial sector laws establish for organizing and operating a financial entity as well as identify those that could limit competitor market entry for no reasonable justification (see complete research for complete details).

Requirements that could constitute a barrier are as follows:

Additional documents that financial authorities' request. A number of Mexican laws, such as the Law for Credit Institutions (LIC), Law for Investment Funds (LFI), Law for Savings and Popular Credit (LACP), for example, leave open the possibility that regulators request additional information, at their discretion, once a request has been submitted.

What's more, other Mexican laws (e.g., the LACP, the LIC or the LSAR) stipulate that in addition to the requirements each calls for, regulators can establish additional requirements by means of general regulations for organizing and operating. To include requirements or modify those that are added based on this power, regulatory authorities are only required to issue general circulars, general accords or modify existing ones and publish these in the Official Federal Gazette (the *Diario Oficial de la Federación*).

In both cases, the legislation leaves the exercise of these powers open and imposes no time limits nor determines what characteristics, aspects or conditions ought to be considered for the exercise of such discretionary power and therefore there exists the risk that they will be used in detriment to principles of non-discrimination and free market entry. They may even provoke overregulation by allowing for a possible duplication of requirements, unnecessary requirements—that could be analyzed using other information and documents already on file, or requirements that simply lack proper justification because they are neither relevant nor pertinent to the resolution of the submitted request.

Additionally, a requirement to request additional information once a request has been made could limit new entities' entry into the market if it is used as a tool to prolong response times to financial entity constitution and operation petitions.

Shareholder honorability, credit and business histories. Various Mexican laws (for example, the LIC, the LFI and LMV) establish these requirements for constituting and operating retail banking credit institutions, mutualist insurance companies and institutions and popular financial associations, known in Spanish as *sofipos.*

The term *honorability* is subjective and admits wide discretion. Likewise, there are other controls that guarantee the provenance of the resources used to construct the financial entity (requests that the resources' origins be justified and financial statements) as well as those that avoid putting investor or accountholder resources at risk (requests for deposits, general operational plans, and others).

Codes of conduct. Some Mexican laws, like the LFI and the LMV, for example, establish this requirement for constituting and operating brokerages and credit reporting agencies as well as investment fund operating, distributing and stock-evaluating companies.

In general, these kinds of codes afford an economic agent greater prestige and market presence, allowing it to differentiate itself from others in terms of the quality of the service it provides. For this reason minimum requirements must be stipulated that leave no doubt about what financial entities should establish from the beginning, and then allow each economic agent to further establish elements with which to distinguish it from its competitors.

An account of those who may provide services. As a requisite for constituting and operating investment-fund related financial entities, the LFI requires an accounting about those who may provide services, even when this might be submitted after constitution. Additionally, financial entities that also require authorization to organize and function as such generally provide these obligatory services, in which case they would be organizations that have already been verified be regulatory authorities and that in any case would be answerable to authorities with regard to legally established obligations applicable to each of them individually. The above described situation creates administrative costs that can be reflected in competitors' reduced entry into the marketplace.

Minimum capital. This requirement is found in a variety financial laws where the law establishes amounts or these are established by means of general regulations that regulators issue.

To determine if this requirement could constitute a barrier to market entry, the notion of whether or not the amount stipulated for the constitution of a financial entity is unjustifiably high was analyzed, as well as amount differences that are required for category upgrades that bring with them the possibility of offering a greater number of services.

Based on the completed analysis, it was concluded that banks maintain the highest minimum amounts for constitution (up to 90 million Udis) and that companies that operate investment funds are those that require the lowest amounts (one million Mexican pesos).

It was also noted that the minimum capital difference required for a higher-level sofipo or a cooperative savings and loan association, known in Spanish as a *socap*, (36 million Udis) to become a reduced operations bank—in accordance with the classification established in the general guidelines the regulator issues, or by having greater assets (two hundred eighty million Udis or Level IV)—is 31.5 million Udis; and to reach the minimum capital for an all-operations bank (90 million Udis) the difference goes up to 67.5 million Udis.

Making an international comparison, the minimum capital amount to constitute a bank in Mexico (33 million USD that is equivalent to Level I, with 90 million Udis) is found to be greater than that of Switzerland, which comes in at 16,029,000 USD; Costa Rica and Guatemala, at 13,000,000 USD; Nicaragua, at 11,000,000 USD; Brazil and Panama, at 10,000,000 USD; and much higher than that of a number of European OECD members such as Austria, France, Germany, Iceland or England, whose minimum capital requirement is 6,680,000 USD; Italy, at 2,670,000 USD; and Slovenia with its 1,330,000 USD; or even other Latin American nations such as Peru (5,000,000 USD) and Argentina and Paraguay (2,000,000 USD).

On the other hand there are also OECD countries like Chile, Spain, Portugal, Ireland, Norway, as well as other nations like Paraguay, Uruguay or the Ukraine that have no minimum capital accreditation requirement.

A possible explanation for such little access for new banks in Mexico could be the consequence of the high amounts that must be initially held to constitute a bank. Internationally, to constitute a full-service bank requires practically the same minimum amounts that Mexico requires to constitute *sofipos* or *socaps* that undertake more restricted financial activities than banks. For that reason, it is considered that the minimum amount to constitute a bank could be an economic regulatory barrier that needs to be reexamined in order to determine if it would be advisable to adjust it to levels that will afford greater market entry.

Response Time Implications

In addition to requirements that must be met to receive authorization to constitute a financial entity, another aspect that may limit market entry is the time that can pass by between the request submission and a response on the part of the regulator or regulators.

Financial regulations establish periods of between four and eight months (120 to 240 days) in cases of investment funds and related companies; approximately six months (ninety days for the ruling plus 120 days' resolution) for *sofipos* and *socaps*; and from three to six months (ninety to 180 calendar days) in all other cases.

That said, in practice, financial authorities on average have not conformed to these time periods and rather, there is evidence that only in the case of three categories of authorization procedures were legal time limits respected; this is not the case with respect to brokerages and stock-rating agencies (see the study).

Procedures for authorizing *sofipos* and *socaps* deserve special mention, since they not only exceed on average the timeframes established by law, but as well, legislation allows them to decree a variety of suspensions by virtue of the fact that the information requirements that regulators formulate stipulate no limit that impedes delaying authorization indefinitely, nor is there any certain resolution, just as in other procedures that allow for tacit negation through of a lack of official response (*negativa ficta*). For this reason the timeframe could be even greater if the time that these procedures may have been suspended is taken into consideration.

In the case of banks and response dates, of the five petitions submitted between January 2011 and July 2012, as of 15 October 2012, authorization to initiate operations was pending on four cases. That said, in accordance with published information, it was noted that of the four petitions submitted in June 2011, and April, June and July of 2012, only three were authorized for operation, between one and two years later.

On the other hand there are no public reports that allow for a measurement of whether other types of authorizations have been made within legal timeframes, thus it is impossible to conclusively determine if timeframes have limited new banks' or other types of financial institutions' market entry. Because of this it is critical that regulators endow their actions with transparency, something that would allow them to at once to influence timeframe reductions and disclose the authorization request status to potential and current petitioners.

Conclusions and/or Recommendations

A review of the requirements and administrative protocols required to constitute and operate financial intermediaries in accordance with the Cofemer methodology is recommended as a means of simplifying and enhancing market access conditions, to the end that requirements not obstruct authorization protocols.

Achieving such a goal requires:

1. Granting authorization or concessions by means of establishing controls that guarantee non-discriminatory treatment; for example:
   a) Requesting information in a sole instance and not on an indeterminate number of occasions, to avoid unnecessarily prolonging procedures; and that authorities

analyze profoundly what elements they must assess to hand down their determination before they request such elements.

b) Only requesting additional information when relevant and pertinent to the analysis of the authorization request; i.e., information that is directly related to any requirement expressly established by law or that serves to clarify doubts related to the documents submitted.
c) Establish in general regulations that the information to be requested in these cases does not suspend the timing stipulated for resolution.
d) Legally codify the minimum criteria or basic principles regulators must observe when exercising their discretionary powers.

2. Replace subjective criteria with objective criteria, alongside precise and accurate requirements in the corresponding legal regulations (e.g., presentation of proofs of clean criminal records, or of no known bankruptcies issued by appropriate authorities).

   There are other controls that guarantee the provenance of the resources used to constitute the financial entity and avoid putting investor or accountholder resources at risk that are more objective and transparent in relation to the objectives that are sought, and which additionally form part of best international practices.

3. Make financial entity operation authorization (and as will be analyzed later, also that of trusts) transparent by means of an account of the number of submitted petitions and their procedural authorization status as well as the number of authorized, rejected or technically omitted petitions, the time other authorities took to hand down opinions and the response contained in each case, periodically published on the webpage of every regulator in charge of issuing authorizations.

   Reports of this kind facilitate an analysis of markets in which authorization or concession is established as a market entry condition for providing financial services, in that it affords an evaluation of whether a requirement to organize and operate as a financial institution—or even if a regulator's response times—are limiting or dis incentivizing new competitor market entry.

3.1.2. Prudential Regulation

Service Description

The main aim of prudential regulation is to guarantee the solvency and liquidity of the entities that constitute the financial sector and procure the existence of adequate deposit backing in order to avoid financial-institutions'—mostly credit granters'— overexposure to risks as well as avoid imprudent practices from these institutions.

The Basel Accords are a series of banking-regulation recommendations issued by the Basel Committee on Banking Supervision and have been ratified by means of Basel Accords I, II and III.

In the Basel I Accord, ratified in 1988, is proposed the establishment of a minimum capital requirement for banking entities in relation to the risks that their operations assume. Basel II proposed a definition of the risks associated with global economic agents' financial operations, structuring the accord by means of three fundamental pillars: 1) capital requirements; 2) oversight; and 3) market discipline. The Basel III Accord features reforms that enhance international capital and liquidity norms whose object is to improve the banking sector's ability to absorb shocks related to any kind of financial market or economic stress, thus reducing the risk of contagion from the banking sector to the overall economy.

The Current Situation and Problematic

The problematic that arises in relation to this issue is that while more rigorous prudential regulation is consistent with the goal of preserving system stability, its operational and supervisory onus is not necessarily aligned to risk, which affects smaller-sized financial institutions to a greater degree.

Relevant Findings

From a prudential point of view, risk-diversification for financial entities is a common requirement. Nevertheless, this has structural implications for credit-granting. Small banks may find themselves at a disadvantage since they do not enjoy the same capacity for risk diversification that larger financial institutions do.

Experts agree that financial systems demand strict prudential regulation to preserve stability, even in times of expanding credit, in order to impede undesirable practices that compromise its proper functioning. International experience indicates that financial entity oversight should be carried out with an awareness of each institution's risk profile as well as the complexity, scope and scale of its activities.

For example, in the United States, the Office of the Comptroller of the Currency (OCC) practices an oversight philosophy that centers on assessing the risks banks face, identifying their existing and emerging problems and the certainty that banks will take corrective measures before such problems put their security and solidity at risk. To such an end, the OCC classifies all banks in the following manner: i) large banks; ii) medium-sized banks; and iii) community banks. This classification is based on bank-asset size and also considers other factors like risk profile and complexity.

Elsewhere, in Spain, the central bank has implemented a supervisory framework for different institutions that is determined based on supervisory risk profile and each entity's systemic importance. Each entity's supervisory risk profile sums up in a single variable the possibility that a credit-granting institution experience future solvency, profitability and liquidity problems as measured by each entity's inherent risk, residual risk, internal governance, oversight and risk management. Qualitative elements and a tool that combines a series of basic quantitative indicators determine each entity's systemic importance. The supervisory strategy as well as the degree of supervisory intensity that is to be applied to each entity is determined based on the above.

In international practice, regulators carry out capital and stress tests that consider institutions' possible systemic risk, taking the complexity of their activities into consideration.

In the case of the United States, financial authorities analyze the 30 largest financial institutions, who represent 6% of all entities. In comparison, the European Union administers wide-ranging stress tests to a sampling of 124 EU banks that cover at least 50% of each member-nation's banking industry, and at the highest level of portfolio consolidation.

As can be observed in the case of the United States and the European Union, while prudential regulation principles should be observed both by large- and small-scale financial institutions, it is in these entities' supervisory processes where authorities center their attention as a means of guaranteeing that systemically important financial institutions are heavily monitored, and with that they maintain financial system stability.

Optimal Conditions

Regarding the above-described problematic, World Bank expert opinion as well as best international practices (the United States and the European Union) suggest oversight aligned with each institution's complexity as well as its contribution to systemic risk as a means of mitigating imbalances that prudential regulation may lead.

Conclusions and/or Recommendations

Assure that operational and/or supervisory load is aligned to each kind of institution in consideration of institutions' risk profiles as well as the complexity, scope and scale of its activities.

3.1.3. Systemic Risk: Resolution of Financial Institutions in Crisis and Competence Protocols

The Importance of Economic Competition to Financial System Stability

Recent crises in international financial markets have renewed the debate regarding i) competition's effects on bank conduct and financial system instability; ii) the proper tools for responding to a bank failure and avoiding major economic damages; and iii) competition policy's role when it comes to financial system recovery programs.

In general terms, bank fragility can be of two types, based on their origins: (i) fragility through factors exogenous to banks, related to bank runs and systemic crises attributable to market failures and asset/liability imbalance; in such cases limited and temporary intervention on the part of authorities is advisable; and (ii) endogenous factors intimately linked to bank risk behavior that are not directly addressed by regulation and oversight; in such cases the policy recommendation is oriented toward stock holders and bank officers internalizing costs.

As such, a review of the literature points to the need to promote financial market competition under adequate regulation and oversight conditions.[24] Therefore if public policy's main goal is to avoid a systemic crisis, it is advisable to avoid enacting measures that expand bank concentration and that harm competition between financial institutions, given that their costs to the economy at large cannot be underestimated.

As regards bank failures, the reasons a bank becomes insolvent can be numerous and their effects on the economy at large vary according to magnitude as well as velocity. From this is derived the need for special public-intervention mechanisms that are flexible enough for authorities to enact timely responses yet transparent enough such as to avoid market distortions that harm consumer welfare and that are difficult to reverse. That said, the balance between the two objectives is not simple and largely depends on each market's characteristics: initial concentration levels, degree of competition among current and potential participants in a variety of financial markets, and others.

Central Elements of International Crisis Management

At the international level, the crisis resolution mechanism depends on the characteristics of each nation's financial markets as well as each particular case's causes. Below we describe some behavioral benchmarks that international financial authorities observe.

First, there are nations that limit or exclude competition authorities from banking concentration decisions when there are systemic crisis risks. The United States in one such case, where financial authorities (the Federal Reserve and the FDIC) are endowed with full power to respond expeditiously to financial system stability threats. In particular, they dispose of two special procedures in cases of i) "emergency transactions" in which competition authorities' response time with regard to concentration issues is limited; and ii) "probable failure," in which immediate mergers are allowed in cases where financial regulators deem this necessary to prevent bank insolvency. As part of this system it is stressed that expedited bank mergers do not prevent competition authorities from sanctioning agents' subsequent anti-competitive behaviors.

Another notable case is the United Kingdom, where a special banking resolution protocol is established to act in the early stages of a banking crisis by setting up specific financial thresholds for intervention or, where necessary, bank balance sales in critical situations.

24 A detailed description of the literature can be found in "Research and Recommendations Report on Competition Conditions in the Financial Sector and its Markets," pp 143-147.

Second, ongoing review of competition conditions is a support for financial authority decision-making. This is the case in the United States, where competition authorities and sector regulators (such as the *Bank Merger Competitive Review*) undertake some joint procedures and reviews to facilitate coordinating short- and long-term stability goals among financial and competition authorities.

Third, other models seek to balance medium-term economic competition effects while still acknowledging a sense of urgency with regard to resolving a systemic crisis. While in the European Union there is no common regulatory framework for financial crisis oversight and resolution, EU authorities have focused on the development of actionable guidelines designed to assure financial stability and minimize distortions to competition.

Fourth, the OECD and the European Council suggest that intervention on the part of competition authorities ought not to limit themselves to bank merger cases but as well, ought to leverage other government intervention measures if these can affect competition conditions, such as subsidized guarantees, public liquidity, or public purchase of "toxic" assets. The final degree of competition impact will depend on support timing and the measures deployed as well as exit strategies whose *a priori* adoption by regulatory authorities is recommended.

Fifth, international empirical evidence suggests economic competition is a key element to long-term financial system viability and stability within a proper regulatory and oversight context.

The Current-Day Banking Resolution Model in Mexico

Mexican legislation considers four special intervention mechanisms for financial institutions in cases of crisis or risk of crisis. They are as follows.

One, *early corrective* actions that are applied according to banks' capitalization levels that range from issuing situational reports and capital-level regularization to abstaining from some specific risky activities, suspension of officer bonuses, or even "special" CNBV measures in cases where capitalization is below 8%.

Second, a *conditioned operating protocol* arises when the CNBV forbears revoking authorization of a bank with less than 8% capitalization in cases where it is deemed that the financial institution is systemically important. This protocol is implemented at the bank's request and is subject to a restructuring plan. There is no managerial intervention on the part of the CNBV, but if deemed necessary it can be undertaken; the IPAB is charged with designating a preventative administrator.

Third, a *general banking resolution mechanism* can be effected by means of liquidation or judicial liquidation when assets are insufficient to cover liabilities. The mechanism does not require a declaration of systemic risk and is effected under the least-cost rule. IPAB acts as the liquidating agent for the payment of secured liabilities, balance transfers to other banks or the temporary operation of a “bridge bank.” In cases of bank-merger transfer and in contrast to that stipulated by the LFCE, the LIC requires Cofece’s opinion on competition within a narrow timeframe. In such a case, the timeframe for the issuance of a resolution on a concentration as prescribed by financial legislation (three days) is insufficient for making an analysis of that merger’s implications to market structure and efficient functioning, more so when Cofece has not been involved in previous banking resolution processes. Additionally, such actions could prevent the exercise of Cofece faculties to later correct competition problems that might arise.

Fourth, a *mechanism in case of systemic risk* consists of reorganization, liability payment or balance transfer from one institution to another. In this case financial authorities are endowed with the power to act expeditiously with the express goal of minimizing “likely costs to the federal treasury or the IPAB.” As part of this assumption, the concentration decision is not handed over to the competition authority. Thus the goal of protecting competition and free market entry is subordinated to financial authority decisions and their goal of fiscal cost minimization. Because of this, there is a risk of ignoring the long-term positive effects of competitive markets, particularly for users.

Conclusions and/or Recommendations

Reinforcing competition objectives within the approved financial reform framework is desirable. As such, the legal criterion of “obtaining the greatest possible recovery value” of a bank in liquidation could be against a criterion of market economic efficiency. Allowing a financial institution assume a monopolistic position to mitigate a financial problem implies a consumer “bail-out” of the financial institution that could end up more onerous and difficult to reverse than a fiscal intervention. Thus it is pertinent to consider that the LIC include an obligation on then part of financial regulators to consider an intervention’s impacts to competition previous to enacting it.

It is even more advisable that any financial authority’s decision that implies public-resource support or a fusion of business balances considers potential market distortions that would be created moving forward as well as a plan with a critical path for reestablishing competition conditions.

Financial reform calls for Cofece to analyze mergers or concentrations as an outcome of measures designed to avoid systemic risk as well as to determine their impacts to competition within an inadequate timeframe, which renders its preventative faculties nugatory with respect to all the variables and conditions Cofece ought to consider when issuing these sorts of determinations. Thus a modification to the regulatory framework is recommended that—in cases of financial entity resolution—would allow financial authorities to make decisions free form the obligation that Cofece issue an *a priori* opinion on the matter within narrow timeframes. This provided that the Competition Authority may take measures based on its mandate and functions to eliminate subsequent anti-competitive conduct.

Finally, the establishment of a cooperative mechanism between sector regulators and Cofece is recommended. This mechanism would generate information related to competition on the part of the regulated parties in order for the Commission to have the information it needs to undertake ongoing monitoring of competition conditions in various financial markets. Effective coordination between the Competition Authority and regulators would allow for the *a priori* generation of systematized information that allow the analysis of possible negative effects to competition from a potential merger as a means of deciding on the suitability (or unsuitability) of that concentration. One example of a coordination mechanism is that implemented in the United States and in which there are joint protocols and reviews between competition authorities and sector regulators (such as the Bank Merger Competitive Review) that facilitate coordinating short- and long-term stability goals among different authorities. As such, the inclusion of competition indicators in reports and studies that Mexico's Banking Stability Committee prepares is advisable.

3.1.4. Concurrent Powers: Business Practices Sanctioning and Its Implications Regarding Economic Competition

One of the goals of recently enacted financial reform was strengthening the financial sector competition dynamic. Therefore some of the modifications to the sector regulatory framework had to do with prohibiting service- or product-exclusivity, a refusal of service, a financial entity's tied sales, discriminatory dealings among agents or with financial services users.

Hence, both Mexico's Law for Credit Institutions (LIC) and reformed financial sector regulations establish coercive and corrective measures for business practices that may restrict or limit competition and free financial market entry.

Anticompetitive Business Practices: A Frame of Reference

LFCE Configuration and Sanction

Practices known as exclusivities, tied sales, refusal of service, discriminatory dealings or price discrimination are expressly forbidden in sections III, IV, V and X of Article 56 of the new LFCE. In order for those practices to be sanctioned by the Cofece in terms expressed in the LFCE, it is indispensable that the elements contemplated in that law's Articles 55 and 55 come together. To wit, such elements are as follows:

(i) That whoever undertakes the act has substantial and relevant power over the market in which he or she realizes that action.
(ii) That the action's goal in the relevant market or related market is or could be to displace another economic agent, substantially impede its access or establish exclusive sales in favor of one or various economic agents.
(iii) That the economic agent does not demonstrate that actions the law foresees as relative monopolistic practices create efficiency gains that favorably affect the economic competition and free market entry process in the form of a benefit or a net contribution to consumer wellbeing. That is, that the positive effects are not superior to the negative effects from an economic efficiency perspective.

In such cases Cofece is to undertake an analysis on the new effects of the practice in the competition and free market entry process, and it will not issue sanctions when consumer wellbeing is increased due to gains in efficiency that may be demonstrated to Cofece. For this reason, relative monopolistic practices should be judged using a reasonability criterion (the rule of reason) and on a case by case basis when determining sanctions, second offense or sanctions reductions.

Sanctions: Relative monopolistic practices can be sanctioned with a cease-and-desist order or a correction of the monopolistic practice and/or fines up to the equivalent of 8% of the economic agent's cumulative income or up to 900,000 (nine hundred thousand) times the current general minimum wage in Mexico City (hereafter known as SMGVDF or daily wages) in case cumulative income has not been declared or determined for income tax purposes. (Articles 127, first paragraph, sections I and V, and second paragraph, and 128 of the LFCE).

Second offense: A fine double of that which might have been determined or an order to dis-incorporate the offending economic agent or seize its assets, rights, partner or stock-shares in necessary degrees to eliminate the anti-competitive effects. (Article 131, LFCE)

Sanction reductions: The LFCE establishes an early termination protocol by which Cofece may grant a dispensation benefit or reduction of payments on fines that may correspond to the petitioner under condition of compliance to the assumptions that the LFCE establishes. (Articles 100 to 102, LFCE)

Financial reform Law Configuration and Sanctions

Exclusivities

(i) Clearing networks.[25] Financial entities that infringe general regulations issued by the CNBV and Banxico as expressed in the terms of Article 4 *bis* 3, which prohibits

25 Clearing networks (redes de medios de disposición) refer to protocols, instruments, interfaces, procedures, rules, programs, systems, infrastructures and other elements that allow for the provision of card, check transfer and resource payment services.

exclusivity with regard to any type of network use as a means of preventing that such be a condition of service, are to be sanctioned.

(ii) Services offered to users. Financial entities that enter into client or user agreements that prohibit or restrict contracting services or entering into contracts with other financial entities are to be sanctioned.

(iii) Services that *sofipos* contract. Popular financial societies (*sofipos*)—as are their officers, fiduciary delegates, employees or any other person occupies a position, charge or commission in the *sofipo*—in addition to community financial associations with operational levels of I-IV who agree to exclusive service provision of services that contract with third-party operators, are to be sanctioned.

(iv) Services that investment funds contract. Investment funds that contract stock share distribution services exclusively with one company, as are investment-fund-management companies that make exclusive third-party arrangements for the provision of services, are to be sanctioned.

Refusal of service

(i) Clearing houses. Clearing houses are obliged to provide services to other houses. This obligation seeks to avoid a refusal to grant that service between one house and another.

(ii) Investment funds. Distribution companies are sanctioned that refuse to buy or sell stock shares representative of an investment fund company's capital to anyone who presents an offer that conforms to that stipulated in the information prospectus furnished to the investing public.

Tied sales

(i) Services offered to users. Financial entities that condition contracting operations or services to contracting other operations or services are to be sanctioned. Any type of sale linked to contracting a service with a financial institution that has to do with a credit, loan or financing must expressly enjoy client or user authorization for the acquisition of the additional services and must also indicate that this is optional and that its use does not imply a cancelation of the principal contract. Undertaking any practice that limits or restricts contracting additional services or products with other entities is prohibited. Additionally, financial entities that infringe general regulations applicable to clearing networks that were emitted in March 2011 and that expressly establish in their fourth disposition that contracts may not consider arrangements that condition contracting operations and services to contracting another operation or service, are to be sanctioned.

(ii) Financial grouping. The client's express consent is required for contracting additional products or services or products and services linked to those that he or she contracts with a financial entity.

Discriminatory dealings

(i) Networks and infrastructure. Any discriminatory practice related to clearing networks, interchange fees or commissions is to be sanctioned. Specifically:
   a) Less favorable treatment for any third party whose circumstances are equal.
   b) Discriminatory practices, policies and collections; be these because of the third-party or client's characteristics, because of the clearing method employed or because of the issuing or receiving entity or any other accessories to the operation in question.
   c) Differentiated requirements, term or conditions for persons and/or operations in identical circumstances.
   d) Collecting inappropriate interchange fees or commissions.
   e) Acts that prohibit clients of financial entities from entering into operations.
   f) Not allowing clients or users use other financial entities' infrastructure.
   g) Any other act that limits, restricts or impedes any person in similar circumstances from contracting a product or service when he or she is in compliance with prerequisites that financial entities previously indicate.

(ii) Investment funds. Investment funds that re-purchase or sell the shares they issue at prices that differ from those that stock-appraising companies indicate and that have been disclosed to the public via widely circulated or published print or electronic media, or that mention discriminatory dealings between and on behalf of given distributors and entities in adhesion contracts, are to be sanctioned.

Sanction: Finance laws establish fines for the abovementioned business practices that range from 500 to 100,000 daily wages, i.e., the maximum permitted fine cannot exceed that amount or 1% (one percent) of minimum paid capital and capital reserves. Consult the complete research for more details.

Sanction reductions: It has been established that the CNBV, the CNSF and Consar may abstain from sanctioning offenders provided the justification for the abstention, in compliance with guidelines for such is issued by the corresponding government authority and makes note of deeds, acts or emissions that are not considered serious, there is no instance of second offense, do not constitute a crime and do not place third-party interest or the financial system at risk.

On the other hand, the LFI establishes extenuating circumstances in cases where damage or injury is reimbursed and offenders cooperate with authorities in sanction protocols. Additionally, a self-correction program for irregularities or incompliance with the law or with other applicable regulation exists, provided such irregularities or incompliance has not been discovered by authorities and is not considered criminal or aggravated behavior.

Necessary Coordination between Cofece and Financial Authorities

The LFCE evaluates practices using the rule of reason, thus to sanction a relative monopolistic practice it is not sufficient to just prove the conduct occurred; Cofece is additionally obliged to undertake an analysis of efficiencies that result in a benefit to consumers because of increased product quality, a reduction in distribution costs, new businesses' market penetration, transmission of technical knowledge or know-how, or investment in determined products. Additionally, the LFCE itself assumes that an anti-competitive effect can only be produced when committed by a predominating economic agent. In contrast to the criteria the LFCE adopts, financial reform establishes the prohibition and sanction of commercial practices per se, given that the only requisite that the regulator must prove is that the practice is being undertaken by a financial entity without evaluating if that business practice in effect has or could have negative effects on competition and as such, on consumers.

In addition to the existence of different criteria for analyzing prohibited practices, there is a substantial difference with regard to the magnitude of sanction amounts that can be imposed as well as in the elements that can be assessed to grant dispensation or a sanction reduction. For this reason, coordination between authorities is indispensable to assuring that the sanction is commensurate to the potential or real damage that could be caused or that was caused in the market as well as to incorporate principles of competition and free market entry within the guidelines of granting dispensations or reducing sanctions, given the difference in requirements that must be evaluated for granting a dispensation benefit or reducing sanctions, as a means of avoiding the sanction of practices that have or could have a pro-competitive effect.

Conclusions and/or Recommendations
Establish a cooperative mechanism between sector regulators and Cofece to generate information related to the business activities of those subject to their regulation in order that Cofece have access to necessary information for ongoing monitoring of competition conditions in a number of financial markets.

Information flow between authorities will facilitate identifying practices that may violate the LFCE, or identifying problems that could have an impact on competition and free market entry, and in order that Cofece exercise the powers the LFCE grants it. Ongoing market evaluation will help Cofece strengthen the competition criteria the sector regulators may adopt.

3.2 High-Value Payment Systems

Service Description
High-value payment systems process large-amount transfers, settlement and compensation, generally between banks and other financial intermediaries as well as between these and the central bank. In Mexico there are three high-value electronic payment systems: the Inter-banking Electronic Payment System (SPEI), the Securities Deposit, Administration and Settlement System (acronym in Spanish: Dalí) and the Mexico Central Bank Accountholders Service System (acronym in Spanish SIAC).

SPEI is a real-time gross settlement system operated by Mexico's central bank, the Banco de México. As a high-value payment system, it began to operate on August 13, 2004 as a replacement to the previous inter-bank payment system, the Extended-use Electronic Payment System (acronym in Spanish SPEUA). In principle, only banks may participate in SPEI, but Banxico later allowed other regulated financial institutions to participate. Today the system also operates to provide low-value (retail) transfers among participating financial entity customers.

Dalí is a stock securities and private/governmental debt settlement system. This system's participants are domestic and foreign banks, brokerages, insurance companies and the Mexico´s Counterparty Clearing House. Dalí settles transaction cash through cash accounts that it maintains for all participants. Additionally, Indeval defines Dalí's access rules and establishes collected fees: monthly service fees for participants including securities custody, operations liquidation, securities transfer, and information technology services.

SIAC is a real-time gross settlement system that does not include third-party payer or payee information and only processes a small number of high-value inter-bank payments. SIAC manages liquidity provision to banks, including necessary infrastructure to that end, as well as commercial-bank checking accounts at Banxico; it also administers accounts for public entities that are required by law to maintain accounts there. As well, the Banco de México establishes SIAC functionality norms and recoups its development and operational costs through annual fees it collects from participants. Each participant's annual dues are determined by its number of installed terminals.

The Banco de México has a mandate to promote the financial system's healthy development and support payment systems' proper functioning. For this reason it must assure high-value payment systems enjoy effective control mechanisms for both every day and exceptional risks that arise in financial markets. High-value payment systems are of systemic importance, given that the amounts they settle and their links to financial markets render them vulnerable to disruptive events that can bring about "cascade" effect and affect the overall financial system. High-value payment systems are exposed to four major risk types: operative, legal, financial and systemic.

1. Operative risks arise from a chance of technical failures, disconnection and information loss, among others.
2. Legal risks arise from a chance that system rules may be incomplete or ambiguous in such a way that transactions are not legally secure or give rise to unexpected interpretations, which expands the expected cost of using the system given that it diminishes user trust.
3. Financial risks arise form a chance that some parties will not meet their obligations, e.g., do not pay as required (because of a lack of liquidity) or who fail to pay at all (due to insolvency).

4. Systemic risks arise from a chance that a participant does not meet its obligations and because of this, causes other parties to not meet theirs, which can give rise to a sequence of events that causes more lack of compliance and threatens the entire liquidation process or even financial system stability in general.

In a system of systemic importance's management and administration, the most important consideration is transactional security or reliability, which is achieved through control of the four abovementioned risk types.

The Current Situation and Problematic

On a global level, the existence of one or two high-value payment systems per nation has been the norm. Central banks almost always directly manage these systems. A tool that central banks use is establishing direct-participation criteria for such systems through which they control direct participation on the part of agents that may give rise to system risks.

Sometimes it is argued that financial entities that do not have direct access to the high-value payment system are at a disadvantage with respect to their market competitors. Nevertheless, there are intermediaries that do not meet minimum requirements to be direct participants, particularly operative and technological requirements; or, it would be onerous for some intermediaries to meet direct participation requirements given the numbers of payments that they would process and that indirect participation may be the more efficient alternative.

It is the duty of the Banco de México to evaluate the necessary incorporation requirements for new entities while remaining steadfast to the security and reliability objectives contained in its mandate. High-value payment system participation criteria must be objective, clear and detailed and participation should be expanded progressively, while always responding to the abovementioned security and reliability criteria described above. As well, to establish such criteria, central banks adhere to standards that are agreed to and evaluated by the Committee on Payment and Settlement Systems (CPSS) at the Bank of International Settlement (BIS).

Conclusions and/or Recommendations

High-value payment systems process transfers and compensation in high amounts, largely between banks and the central bank. Thus, disruptions to the high-value payment system can potentially bring about serious sector alterations. In general the world's high-value payment systems are of systemic importance.

The three systems known as SPEI, SIAC and Dalí process payments between financially and technically sophisticated agents on both sides of each platform, whose incentives are closely aligned so that transfers take place amid efficient and secure conditions. For this reason, economic efficiency concerns are already included as part of regulator objectives designed to guarantee system security and reliability. As a consequence this Commission makes no specific regulatory change recommendations nor changes to the conditions within which the service is currently provided.

3.3 Retail Payment Systems

3.3.1. Introduction

Payment systems are made up of the sum total of instruments, procedures and norms that are used to transfer financial resources between the participants.[26] These systems are customarily classified as one of two types: high- and low-value (retail). In high-value payment systems (detailed in the previous section of the present document) transactions are fewer and of high average value and their settlement and compensation are carried out in the same day. On the other hand, in retail payment systems, the number of transactions is high, the payments' average value is low, and settlement and compensation take place on the same day or one day later (following-day compensation is the most common).

Retail payment systems in Mexico permit using the following payment instruments: checks, electronic funds transfers, direct-debit payments (*domiciliaciones*), credit or debit cards and, more recently, payments via mobile telephone. With regard to these payment instruments, in recent years, card and electronic funds transfer use has grown at the same time that check issuance has gradually declined. Although electronic payment media are gaining acceptance, cash continues to be the most used method to pay low-amount purchases. Cash is largely distributed to cardholders via automatic teller machines (ATMs) and to a lesser degree at teller windows in bank branches via checks, debit and credit cards.

3.3.2. Two-Sided Markets and Interchange Fees

Payment services are provided via two-sided platforms, generally operated by banks and other specialized services and infrastructure providers. In a payment platforms, senders or those who order a service send payments to receivers, generally in exchange for acquired goods and services. The characteristic that distinguishes two-sided platforms from other traditional markets lies in the interdependence between customer´s demand on both sides. Demand and one group of agents' decisions affect the other group, and vice versa; interdependence typically gives rise to externalities between the sides. The platform's existence allows for reduced transaction costs and the internalization of such externalities in somehow.[27]

26 Banco de México, Sistemas de pagos, en línea [http://www.banxico.org.mx/sistemas-de-pago/index.html].
27 Rysman (2009).

In two-sided markets, transaction volume between final users depends on price structures, not merely the general level of fees the platform collects, since the relationship between final users generates externalities that clients cannot internalize on their own. The platform internalizes such externalities through an interchange fee. Interchange fees are fees that banks collect among themselves and from other financial institutions for platform based payment services' operations.

Within this context, a price structure is established such that both sides of the market have incentives to participate. Thus, transaction volume and platform benefits do not merely depend on final price but as well as on their distribution among parties. Specifically, economic literature signals that optimal prices depend, in a complex fashion, on demand sensibility to price on both sides, to the nature and intensity of network effects between both parties, and on both sides' marginal costs for boosting production.[28]

Finally, maximizing benefits by means of a platform that serves two sides leads to classic (market power) and Spence (when rates are fixed according to marginal consumers) distortions.[29] The magnitude and nature of Spence distortions depend on the degree of divergence among marginal and infra-marginal users' preferences. As such, effects on social wellbeing as a result of a two-sided platform operator's price fixing depend on the heterogeneity of the users on both sides of the platform. Because of the above, Spence distortions are particularly important on platforms where operators fix prices when infra-marginal and marginal users' preferences markedly differ.

3.3.3. ATMs

Service Description

Automatic teller machines (ATMs) are devices through which accountholders access the resources in their deposit accounts, provided they hold a debit card as a means of payment and access; withdrawals are also permitted by means of credit lines corresponding to credit cards. Financial institutions that offer accounts with payment media (debit cards) regularly install ATM networks that allow accountholders to access cash.

In Mexico, the ATM network is interconnected, allowing accountholders to withdraw cash via an ATM that belongs to a financial institution that is different from the one that provides the account and the means of payment and access (debit and credit cards). The companies known as E-global and Prosa take up processing inter-bank operations in cases where the card issuer is different from the ATM operator.

In 2010, Banxico enacted regulation on ATM operation that establishes that only the ATM operator bank of the ATM can collect the transaction commission and that the issuer receives a fee of 1.90 pesos per withdrawal. Additionally, it eliminated the commission

28 Evans and Schmalensee (2007).

29 Weyl (2009).

for operations where the operating and issuing banks are the same. Finally, to make such commissions more transparent, it established that ATM operator banks must reveal the total commission amount that cardholders pay per transaction.

Most ATM transactions are same-bank transactions. This pattern is observed both at the system level and at most banks. Additionally, most operations are made using debit cards. In recent years this percentage has reached as high as 98%.

In 2010, major participants in the ATM network were BBVA Bancomer, HSBC, Banamex and Banorte. In 2013, this set of banks that held the largest part of the network did not change, even if individual participation was subject to some variation. But the highest growth rates came from smaller-sized banks: Scotiabank and Banco Azteca.[30] In Mexico there is currently no important presence of independent ATM operators.

The Current Situation and Problematic

Full-service commercial banks have practically been the only authorized intermediary for deposit and savings operations, which has led to the development of an infrastructure and technology network—principally points of service (i.e., ATMs and bank branches)—that is the property of the commercial banking industry. It is a cost that other intermediaries, even recently authorized commercial banks, have trouble responding to. Additionally there is infrastructure redundancy in highly populous areas as well as very low coverage in less densely populated areas. Furthermore, the ATM system is fragmented since accountholders largely use ATMs from their own banks because it is quite costly to withdraw money at ATMs that do not belong to their banks. Inter-bank withdrawal fees range largely between 20 and 35 pesos (the complete range goes from 8 to 40 pesos). Finally, there is no significant presence of independent ATM operators at this time.

Relevant Findings

The total number of transactions at ATMs has grown, but this growth is attributable to same-bank transactions; inter-bank transactions have gone down since 2010 and currently represent just 4.6% of all ATM operations.

The fee regulation handed down in 2010 appears to have induced growth in same-bank over inter-bank operations, without any clear effect on network expansion. Additionally, this regulation may constitute an entry barrier to small banks in deposits, checking account and payment means markets, given that the current price policy implies that larger banks, in possession of more ATMs, hold an advantage over banks with limited ATM networks. And once again, Mexico does not currently support any significant independent ATM operators.

Network expansion must be promoted since the problem of lack of infrastructure and competition in rural areas or minor population centers persists.

30 CNBV, Portafolio de información estadística, en línea [http://portafoliodeinformacion.cnbv.gob.mx/Paginas/default.aspx].

Optimal Conditions
With respect to this, both Banxico and CNBV could establish fee regulations that will allow the described ATM use distortions to be reduced, particularly low inter-bank ATM use. The establishment of a new price structure for ATM networks, aimed at efficiency and access, requires revising every point along the cash distribution chain to identify in the most precise fashion how costs among all participants are generated and distributed.

Conclusions and/or Recommendations
Considering all of the above, guaranteeing access to ATM infrastructure free from discriminatory conditions is recommended, with inter-bank access charges to be based on long-term incremental costs, while simultaneously promoting fee schedules that reduce the differential between the user fees charged at different banks' ATMs. To do so, the following steps must be taken: (i) establish a mutual no-charge fee schedule up to a specific amount of imbalance among banks for access to their peers' infrastructure, with additional fees charged to the long-term incremental cost of the infrastructure to be used, taking into consideration the capital and operations cost of an efficient representative network; (ii) eliminate the commission (*surcharge*) for withdrawals at non-network ATMs charged by the ATM owner; (iii) establish a transition scheme that facilitates competition in ATM-use fees among issuer banks; and (iv) maintain current transparency levels with regard to commission charges (i.e., the notice the cardholder receives before authorizing an ATM transaction).

3.3.4. Card Payments

Description of the Service
There are two types of cards, credit and debit. In the first instance, customers enjoy a line of credit with the issuer bank while the second is a means of access to the deposit account in the presence of the client. In both cases clients use cards as a payment method in businesses that have POS terminals as well as to check balances and withdraw cash at ATMs. Processing, routing (information exchange) and compensation of card operations at POS terminals and ATMs are executed by two clearing houses (also known as switches): E-Global and Prosa. E-Global is the property of Banamex, Bancomer and HSBC; Prosa belongs to Scotiabank, Banorte, Santander, HSBC, Invex and Banjército.[31]

Numbers of both credit and debit cards have gone up steadily despite a decrease in total credit cards numbers that occurred in 2008. As well, it can be observed that despite more dynamic growth in debit card issuance, the proportion of these cards being used in POS terminals is still lower than that of credit cards (69% versus 45%), yet continues to rise. Card payments have a higher share of travel-related purchases and purchases in which average billing is higher.

31 Banco de México (2013) and El Universal (21 de mayo 2009).

Segments related to wholesales present medium to high penetration rates. This may be an indication of greater willingness on the part of businesses and cardholders to accept and make card payments in relation to other segments such as services payments (water, electricity, or local taxes) or purchases at smaller retail outlets where most payments are made in cash.

In Mexico, the issuer side enjoys more participants than the acquirer side; all banks that participate on the acquirer side participate in the issuer side. In general, the system's largest banks (BBVA Bancomer, Banamex, Banorte, Santander, HSBC and Scotiabank) enjoy significant participation in both acquiring as well as card issuing. A poorly developed acquirer side may be obstructing growth among card payments.

With regard to this, it has been identified that one of the main aspects limiting using cards as a media payment is low terminal presence in stores,[32] which indicates potential underutilization of cards as media payment with respect to efficiency levels. This may be a consequence of the fact that fees tend to be established as a function of marginal consumers (Spence's distortion) and therefore POS terminal coverage is not optimal since it is possible that average cardholders may require more points of acceptance.

In the context of card payments, the interchange fee is the commission that is generated for every transaction realized at a POS terminal where the issuer bank is different from the acquirer bank. Interchange fees can be *ad valorem* on the transaction amount, with or without a ceiling, or a fixed per-transaction fee. The interchange fee can differ by card and business category. In Mexico, interchange fees flow from the acquirer to the issuer bank, and within the current structure (since June 2013), these fees are multilateral and have been fixed by common agreement among banks.

The acquirer bank usually recovers the interchange fee amount through a per-transaction commission it collects from the retailer. The commission is known as the merchant discount rate. As such, the interchange fee tends to be the floor for determining the merchant discount rate. Additionally, it is common for banks to charge monthly rents on terminals for acquirer services. As for the commissions that cardholders face, their main components are annual fees and interest rates.

The Current Situation and/or Problematic

On the national level, the penetration of establishments that accept card payments is low. This may be attributed to payment acceptance costs. Additionally, low penetration is an indicator that the average consumer is not making efficient use of card payments. Underutilization of cards as a media payment with respect to efficiency levels could be a consequence of the fact that rates tend to be established as a function of marginal consumers (the Spence distortion).

32 Information presented at Cofece offices by Visa on 15 May 2014.

In relation to transaction banking, it is observed that the large-scale retailer segment makes up 17% of all credit and debit operations. The interchange rate in this sector is a fixed, per-operation cost of 1.15 Mexican pesos on an average ticket of 527 Mexican pesos. In contrast, there are sectors that must deal with interchange fees that are five times higher when it comes to debit card payments (e.g., telecom) and on some transactions, the debit card interchange fee can be up to twelve times that paid by the wholesales (whose payments are subject to a 13.50 peso ceiling).

When considering average ticket as an approximate measure of cardholder willingness to use cards and for businesses to accept them, the abovementioned differences in interchange fees do not appear to be related to sensibility to demand for businesses to accept payments or to cardholder use. This is an indication that interchange fees are not efficiently "balancing" cardholder and business incentives.

Relevant Findings

In general terms, reductions to interchange fees that Banxico has promoted have affected reductions to merchant discount rates as overall card and POS terminal numbers have grown. Nevertheless, the acquirer side continues to lag since POS terminal penetration is inferior to debit and credit card penetration, which indicates that there is still a margin for greater expansion via setting a proper fee.

Most transactions continue to be made in cash.[33] Card payments enjoy greater share in purchases that relate to travel, furniture and durable goods, whereas in the case of small-retailer purchases, cash vastly predominates. In the wholesales, cards account for 17% and only contributes 3.8% of interchange amounts.

Optimal Conditions

The determination of an interchange fee close to the efficient could expand this media payment acceptance coverage and motivate users who already have a card to use it more frequently, to which end the conditions and incentives surrounding card payment acceptance and use in every business category must be understood and analyzed.

Economic theory asserts that the efficient way to recover shared costs is via their assignation in inverse proportion to each service's demand sensibility. Additionally there is room to reduce interchange fees, since users who already have cards may not be using them at efficient levels given that fees tend to be established as a function of marginal consumers, those who are indifferent when it comes to using cash or card payments. In contrast, for average consumers, acceptance at more businesses is needed. A reduction to the interchange fee would increase the wellbeing of such consumers.

33 MasterCard (2013).

Conclusions and/or Recommendations

Regulating (balancing) credit and debit card interchange fees with the goal of optimizing this media payment use and coverage. This action should contemplate end-consumer sensibility to price changes.

3.3.5. Electronic Funds Transfers

Description of Service

There are two payment systems that process electronic funds transfers: one that settles payments the morning of the following day (TEF-Cecoban) and another that settles payments in real time (SPEI). Retail electronic transfers largely originate from bank customers in order to make service, payroll and tax payments, among others. Only financial entities can participate in SPEI and TEF-Cecoban.

Cecoban offers an electronic funds transfer service that is settled on the next business day; only shareholder banks participate directly in the clearing house. Electronic funds transfers (EFTs) can be used to make inter-bank payments between accountholders and can be periodic (such as payroll deposits) or occasional. There is no limit to payment amounts. On average EFTs settled some 90 thousand payments daily in the amount of nearly three billion pesos.[34]

In the case of SPEI, various non-banking financial institutions participate in addition to all banks. SPEI is a payment system that Banxico developed, which means bank and other financial institution customers can send and receive electronic funds transfers in real time (i.e., in seconds). SPEI is a platform that processes high- as well as retail payments. On average it settles some 400 thousand payments daily for a total amount of 600 billion pesos.[35]

Electronic funds transfer and internet banking user numbers have risen. Inter-bank transfers (SPEI and TEF) observe greater dynamism that same-bank operations. While inter-bank transfers have risen steadily to a total of almost 40 million in 2013, since 2012 the number of same-bank transfers seems to have stabilized around 200 million. It is also noteworthy that, at the same time, internet banking—the platform through which banks typically offer customers electronic transfer services—has also maintained a growth trend and grew to more than 20 million users in 2013.

In 2006 Banxico eliminated interchange fees on TEF electronic funds transfers as a means of promoting their use. Interchange fees and inter-bank commissions were never instrumented for SPEI transfers.[36] The Banco de México charges participating SPEI financial

34 Banco de México, Sistemas de pagos, en línea [http://www.banxico.org.mx/divulgacion/sistemas-de-pago/sistemas-pago.html].

35 *Ibidem.*

36 Banco de México (2007).

institutions based on a principle of cost recovery. It charges an annual commission for using the central bank's private telecommunications network that differs in accordance to completed operations volume and it assesses per-transaction charges that vary with the operation's time of day. With regard to TEF, Cecoban fixes processing fees and charges an agreed-upon monthly fee for the clearing house's three services (checks, TEF and direct-debit payments) that cover 10,000 transactions. Beyond that operations range, it assesses a declining per-transaction charge of 55 to 10 Mexican centavos, based on completed operations volume.[37]

With regard to commissions banks assess end-consumers for transfer services (SPEI and TEF)—given that these are offered via their internet banking portals—most banks charge a monthly subscription or per-operation commission. Per-operation commissions are greater among same-day rather than next-day transfer services and several banks charge no commission for TEF transfers.

The Current Situation and Problematic

Payments made via electronic funds transfer have exhibit notable growth since 2004, when SPEI began to function as a payment system for these retail operations. Nevertheless, banks are still the principal participants in SPEI and TEF-Cecoban.

Relevant Findings

A notable element that favors this situation is the rule that requires being a Cecoban shareholder to directly participate in the clearing house. If other regulated financial intermediaries can participate in the system that securely processes high-value payments, perhaps this limitation is a legacy of operative restrictions that may no longer be in order or that could be altered.

On the other hand, given that SPEI is open to all regulated financial intermediaries, but in some cases the number of participants from some kinds of non-bank financial intermediaries is still reduced, a more in-depth analysis of Banxico's access policy for offering this service may be merited, alongside facilitating the inclusion of some smaller non-bank financial intermediaries.

Conclusions and/or Recommendations

In short, it is possible that if SPEI and Cecoban rules allowed open access under reasonable, non-discriminatory terms, more direct competition between both platforms would be generated, as would more incentives for platform owners to offer their services to non-bank financial intermediaries as a means of promoting financial inclusion and the adoption of this media payment. This is of particular importance when it is remembered that financial reforms authorize *sofipos* to perform operations and provide services via electronic media, for which they would require access to payment systems.

37 International Monetary Fund (2012).

3.3.6. Checks and Direct-Debit Payments (Domiciliaciones)

Description of the Service

Checks, like any other media payment, are offered as a part of a bundling services that includes a checking account, debit card, ATM access, and the ability to send and receive money with other accountholders, among others. The recipient of the check can cash it at the bank branch that manages the account or deposit the check at another bank and the receiving bank will collect it and credit the amount to the depositor's account. When the check issuer and recipient have accounts in different banks, the payment is called an inter-bank payment. The bank that receives the check must send information and an image of the check to a clearing house for its collection. The compensation outcome is settled on the following business day after checks are presented and the interchange fee is six pesos.[38] The business that operates the inter-bank check clearing system in Mexico is Cecoban.

In direct-debit payments (known in Spanish as *domiciliaciones*) the holder of a checking account expressly authorizes a person or business (generally a provider of services such as water, electricity, gas, or internet) to charge his or her account for services provided. When the service provider's bank is not the same as that of the person paying, the inter-bank system—operated by Cecoban—must intervene to settle those operations.

Direct-debit payments have increased in number and amount but continue to make up a small proportion in comparison to other non-cash payments. As a proportion of non-cash payments, these payments are the least common. A total of sixteen banks participate in direct-debit payments, presenting and receiving operations, while four banks only receive them and four banks only present.[39]

The bank that presents the direct debit payment order through Cecoban pays the interchange fee to the receiving bank. Since October 2007, the interchange fee is 1.40 Mexican pesos per applied payment and 70 centavos per rejected payment.[40] Cecoban fixes processing fees for clearing house services. For accountholders, direct-debit payments are free; business that receive direct-debit payments shoulder the collection costs associated with the service that banking entities offer.

38 Banco de México, Sistemas de pagos, en línea [http://www.banxico.org.mx/sistemas-de-pago/informacion-general/sistemas-de-pago-de-bajo-valor/cuotas-intercambio.html].

39 Information presented at Cofece headquarters by Cecoban on 22 May 2014.

40 Banco de México, Sistemas de pagos, en línea [http://www.banxico.org.mx/sistemas-de-pago/informacion-general/sistemas-de-pago-de-bajo-valor/cuotas-intercambio.html]

The Current Situation and Problematic

Currently, to participate in the Cecoban clearing house it is necessary to be a shareholder bank or access the system from a shareholder bank. This could constitute an entry barrier to non-banking entities that seek to provide direct-debit and checking services, such as credit institutions.

Relevant Findings

The business that operates Mexico's inter-bank check-clearing system is Cecoban, jointly owned by forty banks. All shareholder banks participate in the check-service clearing house; only 25 participate in direct-debit services.[41]

Cecoban establishes processing fees and collects a joint monthly fee for the three clearing-house services (checks, TEF and direct-debit) that covers ten thousand transactions. Beyond that operational range, it collects a declining per-transaction fee that ranges from 55 to ten centavos depending on processed volume.[42]

Check use has been decreasing in recent years whereas the number of direct debits has increased, yet their use is very limited in comparison to other electronic payment media.

Optimal Conditions

Allowing open access to payment-system platforms under reasonable, non-discriminatory terms and conditions could bring about better competition conditions related to bank and non-bank institution participation that could in turn offer a wider array of services to their customers. Additionally, financial reform authorizes *sofipos* to perform operations and provide services to customers via electronic media, which would require access to payment systems.

Conclusions and/or Recommendations

A revision of the Cecoban access protocol, in terms of entry costs and requirements, is recommended as a means of facilitating different financial intermediaries' access to direct-debit and check clearing house services.

3.3.7. Mobile Payments

Description of the Service

Mobile accounts (also called *expediente simplificado* in Spanish) that allow operations like electronic funds transfers or payments from mobile phones between users of the same telephone company or bank, or that allow for cash withdrawals at ATMs without a debit card, began to be offered in 2012. At the time the study was conducted, four banks offer mobile banking accounts on three different platforms: BBVA Bancomer's Cuenta Express, Transfer accounts by Banamex and Inbursa, and the MiFon account that Banorte offers.

41 Information presented at Cofece headquarters by Cecoban on 22 May 2014.
42 International Monetary Fund (2012).

In this relatively new segment, banks that enjoy the greatest presence in Mexico hold the largest proportion of mobile-device-linked accounts. Additionally, the BBVA Bancomer and Banorte platforms operate mobile payment systems via smart phones, which serve the same function as personal computers; while in the case of Banamex and Inbursa allow operations on mobile phones that are merely able to perform basic operations such as calls and SMS messaging. Performing mobile payments via SMS requires a secure, two-directional channel that the telecommunications carrier provides.

A growth trend in the number of mobile accounts can be observed starting in December 2012, and in October 2013 there were some 2.3 million accounts. There is no information available with regard to overall transaction numbers or amounts in relation to these accounts. That said, it can be expected that these are limited given the brief time that has passed since their introduction. Mobile payments seek to leverage mobile telephony's high penetration rates to bring people into the banking system and encourage business to accept such payments.

The Current Situation and Problematic

An access discrimination risk is perceived in relation to the mobile payment network, given that one mobile payment network operates with the dominant carrier. There is a possibility that telecom carriers may limit access or make access more expensive for financial institutions interested in offering mobile payments, or indeed, that financial institutions limit access to their payment platforms to one or just a few telecom carriers. It is hoped that in part this will be resolved through recently issued Banco de México regulations concerning financial intermediaries' obligation to not condition mobile payment services to use of a specific telephony services provider.[43]

Additionally, one of the main problems of the current mobile payment services operational scheme is a lack of interoperability between bank platforms. In this regard, Banxico issued regulations on mobile payment clearing houses at the end of 2013 that calls for using SPEI for payment settle to ease interoperability given that most financial intermediaries already enjoy access to that system. Nevertheless, mobile payment platforms continue operating as a closed system, i.e., the only operate between customers at the same bank offering the service. This competition authority is also concerned that telephone carriers or banks will devise additional charges for sending and receiving payments via mobile devices.

Relevant Findings

Given that the market is small and because there are economies of scale in the provision of this service, substantial entry on the part of numerous processors is not anticipated. At present there are more than two million mobile accounts, whereas there are more than 100 million traditional deposit accounts. Additionally, there are only four participating banks (BBVA Bancomer, Banamex, Inbursa y Banorte) and only two of them are interconnected

43 Banco de México (2012). Modifications to Banco de México's Circular 3/2012 which enters into effect on 7 November 2014.

(Banamex and Inbursa, via Telcel's Transfer product, which they operate jointly). The two other banks have maintained their mobile payment systems in a closed system among customers of the same bank.

Mobile payment systems are attractive to populations without access to the financial system, above all when they are complemented by measures that expand points where payments can be made as well as points where cash deposits can be made that will be converted into electronic funds. Mobile payments increase access to financial products and services; they provide more user-friendly products and services; they reduce the risks of carrying cash and they reduce operational costs for both banks and customers.

In December 2013, the Banco de México issued general regulations for mobile payment clearing houses in order to regulate their conditions of authorization, functioning and operation. The main elements of these rules are summarized below.

Authorization and revocation (rules 2, 3, 4 and 14): To operate, mobile payment clearing houses must seek Banxico authorization. To that end, they must submit to the regulator a general operating plan, internal regulation, potential participant access requirements, rate schedules, procedure manuals, security measures for information integrity, operative continuity plans and guarantee requirements for settling compensation outcomes among participants, among others requirements. Banxico will have 90 calendar days to resolve the authorization and may evoke granted authorizations if the clearing house does not begin operations in a twelve-month period after receiving the authorization, if without justification it suspends operations during six months, it if fails to comply with the requirements under which its authorization was granted, if there are irregularities in the information it submits to the regulator or in cases of dissolution and liquidation.

System links (rule 5): Clearing houses must become SPEI participants before beginning operations and are obliged to receive, accept and process electronic funds transfers that reach them via SPEI as well as perform routing, clearing and, as necessary, settlement activities related to those transfers.

Costs and tied sales (rules 8, 9 and 10): Clearing houses may charge for basic routing, clearing and settlement services provide they enjoy previous Banxico authorization and they must refrain from imposing discriminatory charges and granting volume discounts. Charges must not be determined based on participants' shareholder status. Additionally, tied sales of basic routing, clearing and settlement services—which must be offered separately—are prohibited.

Information, supervision and sanctions (rules 6, 7, 11, 12, 13, and 15): Clearing houses are obliged to safeguard information and documentation relative the operations and services they realize or process in the strictest confidentiality. Nevertheless, in order for Banxico to carry out clearing house oversight, it is stipulated that Banxico may require them to provide information on operations, contingency events and may additionally make in situ inspections and issue recommendations on their functioning. Clearing houses are additionally obliged to inform the regulator with regard to changes them to internal statutes and/or norms.

Optimal Conditions

Modifications made to Banco de México Circular 3/2012, which will enter into effect on November 7, 2014 stipulate that financial intermediaries must not condition mobile-device electronic transfer services to a specific telecom carrier. Similarly, allowing open access to the mobile telephony platform under reasonable, non-discriminatory terms and conditions can create better competition conditions in relation to mobile payment services offered by financial intermediaries.

The existence of a payment system open to all banks and financial institutions that are able to provide the service is something will allow for exploitation of the systems network economies: the service will be more attractive to users in the degree that more points of mobile payment acceptance exist. For this reason it is necessary to avoid closed platforms or that transactions are obstructed between customers based on origin.

Conclusions and/or Recommendations

Obliging telecom carriers to provide secure bidirectional communications services is recommended, in particular for electronic funds transfer operations on mobile telephones that can only transmit SMS messages, and to any processor or financial intermediary who so requests. Similarly, financial intermediaries who offer mobile payment services should be obliged to provide that service on any telecom carrier platform.

Evaluating the effectiveness of regulations that the Banco de México issued with regard to mobile-device electronic funds transfer interoperability is recommended two years following their entrance into effect, as is making any appropriate corrections as required.

3.3.8. Regulation Derived from Financial Reform

As a result of financial reform that entered into effect on 11 January 2014 and with fundament in LTOSF Articles 4 *bis* 3, 19 and 19 *bis*, Banxico issued regulation on clearing houses and, joint with the CNBV, issued regulation on media payments networks.

The rules Banxico issued for clearing houses seek to:

I. "Avoid entry barriers and information problems that lead to policies that discriminate against potential competitors by requiring, for their authorization, that card payment clearing houses: i) establish and observe clear and accessible rules and operative procedures and ii) define the terms according to which to effect the link between their processing systems and those of other clearing houses for card payments,

II. Avoid price distortion by prohibiting uncompetitive billing practices such as the forced bundling of products or discounts based on clients' individual characteristics; and facilitate innovation by eliminating barriers to development that impede the incorporation of improvements to infrastructure and operation; and

III. Strengthen network security and risk management by means of business continuity and participant security scheme guidelines."[44]

The regulations that Banxico and CNBV jointly issued applicable to media payments networks were formulated according to "principles that foment competition, expand infrastructure and reduce charges and fees; open access, non-discrimination and the protection of user interests to the benefit of media payments users as well as those of the businesses or establishments where these are used."[45] The regulations' main object is to regulate "for network participants the terms and conditions with which network participants must comply as well as interchange fees, commissions and any other charge that may be directly or indirectly charge."[46]

3.3.9. Remittances

Description of the Service

Family remittances are sums of money in domestic or foreign currency,[47] which a private individual who resides abroad (the sender) sends to another private individual (the recipient) in Mexico. The term remittance service applies to any person or institution that provides money sending and/or receiving services as a business. This can involve cash deliveries offered by private individuals; services on the part of agencies that specialize in international money transfers (MTOs); inter-bank transfers or via card use at ATMs.

The Current Situation and Problematic

Despite the importance that remittances have for many countries such as Mexico, in general terms, the information for their analysis is limited. This is attributable to the fact that by their nature—the heterogeneity of the conditions under which sending and receiving money may be carried out—accurate measure of remittances is complicated. These conditions are constituted by a large number of transactions that private individuals make via an extensive variety of channels. Nevertheless, available information does afford an overview of the service.

44 Banco de México (2014).
45 Banco de México/CNBV (2014).
46 *Ibidem.*
47 In the case of (person-to-person) cash and specie remittances it is possible that delivery may be made in foreign currency.

The International Outlook

According to World Bank (WB) statistics, during 2013, global remittance flows reached 414 billion dollars, a 6.3% increase over 2012. Globally, the five principal remittance-receiving nations during 2013 were India, China, the Philippines, Mexico and Nigeria. It should be noted that the remittances by the top ten remittance-receiving nations represent some 50% of the world total.

As regards the cost of remittances sent globally, the total average cost[48] has remained stable at 9% of every $200 dollars, i.e., $18 USD;[49] that said, in the case of high-remittance-flow corridors, costs have undergone significant reductions.

Remittance Services in Mexico

Mexico is one the nations with the highest numbers of emigrants in the world. In 2013, some 13.9[50] million people of Mexican origin now live in other countries, with the United States being the principal foreign destination. Currently, 98.2% of remittances come from the United States; 0.5% from Canada; 0.4% from Spain and 0.9% from other economies. From 1996 to the present, the total remittance flow in Mexico has maintained an average growth rate of 11.1%, reaching its highest levels in 2007 with a record $26.059 USD billions.

With regard to sending remittances it is important to point out that while the Mexican market has seen greater participant entry, MTOs continue to be favored by users because they support a wide ranging agent network in Mexico, do not require as much information as banks request of their clients and because MTOs do not require users have bank accounts to send remittances.[51]

It should be noted that increasing participation on the part of financial institutions that offer remittance services is attributable to recognition of the Mexican-government-issued *Matrícula Consular de Alta Seguridad* ("High-Security Consular Identification Card; acronym in Spanish: MCAS) as an official form of identification. It induced banks and credit unions to compete for the provision of remittance services by allowing Mexican immigrants open accounts and purchase remittance-sending services. This has allowed for greater competition where traditionally MTOs were the dominant market players and has been reflected in lower remittance delivery costs.

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48 The average total cost is defined as the sum of the percentage of commissions that remittance-sending companies collect, on average, as a proportion of $200 USD plus the sum of the exchange-rate margin proportion (with respect to the market) that remittance-sending businesses collect, on average, as a proportion of $200 USD.

49 BBVA Bancomer (2013)

50 According to the most recent World Population Prospectus (2013 revision) elaborated by the UN Department of Economic and Social Affairs Population Division.

51 Hernández-Coss, Raúl (2004).

Another factor that has contributed to a reduction in delivery costs has been the elimination of contractual exclusivity arrangements (i.e., the case of Western Union and Elektra[52]), which limited points of dispatch and created high commissions for users.

Commissions for Sending Remittances

In 1Q 2014, a reduction to the total cost of sending remittances to Mexico was observed in comparison to 2013, with average cost declining from 5.2% to 4.2% per $200 USD remittance from the United States (approximately $8.40 USD). This cost remains below the world average (8.4% or $16.70 USD to send the same amount of money in 2014).[53] Additionally, if we analyze data from 2008 to the present, costs have remained below the world average along the US-Mexico corridor. As well, if the cost of sending money from the Unites States to other Latin American nations is analyzed in comparison, it can be observed that the US-Mexico corridor is the second least expensive.[54] In 1Q 2014, Mexico held second place in lowest average total cost for Latin America, following Ecuador alone, whose total commission came in at $8 per $200 USD.

Additionally, in order to maintain greater transparency with regard to sending money via remittances, starting in 2013 the United States government obliged remittance businesses to provide free information about the service to users before they make remittances, such as exchange rates, commissions, as well as the amount of local currency the beneficiary will receive in the destination country, helping consumers choose the best possible service.

Some Findings

Despite the fact that the per-remittance cost along the US-Mexico corridor is low in comparison to world averages, problematic situations with regard to the service continue to arise. For example, in 2013, Mexico's Consumer Protection Agency (acronym in Spanish: Profeco) recorded 73 complaints, largely involving a remittance service provider's refusal to hand over money.

For this reason, strengthening programs like "*Quién es quién en el envío de dinero*" ("Who's Who When It Comes to Sending Money") that help disclose the conditions under which remittance services are to be provided are considered necessary. Examples include avoiding tied sales at reception venues that also sell retail products; prohibiting that service providers retain cash payments; and lack of justification for paying commissions beyond those agreed to when the service was initiated.

Optimal Conditions

In the case of remittance receiving in Mexico, it is advisable strengthening awareness schemes that could help the competition process by providing more and better information to the consumer regarding the quality of service that remittance businesses provide.

52 Elektra (2010).
53 Data from Banxico.
54 Remittance Prices World Wide (2014).

Currently in Mexico there are no quality benchmarks for this service that would allow for comparisons between providers, despite the fact that this kind of indicator is often used in other markets and have been proven beneficial to the promotion of competition.

Conclusions and/or Recommendations

The present analysis offers the following recommendation: establish regulation that allows users to understand and qualify remittance service prices, as well as awareness mechanisms on the part of Profeco.

3.4 Credit Reporting Agencies

Description of the Service

Credit Reporting Agencies (CRAs) are regulated by Mexico's Law for Credit Reporting Agency Regulation (*Ley para Regular las Sociedades de Información Crediticia*; acronym in Spanish: LRSIC), which defines credit reporting services as "services given over to compiling, managing and delivering or delivery of information related individuals' and corporations' credit histories as well as credit and other analogous operations that such parties may have with Financial Entities, Commercial Businesses or ENR *Sofomes.*"

CRAs collect information on individuals' and businesses' credit histories in order to disclose this to banks and other credit-granting intermediaries. CRA databases are fed by the same information that the credit granting institutions that consult them provide. Payment histories include information that is both positive (compliance) and negative (late payments, non-compliance, irregularity) and are to be erased after seven years, at least for small credit amounts.

In Mexico, three CRAs are authorized to do business: TransUnion de México, Dun & Bradstreet and Círculo de Crédito. The first two, TransUnion and Dun & Bradstreet, operate under the brand name Buró de Crédito, are managed by the same group, and have shared stockholders when it comes to about 74% of shares. As such, TransUnion and Dun & Bradstreet belong to the same economic interest group and bank shareholder participation is 70%. Buró de Crédito may be considered a single CRA in terms of competition. One the other hand, Circulo de Crédito is a company whose stockholders are largely bank-based retail-sales-outlets (*tiendas-banco*) and traditional banks (Elektra, Coppel, Afirme and four other companies).

Under current regulation CRAs are obliged to exchange the so-called primary database (*base de datos primaria*, also known as the *base de datos negativa*, i.e., "the *negative database*"), which contains information on consumer non-compliance. This database is to be updated at least once monthly by means of information exchange among CRAs. For this purpose, each CRA pays a fee for each updated registry. It means that at the conclusion of the monthly update, each CRA has a copy of the same negative database. On the other hand, positive information is shared according to more limited guidelines, since each CRA is obliged to share positive information with its counterpart only for specifically requested reports. CRAs do not share the positive database, merely individual items from clients who request a credit report.

The relationship between users and the CRA is formalized by means of a r*eciprocity contract* (*contrato de reciprocidad*) which establishes that the user must hand over credit information to the CRA in order to be able to make requests of that CRA. A user can be any organization that undertakes credit operations in a professional or regular fashion. In general a CRA cannot demand exclusivity from users or prevent them from signing a reciprocity contract with the other CRA in order to work with both simultaneously. Users may opt to consult different agencies' reports separately or by means of a consolidated report, known as a "*combo*," that contains the information that exists at both CRAs. In both cases the applicable user fees are proposed by the CRAs and authorized by the CNBV. However, CRAs apply discounts based on the number of reports acquired or based on the size of the database the credit granter has handed over to the CRA, among other criteria.

Additionally, part of CRA revenue is gathered through the sale of value-added services. These services have expanded considerably in recent years. Value-added services can be as simple as alerts that report a change to a client's record or as complex as sophisticated statistical analyses.

The Current Situation and Problematic

Buró de Crédito's property is in the hands of Mexico's largest banks, who hold more than 70% of its shares. These banks grant more than 80% of the credit given in bank-based housing, consumer and business loans. Under current regulation, each CRA's board of directors can make decisions on behalf of its shareholders' interests, not necessarily to the benefit of the credit information system's efficient functioning. In particular, large-scale banks' reticence to share information with other credit institutions could manifest itself in the board of directors of the largest CRA, Buró de Crédito's, making anticompetitive decisions. This could be reflected in insufficient service quality, the inexistence of value-added services or limitations placed on information sharing. Additionally, large banks' refusal to sign reciprocity contracts with entrants limits or nullifies the possibility of entry into the sector.

Banks and other commercial or financial entities use credit reports to decide if credit should or should not be granted. This means that competition conditions in the credit information services sector influence competition conditions in the credit-granting segments. The credit information sector as a whole offers a quantity, quality and variety of data that perhaps are being provided at sub-optimal levels, in detriment to the credit-granting segment. To the degree that competition problems exist at the CRA level, the credit-granting segment will reflect these inefficiencies via less credit granted, higher interest rates and other distortions. Under such conditions, small banks face limitations when it comes to competing effectively with regard to specific (risk-rate) products for population segments when going up against banks that hold extensive customer databases.

Today, large banks and commercial businesses are already affiliated with either one of the established CRAs. New banks and small businesses cannot easily provide data that would be sufficient for a newcomer CRA to reach critical mass. The entry of a new CRA will only be viable if the current large-scale users were willing to hand over their data and receive reports from two or more CRAs.

The LRSIC does not make an explicit statement with regard to ownership of the data the CRAs hold. Such ownership could fall to the CRAs, to clients, banks, or to the businesses that originated them. In any case it could be interpreted that the client owns the data, to the degree that it is the client who authorizes consultation of the user's information. With respect to this, the LRSIC establishes that the data may only be used for the purposes that the law stipulated. This implies that there is some legal uncertainty with regard to the legality of using the data to produce unconventional **value-added** services such as financial studies or economic analysis documents. The uncertainty about the legal status of data property is an impediment to the value-added-services segment's efficient functioning.

In Mexico, a number of public credit-granting entities do not report information to CRAs, among them Infonavit, Fovissste and Infonacot. Additionally, public entities that provide services or that collect revenues similarly do not report payment and credit information. Reporting such information to CRAs could allow large numbers of users who currently do not appear in any of the CRA databases to build credit histories.

Findings

Buró de Crédito ownership and control lies in the hands of Mexico's largest banks, who possess 70% of shares and grant more than 85% of housing, consumer and business credit. The credit offering tends to be concentrated in a small number of banks who control the principal CRA and are incentivized to not share credit information with other financial intermediaries. The shareholder banks of the two CRAs, Buró de Crédito and Círculo de Crédito, are the main buyers of credit information reports, the recipients of 60% of all the reports that both CRAs sell. Small banks are generally niche banks.

On the international level, value added services are very important to every kind of financial intermediary and commercial business.

In Mexico and on the international level, information on credit from banks and other financial intermediaries is most voluminous in CRA databases, followed by information on loans granted by durable-goods retailers (electronics, furniture and clothing stores, and others). CRA database expansion is increasingly oriented toward the inclusion of energy, telecom and television providers as well as government payments.

Optimal Conditions

Sharing positive and negative databases between the two CRAs would reduce the administrative power of a single CRA to influence sales conditions and report prices. Since both CRAs would have the same databases, there would be more competition based on differentiation and a non-banking entity information collection. For this measure to achieve the desired effect, it will be necessary to consider two additional aspects. First, making sure that banks associated with commercial entities or a *sofomes* do not evade this obligation; and second, reviewing interchange fees currently in effect, since the current rules on consolidated reports and negative information sharing would only apply to user-originated and not bank-originated data.

Volume discounts on the consulting services that CRAs offer to financial system users could lack justification in terms of efficiency. The above indicates that such fees could be subject to regulation. Nevertheless, this should also be analyzed in greater detail by the sector regulator.

Including information on payments made to public entities in either CRA's database is a relatively recent practice that has been adopted in countries like Australia and New Zealand, and that has is being discussed in the United States. Inclusion of public entity data would make the information in credit information system more complete and would help more people build credit histories in order to request credit.

Conclusions and/or Recommendations

CRAs' provision of information services has been an activity subject to ongoing legal and regulatory change as a means of providing greater individual and business coverage in these companies' databases. That dynamic suggests that this is an activity where effective competitive conditions between providers do not prevail.

There is reticence on the part of large banks to share information with other credit-granting entities. Under current regulation CRA officers may make decisions on behalf of their major shareholders' interests and not necessarily in favor of the credit information system's efficient functioning. Reticence to share information reduces all other financial intermediaries' competition capacity in that it limits information and they have no access to tools for making more efficient credit decisions.

The law does not clearly define property rights with regard to data now housed in CRA databases. Whether data is the property of the CRAs, users or customers is not well defined and therefore there is legal uncertainty over the possibility of re-selling the data or using it to provide value-added services.

Credit information from public entities that receive payments and revenue from individuals and businesses is not available to potential credit-granters. This reduces overall system efficacy and reduces public service users' chances of obtaining credit. Including public entity data would help more individuals establish histories and solicit credit, as suggested by experience in nations such as Australia and New Zealand—which already adopted such measures—and as is being discussed in the United States.

The above considerations lead the competition authority to posit three recommendations:

1. Adjust the regulatory and operative framework so as to, among other outcomes, establish a legal obligation for the banks to provide both negative and positive credit information to all authorized CRAs under equitable conditions and according to acceptable quality standards.

   Review volume discount justifications on consulting services that CRAs offer to financial system users. In the event that a justification for the existence of a pronounced retail fee discount curve from Mexico's CRAs cannot be found, directly regulate retail fees that Mexico's CRAs collect, and at levels that do not permit offering unjustified volume discounts or explicit discrimination against economic agents whose conditions are equal.

2. Issue guidelines so that CRAs—while respecting principles of anonymous information—offer their anonymous database to other CRAs and third parties in a position to generate value-added services, such as academic institutions of businesses that specialize in large-scale data-mining as a means of fomenting competition among the value-added services that the CRAs offer.

3. Issue regulations that assure database provision on payments made to government entities (contributions to Infonavit and Fovissste, among others) to any CRA.

3.5 Trusts

Description of the Service

Mexico's General Title and Credit Operations Law (*Ley General de Títulos y Operaciones de Crédito*) establishes that a trust is a contract by which a trustor transmits property or the ownership of one or more goods, or rights, as may be the case, to a fiduciary institution, to be put to licit and determined ends and charges the fiduciary institution with the realization of those ends.[55]

In general, trusts bring together three parties: the trustor, the trustee (or fiduciary) and the trust beneficiary. The trustor is the person who constitutes the trust and transmits the property in the form goods or rights to the trust for the fulfillment of a given end. The trustee is the agent who enjoys legal control of the entrusted goods or rights and is obliged to make sure the goods are put to the end the trust stipulates. Finally the trust beneficiary

55 Article 385, Ley General de Títulos y Operaciones de Crédito, Capítulo V, Sección Primera, Del fideicomiso.

is the individual or organism that receives the benefits derived from the trust.

The trustor is the agent who demands fiduciary services and the trustee works as a service provider, facilitating the trusts constitution as well as its administration in pursuit of the stated end. The trustee will collect for his or her services; the benefits of the trust fall to a person known as the trust beneficiary.

Those who are interested in using trusts may do so for a number of reasons, from transferring an inheritance to another to their use as a means of raising money for investments. This flexibility of objectives, added to the wide range of goods that can be handed over to a trust, means that individuals and organizations can set up a wide variety of trusts. From this perspective demand for fiduciary services may be segmented based on a given individual or organization's objective.

According to current legislation, those who may serve as trustees are full-service banking credit institutions (*banca múltiple*), guaranty institutions, insurance institutions, stock exchanges, credit unions, a bonded depository (*almacén general de depósitos*), *sofomes*, *sofipos* and some investment funds; in each case, in accordance with applicable law.

Available information allows us to observe that in 2012, full-service banking institutions controlled 80% of all entrusted assets in Mexico. Development banks participate to a lesser extent (19%), and brokerages, *sofoles* [sic], bonded depositories and credit unions jointly account for 1%. Four banks control 54% of the total income obtained through banks' fiduciary activity (average from the 2010-2013 period): BBVA Bancomer, Banorte, Banamex y HSBC.[56]

The Current Situation and Problematic

While credit institutions (banks) can carry out any type of fiduciary activity, in compliance with appropriate regulation, other, non-bank financial institutions can only be trustees on proprietary activities. Thus there are entry barriers that prevent economic agents that do not belong to the financial system from providing trust services and barriers to expansion that prevent non-bank financial institutions from offering other types of trust services.

Information that the CNBV has disclosed about trusts is limited and only outlines two variables (total assets and commissions by economic agent). This information does not provide sufficient information on this activity and its performance.

Transactions between two or more economic agents that involve trusts may include actions that may potentially harm the competition and free market entry process. To combat these, the Economic Competition Authority requires information on trusts (for example, legacy relations, and agreements surrounding acts or commitments to be fulfilled, among others).

56 Source: Internal calculation based on data from the CNBV, http://portafoliodeinformacion.cnbv.gob.mx/Paginas/default.aspx.

Nevertheless, trust transactions are considered a banking secret; i.e., trust information and documentation enjoy confidential status.

Findings

All trusts are not necessarily equal, nor do they have the same characteristics. For example, there are trusts that are not financial because they do not take deposits from public resources, as may be legacy or family trusts. Other non-financial agents may offer such services. Experience in other countries (the United States[57], Canada, Uruguay, Argentina and Costa Rica) shows that it is not necessary to be a financial institution to be the trustee of a non-financial trust.

Among relevant information for measuring the effects on consumer wellbeing that is notably absent from CNBV reports available on its website are the costs associated with constituting and administering a trust. Neither are trust characteristics revealed, i.e., what is the most common type or segment on the market.

In some merger and acquisition operations that involve trusts, agents that request Cofece's opinion with regard to the concentration often delay or limit handing over information, or, in extreme cases, argue that the information is confidential. Such behavior on the part of agents can extend the time it takes for Cofece to hand down a resolution or limit the agency's ability to prevent illicit concentrations and monopolistic practices.

Optimal Conditions

Trust activity is mainly characterized by trust in a generalized sense. Nevertheless, financial institutions are not the sole organizations that can offer that attribute to trustors. Agents outside finance could serve as trustees with proper regulation that expanded the trust services offering. Notaries are one such example.

Greater knowledge about trust activity characteristics and performance is an indispensable resource for designing, implementing and evaluating sector public policy, particularly as regards economic competition.

In accordance with that stipulated in Article 142 of the LIC and 192 of the LMV, financial institutions that act as trusts must not reveal information related to the trusts they administer except to financial authorities and other persons expressly identified in the respective laws. They contain some exceptions for handing over information to a number of authorities, restricted solely to information of a specific nature and relevant to fulfilling their mandate (e.g., the Federal Attorney General, the Ministry of Finance and Public Credit, the Federal Superior Auditor's Office or the National Electoral Institute). Therefore legal reform will be indispensable for Cofece to gather this information in order to comply with its mandate.

57 The Anglo-Saxon notion of the trust bears the closest resemblance to the *fideicomiso*, the Mexico-specific trust here discussed.

Conclusions and/or Recommendations
Four recommendations emerge from the present analysis:

1. Evaluate the feasibility of allowing other economic agents to act as trustees in trusts that are not financial (legacy or family trusts).

2. Review authorization protocols so that, in addition to authorized agents, some financial companies that are not credit institutions can provide trust services.

3. Establish an obligation for trustees that they furnish information to regulators for performance oversight, e.g., number of trusts, value and commissions by trust type or financial institution.

4. Reform the regulatory framework so that credit institutions must furnish Cofece with information and documentation relative to the operations and services they provide—including trusts—in order to strengthen its constitutional mandate.

3.6 Government Interventions in the Financial System

Description of Interventions
Financial markets are fundamental to economic growth given that they channel savings into productive activities, reduce transaction costs in the exchange of monetary resources and financial information, and spread risks among economic agents. The feasibility of obtaining these benefits is materialized to the degree that the financial system becomes increasingly developed, diversified and profound.

One necessary condition for the proper functioning of financial markets is federal Government intervention with regard to regulation and oversight. When it comes to regulation, the government constitutes and creates financial organisms whose mandate is to keep watch over and supervise legal and regulatory compliance.

Additionally, the Federal Government intervenes in the financial system to correct some imperfections (market failures) that arise, e.g., asymmetric information problems that often come up in financial markets; and/or limited product access or use, or limited access to and use of financial services among certain population sectors among others. It also intervenes in order to reach desired public policy goals such as supporting economic sectors seen as strategic; and/or stabilizing credit and financing supply in response to adverse economic and financial events. To do this, it must evaluate the costs and benefits of government intervention and choose to undertake it based on the profitability—social or economic—that each measure may represent.

Government interventions are carried out via two channels:

1) Development banking institutions[58] that mostly grant credits or guarantees to provide credit to a variety of economic activities in numerous sectors.

2) Operating support and/or development programs as part of some state ministries that offer access to subsidies designed to finance the activities such agencies seek to stimulate.

Federal Government intervention can bring about undesirable effects in relation to competition and economic efficiency. These effects can occur as much in financial markets as in the activities they develop and support, and are to be considered when analyzing the feasibility of implementing a government intervention. As such, it is necessary that the effectiveness of the government intervention be evaluated in an integrated fashion, which implies not only considering the action's economic or social profitability, but also the negative impact that could be generated in terms of competition, free market entry, and efficiency in markets where it chooses to intervene.

The Current Situation and Problematic

Private financial intermediaries insufficiently offer some financial services to some population sectors—which negatively affects competition conditions. Nevertheless, persistent financing via the development banking sector and government supports in some sectors affects efficiency and creates risks to competition, especially when (i) interventions are prolonged over time; (ii) when they exert differentiated effects by means of the supported enterprises; and (iii) when they create artificial barriers to market entry.

Additionally, the administrative and decision-making boards of development banking institutions and development funds are made up of some participants who hold interests within the sectors they develop. Under such a scenario, the overall benefits of the financing sums granted by the Development Banking institutions may end up split among board members with interests in the sectors or businesses they represent, limiting the supply of resources available to other producers.

Findings

In general, the presence of market imperfections or failures leads to a less than optimal product and services offering by financial intermediaries. In the particular case of limited financial services access and use among some population segments, excluded agents are not able reap the benefits these markets provide, which fosters the existence of a

58 The following development banking institutions operate in Mexico: the Banco Nacional de Obras y Servicios Públicos (Banobras), Nacional Financiera (Nafin), the Banco Nacional de Comercio Exterior (Bancomext), the Banco Nacional del Ejército, Fuerza Aérea y Armada (Banjército), the Banco del Ahorro Nacional y Servicios Financieros (Bansefi) and the Sociedad Hipotecaria Federal (SHF). In addition of development banking institutions, there are also public development trusts and other organisms that offer complementary financial services and products. Trusts such as the Fideicomisos Instituidos en Relación con la Agricultura (FIRA) and Financiera Rural (Finrural) figure among these.

gap between the private value and the social value of its productive economic activities. The gap between private value and social value arises when all the benefits of the market are not exploited. In the specific case of financial markets, when agents lack access to financing they cannot realize their business plans (the private value of their activity is null) despite the fact that the social value of its activity is positive.

Whenever Federal Government interventions are stimuli that attempt to correct market failures or develop particular sectors, these must have a temporary and well-defined character. In this scenario, it behooves the government to be clear and transparent with respect to its interventions' entry and exit criteria.

Otherwise it is possible that uncertainty that gives rise to discretionary decisions that generally turn out to be inefficient will be created. Additionally, if the government intervention does not pointedly establish the measure's end, the risk is that agents on the receiving-end of resources may end up coordinating actions, forming pressure groups and fighting to extend the government intervention. This scenario—besides provoking competition problems in supported markets—creates inefficiencies in the allocation of public resources.

Finally, despite the fact that business chambers' or associations' participation is relevant, if an authority's decisions are to achieve the greatest effectiveness, the main risk that can arise in this situation is the possibility that conflicts of interest will emerge and that their positions will not impartially represent the sector's main needs. Or if they do, that these will compete to acquire conditions that favor the economic agents that they represent. In terms of competition and economic efficiency, this situation creates serious problems given that the business chambers' or associations' bargaining power may be misused on incentives that create the risk that the government intervention favors those within the business chambers and their interests. Besides significantly compromising the intervention's effectiveness, this situation creates unjustified competitive advantages for those who reap the benefits of the government intervention.

Optimal Conditions

The government, by means of Development Banking, should seek to complement the activity of private financial intermediaries or incentivize its involvement where such is not present, by means of sometimes disruptive schemes that seek to correct market failures and drive competition among participants.

Additionally, to reduce the risk of inefficiencies and uncertainty in relation to its interventions, Development Banking institutions must make their entry and exit criteria transparent. Similarly, it is also advisable that neutral mechanisms (e.g., auctions) be privileged when allocating government intervention resources. These measures help in obtaining the best possible levels of efficiency, competition and transparency when allocating resources to the target population, minimizing distortions that can arise with regard to competition, free market entry and economic efficiency in the supported sectors.

Finally, it is advisable that these institutions be endowed with independent advisors that facilitate implementing efficient financing projects, provided they are not subject to conflicts of interest with the activities they support.

Conclusions and/or Recommendations
The completed analysis leads to three recommendations:

1. Where the possibility of helping to strengthen competition in financial services provision is identified, or the possibility of incentivizing involvement on the part of private financial intermediaries, development banks and other government programs should participate. One such example is the Cetesdirecto Program that the Federal Government created. Cetesdirecto is a direct distribution channel for getting government securities to the public at large that allows private individuals who reside in Mexico to save and invest in a simple and secure manner, commission-free. It serves to establish a trustworthy reference to the savings returns that banks offer. One measure for promoting platforms like Cetesdirecto—which expands the range of services that are available to the public—is through open, unrestricted access to the commercial banking network and permitting deposits and transfers from any other bank account.

2. Review and, as necessary, modify Development Banking entry and exit criteria in order to avoid unnecessary distortions with regard to the sectors that are being supported.

3. Review the election criteria governing development financing entity Boards of Directors and Technical Committees as well as mechanisms for identifying conflicts of interest that may affect decision-making neutrality.

4. Credit

4.1 Introduction

Credit activity is one of the central elements of the financial intermediation process that is a source of great interest among academics and those charged with public-policy design, because of its relevance to economic growth. A credit process that is carried out under competitive conditions and efficiently favors identifying nations' most profitable activities and channeling excess financial resources into those activities. This expands the potential for economic growth and supports added economic demand. For this reason, the present chapter makes a deeper analysis of credit segments that—because of their nature and importance—are considered import for the nation's economic growth.

In general terms—and according to CNBV and Banxico glossaries—credit activity consists of loans that a financial institution grants, by means of a contract, to families, private businesses and the public (or social) sector in order to cover financing needs (i.e., consumer or investments needs) with a commitment to fulfill that contract at a later date and pay agreed-upon interest over the contract's established life.

In section 4.2, credit destined to individual consumers, particularly finance granted to provide liquidity to credit holders whose purpose is not determined. These notably include credit-card products, payroll credits and (non-pawned) personal credits. As part of consumer credit, we move on to auto loans, destined for private-use vehicle acquisition, where vehicles serve as collateral or loan guarantee.

Later is studied mortgage credit (section 4.3), in which the financed real estate property serves a collateral from the credit holder. Because of its importance, this section studies Mexico's national housing organisms (in particular Infonavit and Fovissste), its regulatory framework, its worker accreditation process and their interactions with private mortgage credit providers.

Finally, in Section 4.4. discussions of business credit are developed, including credit to businesses (or private individuals authorized for commercial activities) to finance a particular type of business; credits to federal and local entities; and credits to non-financial intermediaries. With regard to business credit, needed financing and access to this is analyzed according to business size.[59]

59 The study also presents brief sections that analyze consumer credit via department store credit cards and pawn-shop based loans.

4.2 Consumer Credit

4.2.1 Credit Cards

Description of the Service

Credit cards are revolving credit, characterized by no expiration date nor fixed payment amounts. It is a line of credit that the issuing institute grants to the cardholder and that can be used repeatedly within granted credit limits. Credit limits are the maximum amounts of money that is made available to the credit holder; the credit-line resources are accessed by means of a card that can be used to make purchases in businesses that have infrastructure for payment acceptance or can be used to withdraw cash in ATMs. It is common for banks to collect an annual fee for granting the credit line, in addition to interest on outstanding balances that cardholders accumulate as of the next payment period.

With regard to demand of the above described service, issuer choice and product type are not related to interest rates. A recent study analyzes how consumers distribute debt among the cards in their possession and concludes that relative prices are a weak indicator of debt, purchases and payment distributions and that on average, cardholders pay 31% more than minimum financing costs.[60]

On the other hand, it is possible that cardholders prefer cards with low annual fees and high-interest rates, expecting to be customers who pay their entire balances at the end of every month.[61]

There are additional differentiators that may influence issuer and product choice, such as credit line amounts that institutions grant, interest-free month promotions and reward programs associated with cards.

As of December 2013, twenty financial entities made up the credit card issuance supply. Most of these are banks and *sofomes* linked to banks, of which the largest two issuing institutions (BBVA Bancomer and Banamex) hold 61% of balances.

The Current Situation and Problematic

There has been no significant dynamism with regard to new banking or non-banking participant entry that might reduce concentration rates or compete more intensely in segments underserved by traditional banks, despite regulatory adjustments. Access to payment systems, required for card operations, may by an entry barrier.

Large banks tend to collect higher interest rates than smaller ones. Nevertheless, no important client migration to products with more favorable conditions can be observed. This could be a function of the difficulties that users face to compare and choose products,

60 Ponce, Seira y Zamarripa (2014).

61 Nevertheless, according to the ENIF (2012) only 66% of cardholders know their credit card's interest rate.

by a lack of information or insufficient information, its complexity or an inability to use it optimally.

There are economies of scale in portfolio origination, administration and maintenance, as well as collection strategy implementations, which allow larger-scale intermediaries to enter into the supply of different credit products with different risk thresholds, since they have a greater capacity to diversify risks as well as to invest in technology and distribution networks. This can place smaller participants at a disadvantage since it increases their credit origination costs.

Additionally, it is possible that cardholders face high switching costs, i.e., difficulty in replacing creditors with creditors who offer more favorable terms. Only five issuers offer balance portability or transfer services. According to Banxico information, between 2011 and 2012, only 5% of customers changed credit cards to those of other issuers.

Not least of all, it is not clear that banks compete based on interest rates when attracting customers holding more costly debt that customers service with other market participants. The evidence gathered in recent studies supports a hypothesis of low price sensibility among Mexican cardholders[62], in line with discoveries related to other countries.[63]

Relevant Findings

As of December 2013, nearly 60% of credit cards have pending debt lower than 50% of the authorized credit limit. This situation generates inefficiencies that could be being passed on to consumers, since credit institutions ought to maintain reserves based on the total credit line amount, even in the case of inactive lines. For example, there are credit lines whose use-percentage is zero (they represent 16.6% of all lines) and banks must maintain reserves for these lines, a cost to credit-granting institution.

According to information from CNBV, as of December 2013, twenty financial entities participated in credit-card issuance, of which the two largest issuers hold 61% of balances at the same time the top four account for 83%.[64]

Between December 2011 and 2013, the main credit card issuer's (BBVA Bancomer) market share diminished, both in card numbers and in balances. In the same period, the four largest participants' balance concentration held at 83% while their issuance concentration was reduced from 80% to 78%.[65]

62 Ponce, Seira and Zamarripa (2014).
63 Bertaut and Haliassos (2006), Karlan and Zinman (2008).
64 CNBV online statistical information portfolio, [http://portafoliodeinformacion.cnbv.gob.mx/Paginas/default.aspx].
65 *Ibidem.*

Most credit cards issued by these institutions feature lines of credit between five and thirty thousand Mexican pesos.[66] Credit lines below 5000 pesos, generally associated with low-income population segments, exhibit less participation on the part of large banks. This, added to low emission rates on up-to-3000-peso credit limit intervals and the interest rates assessed indicate that there may be opportunities for new competitors in these segments.

Optimal Conditions

LTOSF financial reform calls for conditions designed to facilitate consumer credit portability, including credit granted via credit cards. LTOSF article 10 *bis* 1 establishes that a credit contract can be terminated at any time, and if the outstanding debt is paid by means of credit from another entity, the latter can execute cancellation and outstanding debt protocols in the client's name. The issuance of rules that will make this regulation operative is still pending. Condusef is the entity endowed with this regulatory power.

Additionally, entry on the part of new banking or non-banking participants interested in competing in segments underserved by traditional banks must be incentivized to improve competition conditions and to promote expanded access and use of electronic payment methods.

Finally, users must be able to access complete, updated information that allows them to optimally compare and choose cards from issuers that best meet their needs as well as lower searching costs via consultation of online comparison tools.

Conclusions and/or Recommendations

Over the course of two years, evaluate the rules that have been issued with regard to credit portability in relation to their effectiveness with regard to creditor switching and reducing credit cards' non-monetary cancellation costs.

Over the course of two years, evaluate the effectiveness of eliminating service-provision and acquisition restrictions to attract non-banking providers and, as necessary, undertake pertinent corrections.

Carry out deeper analysis that affords understanding of users' incentives to portability, with a consideration of the low price sensibility (interest rate) hypothesis.

Expand Condusef services to incorporate absolute values in comparisons of credit card fees and requirements through the addition of an exercise in amount monetary terms to which different cards' interest rates and fees would ascend, in a complementary manner to which the total annual cost is currently published.

66 Ibidem.

4.2.2. Payroll Credit

Description of the Service

Payroll credit consists of non-revolving loans that a financial institution grants workers whose work-related repayment is credited to an account at the same institution and in the worker's name. Credit payments are automatically deducted on the same day the financial institution receives the payroll.

As long as workers continue to receive their salaries, the payroll credit represents a lesser risk to the financial institution than that associated with unsecured credit. Given its characteristics, payroll credit exhibits lower delinquency rates than other consumer credit segments. Nevertheless, a slow but steady decline in these credits' risk profiles has been observed, which—among other factors—could be attributed to labor market conditions as well as elevated mobility on behalf of businesses to subcontract their payroll operations. Additionally, payroll credit has been one of the most expansive segments in traditional banking's non-revolving credit portfolio, having grown at a real average annual rate of 45% between 2010 and 2012.

Demand is concentrated among employees with recurring income flows. Thus the size of the segment is limited by labor market conditions: unemployment numbers, turnover,[67] worker oscillation between formal-economy jobs—affiliated with the IMSS or the ISSSTE— and informal employment, mobility between payroll services businesses and outsourcing, among others. According to 2012 data from ENIF, 61% of the adult population saves via payroll deposits, these being the main savings product, of which, only 9% states having received a salary-related credit.

According to Condusef data, 68 financial institutions offer payroll credit, of which 44 are sofomes ENR,[68] twelve are banks, nine are *socaps* and three are *sofipos*. As of June 2013, there were approximately five million contracts with balances worth 122 billion pesos in banks and some 25 billion pesos in sofomes ENR (nearly 15% of the supply between these two types of intermediaries), also according to Condusef data.

With regard to banking-industry generated credits, supply concentrations have grown between 2011 and 2013, measured in terms of portfolio balance. If we consider market share of the three (CR3), four (CR4) and five (CR5) businesses with the greatest activity this balance has gone from 77.9%, 87.9% and 95.1% in 2011 to 85.6%, 94.9% and 97.4%

67 According to the Asociación de Bancos de México, employee turnover hovers between 4 and 6% monthly.

68 There are three modalities through which sofomes ENR manage payroll credit. One, the employer discounts the periodic payment credit in advance, hands this over to the sofomes ENR, depositing only the remaining salary into worker accounts. Two, the employer deposits the entirety of worker salaries into employee accounts and employees, in conformity to contracts they have signed with sofomes ENR, make a direct-debit payment (domiciliación), automatically transferring the corresponding amount to institution accounts. Three: the employer deposits the entire salary and holds the employee's authorization to retain the credit payment amount so that the employer can hand this over to the sofomes ENR.

in 2013, respectively. This offers us a clear indication of the concentration that exists in the observed segments.

According to CNBV data, on the other hand, payroll credits tend to be granted for longer terms than other, unsecured credits (e.g., personal credits): more than 50% of the credits are granted for periods longer than three years and 93% have lifetimes greater than two years. Recently the supply of five-year loans increased, allowing for a reduction in monthly payments and expands banks' client base.

With regard to amounts the banking credit offered as of December 2013, the average credit was 27 thousand pesos with a real annual increase of 2.9%. Credit holder numbers exhibited 12.1% growth in the same year, the result of greater dynamism among loans for lesser amounts: as the number of loans for less than 5000 pesos expanded by 69%, those for greater amounts grew at a rate of 5% annually. Although credits of less than 5000 pesos represent a mere 16% of the portfolio balance, it is a niche with elevated growth potential.

The Current Situation and Problematic

The best payroll credit offer is not necessarily at the institution where the employer's payroll is deposited. That said, switching between payroll account providers is not a practice that is commonly observed in the system, given that mobility may be migrating toward other financing resources such as credit cards and personal credits, instead of to other payroll credit supporters.[69] This despite the fact that payroll accounts portability has been called for (LTOSF Article 18) and deposit account cancellation fees have been forbidden. As a consequence, low rates of consumers "shopping around" for the best offer tends to be associated with the perception of high switching costs for consumers of the service.

While client mobility is possible, in practice it has been reduced, which could be a reflection of both transparency problems related to information for users as well as complicated procedures that go along with clients switching to better offers (e.g., difficulty in signing up for direct debit credit payments or switching payroll deposit accounts by means of portability).

Additionally, negotiating the opening of a payroll account tends to take place with employers, who are incentivized to concentrate payroll on a single dispersal platform as a means of diminishing administrative costs. This factor helps explain, in part, low employee mobility to other financial intermediaries (in light of low worker bargaining power in relation to employer deposit institution selection). Likewise, the employer's choice tends to be determined by ease of access to cash (branch networks, ATMs and branches in third-party installations), workers' access to lower withdrawal costs and, potentially, by other financial services the financial intermediary offers the business and that are not necessarily aligned

69 For more details, see study, pp. 347-348.

with worker interests. In light of this, large-scale suppliers who offer greater product variety tend to enjoy better positioning when offering this type of accounts.

Some of payroll credit's operational risks have to do with payroll deduction order of precedence and information on credit holders' real leverage levels. With regard to the first point, deductions for paying for the financing "compete" with other salary deductions that come before the financial institution payroll deposit. This is the case with employer-based, payroll deduction loans (e.g., payments on *nominera* and *tanda* funds) and deductions for Infonacot and Infonavit payments. With regard to the second risk, there are creditors that do not report their clients' credit histories to CRAs: This is the case of some non-regulated entities or public housing institutes. As such, credit origination is based on workers' income flows and seniority, without any consideration of the individuals' real indebtedness. Thus there is an elevated risk of worker over-indebtedness.

It is also the case that a bank's payroll client database may be visualized as a "captive" clientele, which tends to accentuate asymmetric information problems between the payroll-deposit-receiving institution and those who offer these credits. Because of the needed scale to attract payroll outlay services and clients' perceptions with regard to the difficulty of switching to other providers, bank credit offers tend to go to the payroll accountholder base that the financial institution administers. As such, concentration in both markets (deposits and credit) tends to be related. Nevertheless, credit market concentration stands out as greater than concentration at the other end of the activity that originates it, which may signal demand not yet attended to on the part of different intermediaries.

Relevant Findings

In 2013, less growth acceleration in payroll credit was recorded—15% annual real growth—, which can be explained by both macroeconomic reasons as well as an uptick in projected segment losses. With greater economic stability in the labor market, this portfolio's growth potential is favorable: only 17.4% of workers with a payroll account have a linked credit.

It is also the case that demand may increase if their costs diminish in relation to the segment's risk profile. In this regard, it is notable that despite being a relatively safer form of credit in comparison to other, non-secured credit, payroll credit financial margins are elevated. If we discount this segment's active average rate with its expected losses, the margin (without a consideration of funding or administration costs) stands at 22.65 points, the second highest in banks' consumer portfolio after personal credits.

In regards to the banking industry's active interest rates, there is elevated variability between different banks' offers. The higher the credit amount, the lesser the interest rate tends to be and the lesser the difference between the maximum and minimum rates. In terms of frequency, the interest rate that tends to be collected on this product approaches 30%; nevertheless it is noteworthy that the banks with the largest market share offer above-market-average interest rates, suggesting a degree of rigidity when it comes to switching or migrating the credit to another, less expensive financial institution, whether this is due to a lack of market information or elevated switching costs.

According to the ENIF (2012), it was the employer who was responsible for opening accounts on behalf of workers in 86.2% of cases. Similarly, 54.8% of those surveyed reported not knowing that they could switch financial institutions for free. This condition, alongside legal restrictions that prohibit non-regulated financial entities from capturing savings,[70] makes it so that the greatest density of payroll accounts—and as such, credits—are observed with the banks. This, coupled with potential direct-debit problems and costs, limits intermediaries' effective capacity for market competition.

With regard to the payroll accounts market, which gives rise to the possibility of a payroll credit, there are similar concentration levels, which makes sense in a context of little client mobility when selecting a different creditor than the one with which the payroll is deposited. This implies little to no use of consumers' legal instruments (such as portability and direct debits) for choosing a better offer.

Optimal Conditions

Finance Reform seeks to increase user mobility when it comes to choosing a payroll credit provider and thus facilitate (related segment) payroll account portability mechanisms among financial institutions. LTOSF reformed Article 18 establishes that the credit institutions at which the salary deposit is made are obliged to respond to worker requests to periodically transfer the totality of the deposited resources to another institution of their choice, free from any penalty charges or fees assessed to the employee who makes the request. Additionally, employees can agree to allow the institution they have chosen to receive resources to complete this request process as their representatives and in their names.

The emphasis must be on empowering employees to decide at which financial institution they wish to receive their payroll deposits and bring about their effective mobility to more attractive credit offers, irrespective of whether this comes from institutions that are different from those that have the payroll deposits, as a means of offering benefits that serve employees' interests and not those of the employer.

Conclusions and/or Recommendations

The analysis' principal recommendations are as follows:

Evaluate the need to issue secondary regulation that allows for *effective* payroll *portability*, as contemplated in financial reform, to the bank where the "master deposit account" will reside. In such cases it will be important to assure that the account's receiving entity is able to realize the resource transfer (a direct debit or *domiciliación*) upon the employee's

70 To the degree that they are non-regulated entities and that authorities are to safeguard the integrity of the population's savings, the restriction from not directly capturing savings of the public can be justified for security reasons.

request and that the originating institution will have an obligation to transfer the resources or payments to the financial entity the employee designates (free from additional administrative barriers) This measure is contemplated in recent reforms to LTOSF Article 18, which establishes implementation criteria in which the current financial intermediary will negotiate with its counterpart and not with the client.

Promote mobility through direct-debit payroll credit (or other financial services) to the financial intermediary of the employee's choice and guarantee access to other suppliers under non-discriminatory terms to avoid concentrated of such services among few intermediaries.

Support the development of and, as necessary, regulate electronic platforms for credits where, one, consumers express their financing needs and authorize that their credit histories be consulted by CRAs and, two, financial intermediaries transmit their financing offers.

4.2.3. Personal Credit

Description of the Service

These non-revolving credits are all financing granted for a fixed amount and a previously agreed to interest rate which are not extended to a specific end (as is the case with durable goods and auto loans). These credits can be backed by guarantees and allow for short- or medium-term liquidity. Their payment mechanism can by anything that is not a payroll deduction from a credit holder's payroll account.

In general terms personal credit's business cycle—expansion and stabilization—tends to be later than the payroll credit and credit card cycles. This has to do with the greater relative risk that this line of business implies as well as to higher administrative costs imputable to risk selection and collections.

As of December 2012, a total of 36 banks, both commercial and development banks, reported having extended 7.9 million credits of this type, indicating a demographic indicator of 947 contracts for every 10,000 adults.[71]

According to 2012 ENIF data, 31% of credit holders use the credit to purchase, remodel or expand a residence and to buy real estate, jewelry and animals, among other items; 15.9% to begin, expand or operate a business; 12.1% to attend to emergencies of a personal nature, and 23.8% to meet food, personal or payment services expenses. Therefore the factors that most influence a decision to opt for this kind of credit are related to the urgency and immediacy with which liquidity must be acquired as well as the nearness or trust that exists with the creditor. As such, it should be noted that little shopping around for the best

71 See Zamarripa (2014) featuring data from CNBV and Conapo.

financing options is observed in relation to this product.

Recently, CNBV data have recorded that the greatest demand for these credits is observed for reduced amounts (up to 5000 Mexican pesos), generally associated with low income populations and whose life extends to up to two years. For this segment of the population, personal credit is the main financial product required of banks and they tend to seek it out at institutions associated with retail establishments selling durable goods. Clients from this segment and credit interval tend to make simple financial decisions and should be remembered that they link buying decisions to amounts (income and weekly/monthly payments) more than to interest rates and unpaid balances.

According to data from Consusef, the non-collateral-related personal credit supply is provided by 119 financial institutions, of which 65 are *sofomes* ENR, 16 are banks, 27 are *socaps*, five are *sofipos* and nine are regulated *sofomes*. While *sofomes* ENR represent 55% of this line-of-buisness' suppliers, there is no official information about client quantities nor operations volume. With regard to banking industry information, as of December 2013, 11.9 million credits were reported for a total of 126,004 million pesos; with this, personal credit represented the second most common line of business among these intermediaries' full consumer portfolio, second only to credits cards.

The Current Situation and Problematic

There is less concentration in comparison to other consumer bank credits, which may be explained by the entry of new agents for the provision of these services, principally among low-income population strata (and therefore for lower financed amounts). The new competitors are largely constituted as non-regulated *sofomes*, in light of legal powers and capital requirements that these imply. They tend to respond to micro financing needs in the part of low and medium income populations that are not widely served by traditional banks and they register their loans under different countable categories (personal, group, or others).

In terms of active interest rates among traditional banks, there is elevated variability in offers among different banks, extended amount intervals and timing terms on offer. The institutions that maintain a higher participation in some business interval (amount or timing terms) do not necessarily feature the most attractive interest-rate offer. The factor most associated with penetration is an extensive branch network (be that retail outlets or banks).

The "bank store" supply is linked to durable goods consumption and based on the geographical distribution of their sales floors. This allows them to generate a critical mass for access to inexpensive funding (small-quantity deposits) and link credit to durable goods consumption at retail outlets as part of development of proprietary administration and collections arrangements. This is the case at Banco Azteca, Coppel and Famsa, all of which evince particular specialization within the segment, thanks to their promotional capacities and their attention to a niche that traditional banks do little to exploit.

The small-quantity credit business tends to require—in proportion to operations volume—high fixed and operative costs (risk selection with little information and credit recovery, among others) and large-scale experience in microcredit operations. Their business practices general impose restrictions on credit amounts for prudential rather than regulatory reasons.

Also present is the practice of collecting interest on the total amount—and not the outstanding balance—from a population with little financial literacy as a means of meeting conditions of creditworthiness, which can imply high costs for the debtor. The situation highlights the importance of financial education programs.

Relevant Findings

Considering the offering on the part of the traditional banking industry, the balance of the personal credit portfolio to December 2013 has grown 43.4% annually in real terms since 2011 (in comparison to 38.2% of the total consumer portfolio). In parallel, supply concentration levels have remained relatively constant in terms of the total balance of credit extended: at the end of 2013, CR3, CR4 and CR5 came in at 59.9%, 68% and 75.4% respectively (and in comparison to 55%, 66.2% and 76% in 2011).

If we analyze credit amount intervals, concentration levels are also elevated. The average CR4 was 93.3% in 2013, for balances less than 5000 pesos, which are the microcredits typically offered to low-income populations. The store-associated banks who orient their businesses low income population niches contributed the most to this index. In the case of credit amounts superior to 75,000 pesos, CR4 comes out near 65%, with a greater share on the part of traditional banks.

In the range that sit on the border between clients served by store-associated banks and traditional banks (between 25 and 75 thousand pesos) significantly lower concentration indices were observed between 2011 and 2013, which could suggest that at levels where high and low loan amounts “bump up” against one another, there is greater competition between institutions (e.g., CR4s de 58.6% and 56.2% in 2011 and 2013, respectively).

Traditional banks tend to have lower interest rates at all intervals of personal credit, even as they have higher penetration at relatively elevated amounts. On the other hand, the highest interest rates tend to be seen in banks associated with stores. Thus greater participation at a specific interval seems not to be directly associated with agents’ interest rates meaning that market penetration could be explained as a function of other variables, such as the scale of the operation and the convenience of assigning and collecting credit.

Optimal Conditions

In reforms to the LTOSF, there is a call for conditions designed to facilitate consumer credit portability so that credit holders may transfer debts to providers who offer better terms. The law's Article 10 *bis* 1 establishes that a credit contract can be terminated at any time and that, if the outstanding debt is to be paid for via a credit from another entity, the second entity can process cancelation paperwork and pay off the debt in the client's name. The issuance of rules that make these regulations operable and that empower Condusef to act as regulator is pending.

In relation to transparency and responsible credit provision, the United Kingdom maintains a financial code of conduct handbook, the *Financial Conduct Authority Handbook*, that underlines the importance of transparency and avoiding over-indebtedness among consumers. The handbook specifies that institutions must assure that financial promotions are clearly stated, fair, free of deceit and that they are undertaken in clear, understandable language; they additionally must not suggest or declare that credit is available regardless of the of the consumers' creditworthiness.

In regards to clear information and understandable language, it is established that financial promotions communications must be precise and must not emphasize a product or service's potential benefits without mentioning its potential risks. Additionally it should be comprehensible to the average recipient at which the promotion is aimed; relevant information must not be disguised. Additionally, it is specified that if the communication features a comparison to another product or service, the financial institution must assure that the comparison is objective and balanced.

A financial code of conduct, like that described above for the United Kingdom, would make the costs of financed goods and services in Mexico more transparent, establishing clear language that is easy for consumers to understand.

Conclusions and/or Recommendations

To the degree that the principal ingredient of credit offers is information, particularly for those loans not backed by any substantial guarantee, the most important recommendation for promoting competitive expansion takes aim at structural issues, including deepening information quality and access and limiting information-related asymmetry problems.

Avoid allowing financial institutions linked to retailers obfuscating the financial costs of financed goods by establishing an obligation to advertise goods and services acquisition prices with and with financing, as referenced in Article 6 of the LFPC, and by making transparent the identity of the institution that grants credit for goods or services acquisition.

4.2.4. Car Loans

Description of the Service

Car loans are credits extended to private individuals to acquire vehicles for private use; the vehicles serve as collateral. In addition to credit, self-financing trusts and leasing are other options for financing a vehicle purchase.

Demand for car acquisition financing is closely linked to domestic new-car sales and therefore their determining factors tend to be related. As durable goods, automobile demand tends to be particularly sensitive to buyers' income conditions, as well as to their confidence levels with regard to the financial outlook. In particular, economic literature tends to identify labor market conditions and family income outlook, the presence of substitutes in the use-car market or by means of public transportation, as well as financing availability, as demand-relevant variables.

Therefore it is foreseeable that car buying decisions—alongside decisions about how to finance it—depend not only on interest rates, but are additionally susceptible to direct and indirect costs associated with the good (taxes, post-sales services, repairs, insurance, among others) and involve the buyer in a heightened "search" to the degree that the good represents an important proportion of individual wealth. Other factors that influence demand for car financing are the good's accelerated depreciation and doubts about used-cars property titles, which reduce incentives to leveraged vehicle purchase.

With regard to car loans, one observes a cluster of finance companies that are part of car manufacturers and distributors (largely *sofomes*) as well as financial institutions (like banks) whose wealth is unconnected to that of automobile manufacturers. Both types of players present different cost (funding) structures as well as different commercial incentives that can translate into different market practices.

There is no specific regulation for the provision of this category of financing. Nevertheless, certain structural factors that alter credit offering decisions, linked to the legal process for (financed automobile) guaranty recovery, have been documented. When a debtor falls into delinquency and wishes to repossess, creditors must rely on a process that tends to be costly as well as slow, which reduces the value of the collateral over time. This situation creates different incentives among providers, given that i) it reduces banks' appetites for new car financing in relation to leasing companies because they have less certainty regarding collateral value (since they maintain legal title to the financed good), and ii) bank credit provision is limited by the generation of greater capital consumption that that faced by non-regulated entities in case of credit holder default.

The Current Situation and Problematic

Sector credit demand is experimenting lags in its expansion related to that observed in other economies, for which reason the benefits of the international-level comparative advantage of producing cars in Mexico has not been fully shifted to domestic consumers.

In relation to financing *per se*, the credit supply in this segment is wide ranging as well as one of the sector's most populated by a variety of financial agents. Nevertheless, their efficiency (measured as penetration in the economy and the cost of the service) is restricted by problems of a structural character. Noteworthy among these problems is slow collateral recovery and low confidence with regard to control, vehicle registry and property titles. This issue evinces various sticking points that increase doubt with regard to effective loan guarantee operations and quality. Based on the information currently available, service provision problems cannot be discarded and are related to transparency of decision-making information available to consumers, particularly:

i) A possible preferential treatment in automotive showrooms that leads salespeople to offer only one type of credit that is not necessarily the optimal credit for the consumer. Additionally there is a possibility that credit linked to products or services (e.g., insurance and loan guarantees) may be offered.

ii) Incentives that give rise to tacit agreements between banks and some brands that respond to manufacturer and distributor financial needs so that the intermediary in question enjoys preferential access to credit offers.

iii) The potential transfer of economic resources from manufacturers to finance companies related to their brands as a means of driving vehicle sales, without offering other finance companies an equal take at the business.

Relevant Findings

Even though the automotive sector is among the most dynamic and important Mexico's overall economic activity, sector financing growth and importance has been relatively weak. According to data from the *Asociación Mexicana de Distribuidores de Automotores* (Mexican Automotive Distributors' Association; acronym in Spanish: AMDA), at the end of 2013 some 55% of all new cars sold in Mexico were acquired by means of some financing arrangement. This indicator is quite distinct from what can be observed in the United States, where nearly 90% of new cars are purchased through financing.

Elevated wealth concentration in the Mexican economy reduces the potential number of credit holders, since only a small segment of the overall population enjoys sufficient resources to purchase a car. According to ENIGH 2012 data, private-use-vehicle purchases represented 2.3% of all family spending (including on new and used vehicles) If we analyze the concentrations associated with that expense, we see that 77.9% of purchases are confined among 20% of the families with the highest spending power, while noting that this concentration in auto purchasing has been persistently high over time: 80.6% and 73.3% in 2008 and 2010, respectively.

On the other hand, 27 financial institutions offer new auto purchasing credit.[72] Of these, six are banks; fourteen are specialized finance companies and seven are self-financing trusts. Information available as of January 2014 indicated that the manufacturers' finance arms accounted for 59.4% of units financed in 2013; banks covered 33.3% and self-financing trusts accounted for 7.3%.[73] The major auto credit suppliers' market shares register relatively low concentration with respect to other consumer credit types (except self-financing trusts). The CR5 index reached 64.4% in 1Q and 2Q 2014, where traditional banks are not the main supplying agents (and as such, only 1.6% traditional banking's consumer portfolio is derived automotive business).

Another aspect to be considered when interpreting these concentration measures is that almost all finance companies linked to manufacturers specialize in those manufacturers' brands and do not necessarily compete with all market brands. Thus, from the consumer's point-of-view, the financing options portfolio is more restricted that what CR calculations from the entire segment would indicate.

According to INEGI, Mexico's vehicular fleet—measured as automobiles registered as circulating—ascended to 23.6 million vehicles in 2012, representing an increase of 1,270,269 units over the previous year. Reported new car sales from 2012 reached 606,497 units of which 515,063 were acquired by means of some kind of credit or self-financing trust. Given this, the remainder of the vehicular fleet's expansion (663,773) can be attributed to the importation of used cars that are not eligible for financing because of uncertainty regarding their collateral value.

Optimal Conditions

Financial reform promotes improvements related to guarantee-granting and execution as a means of offering increased certainty and streamlining procedures; this in turn is designed to avoid delays when it comes to recouping collateral. With the above, financial institutions increase their certainty of recouping granted credit and with this it is hoped that credit conditions in general will be improved, including in the case of car loans.

Nevertheless, it would be advantageous for consumers to have access to updated and precise information about the cost of the credit that different financial institutions offer, which could be added to *in situ* "calculators" placed inside car dealerships. Similarly, it is important that each of these tools state each of the items/categories that make up the final cost of the financed product, i.e., that the cost of opening fees, insurance, additional services as well as the vehicle credit itself be specified.

Conclusions and/or Recommendations

This credit segment evinces heightened rivalries between different suppliers. Nevertheless,

72 The AMDA insists this number does not account for all providers, but does indeed cover a significant number of them.

73 AMDA data as of December 2013 that does not include the entire offering but is considered representative of this market's competitive activity.

its expansion is hemmed in by structural problems. Despite this, it is possible to undertake measures for sector competitive expansion, three of which will be noted here.

First, promote the existence of transparency requirements at distribution points related to credit offer, insurance, self-financing trusts and leasing disclosures as well as with regard to auto dealership sales floor electronic platforms featuring complete, updated information that helps clients compare credit offers and in turn reduce searching costs.

Second, increase credit and on-line insurance auction mechanisms at dealership sales floors featuring open access to financing providers who can generate a corresponding offer.

Third, explore the possibility of implementing an electronic credit market inside dealerships that would reduce potential credit holders' search costs as well as greater consumer mobility.

4.3 Residential Housing Credit

Description of the Service

Residential housing credit with mortgage guarantees can be offered to any of the following ends: i) residential housing purchase, ii) residential housing improvements or remodeling and iii) housing construction on proprietary real estate. This segment features participation on the part of National Housing Organisms (acronym in Spanish: Onavis), such as Infonavit and Fovissste, which serve IMSS and ISSSTE workers, traditional full-service banks and, with declining frequency, non-banking intermediaries such as *sofomes* and now-extinct mortgage *sofoles*. Of granted credit, two-thirds correspond to programs linked to social security services, whose structure defines consumer eligibility rules and payment mechanisms. In terms of GNP the mortgage segment as of June 2013 was equivalent to 10.1%, where Infonavit accounted for 5.8%, Fovissste 0.9%, traditional full-service banks 3%, development banks 0.07% and all other intermediaries at 0.4%.

Housing credit placement tends to focus on the highest-income deciles as well as the population employed in the formal economy and therefore affiliated with social security institutes. In 2013, of the 31.6 million households that answered the National Household Income and Spending Survey, 67% of heads of households are not affiliated with IMSS or ISSSTE.

Within this context and in line with housing demand estimates undertaken by Mexico's Federal Mortgage Association (acronym in Spanish: SHF), in 2014, 1,101,381 households will be in need of some sort of housing credit; 650,325 households fall into the housing gap and the remainder correspond to new household formation, housing mobility and households that meet *onavi* program operational rules for acquiring credit.

The Current Situation and Problematic

Studies have been undertaken in the case of mortgage credit where it is shown that despite regulations for maintaining consumers informed with regard to credit costs, there are obstacles that prevent credit holders from understanding financing costs from variables published in pamphlets and on line (down payment, interest rates, total costs, taxes, insurance and pre-payment penalties, among others), and difficulty increases to the degree that the product becomes more sophisticated.

Of information that the Banco de México, Condusef and the SHF publish on their respective internet pages, potential credit holders face incomplete information on products and their characteristics that prevent them from efficiently comparing all conditions. Additionally, some of the general conditions in mortgage credit contracts that credit holders should consider—both with regard to origination and the life of the loan—are not clearly disclosed, leading to the acquisition of products that are more costly (e.g., life and unemployment insurance, mortgage collateral protection, opening costs, notarial expenses and assessment).

Once the credit agreement has been signed, another problem that credit holders face is the onerous task of migrating the mortgage guarantee to more favorable creditors. This process, regulated by the Law for Guaranteed Credit Transparency and Strengthening (*Ley de Transparencia y Fortalecimiento de Crédito Garantizado*), was reformed in 2014 to facilitate bank actions and reduce the cost of registering an electronic folio at the Public Property Registry to zero. Nevertheless, there are other bureaucratic procedures and requirements that persist and that continue to inhibit credit refinancing with other full-service banking institutions.

Mortgage credit placement on the part of full service banks is concentrated among the highest income credit holding segment. In 2013, 59% of credits were granted to credit holders with more than 14 times VSM,[74] 38% between 6 and 14 VSM, and 3% to credit holders with less than 6 times 6 VSM. That same year, of twenty full-service banking institutions who offer mortgage credit, only eight granted loans to credit holders with up to four times minimum monthly salary. In contrast, all twenty institutions reported having extended credit to population segments with more than 14 times VSM.

In the case of Infonavit, which serves IMSS members, 29% of extended credits went to workers whose incomes were between I and 2 times VSM; 36% to credit holders with incomes of 2 to 4 VSM; 13% of credits were aimed at credit holders with 4 to 6 times VSM; and 22% went to credit holders with more 6 times VSM in 2013. Fovissste, in turn, granted 2% of its credit last year to workers with incomes between 1 and 2 VSM; 45% went to credit holders with 2 to 4 times VSM; and 54% was distributed to credit holders with up to 10 times VSM. This group of higher-income credit holders served by *Onavis*, says the study,

74 VSM: Times the General Monthly Minimum Wage in Mexico's Federal District (Mexico City).

faces more onerous conditions than if they were to access full-service bank credit options, due to the following conditions: i) credit indexed to annual changes in the minimum salary; ii) credit interest rates in pesos that are more expensive than those offered by the banks. Based on these *Onavi* policies, lower income credit holders are subsidized.

Onavis' credit origination and collection conditions; payment payroll deductions and a lack of portability for the hosing sub-account (*subcuenta de vivienda*; acronym in Spanish: (SCV) represent comparative advantages with respect to private financial intermediaries, although these are not reflected in better credit cost conditions for credit holders. Likewise, in 2013 of the total 1.144 billion pesos in the Infonavit portfolio, 12% correspond to products placed jointly with traditional banks and *sofomes*; that said, the Infonavit Total program's expansion was notable, reaching an 8% share in the 2013 portfolio.

Findings

A revision of Banco de México, Condusef and SHF official websites revealed that there is no information on *Onavi*-granted credit costs needed to compare loan-origination and loan-life conditions.

In a consideration of credit amounts granted annually in Mexican pesos, the CR5 of the five biggest banks (BBVA Bancomer, Santander, Banorte, Scotiabank and HSBC) was 94% in 2010, falling to 87% in 2013. If stratification by housing type is taken into consideration, it is observed that between those years, the CR5 on state-supported housing and basic residential stock fell from 97% to 91% in the former case and from 94% to 90% in the latter. In the medium and residential plus housing categories, the CR% remained stable at 96% and 90% respectively.

Financial reform seeks to address mortgage subrogation. Although it reduces credit-holders' transaction costs for subrogation to the creditor, when a mortgage is subrogated the creditor switching costs include bank commissions, property title costs and notaries' fees, which can be an impediment to reducing mortgage portability costs. In addition to outlay for management and notarial schedules, there is also a notable need to make state registry fees uniform since municipal and state regulations take precedence when registering a property and bureaucratic protocols vary from 4 to 10 throughout Mexico's 31 states and Federal District.[75]

When it comes to *Onavis,* the study revealed that credit indexed to minimum salaries is more expensive for credit-holders with incomes above 5 VSM. To the degree that the nominal salary keeps pace with inflation, the applied interest rate would approximate a real rate. Therefore, with inflation at 4% annually, the nominal rate for the Infonavit credit-holder would be approximately 8% annually for workers who earn less and would rise to up to 14% for those that earn more.

75 See Subnational Doing Business (2006) and Doing Business (2014).

Additionally, while *Onavis* collect employee mortgage payments through a social security based process that reduces credit risks, the main risk involved in making credit payments to Infonavit is that employees no longer meet payments at the institute. Despite that, the 5% opening commission collected directly from the SCV plus the minimum-salary-indexed interest rate imply onerous credit costs. Besides, starting in 2008, a part of the credit-holder portfolio for those earning more than five SMGVDF within the Infonavit Total program is handed over to the banking industry. In 2013 part of the portfolio ceded to the banking industry represented 12.5% of the total banking sector mortgage portfolio, with no consideration of the Cofinavit program.

Optimal Conditions

To reduce coordinated anticompetitive effects risk, in accordance with the situation that now prevails in the mortgage credit segment, it is necessary to reduce information-related asymmetries and search costs for consumers. Particularly through the use of electronic tools and other homologous indicators of mortgage credit costs and benefits, the information gap and search costs could be reduced. It also key to reduce costs in all mortgage-related bureaucratic protocols as well as in notarial services, public registries and local protocols to foster greater mortgage portability and in turn enhance competition within this credit segment.

To eliminate and reduce restrictions to the efficient functioning of the housing credit segment, it is of great importance to leverage the credit origination, administration and collection advantages that *Onavis* feature as a means of making credit distribution more efficient and create incentives to competition. Therefore *Onavis'* higher-income credit-holders portfolio should be auctioned off to private financial intermediaries that offer improved terms to credit-holders. In turn, banks would contribute resources to financing those credit-holders' housing, freeing up resources so that Infonavit can finance lower-income workers' housing.

Also, it is advisable that Infonavit specializes in administering SCV resources, as Infonavit Law establishes, so that individual members decide if the resources in their SCVs are to be used as down payments or collateral for credit arranged with private intermediaries, or if they will leave their savings in the SCV. Another efficiency objective at the *Onavis* is the application of prudential and supervisory regulation of its operations as a means of fostering those institutes' enhanced transparency and financial conditions, avoiding that credit distribution be disconnected from worker risk.

Conclusions

The study allowed for the following recommendations to be established. 1) To take advantage of the *Onavis'* structural advantages, it is recommended that Infonavit and Fovissste specialize in credit collection and management, which will allow for private financial intermediaries, via open portfolio auction, or by means of workers' own wishes, that the SCV be used as a down-payment or collateral on all mortgage products (Article

123); 2) establish that *Onavis* act according to generally accepted principles in all matters referring to their credit activities; 3) establish transparency mechanisms with regard to all private and public intermediaries' mortgage credit costs (particularly opening fees) so that these are comparable; and 4), apart from that established in Financial Reform with regard to mortgage subrogation, promote uniform civil legislation reform at the state level in order to carry out mortgage-related bureaucratic protocols and their modifications as well as all protocols at public property registries for a low, uniform cost and in a homogenous fashion.

4.4 Commercial Business Credit

Description of the Service

The section on commercial credit includes credit to businesses, states, municipal jurisdictions and non-banking financial intermediaries[76]. Businesses obtain financing from a number of sources. Some such sources are outside the financial sector, such as contributions from friends and family, provider credits or by means of private investors. Businesses also finance themselves with internal resources: resources that owners provide or through reinvestment of profits and revenues. This study concentrates on credit granted by financial intermediaries including full-service banks, development banks, non-regulated-entities, private general financial services associations (known by their Spanish-language contraction *sofomes*), popular financial associations (*sofipos*) and cooperative savings-and-loan associations (*socaps*).

According to the most recent available information, 4.7 million economic units or businesses operated in Mexico in 2008.[77] Nevertheless, not every business requires credit,[78] and not all of them do so in the same way. Businesses excluded from financial system resources, i.e., those that require credit and do not obtain it, face financial situations that prevent them from accessing traditional financing. This situation can be associated with their varying degrees of financial knowledge or business size. For example, large businesses, in contrast to micro, small and medium businesses (acronym in Spanish: Mipymes) enjoy greater opportunities to finance themselves through alternatives to bank credit, as is the case with stock offerings. It has been additionally observed that many smaller sized businesses are unaware of the public supports that seek to expand credit among smaller sized businesses.

Some studies point to low business productivity and information opacity that translates into greater risks for financial intermediaries and, in turn, reduced access to financing.[79] Credit evaluation processes require information that many businesses lack, especially

76 The present summary focuses on bank credit to businesses that full-service banks grant. Credit services to states and municipal jurisdictions and non-banking financial intermediaries can be reviewed in the main document, sections 4.4.2 and 4.4.3, respectively.

77 2009 economic census.

78 Castellanos, Morales and Torán (2012); Campero and Kaiser (2013).

79 Cotler (2008).

smaller sized businesses: financial performance and business credit histories. Incomplete information on applications can raise transaction costs for financial intermediaries since it makes measuring credit risks and project viability more difficult.

Credit granting to businesses is largely taken on by full-service banks (82% at the end of 2013)[80]. The banks that make up the greatest share are Bancomer, Santander, Banamex, Banorte, Inbursa and HSBC, who together account for 80% of the total business credit that full service banks grant.[81] Development banks Nacional Financiera (Nafin) and Banco de Comercio Exterior (Bancomext) also offer business financing, largely through private financial intermediaries in the form of second-tier credit and guaranty arrangements.

The Current Situation and Problematic

Two factors have been detected that inhibit competition and businesses credit services efficiency: i) asymmetric information problems in relation to the trustworthiness of accounting and financial records or a lack of business credit histories and ii) a credit supply that still has not in general taken up tools to grant credit to businesses with those characteristics. These factors contribute to a lack of financing, or rather, that credit granting is limited by collateral or guaranty requisites, something particularly common with smaller-sized or incipient businesses.

Information asymmetries increase transaction costs and are associated with an increased chance of delinquencies. This can disincentivize financial intermediary participation, especially when it comes to granting credit to *mipymes*. Guaranty arrangements are a mechanism that reduces asymmetric information problems because they offer certainty with regard to the credit-holders commitment to repay the loan.

Some smaller-sized financial intermediaries have innovated the credit approval processes using casuistic models, in contrast to the models that larger banks use—parametric evaluation models—given that they have larger client databases. Another aspect the report foregrounds is that solvent *mipymes* can experience limits to financing and/or investment capital because of their lack of credit history.

Findings

The total full-service banking business credit portfolio reached a closing balance of 1.33 trillion pesos at the end of December 2013. It is estimated that 82% of business credit is granted by full-service banks. Nevertheless, 80% of the business credit portfolio is accounted for by six banks (Bancomer, Santander, Banamex, Banorte, Inbursa and HSBC).

80 Banco de México, Financiamiento e información financiera de intermediarios financieros. Online: [http://www.banxico.org.mx/estadisticas/index.html#SF].

81 CNBV, Boletin Estadístico de diciembre 2013. On line: [http://www.cnbv.gob.mx/Paginas/default.aspx].

Additionally, it is observed that 74% of business credits that full-service banks grant were not secured by means of a real guaranty[82] (at the close of December 2013), which is equivalent to 84% of the total value of the of the business credit portfolio. In particular, according to the National Business Competition, Financing Resources and Financial Services Use Survey (*Encuesta Nacional de Competitividad, Fuentes de Financiamiento y Uso de Servicios Financieros de las Empresas 2010*; acronym in Spanish: Enafin)[83], *mipymes* are less often financed than large businesses using real guaranties. It is for that reason that development banks offer loan-guarantee programs for *mipymes*; Nafin and Bancomext are the development bank institutions that largely grant credit and guaranties to businesses through private financial intermediaries.

Information asymmetries also influence lower rates of credit granting. According to the 2012 National Microbusiness Survey (*Encuesta Nacional de Micronegocios*)[84], 64% of smaller sized businesses lack accounting records, while 18% record accounting matters in a notebook, 15% rely on a professional or accountant to maintain their books 2.2% use a cash register from the Ministry of Finance and Public Credit.

Add to this problematic the low visibility that some credit soliciting businesses have with Credit Reporting Agencies (CRAs) because they lack credit histories. The *Enafin* also reveals that *mipymes* more often finance themselves by using their owners' personal credit cards than large businesses do, whereas micro and small businesses use credit lines and simple credits less than medium and large businesses.

Finally, according to the *Enafin,* 60% of businesses reported awareness of the Ministry of the Economy's *Pyme* Fund and 30% knew of Nanfin's Production Chain Program, limiting their chances of soliciting credit by means of public support.

Optimal Conditions

It is desirable to expand credit distribution to *mipymes* with solvent production programs and without real guarantees. As such, measures that increase their visibility with CRAs, and among financial intermediaries that maintain credit evaluation methods and processes fit for serving them can be complemented by a platform that centralizes information on financial intermediaries' options that offer these services with the goal of reducing search costs, given that the offer is segmented.

82 Real guaranties can be portable goods, structures, securities or cash.
83 CNBV/BID (2010).
84 CNBV/CEPAL (2011).

Conclusions and Recommendations

The main recommendation with regard to business credit in the study makes reference to expanding business credit. To such an end, the development and, where appropriate, regulation of electronic capital investment platforms is recommended, alongside financing for productive products where capital needs as well as micro- and small business financing needs published and where investment and co-investment offers are received from financial institutions interested in the projects.

5. Savings

5.1 Introduction

Through savings, individuals accumulate resources to respond to a variety of non-mutually exclusive goals. People save largely as a way of accessing resources to facilitate transactions and consumer needs and/or as a mechanism for creating wealth, as part of a goal of accumulating funds for retirement, to make planned purchases over time (housing, education, or vacations, among others) or to create investment capital.

In transactional operations, users mainly seek to enjoy widespread access to resources at accessible prices, through branch networks, electronic media, ATMs, POS terminals or third-party-retail bank branches, among others. Therefore, the customer's paid return on resources passes to a secondary plain. In the case of accumulation instruments for wealth generation, the variables that savers tend to consider are return on the deposited funds and the security of the deposited sum (i.e., incurred risk). Additionally, there are financial instruments that manage retirements savings and that are, in some cases, obligatory.

Financial intermediaries that operate using the saving public's resources are the main focus of prudential legislation and oversight in the part of authorities, given the potential for catastrophic damage that a bankruptcy can cause to individuals and the economy at large. For this reason, financial authorities prioritize preserving system stability and trust as well as safeguarding the resources of the public at large (e.g., with deposit insurance).

The savings chapter is made up of three discussions: deposit services and products in regulated entities (Section 5.2), retirement savings (Section 5.3) and investment funds (Section 5.4).

5.2 Deposits in CNBV-Regulated Entities

Description of the Services

The deposits of the public's resources are undertaken by a variety of institutions and instruments legally authorized for such and regulated by Mexico's National Banking and Securities Commission (*Comisión Nacional Bancaria y de Valores*; acronym in Spanish CNBV). Its participants are traditional, full-service banks, development banks, popular savings and loan entities—that include cooperative savings-and-loan associations (*socaps*), community financial associations (*sofincos*), popular financial associations (*sofipos*) and credit unions. Savings and deposits accounts services are basically classified into transactional accounts, "visible" deposit accounts and savings accounts. Although participants offer similar products, they operate under different regulations. There are few secondary laws and regulations that are applied across the board to all of these intermediaries.

In 2013, the deposits of the public reached 35.6 trillion pesos. Banks are the principal providers of savings and deposits accounts and the relative importance of their infrastructure is great; for example, they enjoy more ATMs and branches. Full-service banks undertook 95.2% of savings, popular savings and loan entities 3.3% and development banks 1.5%.

The characteristics of deposit services demand in Mexico are largely revealed in findings from the *Encuesta Nacional de Inclusión Financiera* (National Financial Inclusion Survey; acronym in Spanish: ENIF).[85] The 2012 ENIF finds that on the national level, 36% of adults maintain at least one formal savings product, thus 44% report saving informally. Of these last individuals, 76% declared they did not have sufficient income or that their income was varied. Additionally, it is observed that the most popular formal savings and deposits accounts products are payroll accounts (61% of users maintain one), followed by savings accounts (47% of users maintain one).

Besides, the ENIF indicates that 16% of individuals declare that they were uninterested or did not need this financial product, which may be considered a position of "voluntary" exclusion. Other reasons are mentioned less frequently: not meeting the necessary requisites (5%), distrust of institutions (4%), high fees (3%), distance from branches (2%), or because they obtain low returns on their savings (1%). ENIF findings also confirmed that socio-demographic factors such as education, occupation, one's position in the household, being head of household (or not), status as rural dweller and gender influence demand for formal savings products and services.

The Current Situation and Problematic

A negative relationship is observed between offered return rates and institution size. This negative relationship could have to do with riskier business practices at smaller banks, where higher rates seek to "attract and compensate" customer confidence.[86] Another possible explanation is that users privilege entities that have a wide-ranging services infrastructure consisting of branches, ATMs, POS terminals, non-bank correspondents (*corresponsales*) and electronic media over those that offer better return rates. Although this infrastructure presents economies of scale, creating such turns out to be costly for financial entities—e.g., popular savings and loan entities—that do not have it.

Additionally, depositors exhibit low mobility between institutions. Changing savings services providers is not common since the processes that go along with the change are complex when it comes to opening a new account and migrating services related to the account one seeks to change.

The impact of total annual return[87] diffusion has been limited. On one hand, savers seems

85 CNBV (2012).
86 Craig and Dinger (2009).
87 Total annual return is an indicator that allows clients to compare financial performance obtained via investment and savings operations equivalent to less that 400,000 investment units (Udis) in the local currency.

largely insensible to interest rates. On the other, the only place where banking institution total annual return information is gathered is on the Condusef website and this content still lacks definitions of a number of concepts that could enhance the simulator's use. Also, once the requested parameters have been entered, the simulator's outputs do not show all savings and investment options since it focus on only some traditional, full-service banks.

Given that depositors may evince little sensibility and/or have access to limited comparative tools with regard to the returns that different providers offer, competitors who enter the market have a hard a time attracting clients via attractive rates of return.

Findings

Banamex and BBVA Bancomer tend to be the banks that pay the lowest rates to their depositors at the same time that smaller banks tend to offer better rates. For example, Banco Interacciones offered an immediate implicit annual rate[88] of 3.64% in December 2013, while BBVA Bancomer and Banamex offered rates of 0.51% and 0.38%, respectively.

The percentage of users who know the return rate of their financial product tends to be low. Among users with savings accounts, 39% know their interest rates; among those with transactional accounts, 25% of checking accountholders know their return rate, as do 6% of those holding payroll accounts.[89]

Clients' inelasticity to interest rates is the result of a number of factors. First, the savings market is widely linked to client "comfort"[90] with regard to branch proximity. Second, consumers face switching costs when migrating their products from one provider to the other, given the economies of scope that can be observed in the banking system. In other words, customers tend to have more than one product at the same institution. Finally, low customer mobility between institutions is also explained by product differentiation that customers perceive, attributable to distribution channel localization, payment method availability and branch hours of service. As such, clients establish long-term relationships with providers that tend not to be affected by new-competitor market entry.

Optimal Conditions

Financial reform makes it possible for *socaps* and *sofipos* to operate through correspondents (*corresponsales*) and that *sofipos* operate electronic media payment. Nevertheless, given the advantages that banks enjoy for having already undertaken operations at such non-proprietary centers, it is critical to reaffirm operative schemes that non-banking financial intermediaries will use. This would help favor financial services coverage in areas that do not enjoy banking infrastructure (branch offices and ATMs).

88 In Spanish, *tasa de exigibilidad.*
89 ENIF 2012.
90 Kaiser (2002).

Regulations that Mexico's central bank has issued govern annual total return publication, helping facilitate savings and deposits product returns. Nevertheless, there is still a need to address the entirety of the savings and deposits accounts services supply. Given that horizontal comparability between all market options is limited, there is still room to expand information transparency at all financial intermediaries.

It should be noted that Cetesdirecto—being a direct, to-the-public government securities distribution channel that allows for any private individual in Mexico to save and invest in a simple, secure and commission-free fashion—is a trustworthy and comparable reference on savings returns that banks offer. Expanding its penetration through new distribution channels could empower its gains by favoring competition and expanding coverage in areas with little or no banking infrastructure.

Conclusions and/or Recommendations

Three main recommendations are derived from an analysis of deposits in regulated entities. The first is to guarantee electronic media interoperability between different financial intermediaries and/or telecommunications carriers, and the use of related infrastructure, under neutral, open conditions.

Secondly, it is recommended that Condusef services be expanded to include all financial institutions on a single platform, such that users can make comparisons of financial services frees and requirements in a manner that allows for a clear and simple comparison of the costs and benefits of different market options, leading to a reduction in search costs that users face.

Finally Cetesdirecto program distribution channel expansion would facilitate a comparison of savings and investment products related to this trustworthy benchmark, which would strengthen both competition as well as development bank intervention outcomes.

5.3 Retirement Fund Administrators

Description of the Service

The current pension system, known as SAR, in which each worker is the owner of an individual account managed by private enterprises known as *afores*, began in 1997 with the incorporation of IMSS-affiliated employees. Later, in 2007, ISSSTE-affiliated workers were incorporated. With the SAR system, users have the right to freely choose the *afore* that will manage their accounts and to freely migrate these to another administrator, subject to some time-related restrictions. In the event that employees do not explicitly choose an *afore*, the system assigns one based on returns or places the account with Banxico.

Afores offer a financial service that consists of the management of individual retirement savings accounts as well as the resources deposited in them, which are invested in financial instruments that are subject to SAR regulation, via investment companies known as *siefores* that belong to each *afore.*

One of the most notable characteristics of pension systems worldwide is their users' low sensibility to returns and fees, which are relevant variables for the acquisition of the best possible pensions. In general, it is not easy for employees to adequately process these variables, for a variety of reasons: i) Information on investment portfolios, returns, risks, ratings, and other financial terms, is extensive, hard to analyze and requires an elevated technical capacity; ii) because it is a "forced savings," and unavailable in the short- and medium-terms, a strong negative effect is generated in relation to user sensibility to the importance of safeguarding resources that can only be used on the long-term horizon; iii) high rates of informal employment and low average savings help reinforce account-return insensibility as well as insensibility to the fees that *afores* charge; and iv) in general, there is a low level of financial literacy in Mexico.

Low demand sensibility to these key variables gives rise to signals that reach suppliers and that distort competition, which has been based on general brand advertising and not on a services offering that benefits pension levels. This situation is reflected in an uptick in the number of promoters, a significant average commercial spending level and an elevated migration percentage to *afores* that offer lesser returns.

The SAR is a complex system made up of activities that evince different technical and economic characteristics, some of which have been better developed by one or a handful of suppliers. At the same time there are others more suited to strong competition among a number of competitors: i) Account management includes a number of registry and information tasks that can create important economies of scale if they are carried out in a consolidated fashion. These sorts of economies were recognized from the SAR's inception, for which reason a number of registry activities were concentrated at Procesar[91] as a means of reducing system operating costs. ii) Funds distribution refers to the sales promotion of *siefore* products, which does not imply large economies of scale but is costly, since its takes up almost 49% of all afore expenses. iii) Investment activities enjoy important economies of scale, but that are achieved with relatively low activity levels, such that they can invite participation on the part of a large number of funds, large and small, that can enter into competition.

The Current Situation and Problematic

The system's structure supports implicitly inefficient competition that does not lead to fee reduction nor to the best decisions on behalf of savers; and on the contrary, leads to greatly increase costs without clear benefits to users, owing both to the absence of competition via higher yields and enhanced service quality that would attract workers as well as an interaction between suppliers and consumers that does not respond to the pension's important variables and which leads to price formations (fees and returns) that

91 An enterprise charged with administering SAR's nationwide database.

are distorted and far from efficient or competitive.

These conditions demonstrate the importance of re-channeling the system so that the competitive arena is centered on yields and fees. They also speak of the need to better exploit economies of scale inherent to system functioning that can be achieved in operative activities and that have yet to be extensively exploited.

Findings

The following conditions make plain the problematic of the service provided by *afores*:

i) The majority of employees who migrated accounts did so to *afores* that offer lesser net returns.[92]

ii) Low user sensibility to yields and fees induce *afores* to compete for customers in areas that differ from these fundamental values: 49% of 2013 spending went to promotion (inscription and migration) and only 4% in investment activities. Thus, *afores* spend twelve times more of attracting customers through promotions than through improving their returns.

iii) A lack of competition in key variables is also evidenced by a growing number of promoters[93] and elevated commercial costs, which in 2013 represented an average of 40% of total *afore* spending and which registered real annual growth of 11%.[94]

iv) Lack of competition in terms of commissions explains high fee levels in comparison to international benchmarks. According to OECD data, in 2011, Mexican fees were the second highest on average (1.50%) and substantially higher than those in Austria (0.50%), the Czech Republic (0.60%), Israel (0.35%), Poland (0.46%) and Korea (0.70%). SAR commissions continue to be quite elevated in 2014 in comparison to the above international references, with a projected average commission of 1.14%; with the very highest hovering between 1.34 and 1.24%.

v) The SAR still has important economies of scale that are not being leveraged. For example, operations and customer service costs went up by 1.7 billion pesos in 2013, representing 11.7% of *afore* expenditures, before a consideration of the duplicitous nature of several general administrative outlays that are not accounted for by any specific activity.

Optimal Conditions

In the international arena, it has been recognized the problematic of introducing efficient competition into a service characterized by low user sensibility to relevant variables that work to their benefit and the existence of adverse incentives caused by promotion and account management fragmentation that leads to economies of scale going to waste.

92 Recent analyses demonstrate that 50.9% of migrations went to an afore with a lower net yield, as was remarked in SAR legislation proposed reforms approved by Mexico's Chamber of Deputies and now under consideration in the Mexican senate. March 2014 (Consar, SHCP).

93 In 2013, the number of promoters surpassed the historical maximum documented in 2006 (Consar, SHCP).

94 Ibídem.

In the Swedish system, internationally recognized as the most advanced with regard to resolving the abovementioned problems, there is a significant number of major investment companies among which users make their selection and that compete for their consumer preference. To avoid the problem of adverse selection, users do not have direct contact with investment companies but rather, with a sole account manager charged with transmitting the user's wishes to the investment company without revealing the customer's identity. The account administrator undertakes all client administrative and service tasks to leverage all the economies of scale associated with these activities.

So that users have a point of comparison with regard to funds management fees, there is a default (by age group) investment company that manages the resources of those who do not choose another, open to any user. This investment company manages expert-designed, long-term portfolios whose administration is subject to public bidding as a means of diminishing costs.

It will be advisable to look at the Swedish system as a best practice in order to introduce elements that would steer the Mexican system in a similar direction, while recognizing that given its present structural characteristics, it is not currently possible to replicate every element in the Swedish system. To such an end, it will be necessary to put together a medium-term program that makes a detailed analysis of the steps that will be necessary for migration toward a model of that type.

Conclusions and/or Recommendations

The SAR requires large-scale structural changes that will allow it to function more efficiently, for which reason it will be important to evaluate the implications of such medium- and long-term changes in greater detail. Without losing sight of the above, below are presented actions that can be rolled out in the short term to better align system incentives that lead to better pensions for retiring workers.

- **Foment increased return competition.** i) Eliminate legal limits that restrict investment alternatives by incorporating new kinds of financial assets for greater diversification without neglecting responsible investment management oversight and ii) establish benchmark portfolio that support the creation of added value in investment management.
- **Align *afore* incentives to provide better pensions, by means of:** i) Limiting promotions spending via a maximum, absolute and relative ceiling amount; ii) establish the commission on current balance be separated into two components: account administration and funds administration, given that disclosure of this information to authorities and to users will allow for an identification of the *afores* whose operations are more efficient as well as those that have lower by-generated-yield investment management costs; and iii) continue using the Net Return Indicator as a differentiator in selecting the *afores* that are to manage funds on behalf of employees that have not made a specific choice. To the degree that gaps between return are reduced, combine

this indicator with public bidding processes to incentivize reduced commission assessment.

- **Promote greater operative efficiency to leverage economies of scale that the operating business (Procesar) provides,** focused on individualized electronic records for saving on transaction costs and exploring the suitability of centralizing more account management at that company, to avoid spending duplicity and to make better use of economies of scale that the system is able to generate.
- **Undertake a permanent financial literacy campaign** and design instruments that help promote and facilitate workers' efficient decision (by means of effective calculators) making when selecting an *afore*.

5.4 Investment Funds

Description of the Service

An investment fund (IF) attracts and combines resources from many investors to dedicate those resources to a series of projected high-yield, stock-market related instruments to which individuals would not otherwise have access. Thus, customer-investors adhere to a fund with some given characteristics (a prospectus risk profile and established return history) via the purchase of investment fund shares. The investment fund operator charges for the service of creating sufficient resource volume in order to have access to potentially attractive risk-adjusted returns and for managing a pre-established investment mandate.

In terms of the instruments that make them up, investment funds can be of various types:

i) Variable yield. These funds work with stocks, bonds and other securities, third- (or multi-) party debt titles or representative documents that the CNBV authorizes.

ii) Debt instruments. These funds work exclusively with securities, titles or documents representing third-party debt.

iii) Capital. These funds overwhelmingly operate with assets whose nature corresponds to stocks or partnerships, debts or bonds issued by companies that the IF promotes.

iv) Limited-intention instruments (*instrumentos de objeto limitado*). These funds operate solely with assets that they define in the statutes and prospectuses they produce for the investing public.

In terms of business activity, IFs undertake stock sales via operating companies, distributing companies that specialize in that service or banks and brokerages that act as distributors. The distributing entities may or may not belong to a financial group.

Noteworthy advantages clients receive from investing with IFs include: one, they are endowed with the fund manager's specialized knowledge when it comes to strategy and risk management; two, by means of a smaller investment amount, one accesses instruments that would not normally be within reach to individual investors; and, three, IFs allow a reduced-amount investment to be better diversified.

The IFs' main client base consists of private individuals of moderate means (whose investment objectives range from speculative saving to private pensions), small and medium business treasuries and public entities. Each one of these client types may evince a different fiscal status with operational implications when it comes to IF tax withholdings. Each fund tends to be segmented into different series (multi-series) in recognition of different tax statuses or distribution channels.

This savings scheme's penetration into the economy at large is reduced: only 2% of those who save using formal instruments direct resources to investment funds (ENIF 2012). In part this circumstance can be explained by economic participants' income conditions (73% of Mexico's population reported having insufficient or income too subject to variation for entering into the formal savings market).

As of January 2014, the total number of investment funds rose to 570 and they are managed by 37 operators (15 funds per operator). There are also eight registered funds distribution specialty companies (operated independently from financial groups).

The fund type offering has changed over time: in December 2006, 41.4% of all IFs specialized in debt title (for private individuals as well as companies), a figure that has varied to 15.3% as of February 2014, as a result of important growth in variable yield IFs, which passed from 28% of all IFs in 2006 to 37% in 2014. Aditionally, in December 2013, the number of contracts that IFs managed reached 2.1 million, of which 47% corresponds to multi-series debt contracts and just 9% to variable-yield funds. With regard to their evolution, the number of variable-yield fund contracts rose by an annual average rate of 66.9% from 2003 to 2013, while the average contract balance went from 3.8 million pesos in 2003 to 1.6 million in 2013 (figures in 2013 pesos). Debt fund contracts increased by an average annual rate of 18.4% and average balances went from 721,000 pesos in 2003 to 641,000 in 2013. In sum, the last decade has seen a rise in clients and a decline in average per-account amounts.

The Current Situation and Problematic

1. **Exclusive channels**. To the degree that financial groups can manage and distribute IFs unrestrictedly, there are incentives for agents within banks that enjoy wide-ranging distribution (i.e., branch) networks to use traditional channels to distribute only the IFs their groups operate and limit non-bank-legacy related agents' network access.
2. **Difficulty that independent managers can arise and limited independent distributor competition.** Independent sales channels' competition capacity is reduced to the degree that it can devise the full menu investment options for clients and that they cannot leverage economies of scale that financial groups enjoy.
3. **Price Differentiation.** One common practice involves a single fund being segregated into two or more series types with different commissions, which implies that the net yield on commissions is different for different buyers, despite the fact that transaction costs and risks are identical for the single fund in question.

4. **Joint strategies from financial groups.** Banks that distribute funds can manage their offer according to traditional channels (bank branch or IF). This situation could lead to offering funds with characteristics little different from traditional savings and deposits products in terms of duration and yield.
5. **Poor risk-return management.** Fixed income funds provide a reduced return in relation to the risk they incur, opportunity costs and the risk-free market rate of return (as an opportunity cost).[95]
6. **Too little fund diversity.** When analyzing IF-managed portfolio risk profiles, yields and duration, it can be observed in the study that most of the offering is concentrated in high-liquidity instruments, yet projected return is low. To the degree that agents with the largest market participation are incentivized to use their own networks, fund characteristics tend to be less sophisticated, as a means facilitating their sale via mass channels. This is accentuated to the degree that customers tend to reduce their search costs.
7. **Poor information to clients.** There is little development of adequate comparative tools for different operators' funds in addition to an offering that is not necessarily optimal for the client's risk-return-timing profile.

Findings

In terms of asset-share as managed by operators, the top three- (CR3), five- (CR5) and seven- (CR7) operator share is relatively high, at 59%, 71.8% and 82.1%, of the market, respectively, as of January 2014. Notably, concentration indicators have registered a steady rise since the 2008 international economic crisis.

Regarding fees and prices, these differ according to distribution channel: it is estimated that the fees IF agents collect on debt instruments are 1.3 times higher than in non-integrated distribution channels. Currently, the average fee for series that go to proprietary channels is 0.86% versus 1.1% for series sold through non-linked channels.

Regarding debt-instrument fund profitability, it is notable that funds distributed through proprietary channels tend to present less variability on returns, as well as nominal returns slightly superior to average percentage cost of commercial bank funding. Despite this, in recent times the gap between both yields (proprietary channel debt instruments and average percentage cost) has declined, favoring savings and deposits expansion on the part of traditional banks, largely in futures products. It should be emphasized that debt-instrument investment funds present greater risks to investors than time deposits in banks, for which reason an identical return on both instruments creates few incentives for the saving public to channel savings into IFs.

95 To arrive at this declaration, portfolio "alphas"—defined as the distance between obtained yield versus the theoretical yield and the risk-free rate—and the "betas"—i.e., the asset's sensitivity to market fluctuations (financial asset systemic risk)—are calculated. For more detail, see the study, p. 809.

With respect to variable-yield investment funds, patterns that are similar to debt-instrument funds are observed in fees, share prices and profitability. Fees for variable-yield funds distributed along non-linked channels are up to 2.5 times higher than funds sold through proprietary channels; stock prices are greater with integrated agents; profitability is similar.

Price-commission practices help explain that financial groups with ample distribution networks may practically offer only funds the group manages and they tend to replicate their position with regard to traditional savings and deposits. It is therefore worth mentioning that independent distributors make up only 3.4% of all investment company contracts (4.0% of assets), whereas financial groups account for 73.9% and brokerages for 20.6% (figures from October 2013).

Optimal Conditions

Financial reform implementation takes on relevance as a means of generating increased market competition and improved consumer conditions in terms of accessibility, financial product variety and risk management. The following elements from Mexico's Investment Fund Law (acronym in Spanish: LFI) are noteworthy:

- **The reasonability requirement on recommended services as well as requirements for disclosing information on non-recommended services.** Recommended services must in the end be reasonable, i.e., there must be congruence between the client profile and the financial product on offer.
- **Distribution: Non-discriminatory and platform for negotiation.** IFs cannot contract for shares distribution services exclusively with one company and neither can they reject IFs' shares purchase or sales offers. In regards to infrastructure, it is established that the CNBV will be able to authorize the creation of an electronic IF shares-negotiation market.
- **Independent investment counselors.** Regulate and supervise investment counselors as a means of fomenting that figure's participation in stock market investment, including that in IFs, while bringing about investment counseling that is better aligned with client-investor interests and free from conflicts-of-interest.

Conclusions and/or Recommendations

To the degree that IFs demonstrate increased competition between providers, they become a more attractive option to the saving public, which will contribute to greater competitive discipline for deposits in regulated entities as well. To that end, five recommendations are here posited in line with LFI objectives.

First, guarantee neutrality and non-discriminatory treatment between proprietary and third-party investment funds when promoting and billing the operation and distribution services; i.e., do not charge differently or redundantly for the same activity and prohibit a fund manager from collecting on distribution.

Secondly, financial reform establishes that a “reasonability” standard informs the sale of recommended services. However, implementing this concept is complex and difficult to supervise in practice. For this reason, monitoring this notion’s operability among agents as well as its effects on competition is recommended. Additionally, evaluating the effects of the reasonability criterion in relation to proprietary- and third-party-fund composition and placement—and making necessary adjustments, as needed—is recommended.

Three, it will be advisable to make attribute (e.g., risks and returns) catalogues more transparent for IFs that are recommended to investors and align these attributes with the client profile (recommendation’s reasonability), as well disclose the “small print” regarding commission assessment. In parallel, it will be useful to oblige distributors to realize a comparative and transparent offer among funds listed as “reasonable” for the client.

Four, promote the figure of the independent and CNBV-accredited investment counselor, enabled to administer client portfolios, negotiate with investment funds and accept earnings of advised clients. This implies establishing an investor counselor registry with the CNBV in which the counselor’s freedom from conflicts-of-interest is verified.

Five, the establishment of an electronic IF market (as contemplated in financial reform) will contribute to greater economic sector segment competition. To the degree that neutrality of access to this market is guaranteed and advances are made with regard to the above recommendations, IFs will become a more attractive option.

In general terms, it is recommended that an evaluation be made regarding if LFI secondary regulations and their instrumentation have managed to mitigate the abovementioned problems.

6. Stock Market Financing

Description of the Service

Taking on debt is one of the main financing sources that businesses access to acquire resources that permit them to carry out productive projects. The principal means of taking on debt can be realized through the banking system (that acts as an intermediary between depositors and producers) or via stock market financing that links the investor directly to the project to be financed. The choice between bank-based debt and stock market financing resides in each option's cost effect and the time required for the agent to acquire the needed resources.

Briefly, the stock market is made up of:

1. *Securities issuers (suppliers).* These are economic entities in need of financing (whether through and issue of capital or an issue of stock market debt) that meet the inscription and maintenance requirements authorities establish. In Mexico, the federal government is the main debt-issuer. This debt not only serves to finance public spending but also creates a benchmark for interest rates for the development of the nation's other financial markets. Other debt-issuers are public-sector businesses and organisms, Mexico's state governments and private corporations.
2. *Investors (purchasers).* These are economic agents that demand different financial instruments (securities) and who seek to achieve the highest possible return in relation to the risks they are willing to take on. Noteworthy investors can include institutional investors who administer collective savings (e.g., investment funds, retirement funds and insurance companies) and (domestic or foreign) individual investors who subscribe to intermediation contracts at registered Mexican brokerages. Participation on the part of retirement-fund administrators (*Afores*) is notable for its volume.
3. *Stock market intermediaries* are those authorized organizations (brokerages) who mediate securities purchase and sales operations as well as manage proprietary securities portfolios in addition to those of third parties. They also offer securities placement services—as do investment banks—and they undertake underwriting services (acquiring a percentage of the of issue amount at an agreed-upon price). These intermediaries can act as *market formers*, financial institutions that take on the risk of continually maintaining securities purchase and sales positions.
4. *Market infrastructure offering,* in which the Mexican Stock Exchange (*Bolsa Mexicana de Valores*; acronym in Spanish: BMV) is charged with the function of providing the necessary infrastructure for facilitating stock market operations by providing access to negotiation systems, securities lists, securities settlement and compensation operations (*operación de contraparte*) and caretaking services. This operation is a concession from Mexico's Ministry of Finance and Public Credit and access to its infrastructure is essential for expanding market information transparency and efficiency.
5. *Other notable support entities* include securities ratings agencies, authorized by the CNBV, that specialize in evaluating issuers' creditworthiness. These agencies help

mitigate investors' information costs by independently measuring and standardizing business- and government-related risk. Other businesses are charged determining and providing securities prices that are necessary for assessing portfolio worth.

6. *Regulators and authorities.* Potential market failures linked to agents' information and conduct (largely moral hazard, the principal-agent problem, asymmetric information, and sole business predominance) merit close supervision and regulation on the part of the securities exchange authority as a means of offering enhanced security to the investing public and promoting the efficient use of market infrastructure. The system's principal authorities and regulators are SHCP, CNBV, the Banco de México and the BMV, in its role as a self-regulator.

Placement of government or corporate securities share a single infrastructure and legal framework, but differ with regard to placement procedures (the Banco de México is the government's placement agent). The corporate debt placement process consists of four phases: 1) The business and its public offering's preparation, which involve a stock exchange intermediary (who analyzes financial needs, the issuer's corporate structure, the securities' design, promotes the paper valuation, realizes the placement prospectus with information that investors will require, solicits the security's registry with the CNBV and the BMV, deposits the securities with Indeval and selects the placement venue). 2) Meetings with potential investors. 3) The (primary market) securities auction process, in which bids are collected, as well as the process of carrying out electronic exchanges at the BMV (securities and monetary resources transfer at Indeval). 4) Post-placement follow-up with ongoing reports on facts relevant to the emission, whose oversight is undertaken by investors, the asset's secondary market valuation, supported by businesses that specialize in such valuations (e.g., Valuación Operativa y Referencias de Mercado, Valmer, and Proveedor Integral de Precios, PIP).

Financial authorities regulate dues and fees associated with operating the BMV (listing, securities maintenance and safeguarding, and other aspects). Besides, financial intermediary fees for securities placement depend on that security's complexity, volume, credit rating, and if the intermediary will undertake underwriting (exchange purchases in the primary auction). Also, fees that cover other professional and rating services are taken on.

The Current Situation and Problematic

The size of the stock market in Mexico—both for capital and corporate debt—is relatively reduced in comparison not only to highly developed economies, but also to similar Asian and Latin American economies. Factors that explain low market development include structural issues that go beyond agent conduct and impact both supply and demand for stock market issuances.

In regards to supply, the number of issuers in Mexico is limited due to: i) the nature of Mexican businesses, which tend to be small-scale operations with little relative demand for taking in debt; ii) small business low life-expectancy; and iii) an enterprise culture where family style management prevails featuring fewer corporate transparency controls. Additionally, the required costs in which a business must incur to go public and issue stock in the market (corporate structure and the placement procedure) implies that the business must enjoy an operational scale as well as a large enough placement to absorb placement costs and make this an attractive financing mechanism.

With regard to demand, securities demand volume is relatively reduced and institutional investors generally prefer to assign resources to large-sized, better-risk-assessed issuers. In particular, legal restrictions that some institutional investors face when trying to concentrate holdings (e.g., *afores* that seek up to 35% of an emission) restrict demand for paper valuations with relatively reduced share issuances.

When it comes to providing market infrastructure, the BMV Group accounts for all capital and market debt services not handled by financial intermediaries, which allows for agglomeration economies to arise when buyers and sellers grow concentrated at one point. When all financial Intermediaries—in this case, brokerages—operate under the same system, many norms and processes become standardized, which makes the stock market intermediation process more efficient and reduces transaction costs. As virtual monopolies, they are heavily regulated in key areas that could impact competition conditions, such as those surrounding dues and fees, access to market infrastructure and operations security. While international stock exchange service prices are hard to compare, some comparative exercises indicate that the fee levels the BMV assesses are within competitive global levels; thus, these are not considered an impediment to stock market activity in Mexico.

Findings

According to World Bank information, the Mexican stock exchange (stocks and corporate debt) is reduced in terms of operation volumes relative to the size of the economy as well as in terms of stock issuers. When it comes to stock exchange transactions, Mexico's GDP capitalization value ratio (an average of 36.7% from 2007-2012) is below that observed in nations such as Brazil (64%), Chile (116.5%) and Peru (58.3%). In relation to the private debt market, Mexico's economy enjoys the second-highest capitalization value in Latin America (at 15.3% of GDP, and only exceeded by Brazil at 20.4% of GDP) yet this is still reduced in comparison to highly developed nations. Notably, Mexico has few listed domestic businesses, at levels even far below nations characterized by very little operations volume, which indicates a potential for new, large-scale issuers in Mexico.

By the close of 2013, federal government issuances, alongside those public-sector entities and the states represented 92% of Mexico's total debt amount, whereas private sector debt represented a mere 8% of the total in circulation. By sectors, major debt issuance corresponds to financial services (30%), the industrial sector (20%) and consumers (17%). At the end of last year, 253 Mexican issuers listed debt instruments on the stock market while 134 businesses listed stock. According to data from the Mexican Business Information

Center (*Sistema de Información Empresarial Mexicano*; acronym in Spanish: SIEM) as of April 2013, 656,419 businesses were registered, of which 92.45% are microbusinesses, 5.60% are small businesses, 1.31% medium and 0.64% were large businesses in terms of employee numbers.

Regarding financial intermediaries, since 2010, the three largest stock placers (CR3) accounted for less than 50% of public offerings. The main financial groups centralize the greatest volume of placements, which can be understood as due to: i) a greater ability to dedicate specialized personnel and create economies of scale; ii) balance size allows for underwriting; iii) economies of scope that can be realized with other financial services (such as overnight lending, derivatives, private bank commissions, or mergers and acquisitions); and iv) access to private bank and legacy accounts or even an ability to access other institutional investors within the group.

In regard to fees, some comparative exercises with assorted international stock exchanges indicate the BMV fees are in a more economical range than those in London, Nasdaq, NYSE, Bovespa, Spain's markets and exchanges, among others). Mexico has a bond price advantage in comparison to Chile and Brazil, and in the case of stocks it comes in below Brazil as well.[96]

Optimum Conditions

Mexico enjoys an ample margin within which a greater number of businesses could participate in stock markets under conditions of economic competition and transparency. To date, measures have been implemented to strengthen the securities market both from the perspective of issuance offerings as well as demand. With regard to issuers, in 2011, the Ministry of the Economy and the BMV launched the "Debt Market for Small and Medium Businesses" (*Mercado de deuda para pequeñas y medianas empresas*) program in collaboration with private capital funds as a means of developing corporate governance in medium businesses through the purchase of professional services, equipment and systems that help strengthen such businesses and become candidates for debt issuance on the BMV.

With regard to strengthening demand, institutional investors have a relevant role to play in order to more deeply develop the secondary market: the *siefores* portfolio makeup has followed a gradual strategy of flexibility in the investment realm, allowing more diversified operations using ever more sophisticated instruments (CKDs and FIBRAs, among others). With this, *afores* have been consolidated in the last ten years as the second-largest securities market participant in Mexico and have influenced national securities market development. Its more active participation in the corporate debt market would tend to generate positive externalities (e.g., greater depth and liquidity). Nevertheless an

96 These resuts are subject to assumptions since the (fixed and variable) fee structure differs between stock exchanges. For more detailed information, see *Trabajo de investigación y recomendaciones sobre las condiciones de competencia en el sector financiero y sus mercados,* pp. 874-879.

evaluation of the concentration risks this could imply is advisable.

In regard to measures for developing market activity, the figure of the market maker stands out. Its legal formalization for the government debt and variable-return market has led to an increase in secondary market expansion, which favors asset price creation more closely pegged to risk characteristics and the market environment. This helps expand issuer visibility and expansion and disciplines placement intermediaries with regard to issuance valuation risks.

Conclusions and/or Recommendations

The regulation and oversight model instrumented by authorities and securities market participants is robust and mature, which has contributed to an attenuation of systemic operational (i.e., not inherent to the market) risks and stability enhancements. The platform and services that BMV controls are competitive at the international level and authorities clearly delimit their fees and margins.

Nevertheless, the securities market is reduced in terms of issuer participation and exchange volume. Among other factors, this has to do with structural issues as well as the overall nature of Mexican businesses, largely made up of micro, small and medium businesses. To bring about greater market profundity and favor competitive pricing it will be useful to evaluate if legal restrictions surrounding securities demand by institutional investments should be made more flexible, which would make market entry on the part of new corporate debt issuers easier (especially for those issuing smaller-scale offerings). In particular, assess making the *siefores* investment model more flexible to expand capacity for acquiring corporate debt securities from a single issuer without running the risk of an elevated concentration. The above would allow widening the investor base for corporate debt. It will also be advisable to promote the figure of the market maker in the case of corporate debt, and in particular evaluate the possibility and convenience that the instrument's placement bank be obliged to maintain purchase and sales bids for the securities it may have placed. This would expand liquidity and reduce market failures and asymmetric information between corporate bond sellers and buyers.

7. Insurance

Description of the Service

Insurance is a solidly based financial instrument that allows for the partial or total transfer of negative economic outcomes that are the result of accidents and disasters. Major branches of the insurance industry include: i) life insurance; ii) indemnity or liability; iii) accident and health insurance; iv) survivor benefits/pensions; v) farming insurance vi) underwriting insurance.

In Mexico, the volume of direct emitted premium as a percentage of 2013 GNP—a common measure of insurance market penetration—is low (1.8%). This is reflected in the fact that only 4.5% of households and just 26.5% of the existing auto fleet are covered by some form of insurance.[97] In contrast, among OCED member states, that figures hovers between 8% y 10% for the 2003-2010 period.[98]

Insurance demand in Mexico is concentrated among the population's highest-income deciles. In auto insurance, the average spend is relatively homogeneous among deciles, in contrast to spending on liability and health insurance, where the per-decile spend breakdown is more polarized toward higher income levels.[99]

Since 1990, important growth in the number of companies participating in the insurance sector was recorded, going from 43 in 1990 to 103 in 2013, predominantly backed by foreign capital. As of September 2013, 22 of 103 participating institutions controlled 88% of the industry, while another 81 institutions shared the remaining 12%. In accordance with 2013 CNSF information, the five major insurance companies account for more than 70% of the life insurance business and 35% of the non-life insurance business.

The insurance supply is supported along several distribution channels that can be divided into two categories: "traditional" channels—constituted by insurance intermediaries (agents and brokers)—and direct marketing channels, made up of insurance-bankers and telemarketing.

Mexico's insurance regulators are the SHCP and the CNSF. Unlike other branches of the financial sector, in insurance, the regulatory framework establishes a sole type of intermediary specialized in operations made up exclusively of insurers.

The regulatory framework is designed to guarantee protection of consumers as well as suppliers.

97 Zamarripa *et al.* (2014).
98 OECD (2013).
99 INEGI (2012).

i) **Insurance providers and lines of business.** To participate in insurance industry activities, any entity must receive authorization from the SHCP, the CNSF or the Banco de México, as stipulated in Article 41 of the Mexico's Law for Insurance and Guaranties and in secondary legislation (*Ley de Instituciones de Seguros y Fianzas*). The CNSF is charged with establishing minimum operating capital for each sort of operation as well as insurance variety the insurer selects.

ii) **Market entry, exit and commercialization costs.** The minimum operating capital is the market entry cost. In turn, the law stipulates no extraordinary exit cost.

The Current Situation and Problematic

With regard to insurance in Mexico, the following competition problems have been detected.

1. **Little supplier transparency for consumers in matters relating to prices and policy conditions.** On the demand side, it must be acknowledged that insurance purchase is not a habitual activity that allows consumers to develop a proper amount of experience in the matter and, for that reason, it is not easy to judge the insurance product's quality until an insured contingency arises. The fact that insurance activity presents particularly complex, hard-to-compare price structures—as well as search costs—must be considered as well. This creates an environment in which both insurance agents as well as points of sale become vital to consumers' final buying decisions. In light of this panorama, some mechanisms—e.g., policy comparison tools—are highly important to support supplier transparency with consumers in matters relating to policy prices and conditions. In Mexico there is a lack of information platforms to facilitate search, comparison and product selection tasks.
2. **Entrance barriers to product distribution.** On the supply side—and derived from problems that emerge from the demand side and a tendency to "custom design" insurance, the regulatory framework is designed to guarantee protection to both consumers as well as suppliers and, for that reason, problems such as moral hazard and adverse selection, among others, should be considered, justifying the need for a specific regulatory framework. That said, a regulatory element that might inhibit or negatively impact competition in Mexico's insurance arena is the tendency to design "custom made" (i.e., personalized) insurance that could give rise to an entrance barrier even though there are no laws that expressly limit the number or variety of insurance institutions. This has to do with the fact that regular assurance contracts (personalized insurance) must be offered by insurance agents whom the CNSF has authorized, giving rise to little flexibility and dynamism, and which may be a source of competitive rigidity. According to AMIS data, traditional distribution canals (insurance agents) were charged with producing 59% of all premiums placed in the totality of the Mexican insurance-related activity in 2011.
3. **Information Failures.** Insurance activity constitutes an industry where information on the insured and, concretely, information related to risks histories becomes of vital importance for reducing the risk of moral hazard and adverse selection. Faced with an absence of that kind of information, insurers must discover how to make it so the

insured disclose their risk profiles through actuarial contracts or legal instruments such as the notion of "antiquity" in the case of some insurances that allow writing custom-made policies.

Antiquity allows an insurer to mitigate asymmetric information problems, since to make valid clauses in policies a given number of months, or even years, must pass in order that the insurer can be sure—in the event a claim is made on the policy—that this is not the outcome of an adverse selection issue. Nevertheless, this generates some rigidity in policy prices that tend to go up, not down, despite a favorable risk history on the part of the insured. On the other hand, the desire not to lose antiquity or a positive risk history distorts incentives that a lower-priced policy could elicit in an individual to switch insurers.

Therefore, efficient portability mechanisms play an important role in boosting competition in the insurance arena. The absence of efficient portability mechanisms strengthens switching barriers in that it makes consumer migration between insurers more difficult.

4. **Credit-linked insurance overpricing.** Granting credit or selling insurance linked to credit at the point of sale can create scope economies, both in fixed costs as well as advertising costs. This means the point of sale takes on a determinant role in the business because the insurance commercialization task occurs entirely where the credit is granted. This last impedes shopping around since contractually the credit suppliers do not allow the consumer to choose the best insurance option and it makes transparency with regard to consumer costs and payable amounts more difficult.
5. **The Farming Insurance Problematic.** In the farming insurance branch, the following problems arise: i) high activity concentration among few private insurers and insurance offers dominated by assurance funds; ii) an important participation on the part of Agroasemex in the reinsurance market and the widespread transfer of fiscal resources to subsidize farming and ranching insurance; iii) limited CNSF supervision of Assurance Funds and iv) fragmented demand that is highly heterogeneous with numerous niches.

Findings

In terms of structural concentration, life, auto and health insurance are the branches that document the greatest indices of concentration. In 2013, the CR3 for each of these branches was 53%, 53% and 60%, respectively; while the CR5 came in at 71%, 68% and 76%, respectively.[100]

With regard to insurance activity profitability in Mexico, it is observed that this higher than in other countries, as indicated by return on assets (ROA) and return on equity (ROE). While in the United States insurers' ROA comes in at a range between 0.5 and 1%, in

100 CNSF (2014).

Mexico average insurance activity ROA between 2014 and 2013 was 2.5%. Likewise, US ROE ranged between 10-15%, while Mexico recorded an average of 14.8% in the period referenced. Additionally, a comparison of ROA in Mexico versus other OECD countries' insurance sectors demonstrates that Mexico comes in at above average, with an ROA at 2.9% percent versus OECD nations' overall average of 2.5%.

Additionally, information provided by the CNSF contains evidence that points to the existence of overpricing in the credit-linked insurance area (i.e., auto and mortgage insurance) when comparing insurance policies that are not linked to credit with those that are. Therefore express consent from the client for acquiring insurance does not guarantee a halt in tied insurance sales linked to credit with the consequent high prices. In the case of observed prices in Mexico for insurance linked to auto and mortgage credit, information points to the existence of overpricing in comparison to prices for policies that are not linked to a credit. This kind of overpricing occurs in a branch of insurance activity that in 1Q 2013 issued premiums in the value of more than seventeen billion peso, equivalent to little more than 10% of total participation in insurance industry issued premiums. In terms of concentration, the insurance branch linked to auto credit presents a CR5 of 63% and a CR3 of 51% as of June 2013, whereas for the insurance branch linked to mortgage credit, the CR3 and CR5 indices come in at 33% 40%, respectively, during the same period.

Finally, given the nature of the risks in the farming and ranching sector, plus the sector's economic and social importance, Federal Government support is reflected in the following three figures: i) direct premium subsidies; ii) reinsurance and iii) subsidies for mutual funds and societies for training and education. Direct subsidies granted by the state and federal governments vary according to the geographical area and crop type. In the case of catastrophic damage, the premium is subsidized by the government at 100%.

In Mexico, there are only six commercial insurers that offer farming and ranching insurance (General de Seguros, Mapfre Tepeyac, Grupo Nacional Provincial, Protección Agropecuaria, Torreón Sociedad Mutualista de Seguros Agrícola y de Animales y Agroasemex, as an assurance institution). Additionally there are more than 270 mutualist societies and funds that offer assurance services to the sector.

Additionally, the CR5 and CR3 indices reflect a high concentration in the farming and ranching insurance branch due to participation by Agroasemex, which in 2013 approached 80% of all operations in the area; followed by Mapfre, Tepeyac, and General de Seguros.

Optimal Conditions

Below are described optimal elements to address the discussed problematic.

Comparative Tools. In the case of Mexico, it will be essential to design information platforms for insurance consumers such as *Comparis.ch* (Switzerland) or *Confused.com* (Great Britain). Some mechanisms, e.g., policy comparison tools, are important to fomenting transparency and facilitating consumers' search and evaluation of alternatives. The benefits of using search and comparison tools in 2011 translated into prices that were 7.8% lower for European markets according to market studies the Executive Agency for Health and Consumers has undertaken.

Risk bureaus. In countries like the United States, Australia and the United Kingdom, there are risk bureaus (run by agents who are separated from insurers and/or insurance institution associations) that offer an added value service to consumers in the form of policy estimates for a number of insurance types depending on one's risk history, that avoid excessive pricing on the part of insurance companies. Risk bureaus are a relatively new global practice and work according to the same basic assumptions that guide credit bureaus. Insurers contribute with information on the insured in exchange for the opportunity to access potential client information. In some cases, like that of Great Britain, the Claims and Underwriting Exchange risk bureau is run by a third party like Experian, and both the insured and insurers have access to value-added service.

Adhesion Contracts. Adhesion contracts are previously established policies subject to a high degree of standardization that in many cases do not require detailed actuarial review. As such, their issuance and renovation do not require insurance agent participation. Promotion of these instruments, focused on creating a wide variety basic coverage, can contribute to greater insurance penetration in Mexico (one recent example is obligatory civil responsibility insurance for motorists who use highways).

Credit-linked insurance overpricing. Competitive schemes have been identified that could be adapted to the Mexican case that are designed to protect consumers from excessive pricing associated with these types of insurance. In Chile, for example, insurance companies make bids to the credit granting institution as a mechanism that inhibits "tied" sales and reduces overpricing in credit-linked insurance. This has generated a nearly 60% drop in prices for payment guarantee insurance linked to mortgage credits.

Framing and ranching insurance. Given that this type of insurance is technically complex and involves many economic agents, there is need for a deep analysis of its provision structure.

Conclusions and/or Recommendations

The following recommendations emerge from research on the insurance industry in Mexico.

First, establishing on-line insurance comparison platforms is recommended, to be used obligatorily in venues where these services are contracted. This measure facilitates consumers' search and price comparison tasks among insurers.

Second, the creation of a risk bureau, to be independently owned and operated from insurance companies, and to which these are obliged to provide information. It should serve as a mechanism for insurers to make more precise actuarial calculations on the policies they offer users, in consideration of those users' risk profiles.

Third, promote the development of standardized insurance policies focused on basic coverage (adhesion contracts) through an obligation that financial intermediaries offer them.

Four, revise regulation to establish mechanisms that oblige financial intermediaries to provide credit applicants (largely auto and home loans) the alternative of acquiring economical insurance that meets minimum requirements for third-party acceptance as a guarantee (baseline insurance). In medium to long-term credits, a possibility could be opened in which users switch insurance companies during the credit period (e.g., a year).

Five, in the farming and ranching insurance business, an integrated evaluation of farming and ranching insurance provision and demand conditions is recommended and it should consider the role of Agroasemex as a national insurance institution, a development agency and a reinsurer.

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