

Credit Reporting Knowledge Guide



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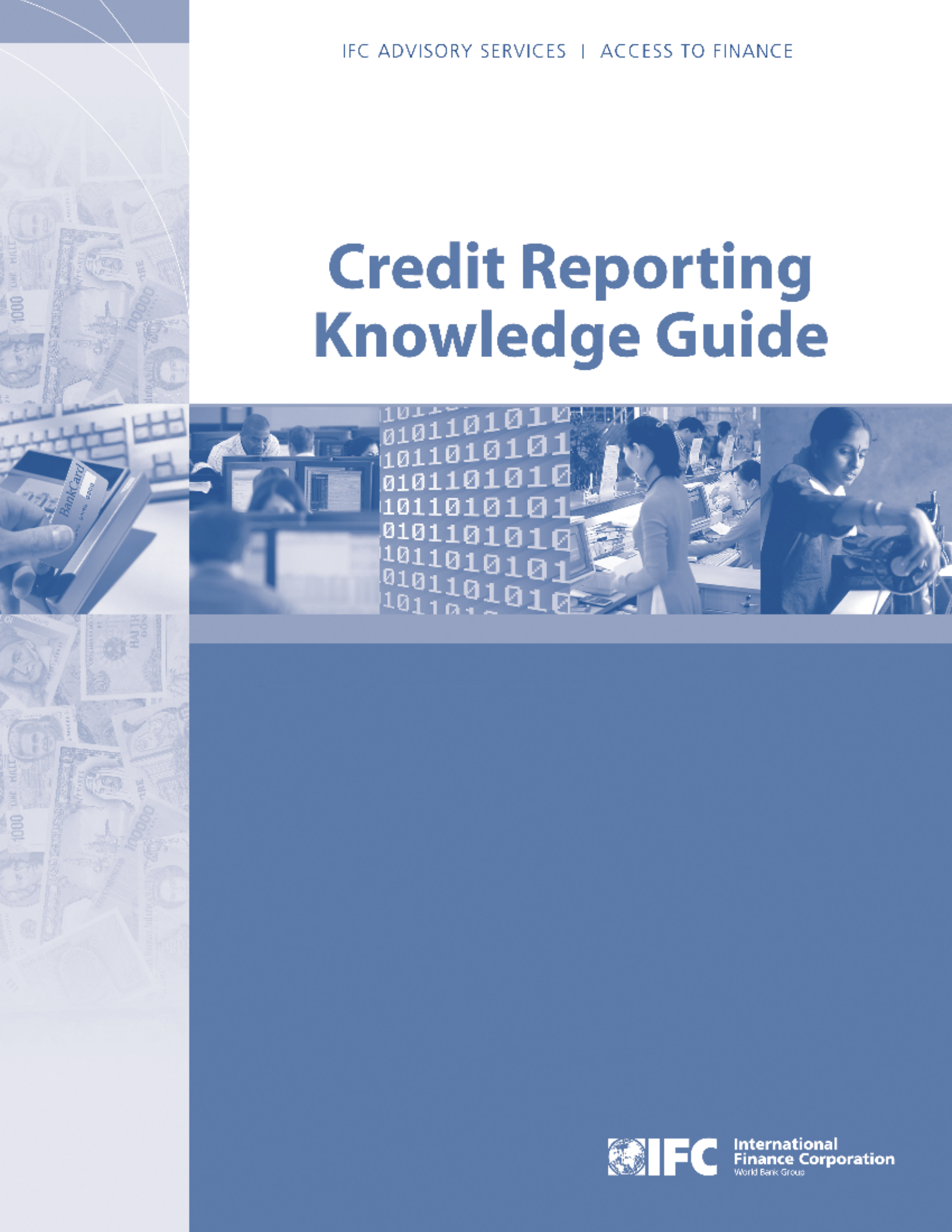
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Preface

In 2001, the International Finance Corporation (IFC) launched the Global Credit Bureau Program, later renamed the Global Credit Reporting Program, to better reflect the nature of its operations. The objective of this second edition of the *Credit Reporting Knowledge Guide* is to disseminate best practices in credit reporting development, and to contribute to credit information sharing in emerging markets. Since the program was launched, it has helped develop favorable credit reporting environments in more than 60 countries, principally through technical assistance. This assistance has included support to the regional credit bureau in Central America and the first credit bureaus established in the Arab Republic of Egypt, Cambodia, Morocco, and Tajikistan; work on the legal and regulatory framework in Kenya and Panama; and ongoing assistance toward the development of credit reporting systems in Mongolia, the Solomon Islands, Sierra Leone, Tanzania, Liberia, Azerbaijan, and other countries. Since 2002, IFC has also partnered with the World Bank to monitor credit reporting environments in more than 180 countries. Annual survey results are incorporated into the annual *Doing Business* report and disseminated to governments, bureaus, registries, creditors, and other interested stakeholders. Through this combination of analytical and operational work, IFC and the World Bank have become recognized as leaders in credit reporting development in emerging markets.

The *Credit Reporting Knowledge Guide* was prepared by members of the IFC Global Credit Reporting Program team under the direction of Tony Lythgoe.¹ The authors would like to thank colleagues in the World Bank Group for their continuous support of the Global Credit Reporting

Program's work and preparation of this Guide.² We are also grateful for the generous contributions of the credit bureaus and registries around the world that made possible the development and publication of this Guide.

We would also like to acknowledge the support of our donors, without whom the Global Credit Reporting Program's activities would not be possible. We thank the Canadian Government for its support of our activities in Latin America and the Caribbean; the Government of Switzerland for its support in Eastern Europe, Africa, and East Asia and the Pacific; the Government of the Netherlands for its support of our activities in International Development Association countries; the Austrian Government for support of our activities in Eastern Europe, Africa and Asia; the U.K. Government for its support of our programs in Africa, Asia, and the Middle East and North Africa; and the Japanese Government for its support in essential global research. Finally, we wish to acknowledge donors who have supported our efforts in the past, namely the Italian government for its support of our initial activities in Eastern Europe and Latin America and the Caribbean; the Norwegian government for overall program support and support of our initial activities in Africa; the Australian government for its support of our activities in Vietnam; the government of New Zealand for its support of our activities in Pakistan and Indonesia; the Government of Luxembourg for its support of our work in Africa and Asia, and in knowledge management and research; and Visa International for global program support.

We hope this guide will prove both informative and useful to all those working in the area of credit reporting development.

¹ Contributors from IFC's Global Credit Reporting Team include Oscar Madeddu, Colin Raymond, Shalini Sankaranarayanan, Peter Sheerin, Fabrizio Fraboni, Maria Pincetich, Alban Pruthi, and Jennifer Barsky. We also wish to acknowledge the feedback and inputs received from other IFC colleagues, including Peer Stein, Bassim Ahmed Sharafeldin, and Moyo Violet Ndonde.

² We are grateful for the input received from IFC's Secured Transactions and Collateral Registries team: Alejandro Alvarez de la Campa, and Elsa Rodriguez, as well as our World Bank Financial Infrastructure team colleagues, Massimo Cirasino, Fredes Montes and Cornelio Pimental (former World Bank). In addition we would like to acknowledge the excellent editing assistance of Dawn Mpati-Muchira, Mark Feige, and Mary Paden. On design, layout, and production, we would like to thank Amy Quach and Aichin Lim Jones. We also would like to acknowledge Jeffrey Lecksell and Bruno Bonansea for producing the global and regional maps.



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Acronyms

APC	Asociación Panameña de Crédito, Panama
BAM	Central Bank of Morocco
CRIB	Credit Information Bureau, Sri Lanka
CIBIL	Credit Information Bureau (India) Ltd.
CRB Africa	Credit Reference Bureau Africa Ltd.
CRSPs	credit reporting service providers
CII	Doing Business Credit Information Index
FBC	Finanzas Bajo Control
HDFC	Housing Development Finance Corporation Ltd.
IFC	International Finance Corporation
MSME	micro, small, and medium enterprise
MFI	microfinance institution
MFIN	Microfinance Institutions Network, India
NBC	National Bank of Cambodia
NGO	nongovernmental organization
RFR	Red Financiera Rural, Ecuador
SBS	Superintendencia de Bancos y Seguros, Ecuador
SME	small and medium enterprise
OECD	The Organisation for Economic Co-operation and Development
UEMOA	Union Economique et Monétaire Ouest Africaine
VAS	value-added services
XDS	Xpert Decision Systems

Introduction and Overview



Inadequate access to finance and credit represents one of the most critical constraints to economic development, particularly for rural and self-employed households and for micro, small and medium enterprises (MSMEs). Much of the population in emerging markets is employed in the informal sector: many are self-employed as farmers, household-based entrepreneurs with small retail shops, street vendors, artisanal manufacturers, or other service providers. As such, they have no salary slips or other traditional income statements for lenders to ascertain whether a borrower has a steady source of income. Moreover, poor households tend to lack collateral—or the right type of collateral, or the proper legal documentation—against which to secure credit.

Lenders often lack the necessary information to assess the creditworthiness of potential customers, including a lack of reliable and unique identification for individuals and businesses. In the absence of automated screening methods, the relative costs of personal screening and due diligence are very high, while the loan amounts tend to be modest. Potential customers are often widely dispersed in rural areas, where it is not cost effective for lenders to operate a branch network. With limited access to inclusive and timely data, lenders are also concerned that borrowers might accumulate many loans from multiple lenders—potentially resulting in their overindebtedness and leaving lenders with an unacceptably large portfolio of nonperforming loans. Moreover, weak creditor protection and bankruptcy practices, coupled with shaky property rights, often make collecting collateral an ineffective option.

In markets faced with these challenges, credit reporting service providers (CRSPs) can perform the crucial functions of gathering and distributing reliable credit information, improving creditor protection, and strengthening credit markets. In effect, the need for physical collateral can be at least supplemented with reputational collateral. Credit reporting service providers can reduce information asymmetry, thus reducing default rates, which in turn should result in lower average interest rates, enhanced competition in the credit market, and ultimately increased access to credit.

This second edition of the *Credit Reporting Knowledge Guide* aims to support the dissemination of knowledge on best practices in credit reporting development, based on IFC's experience. The original *Credit Bureau Knowledge Guide* (2006) elaborated on the knowledge gained over several years of running the Global Credit Reporting Program³ and provided a variety of stakeholders, primarily in emerging markets, with a comprehensive information resource to help them develop their own credit reporting systems. This second edition updates that information, and covers changes in credit reporting services over the past six years. Among the new developments discussed are the first universal set of standards for credit reporting, credit reporting for micro, small, and medium enterprises, and the role credit reporting is playing in the evolving global responsible lending landscape. Supplementing the theoretical discussions is a set of case studies highlighting various aspects of developing credit reporting systems.

³ Formerly known as the Global Credit Bureau Program. The program changed its name to the Global Credit Reporting Program in 2010.

The intended audience for this Guide is IFC's client counterparts in emerging markets, which includes, but is not limited to, government authorities, regulators and overseers, supervisors, financial and nonbank financial institutions, other creditors, credit reporting service providers, banking and microfinance institution (MFI) associations, and consumer organizations.

The remainder of Chapter 1 introduces key concepts in credit reporting: Why is access to credit important? What are the factors limiting access to credit? How can credit reporting systems improve access to credit? and, Who are the key actors in credit reporting systems? It examines the problem of asymmetric information—when borrowers know more about their ability and willingness to repay loans than do lenders. The chapter then presents a snapshot of the evolution of the industry as it stands today, augmented with evidence from empirical research studies that validate the importance of credit reporting in the overall agenda for access to finance. It also discusses the development of the *General Principles for Credit Reporting*, the first universal set of standards for credit reporting.

Chapter 2 introduces the different types of credit reporting service providers, which collect information on a borrower's credit history from creditors and available public sources. Unlike credit rating agencies, CRSPs focus on individuals and businesses. There are three basic types of CRSPs: credit bureaus, credit registries, and commercial credit reporting companies. Each type serves a different function, has its own strengths and weaknesses; no type is inherently better than another for any given market condition. Indeed, given adequate demand, the three types of service providers can and do coexist in a market. Banks, technical partners, government bodies, and private investors are all potential owners or investors in a CRSP; the various ownership options are also discussed in the chapter.

Chapter 3 examines the role that credit reporting can play in facilitating and expanding credit to MSMEs. MSMEs require access to financing to meet short- and

long-term capital needs and to grow and expand their businesses. Providing access to credit to this market is on the development agenda of most emerging markets. Microfinance, which serves an estimated 120 million to 190 million clients,⁴ focuses on lower-income clients, who are often self-employed, household-based entrepreneurs, with only informal—if any—business records, little collateral, and no effective access to formal credit markets. While microfinance previously enjoyed a sterling reputation for low delinquency rates, average microfinance portfolios have witnessed rising “at-risk ratios” in recent years highlighting the need for proper credit reporting to reduce the risks of overborrowing.

Chapter 4 outlines the legal and regulatory framework options for credit reporting systems. The legal framework for credit reporting differs from country to country, and may include a combination of credit reporting laws, banking laws, data protection laws, consumer protection laws, fair credit granting and consumer credit regulations, and personal and corporate privacy and secrecy provisions. Credit reporting activities can take place in the absence of a legal and regulatory framework. However, in the long run, best practice indicates credit reporting systems benefit from a legal and regulatory framework that is clear, predictable, nondiscriminatory, proportionate and supportive of data subject and consumer rights.⁵ As recognition grows that credit reporting systems are vital to strengthening financial infrastructure and ultimately access to finance, more and more countries are increasing efforts to create the ideal legal and regulatory environment for these activities.

Chapter 5 summarizes a decade of IFC experience in developing credit bureaus and credit registries around the world. The chapter presents various approaches to the development of the credit reporting environment and discusses the business, technology, financial, and other operational and practical considerations a developing credit reporting service provider must address. It also reflects on IFC's experience with establishing new credit reporting markets.

⁴ Lyman et al., 2011.

⁵ World Bank. 2011a. General Principle IV.



Chapter 6 presents an overview of the value-added services typically offered by established credit bureaus through the repurposing of algorithms and data. The information provided by both financial and nonfinancial institutions allows a credit bureau to provide comprehensive analysis of borrower creditworthiness, information for portfolio monitoring, and fraud detection. The chapter also discusses the use of credit reporting information for prudential supervision and systemic risk monitoring of the economy as a whole by financial supervisors.

Chapter 7 rounds out the theoretical discussions and practical guidelines with five case studies of recently established CRSPs in the Arab Republic of Egypt, India, Morocco, Ecuador, and Cambodia. The objective of the case studies is to provide practitioners with real examples of how credit reporting systems have developed over time in various markets, along with the successes and challenges faced by each.

1.1 Access to Finance and the Importance of Credit Reporting Systems

Access to finance is an essential component to economic development and job creation. Many studies have shown a positive correlation between financial development and economic growth.⁶ Well-functioning financial systems offer a variety of financial products for savings, credit, and risk management to a wide range of people and enterprises. Access to financial services enables rural and urban households to smooth consumption curves and acquire access to essential services including food, housing, health, and education. MSMEs require access to financing to meet short- and long-term capital needs and to grow and expand their businesses. Access to finance is also critical for larger

corporations and conglomerates: however, the discussion in this guide is restricted to the credit needs of individuals and the micro, small, and medium businesses that stand to benefit the most from the development of credit reporting systems.

Despite the tremendous need, a large proportion of the world's population does not have access to credit. In developed economies, approximately 90 percent of adults have access to formal financial services compared with 41 percent in emerging markets.⁷ The total unmet need for credit by all formal and informal MSMEs in emerging markets today is in the range of \$2.1 trillion to \$2.5 trillion.⁸ Access to credit is largely hindered by the lack of sufficient information on the ability of a potential borrower to repay his or her debt and the lack of supporting financial infrastructure to make such information available.⁹ In most markets, commercial lending traditionally focused on large companies and select retail clients. The credit needs of smaller entrepreneurs and communities are primarily met through informal financial services and nonbank credit.¹⁰ The basic approach to lending has remained traditional: decisions are based on subjective judgments about a borrower's propensity to repay supported by alternative risk-mitigating mechanisms, including group guarantees and the use of collateral.

The development of financial infrastructure, broadly speaking, helps address the issue of access to financial services including credit. Financial Infrastructure constitutes the underlying foundation for the financial system—including the institutions, information, technologies, rules, and standards that enable financial intermediation. Credit bureaus, collateral registries, and payment, remittance, and securities settlement systems are all vital parts of a country's financial infrastructure. When financial infrastructure is available, efficient, and reliable, the cost of financial

⁶ Beck et al., 2007, 27-49; Beck et al., 2005; Rajan et al., 1998; Beck et al., 2000.

⁷ Demirguc-Kunt et al., 2012.

⁸ Schiff et al., 2010, 5.

⁹ Demirguc-Kunt et al., 2012.

¹⁰ While this guide is limited to discussing issues with the supply side of providing access to formal finance, it must be noted that the demand side for formal finance also can limit greater financial inclusion. The informal sector is not always willing to be a part of the formal sector, which it may perceive as imposing greater tax burdens and regulatory burdens.

intermediation falls; financial products and services become accessible to greater numbers of citizens; and lenders and investors have greater confidence in their ability to evaluate and guard against credit risk.¹¹ This Guide focuses on the development of credit reporting systems, one of the key elements of financial infrastructure, and discusses potential synergies with collateral registries.

1.1.1 The Costs of Asymmetric Information

Credit markets are typically characterized by a fundamental problem: that of asymmetric information,¹² where the borrower knows the odds of repaying his or her debts much better than the lender does. The inability of the lender to accurately assess the credit worthiness of the borrower contributes to higher default rates and smaller loan portfolios, which affect the profitability of the financial institution. Differentiating between good and bad clients becomes very difficult or almost impossible when credit reports are lacking. Without this information, the risk of lending is higher, which both raises the costs of borrowing and reduces the availability of credit because lenders hesitate to extend credit to unknown borrowers and seek to offset the costs of default through higher interest rates.

Lenders typically address these problems by requiring collateral to cover the loss in case of a default or by investigating a borrower's ability to repay. Requiring collateral is often problematic, especially in developing countries, particularly in the case of new firms and MSMEs, which often lack significant assets that are formally (legally) recognized as useable collateral. In addition, the costs to lenders of seizing and liquidating assets used as collateral can be significant and the process lengthy. According to the World Bank's Doing Business survey data,¹³ in most emerging markets it takes one to two years to enforce a contract with costs reaching 20–40 percent of the debt. In extreme cases, for example in Timor-Leste, it takes on average more than three years to enforce a contract and may cost up to 164 percent of the cost of the claim.

To investigate a borrower's ability to repay, a lender might hire investigators to check the borrower's background, but this is also expensive. Conducting in-depth background checks, while justifiable for larger loans, is not possible for small loans. The unavailability of information at a low cost often restricts the ability of lenders to profitably lend to MSMEs.

Monitoring and screening borrower behavior offers one way to minimize problems of asymmetric information. Past behavior is seen as a reliable predictor of future behavior. For example, in many countries, banks commonly grant credit to a firm only after the firm has had an account with a bank for at least six months to a year, which allows the creditor bank to observe the firm's cash flow. Similarly, the group lending approach mostly used by microlenders, allows lenders to provide loans to individual borrowers who, through participation in the group, have developed a credit history with the lending institution. In these examples, the credit history—sometimes referred to as “reputational collateral”—minimizes the perception of risk, thus enabling an individual or a firm to gain access to financing. Nonetheless, the relevance of past behavior should be considered in context, since it cannot explain all behavior, and could be irrelevant when adverse economic conditions change the circumstances. For example, a perfectly good borrower can default if faced with economic hardship or other adverse circumstances.

1.1.2 The Development of Credit Reporting Systems

Credit reporting systems are a critical element of a country's financial infrastructure, and are essential to facilitating access to financial services. They should effectively support the sound and fair extension of credit in an economy as the foundation for robust and competitive credit markets. To this end, credit reporting systems should be safe and efficient, and fully supportive of data subject and consumer rights.¹⁴

¹¹ World Bank et al., 2009

¹² Stiglitz et al., 1981.

¹³ Doing Business Indicators (database), 2012, “Enforcing Contracts” indicator.

¹⁴ World Bank 2011a.



Credit reporting systems help ensure financial stability by enabling responsible access to finance and can also play an instrumental role in expanding access to credit and other services on credit to the underserved and unbanked. They facilitate lending processes by providing lenders with objective information that enables them to reduce their portfolio risk, reduce transaction costs, and expand their lending portfolios. By doing so, credit reporting systems, enable lenders to expand access to credit to creditworthy borrowers including individuals with thin credit files, microentrepreneurs, and small and medium enterprises.

Credit reporting systems comprise the institutions, individuals, rules, procedures, standards, and technology that enable information flows relevant to making decisions related to credit and loan agreements.¹⁵ At their core, credit reporting systems consist of databases of information on debtors, together with the institutional, technological, and legal framework supporting the efficient functioning of these systems. Whereas several entities collect information on debtors for a variety of purposes, this Guide focuses on entities that collect such data with the aim of (1) improving the quality and availability of data for financial and nonfinancial creditors to make better-informed decisions; and, (2) assisting banking supervision while improving the quality and availability of data for supervised financial intermediaries.¹⁶ These entities, also referred to as credit reporting service providers are broadly classified as credit bureaus, credit registries, and commercial credit reporting service providers (further discussed in Section 2.1). The rest of this section discusses the evolution and history of some of these entities.

Although the first credit bureau may be traced to the early 1800s in London, starting in the 1950s modern providers have evolved rapidly, fueled by improvements in technology and an expansion of credit. This revolution has made access to credit almost ubiquitous in developed markets by allowing banks to move from the traditional, subjective approach

to granting credit to more automated lending processes assisted by inputs from quantitative models. As a result, lenders are able to deliver financial services at significantly reduced costs and expand credit to broader segments of the economy, thus further democratizing credit services. In particular, the introduction of credit scoring in the 1950s in the United States—coupled with the automation of workflow and credit underwriting—played a key role in the rapid rise of consumer lending.

Latin America has some of the oldest credit bureaus in the world, but it was not until the 1990s, that privately operated credit bureaus started to take off in most other emerging markets. Between 1990 and 2011, the number of credit bureaus in the world almost tripled.¹⁷ In Asia, many markets turned toward private credit reporting after the financial crisis in the late 1990s. New developments in credit reporting are underway in Central Asia, specifically in Azerbaijan, the Kyrgyz Republic, Tajikistan, Uzbekistan, Nepal, and Mongolia. From the early 1990s to the late-2000s, a significant number of credit bureaus emerged in Eastern Europe. Over the past few years, the Middle East and North African region has seen a growing interest in credit reporting, with credit bureaus established in Morocco and Egypt, and new developments taking place in other North African countries. There are also many new developments in Sub-Saharan Africa, with the launch of credit bureaus in Ghana, Uganda, Kenya, Rwanda, Botswana, and other countries.

The earliest record of a credit registry dates to 1934, when the German credit registry was established. In 2011, 85 countries reported having a credit registry.¹⁸ Credit registries have generally focused on supporting the prudential supervision and risk monitoring of regulated financial institutions.

IFC is working in partnership with several governments to develop credit registries, enhance existing credit registries,

¹⁵ Ibid., see Glossary.

¹⁶ The *General Principles for Credit Reporting* provides a glossary of commonly used terms in reference to credit reporting systems. To be consistent, we are using terminology from the *Principles*.

¹⁷ IFC calculation based on survey data from Doing Business Indicators database for 2006 to 2011.

¹⁸ Doing Business Indicators (database), 2012, “Getting Credit” indicator.

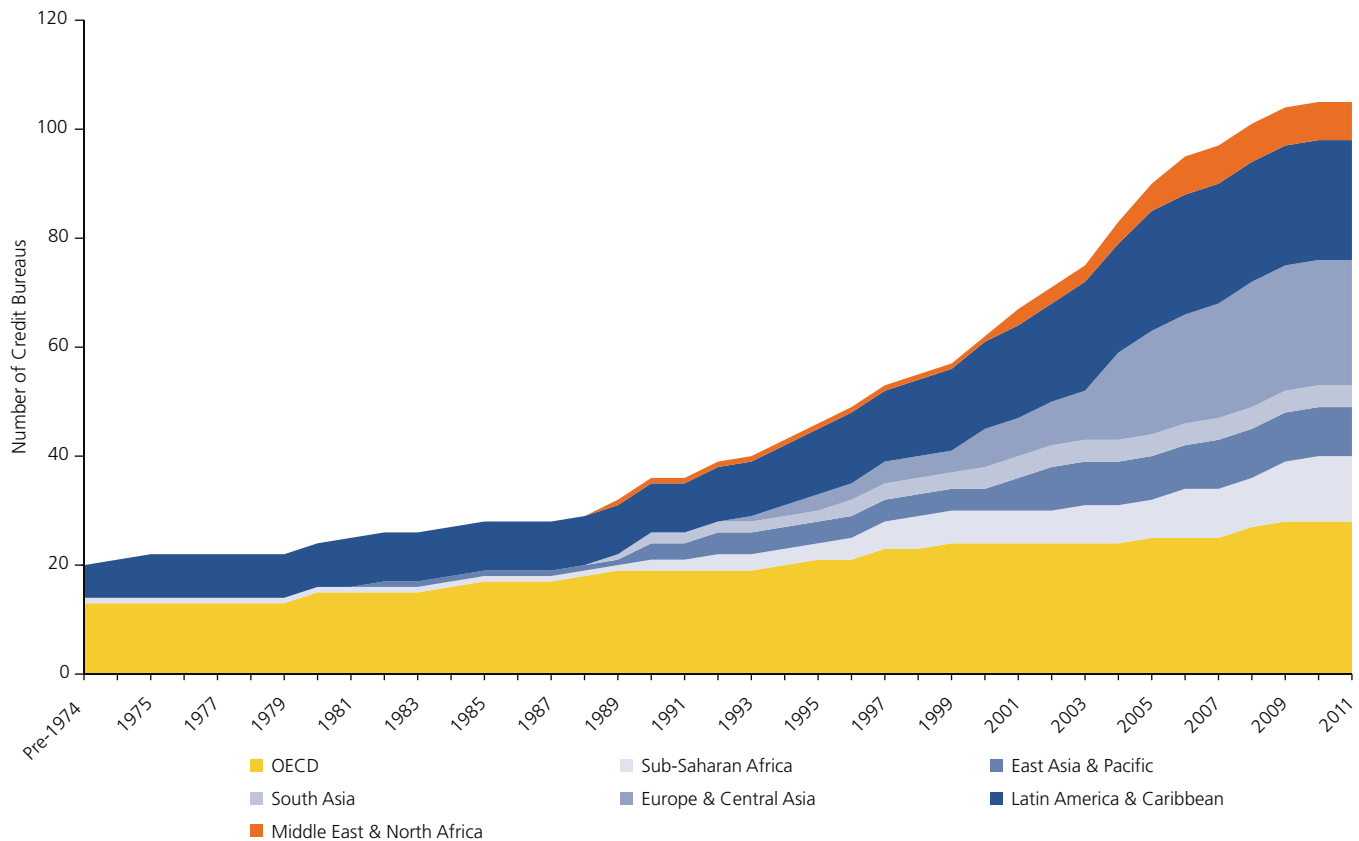
establish public-private partnerships in the development of credit reporting systems, and support the development of enabling legal and regulatory frameworks. Examples of IFC’s work with credit registries can be found in Ethiopia, Algeria, the Lao People’s Democratic Republic, Bangladesh, China, and the Maldives (public credit registries); and in Indonesia and Uzbekistan (joint public-private partnerships). Many reform-oriented governments are supporting the development of credit reporting services in conjunction with broader reforms for greater access to finance and the promotion of responsible lending practices. For more information, see map on “Overview of Credit Registries and Credit Bureaus Around the World” in the Annex.

1.1.3 Industry Overview and International Trends

According to the World Bank’s *Doing Business 2012*,¹⁹ approximately 134 countries out of 183 countries surveyed had either a credit bureau or a credit registry at the end of 2011. The credit reporting industry has experienced unprecedented growth since 2000, especially in emerging markets (see Figures 1.1 and 1.3). This growth was driven by two factors:

- **High growth of retail credit in emerging markets:** Between 1985 and 1995, unfavorable macroeconomic environments and structural restrictions in credit markets in emerging economies constrained credit

Figure 1.1: Growth of Credit Bureaus



Source: IFC calculations based on Doing Business Indicators (database) 2004-2011.

¹⁹ World Bank 2011b.



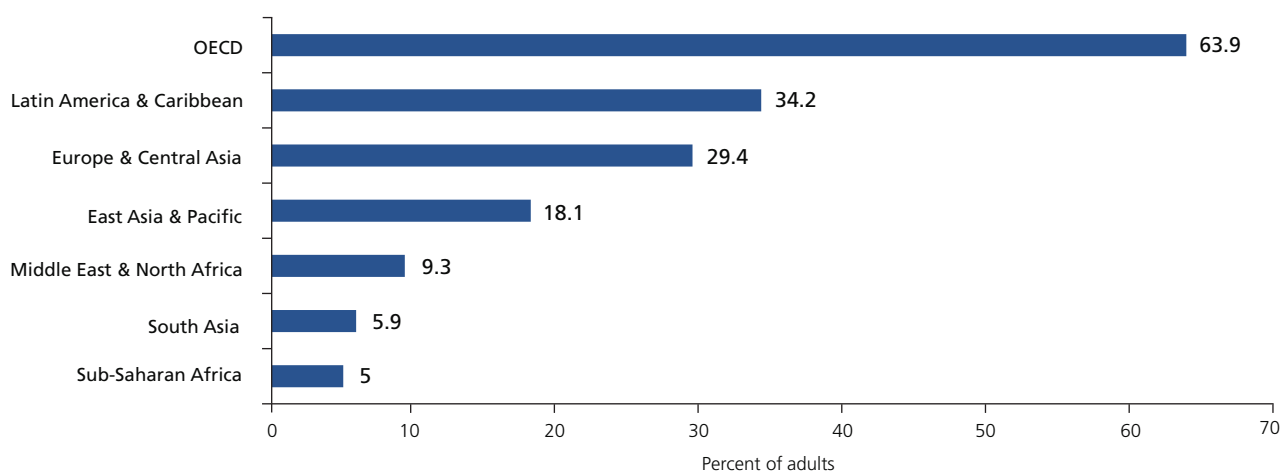
growth. During this period, the private credit-to-GDP ratio for the emerging markets increased from 35 percent to 45 percent.²⁰ Financial liberalization and improved macroeconomic stability in the period between 1996 and 2011 saw a corresponding increase in credit growth with credit to the private sector increasing from 46 percent to 74 percent.²¹ With more lenders entering and expanding the retail credit market, the need for credit information and for streamlining lending processes grew, leading to the establishment of credit reporting services.

- **Developments in information technology:** The credit reporting industry is data driven. Recent improvements in database management software and decreasing costs of storing and processing data, as well as decreasing costs of hardware, and the ability of several markets to join and utilize the “Hub & Spokes” model²² have reduced the start-up costs of a credit reporting service.
- **Broader reforms stemming from recent crisis:** The recent 2007–2008 financial crisis, has given greater impetus for broad reform efforts at the national level as authorities in developed and emerging markets realize the need for strengthening and improving financial infrastructure, including credit reporting systems.

According to *Doing Business 2012*, of 183 countries surveyed, 89 reported having one or more credit bureaus. Figure 1.1 illustrates growth in credit bureaus from pre-1974 to 2011.

Doing Business measures the quality of credit information in a region or country based on coverage and the Credit Information Index (CII). Coverage is defined as the number of records in the bureau or registry divided by the adult population in the country between ages 15 and 64. In terms of bureau coverage, the Latin America and the Caribbean region continues to lead among developing regions, with 34.2 percent adult coverage (see Figure 1.2). Yet, since 2005, credit bureaus in Europe and Central Asia, East Asia and Pacific, and the Middle East and North Africa have demonstrated significant leaps in improving their coverage, with increases ranging from 7 to 22 percentage points. Although Sub-Saharan Africa had the least-developed credit information infrastructure, with only 8 out of 46 countries reportedly having credit bureaus, the region has made significant strides in recent years. Trends are encouraging in the Middle East and North Africa region, where 7 out of 19 countries had credit bureau coverage. The East Asia and Pacific region also experienced somewhat positive

Figure 1.2: Credit Bureau Coverage by Region



Source: *Doing Business 2012*.

²⁰ World Development Indicators, July 2012. Data based on domestic credit to private sector as a percent of GDP.

²¹ Ibid. Includes low- and middle-income countries.

²² For an explanation of the Hub & Spokes model, see Chapter 5, models for CRSPs.

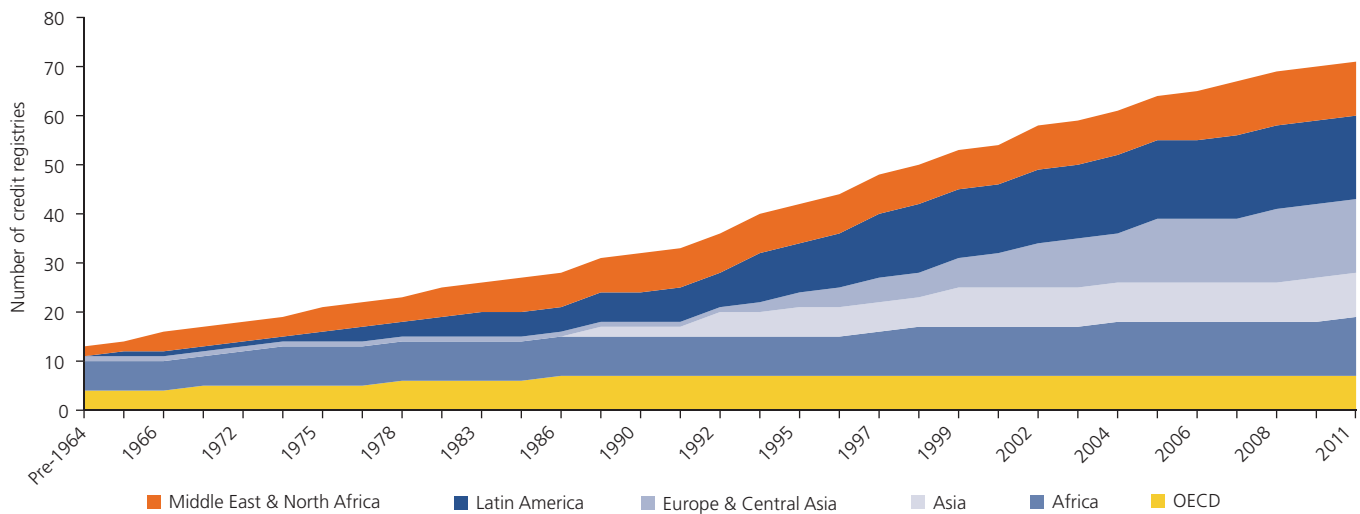
changes, where 8 out of 24 countries surveyed had credit bureau coverage. The situation was less promising in South Asia region where only 4 out of 8 countries had any credit bureau coverage.²³

According to *Doing Business 2012*, of 183 countries, 85 reported having a credit registry. Figure 1.3 illustrates the

growth in credit registries from pre-1964 to 2011. Europe and Central Asia led all regions with 16.2 percent coverage by credit registries, while South Asia lagged behind at 1.7 percent coverage (see Figure 1.4).²⁴

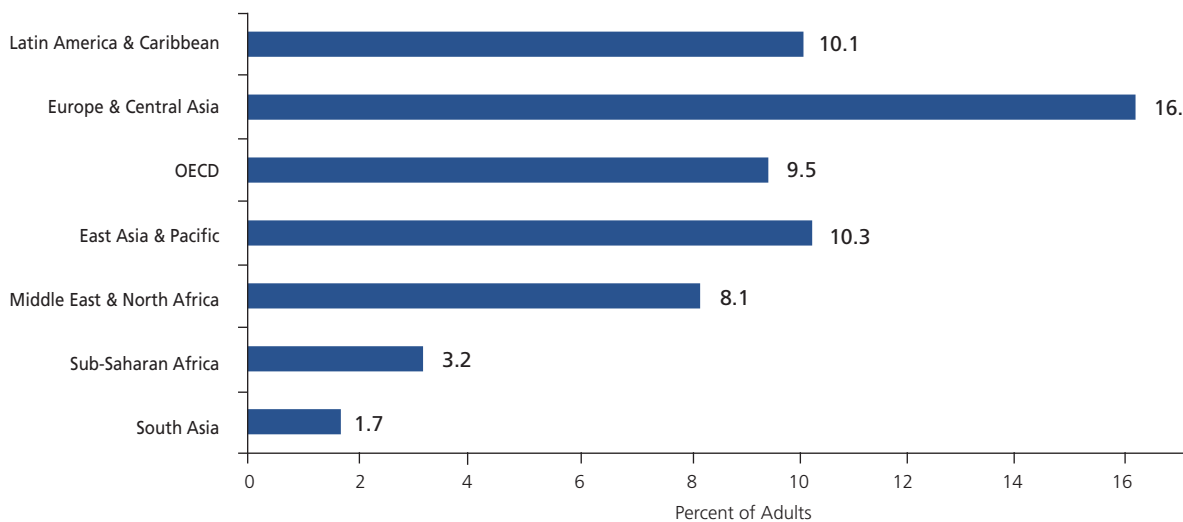
A factor contributing to the low coverage ratios in some of these regions is that the percent of the population that

Figure 1.3: Growth of Credit Registries



Source: IFC calculations based on Doing Business Indicators (database) 2004-2011.

Figure 1.4: Credit Registry Coverage by Region



Source: Doing Business 2012.

²³ Doing Business Indicators (database), 2012. "Getting Credit" indicator.

²⁴ Ibid.



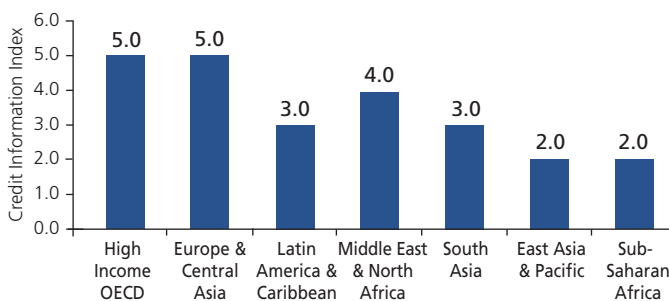
uses credit constitutes only a small portion of the total population. As credit growth continues, the scope of credit reporting coverage can be expected to expand as well.

In addition to coverage, the *Doing Business* CII measures credit information availability in a country based on six key factors listed below (see Figure 1.5).²⁵ For each of the six factors, a country receives one point and the points are added to arrive at the total index score.

- Both positive and negative credit information (for example on payment history number and kind of accounts, number and frequency of late payments, and any collections or bankruptcies) is distributed.
- Data on both firms and individuals are distributed.
- Data from retailers and utility companies are distributed to financial institutions.
- More than two years of historical data are distributed. Registries that erase data on defaults as soon as they are repaid obtain a score of 0 for this indicator.
- Data on loans below 1 percent of income per capita are distributed. A registry must have a minimum coverage of 1 percent of the adult population to score a 1 for this indicator.
- Regulations guarantee borrowers the right to access their data in the largest registry in the economy.

Europe and Central Asia led among emerging market regions on *Doing Business*' CII followed by the Middle East and North Africa region. Latin America and the Caribbean, which

Figure 1.5: Credit Information Index



Source: Doing Business 2012.

ranked first among emerging market regions in 2005, moved to third place together with South Asia, while East Asia and the Pacific and Sub-Saharan Africa tied for last place.

The development of credit reporting services in many emerging markets often, but not always, involves partnerships with the major and well-established international CRSPs. As a result, several major players dominate the credit information industry globally, namely Equifax, Experian, and TransUnion. Their main operations are concentrated in the OECD countries, but all three have actively expanded into emerging markets.

Since the early 2000s, several new CRSPs with international operations have emerged as players; including CRIF, an Italian firm present in Europe, North America, Latin America and the Caribbean, Africa, and Asia; Creditinfo, an Icelandic credit information provider with operations in Europe, Central Asia, the Middle East, and more recently expanding into the Caribbean and Sub-Saharan Africa; CompuScan, Credit Reference Bureau Africa Ltd. (CRB Africa), and Xpert Decision Systems (XDS), which all operate in at least three or more African countries; Veda Advantage, which operates in Australia and New Zealand; and Dun & Bradstreet South Asia Middle East Ltd., which operates in the Asia Pacific region, the Middle East, and Sub-Saharan Africa. The entry of new international CRSPs is a welcome development as more competition is likely to result in better product offerings and lower prices.

Although there is usually a sound commercial rationale for emerging market countries to seek partnerships with experienced international providers, the value of the locally developed solution provider should not be overlooked. In many emerging markets, for example Kenya and Barbados, the origins of credit information sharing can be found with small businesses providing a localized service, often with little or no support from policy makers or the central bank. Creditinfo, CompuScan, XDS, and CRB Africa all started out as small businesses in markets that the larger international credit reporting companies had declined to serve for a variety of reasons, and have ended up as international players in their own right.

²⁵ Ibid.

1.2 Key Stakeholders in Credit Reporting Systems

A credit reporting system comprises the institutions, individuals, rules, procedures, standards, and technology that enable information flows relevant to making decisions related to credit agreements.²⁶ The development of an effective credit reporting system is a lengthy process requiring a sustained commitment of all stakeholders. The entire process of setting up a credit reporting system, from initial discussions to public education and work on the legal and regulatory framework, to actual implementation of the systems, uploading data, and issuing the first credit report may take three to five years, if not longer. The credit information cycle of collecting, storing, and processing data, and distributing, and using information to support credit-granting decisions and financial supervision involves a number of actors: individuals, MSMEs, CRSPs, data providers, users, authorities, regulators, and overseers. Active participation by each of these stakeholders is critical to ensuring the effectiveness of the credit reporting system. Stakeholder participation is further enhanced by government support of the system as a whole. These actors and their roles are shown in Figure 1.6 and described below.

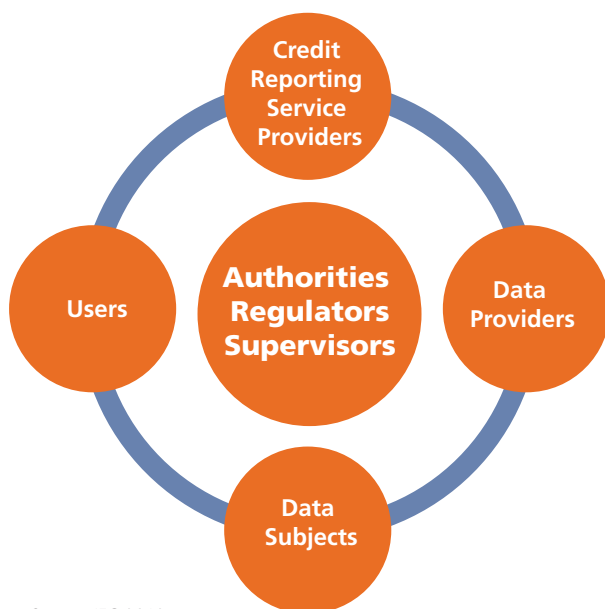
Credit Reporting Service Providers: A CRSP is an entity that administers a networked credit information exchange. A networked credit information exchange is a mechanism enabling credit information collection, processing, and further disclosure to users of data, as well as value-added services based on such data.²⁷ A CRSP collects data from creditors and available public sources on a borrower's credit history. The CRSP runs and operates a credit reporting service on a day-to-day basis. The CRSP's duties are discharged by the on-site management team and operational staff, whose responsibilities include collecting, validating, and merging credit history and identification data; and producing and dispersing credit information in an organized format to users. The CRSP bears primary responsibility for ensuring the system safety and efficiency.

²⁶ World Bank 2011a.

²⁷ Ibid., see Glossary.

²⁸ Ibid., see Glossary.

Figure 1.6: Key Stakeholders in Credit Reporting Systems



Source: IFC 2012.
Adapted from General Principles for Credit Reporting, 2011.

The CRSP is also responsible for the sustainability of operations, reporting to shareholders (where applicable), compliance with regulatory requirements, implementing governance arrangements, personnel matters, and dealing with consumer complaints.

Data providers: Data providers are creditors and other entities that proactively and in a structured fashion supply information to credit reporting service providers.²⁸ Data providers play a key role in the successful operation of a CRSP since the CRSP relies on their pro-active provision of data. Traditional data providers include commercial banks, other financial institutions, and credit card issuers. Nontraditional data sources include retailers and utilities providers. In addition, all private and public entities that collect information on consumers are potential data sources for CRSPs. For instance, a CRSP may have agreements with administrators of databases on court judgments, information regarding unpaid debts, personal identity records, and registries of collateral such as vehicles, real estate, and companies.



Data providers and other data sources are usually separate legal entities and may be subject to other business and legal requirements, especially requirements pertaining to the privacy of consumer information. Data providers should avoid furnishing erroneous information and should participate in the process of correcting errors identified by the CRSPs and data subjects.

In some jurisdictions, data providers are restricted in the manner they may share data about their customers and clients. Accordingly, agreements entered into between CRSPs and data providers should make provision for the basis of ownership of the data; the basis for consent to share the data with the CRSP; and how liability will be proportioned in the event of harm stemming from inaccuracies, security breaches, identity theft, or other damaging events.

Users: A user is an individual or business that requests credit reports, files or other related services from credit reporting service providers, typically under predefined conditions and rules.²⁹ The information produced by CRSPs is of interest to a variety of users. These users “query” or submit an inquiry to the CRSP on a data subject that has approached them for credit. Users typically include financial institutions and nonbank creditors who contribute credit information about their customers’ accounts. Credit information might also be of interest to other users, ranging from financial supervisors and central banks, to users in other sectors of the economy such as employers, insurers or landlords (where this is legally permitted). In keeping with the principle of reciprocity,³⁰ only users that contribute information to the CRSP receive credit information reports from the CRSP. Some CRSPs charge users membership fees as well as a pay-per-use fee, in which case users are also known as members or subscribers of the CRSP.

Data subjects: A data subject is an individual or a business whose data could be collected, processed, and disclosed to

third parties in a credit reporting system.³¹ They are the subjects on whom lenders wish to assess the risks of default and nonpayment before approving new loans or advancing further credit.

Regulators (other overseers): In jurisdictions in which they exist, the regulator is the authority with statutory powers of supervision over credit reporting activities and services. Statutory powers may include the power to issue licenses and to create operational rules and regulations. The regulator may also have the power to stipulate compliance conditions for CRSPs, penalize them for violations or noncompliance, or cancel their licenses. Once a CRSP is fully operational, the regulator’s role is to monitor compliance. In addition to direct regulation, CRSPs may also be indirectly subject to other laws, for example, business or company law, consumer protection law, and information privacy law. As such, they may also have compliance obligations imposed by other regulators.

A vast majority of countries assign regulation of, and authority over, credit reporting service providers to their central banks. A few countries have a regulatory authority specifically dedicated to credit reporting, for example, the National Credit Regulator in South Africa.

In other countries, a government agency assumes that role; for example, the Federal Trade Commission in the United States has authority to enforce the Fair Credit Reporting Act (which applies to credit bureaus) as part of its mandate to ensure consumer protection in credit and lending practices. More recently, the Consumer Financial Protection Bureau established by United States Congress to make markets work for consumer financial products and services, has been given the mandate to supervise credit bureaus (effective September 30, 2012).³²

In some countries (e.g., China), the central bank acts as both the regulator of the industry and the operator of a

²⁹ Ibid.

³⁰ Broadly speaking, according to the principle of reciprocity, users of a CRSP can obtain information from the CRSP only if they provide information to the CRSP.

³¹ World Bank 2011a, see Glossary. We occasionally use the term “consumers” in this Guide in place of “data subjects.”

³² <http://www.consumerfinance.gov/pressreleases/consumer-financial-protection-bureau-to-supervise-credit-reporting/>

CRSP. Despite the apparent conflict of interest, most of these systems operate reasonably well as long as the two functions are undertaken by separate departments under different directorships: that is, the department issuing operating licenses and supervising credit bureaus is not the same department that operates the credit registry.³³

Since the core business of credit reporting involves the flow of information through a network of stakeholders, credit reporting activities touch on sensitive issues such as the individual privacy rights of consumers and the protection and security of the data subject's data. Regulators and other overseers are tasked, therefore, with monitoring the activity of the entire credit reporting system along with its participants to establish a fair and competitive marketplace for credit reporting service providers while ensuring that individual privacy rights are respected and protected.

1.3 Benefits of Credit Information Sharing

Credit reporting service providers collect information from both financial institutions, such as banks and credit card companies, and a variety of nonfinancial institutions, such as utility companies and retailers, as well as from public records, and other data sources such as databases on bounced cheques, promissory notes and protested bills of exchange, collateral registries, vehicle registries, real estate registries, personal identity records, company registries, tax authority databases, and some court records.³⁴

Credit history data can be broadly categorized as: negative data and positive data. Negative reporting includes only information pertaining to unfulfilled financial obligations such as defaults, amounts in arrears, court judgments, and other adverse or negative information. Information on delinquent debts that are eventually paid off usually remains on file and forms part of the credit history for a defined period of time. Historically, databases with negative-only data have been referred to as “black lists.” Positive credit data

contains favorable information on an individual's open and closed credit accounts. Information sources could include: debt ratios, on-time payments, credit limits, account type, loan type, lending institution, detailed reports on the prospective borrower's assets and liabilities, guarantees, debt maturity structure, and pattern of repayments. According to Doing Business survey data, approximately 70 percent of all bureaus and registries surveyed provided both positive and negative data,³⁵ often referred to as “comprehensive credit reporting” or “full-file credit reporting.”

Negative-only databases were developed initially to help lenders effectively screen and exclude high-risk borrowers that had accumulated significant debt exposure. However, in the absence of positive credit reporting, a borrower could remain excluded from credit access (for up to 5 years in some countries) based on a single negative event regardless of the current payment record and other information that reflects favorably on him or her. Furthermore, in negative-only reporting systems, lenders do not have credit information on prospective borrowers who have never defaulted, since no information on them is reported or stored.

In the late 1990s, Hong Kong SAR, China, and the Republic of Korea experienced a major increase in retail credit defaults as a result of the unfortunate combination of reckless lending practices, and unavailability of positive information. While both had negative credit bureaus, positive information was not being shared and lenders were not aware of the level of indebtedness of existing and prospective borrowers. As competition in the credit card market increased and banks marketed credit cards more aggressively, many consumers accumulated several credit cards. Borrowers would typically open one credit card account and then another to pay off the debt accumulated on the first credit card. This borrowing was unsustainable and resulted in a large number of credit card defaults. Following the crises, both countries moved to a system of comprehensive credit reporting and started providing both positive and negative information. Indeed, as shown

³³ The General Principles apply equally to all credit reporting service providers providing the same function.

³⁴ World Bank 2011a.

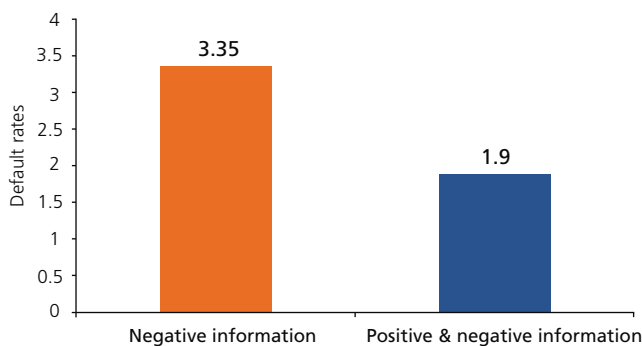
³⁵ Doing Business Indicators (database), 2012. “Getting Credit” indicator.



in the regional maps in the Annex a number of countries have adopted full-file credit reporting in their respective jurisdictions.

Research has shown that comprehensive credit reporting systems generate more accurate scores than negative-only systems. A recent analysis of Chile’s credit reporting system, a negative-only system with some positive data elements, found that credit decisions based on comprehensive information significantly outperformed those based on negative-only information.³⁶ Another study in the United States simulated and compared default rates on loans approved using a negative-only credit scoring model with default rates on loans based on a scoring model using both negative and positive information. According to the study, the default rate on loans approved using negative-only system was 3.35 percent, whereas the default rate on loans approved using scores based on both positive and negative information dropped to 1.9 percent, a 43 percent decrease (see Figure 1.7).³⁷ A similar exercise was conducted using data from Brazil and Argentina with similar results. Inclusion of positive information would have produced a 22 percent decrease in the default rate for Argentinean banks and a 45 percent decrease in default rates for Brazilian banks (see Figure 1.8).³⁸ Thus, including positive information in

Figure 1.7: Effect on Default Rates of Including Positive Information, United States



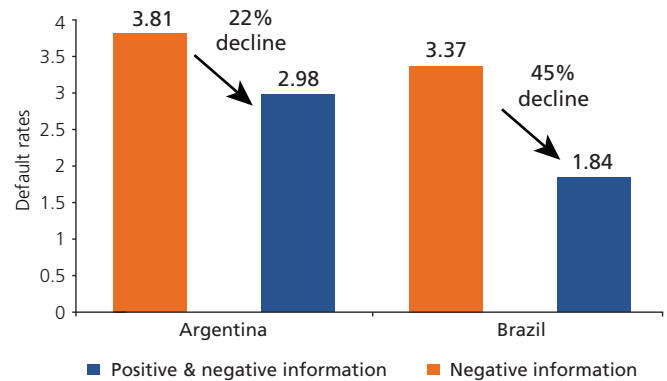
Source: IFC using Barron and Staten 2003 data.

³⁶ Turner 2010.

³⁷ Barron et al., 2003. Figures show the simulated credit defaults assuming an acceptance rate of 60 percent. The simulations were based on data in one of the largest U.S. credit bureaus.

³⁸ Powell et al., 2004.

Figure 1.8: Effect on Default Rates of Including Positive Information, Argentina and Brazil

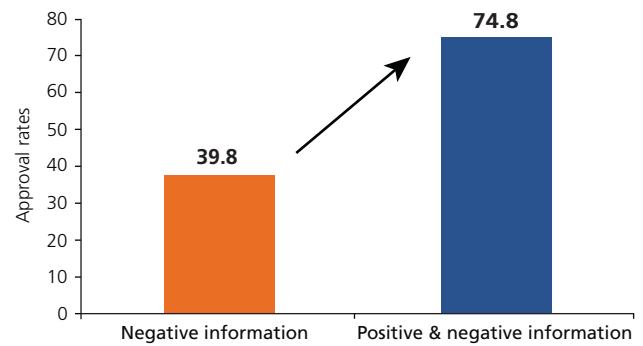


Source: IFC using Powell, Mylenko, Miller, and Majnoni 2004 data.

scoring models produces better predictions, and improves the ability of lenders to separate good borrowers from high-risk borrowers. For a bank with a \$100 million loan portfolio, this translates into an average savings of \$830,000 in Argentina and \$1.5 million in Brazil.

Figure 1.9 shows how including positive information increased approval rate by 88 percent in the simulation using data from the United States. The study also found that sharing positive information derived from a broader

Figure 1.9: Effect on Approvals of Including Positive Information

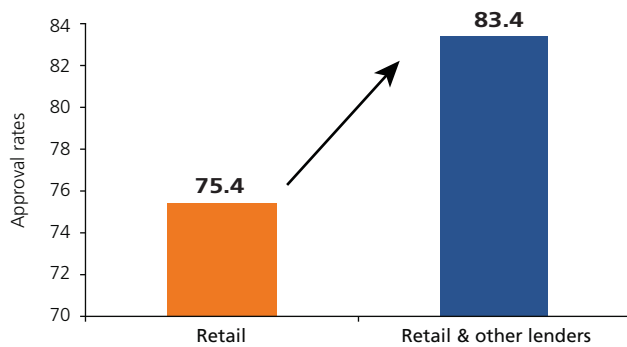


Source: IFC using Barron and Staten 2003 data.

category of sources would allow significant operational improvements by lowering defaults or increasing lending volumes to new categories of borrowers (see Figure 1.10).³⁹

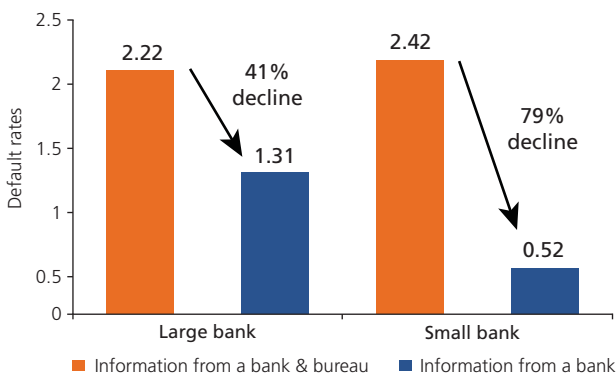
Credit reporting brings benefits to both small and large institutions. The study using data from Argentina⁴⁰ found that while small lenders do benefit more than large lenders from sharing information, large banks also benefit from a significant drop in defaults if positive information is used. Although the results may vary from country to country, and from lender to lender, both anecdotal and available empirical evidence suggests that information sharing and use of credit scoring allow both large and small banks to

Figure 1.10: Effect of Including Positive Information on Approvals Among Retailers and Other Lenders



Source: IFC using Barron and Staten 2003 data.

Figure 1.11: Effect on Default Rates of Increasing Number of Information



Source: IFC using Barron and Staten 2003 data.

significantly reduce default rates and/or increase lending volumes (see Figure 1.11).

In summary, credit reports that have the highest predictive power combine both positive and negative information from both banks and nonbank lenders. Bureaus or credit registries fragmented by industry that provide only negative information deliver reports that have less predictive power and often result in inaccurate credit risk assessment (see Figure 1.12).

Figure 1.12: Effect of Types and Sources of Information on Predictive Power

Types of information \ Sources of information	Positive & negative information	Negative information
"Full" (information shared by banks, retailers, NBFIs)	High predictiveness (e.g. U.S., U.K., India)	Lower predictiveness (e.g. Australia, Swaziland)
"Fragmented" (e.g. information shared among banks only or retail only)	Lower predictiveness (e.g. Mexico, Kuwait)	Lowest predictiveness (e.g. Malaysia, Botswana)

Source: IFC 2012.

1.4 Responsible Lending and Financial Education

The aftermath of the 2007–2008 financial crisis has brought about a heightened awareness of the importance of financial infrastructure, as well as its shortcomings. Although helping to reduce risks and increase efficiency of financial intermediation, financial infrastructure can also sometimes contribute to situations where excessive risks are taken. In the case of credit reporting, credit scores were faulted for having contributed to the subprime crisis in the United States as mortgage lenders made suboptimal lending decisions based solely on credit scores, the repercussions of which were felt throughout the global financial community. To provide a more balanced perspective, the crisis highlighted the need for

³⁹ Ibid. The simulation shows that a lender with a target approval rate of 60 percent was able to reduce default rates by 38 percent. If the default rate is used as a target, the bank would be able to approve 11 percent more clients before reaching the targeted 3 percent default rate.

⁴⁰ Ibid.



more regulation and oversight over credit reporting systems as a whole, as well as over the use of the various products and services that these systems provide. Nonetheless, one of the key takeaways from the financial crisis and subsequent regional crises, is that information sharing among creditors is critical to ensuring more accurate portfolio management and risk assessment, identifying potential over indebtedness issues, and allocating capital more efficiently.

Another key development since the crisis is the greater level of effort globally to improve consumer awareness and understanding of what a credit reporting system is, what it does, and how it impacts them—along with efforts to educate consumers on their related rights and obligations and generally enhance their financial capability.⁴¹ Consumers may not fully understand the

credit terms and pricing options available to them, or the implications of accepting multiple financial products when a credit reporting system is in existence. Also, the inability of customers to enforce their rights—whether it is something as simple as challenging information on record or questioning an adverse decision—is often a result of not knowing that such rights exist.

As global financial markets strive for more responsible financial practices, it is now recognized that CRSPs have a role to play in helping consumers gain the skills necessary to take control of their personal finances and gain greater awareness of the role of credit information in the financial services sector. Many CRSPs have fully embraced the concept of consumer education and have incorporated financial literacy programs into their corporate strategies (see Box 1.1).

Box 1.1: Educating Borrowers on Credit Reporting

In 2006, the credit bureau in Panama, Asociación Panameña de Crédito (APC), set up a program called Finanzas Bajo Control (FBC - Finances under Control) to educate Panamanian borrowers about managing their finances and the role of the credit bureau. Prior to setting up the program, APC conducted a detailed analysis of the consumer population to better understand its needs. Based on this analysis, APC developed a plan of action including a detailed budget, a set of key themes, and the channels of information delivery. The pilot program was launched in a controlled environment and tested with a limited number of consumers.

Since its launch in 2006, the FBC program has leveraged a variety of channels in delivering its messages to borrowers including face-to-face counseling sessions; a website dedicated to providing information to consumers;⁴² webinars and seminars; mass-media outlets such as radio programs and TV spots; free press; and social media such as YouTube, Facebook, and Twitter. Over eight years, the program conducted 1.4 million face-to-face interactions with consumers. The website had over 174,000 hits in 2012, and 15 percent of consumers whose data was reported to the bureau claimed they viewed their report online. Through webinars, seminars, company events, and fairs, FBC trained over 5,000 people. The program developed over 50 TV programs and thousands of “tips” that are frequently broadcast on radio stations. The program publishes articles on credit reporting and tips on improving credit histories through free press channels at least once a month, and runs a regular column that provides financial advice to consumers in free press channels. More recently, the program has developed a presence on social media sites including Twitter, Facebook, and YouTube, and is slowly building up a regular follower base.

⁴² Asociación Panameña de Crédito website. www.miapc.com

⁴¹ The Organisation for Economic Co-operation and Development (OECD) defines financial capability as the process by which financial consumers improve their understanding of financial products and concepts and, through information, instruction, and objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, make informed choices, know where to go for help, and take other effective actions to improve their financial well-being. See OECD 2005 and World Bank et al., 2009.

Because CRSPs harbor personal information on individual borrowers, they are responsible for protecting the privacy rights of these individuals. Individuals should be aware that their information is being collected, how it is being collected, and what it is being used for or can be used for under their country's legal and regulatory framework. They should be given reassurance that their data is held safely and securely and will not fall into the wrong hands. In addition, they should be permitted access to their files, and should be allowed to challenge information on their report they believe to be incorrect.⁴³

1.5 The General Principles for Credit Reporting

While credit reporting systems are developing rapidly throughout the world, until recently there were no worldwide standards to systematically guide stakeholders in dealing with the challenges associated with the development and operation of these systems. In 2008, the World Bank, with support from the Bank for International Settlements, launched the Credit Reporting Standards Setting Task Force to develop guidelines and universal standards for credit reporting systems. The task force comprised representatives from central banks and other financial and privacy regulators, from multilateral organizations involved in credit reporting, and from international credit reporting service providers. The task force also benefited from the significant experience of the IFC Credit Bureau Team. Some

institutions ("Tier 2" Group), although not formal members of the task force, were consulted during the preparation of the Principles. They included other industry associations, private sector operators, scholars, and practitioners. The report was also released for public consultation.⁴⁴ The role of the task force was to define a set of guiding principles that could be used to promote best practice in any credit information-sharing environment taking into account the balance between the needs of the financial services industry and financial supervisors to access data and the rights of the individuals/businesses to whom that data pertains.

In September 2011, the task force published the *General Principles for Credit Reporting*, a set of principles to guide the development of reporting systems intended for policy makers, regulators, overseers, credit reporting data providers, CRSPs, and consumers.⁴⁵ In addition to the five core general principles, the task force identified and developed a set of specific roles for each of the stakeholders involved in credit reporting systems, as well as recommendations for effective oversight of these systems.

Although the General Principles provide guidance, they do not endorse any model of credit reporting development over another. IFC experience also suggests that the most effective solutions are tailored by taking into consideration the general principles along with a country's existing credit market environment. For additional information, please refer to the *General Principles for Credit Reporting*.⁴⁶

⁴³ In case of CRSPs collecting data to support the prudential supervision function, data subjects do not have the same rights in terms of access and disputing errors.

⁴⁴ A full list of task force members and their organizations can be found in Annex 6 of World Bank 2011a.

⁴⁵ See World Bank 2011a.

⁴⁶ Ibid.

Basics of Credit Reporting

A CRSP is an entity that administers a networked credit information exchange. A networked credit information exchange is a mechanism enabling credit information collection, processing, and further disclosure to users of data, as well as value-added services based on such data.⁴⁷

CRSPs differ from credit rating agencies, such as Standard & Poors, Moody's, and Fitch, which collect financial information on large companies; conduct detailed analyses of operations, finances, and governance of the companies; and then issue credit ratings. CRSPs focus on smaller creditors; they concentrate on credit repayment records and rely on statistical analyses of large samples of borrowers rather than on in-depth analyses of individual companies.

2.1 The Taxonomy of Credit Reporting Service Providers

The global credit reporting industry can be roughly divided into three homogeneous, but not exclusive, groupings: credit bureaus, credit registries, and commercial credit reporting companies. The content of databases, clientele, and associated products and services provided by these three types of service providers vary from country to country. Figure 2.1 shows the different markets served by these entities and the degree of overlap among them. There are distinct differences among the three types in terms of strengths and weaknesses, operating models, and the markets they serve. All three types of service providers can coexist in a given market based on the size of the market,

market preferences, level of financial development, and credit culture. No single solution is more appropriate than another for any given market.

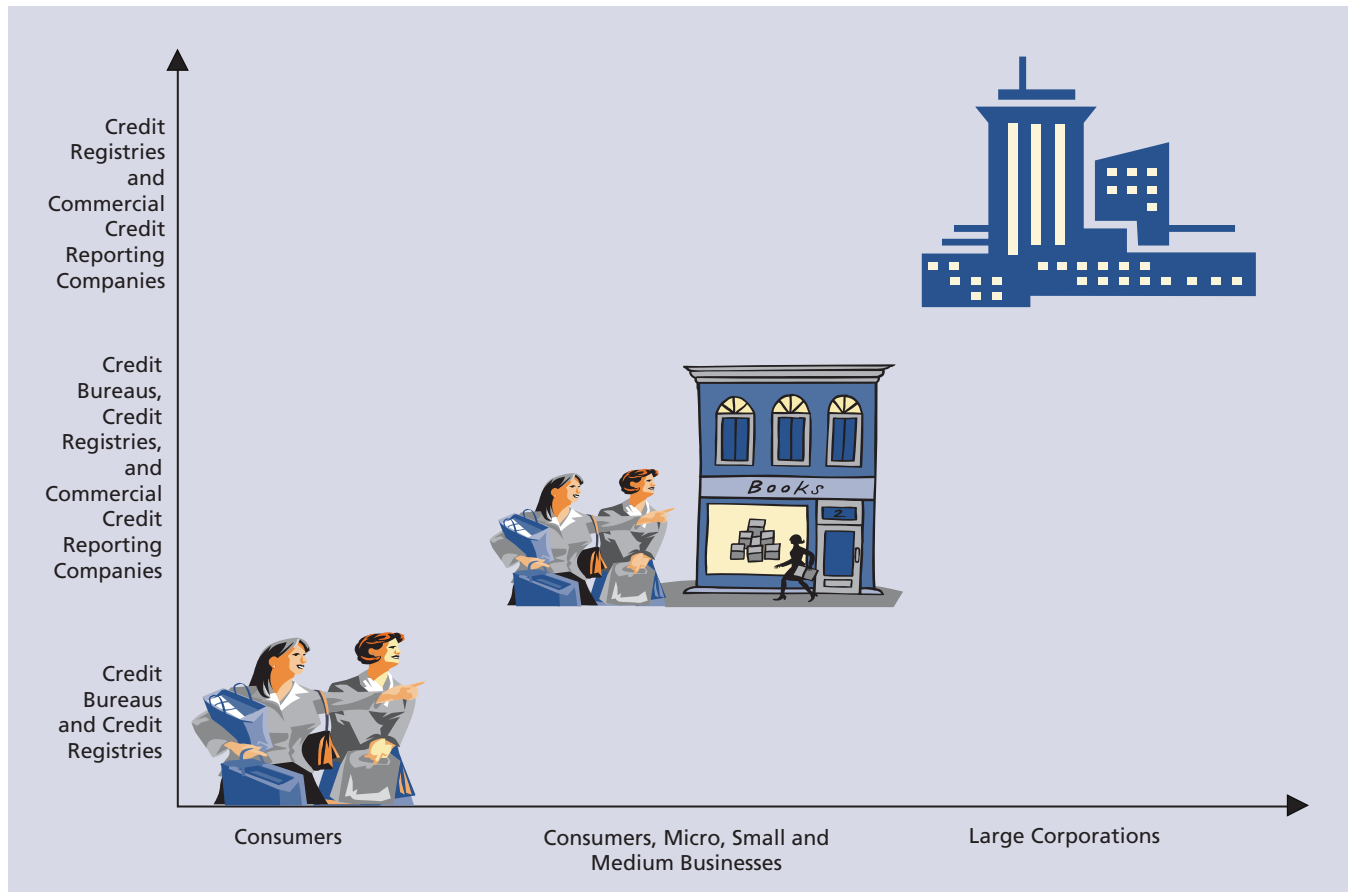
2.1.1 Credit Bureaus

Credit bureaus, which are typically privately held and operated, provide credit information on individual borrowers and MSMEs to a wide range of credit providers. They collect information in a standardized format from a variety of credit providers, including banks, credit card companies, and other nonbank financial institutions. They also collect and distribute a wide range of publicly available information such as court judgments, bankruptcy notices, and telephone directory information, and/or facilitate access to third-party databases such as collateral registries. Information is also gathered from contributors of nontraditional data such as retail lenders and billing data from gas, water, electricity, cable, telephone, internet, and other services, which enables credit bureaus to compile better and more comprehensive credit reports. According to Doing Business survey data, over 40 percent of credit bureaus included information from utility providers, and more than 50 percent included information from microfinance institutions in their databases (see Figure 2.2).⁴⁸ This broadening of sources of data is beneficial to unbanked individual borrowers and MSMEs because it enables them to build a credit history without necessarily having had formal access to credit, thus overcoming the trap of not being eligible for credit without having a previous credit history.

⁴⁷ Ibid., see Glossary.

⁴⁸ Doing Business Indicators (database), 2012, "Getting Credit" indicator.

Figure 2.1: Markets Served by CRSPs



Source: IFC 2012.

Once data is collected, it is cross checked to produce a credit report for each borrower, which is then sold to lenders. The report constitutes a comprehensive profile of a borrower or potential borrower’s personal information and information on his or her credit accounts. The personal information section usually includes the borrower’s name, former names, identification number (such as social security or other national identification number), date of birth, addresses, employment information, alerts (such as ID theft reported or security freezes), and date of information update. The credit summary section typically contains information on all the borrowers’ credit accounts (both open and closed), an assessment of whether such accounts are in good standing (past due amounts and payment behavior history), and inquiries made about the borrower in the recent past. The

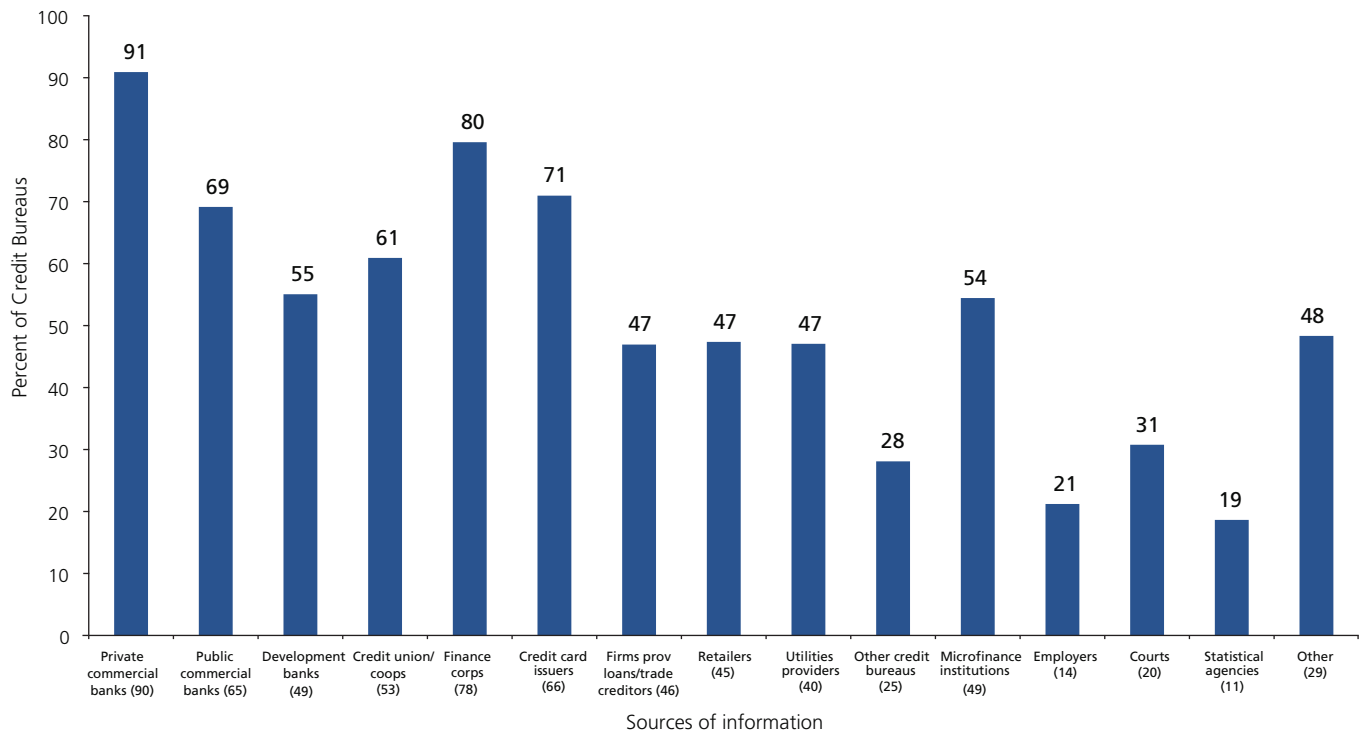
reports normally also include repayment histories, noting payments over a 12 to 24 month period.⁴⁹ Figure 2.3 shows the types of individual-level information collected by credit bureaus.

Borrower credit history is often recorded in terms of the number of missed payments in a format similar to the one in Figure 2.4. The credit report also provides information on collections made on outstanding accounts and any available public records, such as court judgments and bankruptcy rulings. In many countries, credit reports include a credit score: the statistical probability of a borrower making good on his or her obligation, based on a number of characteristics (see Section 6.3).

⁴⁹ Ibid.

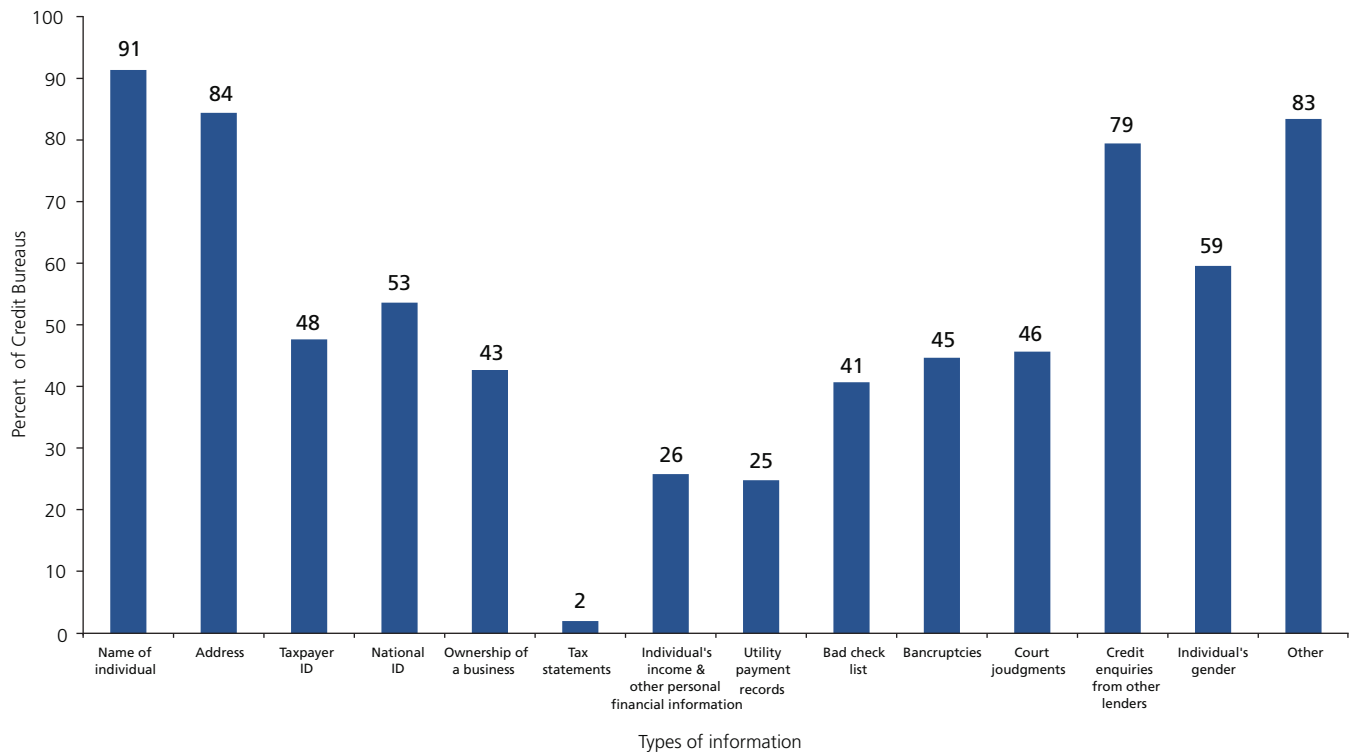


Figure 2.2: Sources of Information for Credit Bureaus



Sources: IFC calculation based on Doing Business Indicators (database) 2012.

Figure 2.3: Individual-Level Information Collected by Credit Bureaus



Source: IFC calculation based on Doing Business Indicators (database) 2012.

Figure 2.4: Sample History of Payments

History of Payments—Observation Periods		
2012	2010	2009
MAMFJ	DNOSAJ JMAMFJ	DNOSAJ J
42 111	111 11321 2121	11 23145

↑
Most recent record of payment
Read Histories from right to left
↑
Oldest record available

- 1 Payment on time
- 2 Payment delayed between 1 to 29 days
- 3 and above indicate more delays in payment

Source: IFC 2012.

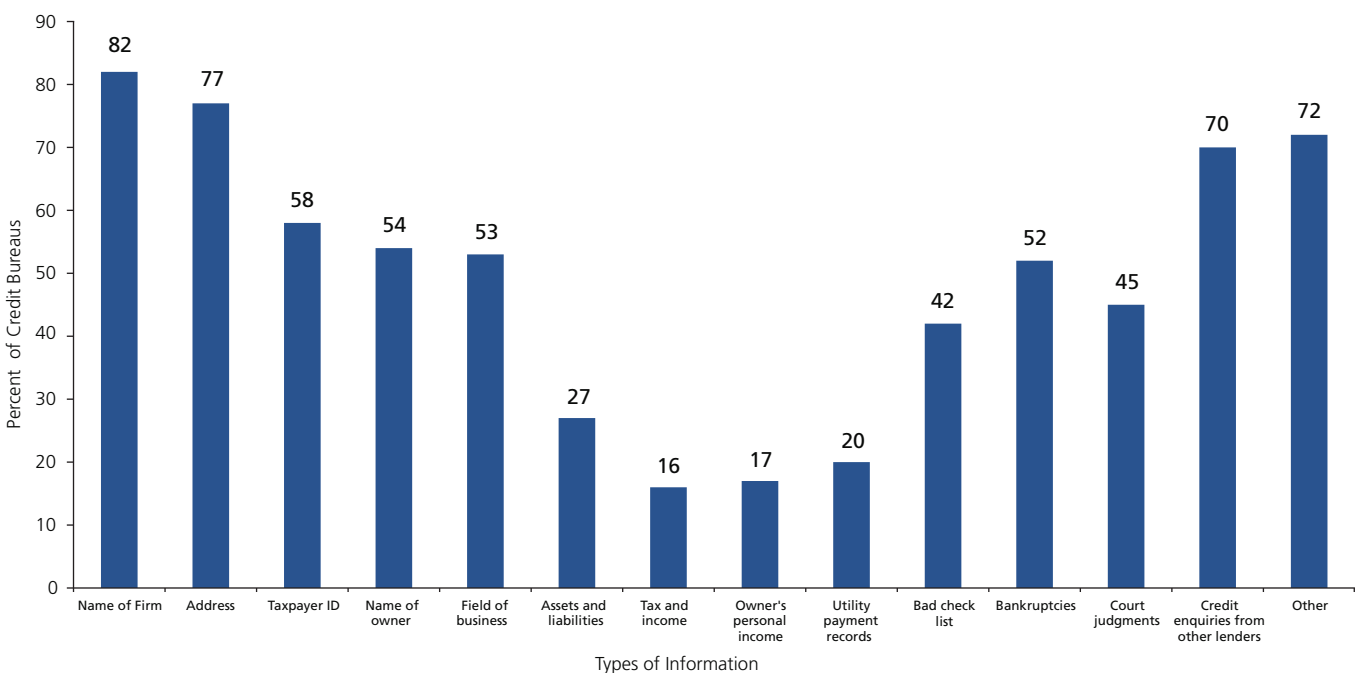
Reports are usually available to lenders electronically and most large modern creditors have credit reports fed directly into their loan processing systems and originating software. Lenders pay the credit bureau for credit reports in the form of a subscription fee, a fee-per-query with significant volume discounts, or a combination of both.

Historically, credit bureaus only collected information on individuals. In recent years, with the expansion of small

business lending and advances in information technology, more credit bureaus are able to collate and sell reports on small businesses. According to the Doing Business survey data,⁵⁰ more than 80 percent of the 100 credit bureaus responding contained at least some information on firms (see Figure 2.5). Collecting information on both individuals and firms in one credit bureau has the benefit of allowing a combined assessment of a business and its owner. The credit history of a small-business owner is an important predictor of the credit risk of the small business, since small business owners often mix personal and business finances. Many individuals personally guarantee their business loans. However, in such cases there is a need to consider and respect all appropriate laws and regulations on privacy rights, and ensure that personal data is only used for permissible purposes specified in the legal and regulatory framework or only provided to users that are legally allowed to access such data.

While credit bureaus have access to a broad range of data and provide a wide range of services to assist lenders in making lending decisions, the business model is usually

Figure 2.5: Firm-Level Information Collected by Private Credit Bureaus



Source: IFC calculation based on Doing Business Indicators (database) 2012.

⁵⁰ Ibid.



based on voluntary contribution of information by data providers (typically involving a reciprocity arrangement). In some jurisdictions, usually in the formative stages of the credit reporting environment, there can be resistance to the concept of sharing information from some potential data providers, most commonly from larger institutions that are unwilling to share customer data for fear of losing their market share. In these circumstances, the authority of the central bank as overseer of the credit reporting system or supervisory authority of regulated lenders, through its ability to persuade participation in a data-sharing environment, can have a profound catalytic effect on establishing good practices. A trend seems to be developing for jurisdictions to mandate regulated entities to share data and use the services of credit bureaus. According to Doing Business survey data,⁵¹ 42 percent of the respondents said that the law required mandatory reporting to the credit bureau at least by banks and 39 percent said financial institutions (including banks) were required to consult with a bureau. Along with mandating participation, the regulatory body must also be empowered to enforce participation and monitor compliance.

2.1.2 Credit Registries

Historically credit registries served a different purpose from credit bureaus. Most credit registries started out as internal databases within a country's central bank and were, and in many cases still are, used as a supervision mechanism to identify systemic risk within the lending portfolios of regulated financial institutions. As such, these databases focused primarily on large credit exposures, typically with a loan threshold value in excess of \$5,000.⁵² Initially information in credit registries was used solely for internal purposes, but, in the absence of other credit reporting service providers in many countries (including China, France, Malaysia, and Indonesia), over time information from credit registries has been made available to regulated lenders in the form of credit reports. With the growth of consumer credit, the loan value thresholds have been reduced or abolished, and, in some countries (e. g., France,

Argentina, Spain, Peru, Italy, and Belgium), the credit registry now offers similar products and services to credit bureaus.

Generally, all regulated financial institutions are mandated to provide data to the registry (see Figure 2.6). In return, the registry provides a credit report to all reporting regulated financial institutions, which shows current aggregate exposures of regulated entities. Credit registry coverage tends to be limited by the scope of data providers (regulated lenders only). Because the operator of the registry (frequently a central bank or other authority) has no regulatory purview over nonregulated sectors, such as nonregulated MFIs, the information provided by a registry, while sufficient for prudential supervision and monitoring purposes, might not meet user needs for credit granting processes.

Credit registries collect information on both individuals and firms. Individual-level information typically includes identification data, loan type and characteristics data, negative data, collateral and guarantee data, and payment history data (see Figure 2.7).

Firm-level information collected by registries typically includes identification data, business owner data, loan type and characteristics data, negative data, and payment history data (see Figure 2.8).

Credit registries usually provide their credit reports at low or no cost to the lenders. Of the 82 credit registries that provided information to the Doing Business survey on their cost to inspect data, only 14 listed a fee.⁵³

2.1.3. Commercial Credit Reporting

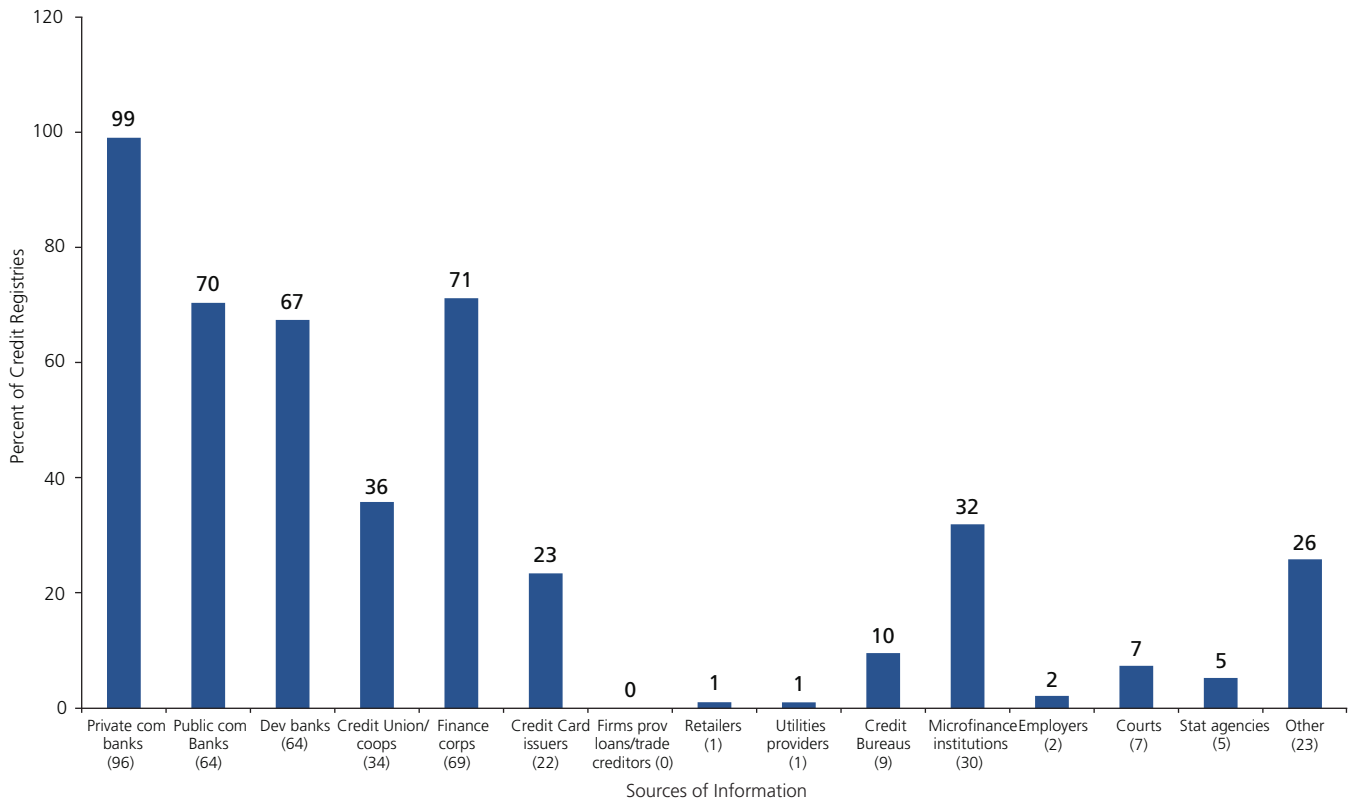
Commercial credit reporting companies provide information on companies, including sole proprietorships, partnerships, and corporations, available through public sources, direct investigations, and payment behavior reported by suppliers and trade creditors. Commercial

⁵¹ Based on Doing Business Indicators (database), 2012, "Getting Credit" indicator.

⁵² Ibid.

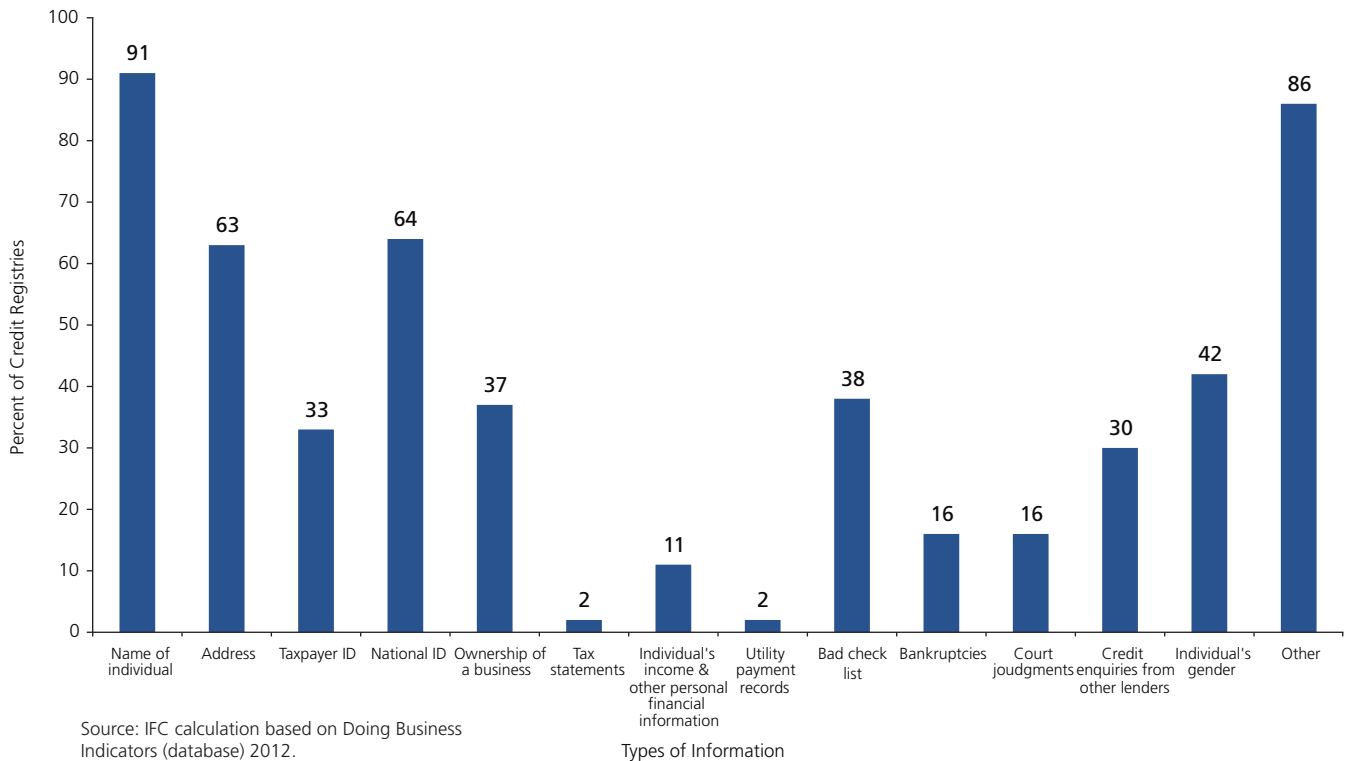
⁵³ Doing Business Indicators (database), 2012, "Getting Credit" indicator.

Figure 2.6: Sources of Information for Credit Registries



Source: IFC calculation based on Doing Business Indicators (database) 2012.

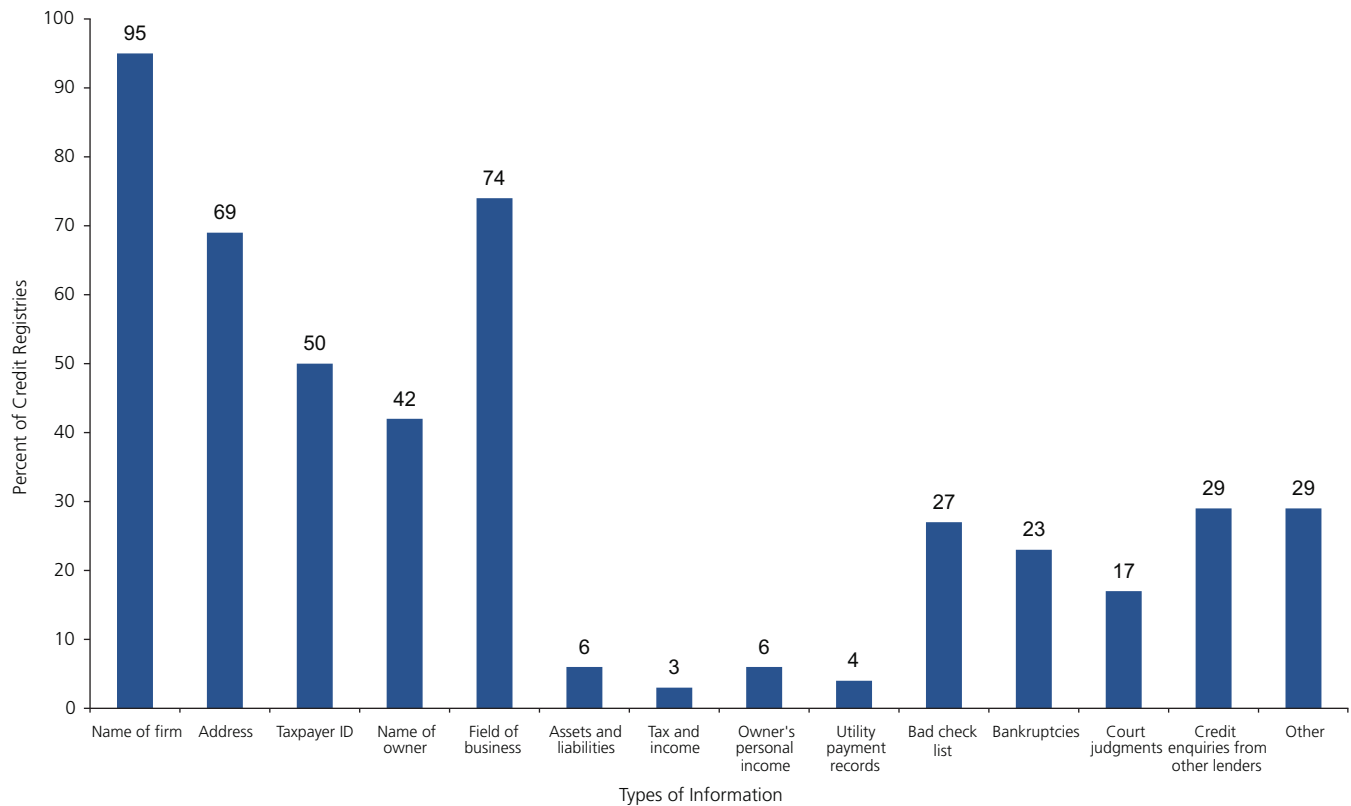
Figure 2.7: Individual-Level Information Collected by Credit Registries



Source: IFC calculation based on Doing Business Indicators (database) 2012.



Figure 2.8: Firm-Level Information Collected by Credit Registries



Source: IFC calculation based on Doing Business Indicators (database) 2012.

credit reporting companies cover companies that are smaller in size and earnings than corporations covered by credit rating agencies. The information compiled through these commercial credit reporting companies is typically used for credit risk assessment or credit scoring, or for other purposes such as the extension of trade credit.

Commercial credit reporting differs from credit reporting on consumers in several ways. The information held by commercial credit reporting companies does not include sensitive personal information on individuals. The size of transactions reported to commercial credit reporting companies is also significantly larger. Commercial credit reporting requires significantly more payment performance and financial data than would be required of individual borrowers. Whereas credit bureaus disclose the identity of data providers to protect the rights of individual borrowers, commercial credit reporting companies do not disclose the identity of data sources or data recipients to their client businesses.

Commercial credit reporting may include small businesses although the information is often limited because the reporting format is inappropriate for small companies. As discussed earlier, assessment of small businesses benefits from the link to personal owner records, since small businesses tend not to produce publicly available financial statements. However, commercial credit reporting companies do not collect personal data on individuals. In addition, the cost of a report on a micro or small enterprise is likely to be high in relation to the loan size. For this reason, micro and small businesses tend to be better served within the framework of a credit bureau.

The international leader in commercial credit reporting is Dun & Bradstreet, which traces its roots back to the Mercantile Exchange established in New York City in 1841. Formerly, the company delivered its reference books to subscribers under lock and key. Today, it transmits credit information on more than 140 million businesses worldwide electronically. Coface, the second largest

international credit risk insurer, entered the international market by building on its database of payment behavior of hundreds of thousands of medium-sized companies, which it built through its credit risk insurance business.

Although the scope of the general principles for credit reporting covers commercial credit reporting companies, not all principles are applicable to them. IFC's experience to date has been largely focused on supporting credit reporting for consumers, micro, small, and medium sized businesses, served through credit bureaus and credit registries. This Guide does not further discuss aspects of commercial credit reporting or of credit ratings agencies.

2.2 Ownership Structures

Credit bureaus and credit registries normally serve separate functions. Whereas the former generally focus on making information available to financial and nonfinancial creditors for credit-granting purposes, the latter typically focus on assisting banking supervision while improving the quality and availability of data for supervised financial intermediaries. However, there are instances of bureaus supporting banking supervision and instances of registries making data available to creditors in the market.

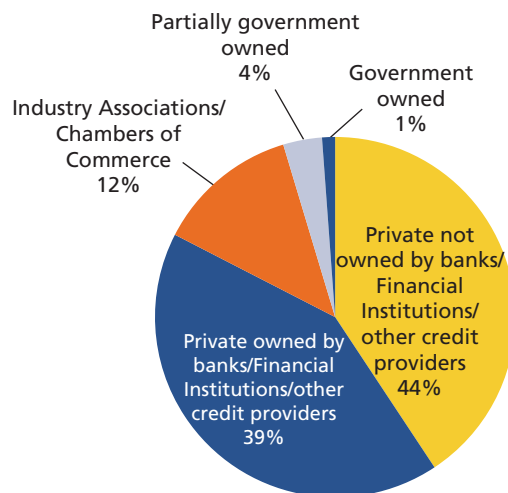
Based on the broad categorization described above, credit registries are mostly owned and operated by public sector entities such as a central bank or other monetary/financial supervisory authority, as these entities are directly responsible for prudential supervision and risk monitoring functions in an economy. Conversely, depending on its function and the range of stakeholders involved, the ownership structure of a credit bureau can fall into one of many categories:

- Credit bureaus in which banks and/or other creditors are either majority or minority shareholders
- Credit bureaus owned and operated by a separate entity with no ownership by creditors
- Credit bureaus formed on the basis of an association or chamber of commerce that mostly operate on membership fees

- Credit bureaus that are partially owned by government entities
- Credit bureaus that are wholly owned by government entities (this is very rare).

According to the Doing Business survey data,⁵⁴ of 106 credit bureaus in 100 countries around the world, approximately 44 percent had no ownership by banks, financial institutions, or credit card providers; 39 percent were owned by banks, financial institutions, or credit card providers; 12 percent were held by industry associations or chambers of commerce; and only 4 percent were partially held by governments (see Figure 2.9).

Figure 2.9: Ownership Structures of Credit Bureaus



Source: IFC calculation based on Doing Business Indicators (database) 2012.

2.2.1 Owners and Shareholders

Owners and shareholders are generally the investors that provide seed capital for a CRSP, negotiate and prepare the pre-incorporation agreements, lease or acquire office premises, and contract for the initial needs of the CRSP, such as acquiring technological assets and recruiting the necessary personnel to manage the day-to-day operations. They may also be users of the service, for instance when the CRSP is owned by member banks. Potential owners and shareholders may include banks, technical partners,

⁵⁴ Ibid.



government bodies, and private investors, as described below.

- **Banks and other financial institutions:** It is not uncommon for banks to be shareholders in CRSPs, either individually or as a group. For example, the Association of Banks in Singapore owns a share in Singapore's credit bureau. Other countries in which a group of banks owns credit bureaus include Brazil, Croatia, Kazakhstan, Poland, Romania, Serbia, Turkey, and Saudi Arabia.
- **Private individuals, technical partners, or other entities:** Individual entrepreneurs or organizations that provide venture capital for the establishment of CRSPs may also become shareholders. Examples are DP Information in Singapore, Datacheck in Pakistan, CompuScan in South Africa, and CRB Africa in Kenya. Many CRSPs have technical partners to manage the information technology requirements of the reporting system. It is not uncommon for technical partners to hold an ownership share in the company.
- **Government:** In some countries, government entities (e.g. the central bank in Sri Lanka), or public sector financial institutions (e.g. India and Thailand), become shareholders in the credit bureau. In Dubai, the credit bureau is fully owned by government entities.

Credit bureaus in which creditors have no ownership, such as in the United States, Kenya, and New Zealand, are generally efficient structures because credit reporting is their core business, and the shareholders' main objective is to maximize business value by expanding operations and providing new and innovative products and services. Conflicts of interest are minimal because the bureau's relationships with its members and users are driven by commercial interests.

Although this is the ideal structure, it is often not feasible in countries developing their first credit reporting service because lenders are often reluctant to share information unless they are shareholders (and therefore share control). Often, lenders resist sharing their customer information with a newly established bureau until they are certain that other lenders will do the same. Therefore, an independently

owned bureau should obtain commitment from as many lenders and data sources as possible before starting operations. Another potential challenge for independently owned bureaus is limited capital (with no shareholder banks to provide back-up capital injection if necessary).

In several countries, such as Argentina, Brazil, Croatia, Germany, Romania, Turkey, Mexico, the Russian Federation, Kazakhstan, and Ukraine, bureaus have included ownership by creditors. The advantage of this ownership structure is that it allows for a faster startup because agreement among the banks to become shareholders brings about a strong commitment to the principle of reciprocity in information sharing. Furthermore, the commitment by existing lenders promises long-term financing. Participation by a government authority may also add credibility to the venture. Including a technical partner as a shareholder allows the credit reporting service provider to better align its incentives and focus on efficiency in operations.

Bureaus that include ownership by creditors face challenges as stakeholder differences can get in the way of maximizing business value. Creditor shareholders may be reluctant to allow new creditors to participate because these newcomers, while unable to contribute significant amounts of data, would benefit greatly from having access to information on existing clients. Furthermore, when creditors own the credit bureau, they are less likely to use the services of any other bureau, thus increasing barriers to entry in the credit reporting market. If a few banks are shareholders, whereas several other banks or nonbank creditors such as microfinance institutions are nonshareholding users of the bureau, it is possible that shareholding banks may influence the pricing policy in a manner that penalizes nonshareholder users. Such unfair practices can be avoided if ownership by individual creditors is limited.

Partial government ownership in credit bureaus is rare, but has been seen in some markets, when equity investment by government helps boost private investor confidence. For instance, Sri Lanka's Credit Information Bureau (CRIB) was established as a public-private partnership in which the central bank originally held a 49 percent equity stake, now reduced to 19 percent.⁵⁵ In India, the State Bank of

⁵⁵ Ibid.

India and the Housing Development Finance Corporation Ltd. (HDFC) were majority shareholders (40 percent each) of the Credit Information Bureau (India) Ltd. (CIBIL) when it was first established in 2006. At the time, Dun & Bradstreet and TransUnion held the remaining 20 percent (10 percent each).⁵⁶ Over the years, other banks joined as shareholders and State Bank of India and HDFC have reduced their holdings. Credit bureau ownership by banks

and other creditors has been a growing trend in emerging markets. However, in IFC’s experience, as lenders gain more trust in the operations of a credit bureau, they tend to divest their shareholdings (e.g. in Hong Kong SAR, China, and the Dominican Republic). Table 2.1 summarizes the different ownership structures and the advantages and disadvantages of each.

Table 2.1: Comparison of Credit Bureau Ownership Structures

	Commercial, with ownership by creditors	Commercial, no ownership by creditors	Non-commercial, creditor association	Government ownership (partial or full)
Pros	<ul style="list-style-type: none"> • Often the only feasible way to establish a credit bureau and ensure buy-in from lenders • Lender support implies strong commitment and ensures bureau sustainability • Technical partners enhance the credit bureau’s creditworthiness • Commercial outlook ensures innovation and high-quality service. 	<ul style="list-style-type: none"> • No conflicts of interest in management • Commercial outlook ensures innovation and high-quality service • Open for broad market coverage. 		<ul style="list-style-type: none"> • Boosts confidence of private sector, creditors and technical partners.
Cons	<ul style="list-style-type: none"> • Conflicts of interest are possible, where existing shareholders resist the entry of new lenders to the credit bureau or the introduction of new services • Slow decision process as diverging views of large numbers of shareholders need to be accommodated • Barriers to entry for new providers as well as new members. 	<ul style="list-style-type: none"> • Banks generally are not willing to share data without taking ownership in a bureau • Lack of capital. 	<ul style="list-style-type: none"> • Limited incentives to innovate • Usually lower quality of service than in a for-profit bureau • Slow decision process. 	<ul style="list-style-type: none"> • Not efficient use of government resources. • Government as shareholder creates conflict of interest between supervisory and shareholder functions.
Examples	<ul style="list-style-type: none"> • CRIF (Italy) • CIG (Iceland) • SCHUFA (Germany) • Serasa (Brasil) • SIMAH (KSA) 	<ul style="list-style-type: none"> • Equifax (US, Spain) • Experian (US, UK) • TransUnion (US) • Compuscan (South Africa) • Datacheck (Pakistan) 	<ul style="list-style-type: none"> • Common in Latin America, where Chambers of Commerce operate lists of bad debtors. 	<ul style="list-style-type: none"> • Sri Lanka • Thailand • United Arab Emirates.

Source: IFC 2012.

⁵⁶ Credit Information Bureau (India) Ltd. (CIBIL), <http://www.cibil.com/web/promoters.htm>



2.3 Optimal Market Size

Credit bureaus are characterized by network externalities and economies of scale that could classify the market as a natural monopoly. Ongoing debate on the optimal number of CRSPs in a market has not produced consensus thus far. On the one hand, a single credit reporting service combining aggregated information across the entire system and including both bank and nonbank credit information would provide lenders with the most complete set of information, including comprehensive inquiry information. On the other hand, the lack of competition eliminates incentives for such a provider to improve data quality, provide value-added services, and lower prices.

Competitive credit information industries are more common in large markets that can support more than one CRSP. In the United States, for example, consolidation in the financial services industry over the past 20–30 years has resulted in three major credit bureaus operating concurrently and competing on the basis of product and service differentiation. In South Africa, the three major credit bureaus all contain information from the same banks, but compete on the quality of information and on value-added services. Other countries with a competitive credit

information industry include the United Kingdom, Italy, India, and Chile. Germany, Austria, and most smaller European countries have only one major credit bureau.

Whereas the number of bureaus differs based on each country's needs, most countries have only one credit registry. In some instances, the credit registry is divided into separate databases covering data on individuals and firms (e.g., Tunisia and Belgium); separate databases for positive and negative information (Algeria); or separate databases that are used for monetary supervision and to provide reporting to regulated financial institutions (France and West Africa's Banque Centrale des États de l'Afrique de l'Ouest).

Indeed, bureaus and registries are by no means mutually exclusive, and in several countries they exist side by side. In those instances registries typically assist the financial supervisors in prudential supervision and risk monitoring and often provide comprehensive reporting back to regulated financial institutions. Bureaus largely support the credit reporting needs of financial and nonfinancial creditors and often provide statistical information to the supervisor or credit registry to assist with the prudential supervision function (e.g., Kenya, Uganda, and South Africa).

Credit Reporting for Micro, Small, and Medium Enterprises



Expanding access to finance to low-income household consumers and MSMEs is on the development agenda of most emerging markets. Microfinance is broadly defined as the provision of financial services to low-income clients, including consumers and self-employed individuals, who traditionally lack access to banking and related services. It is perceived as an important mechanism in expanding access to finance as it focuses on lower-income clients, who are often self-employed, household-based entrepreneurs. Their diverse microenterprises include small retail shops, street vending, artisanal manufacture, and service provision. In rural areas, microentrepreneurs often have small income-generating activities, such as food processing and trade, and some are farmers.⁵⁷ These clients usually have informal or no business records, no collateral, and no access to formal credit markets.

Small and medium enterprise (SME) finance can be distinguished from microfinance in two respects: first, it covers a wider range of entrepreneurial clientele, and second, SMEs are often larger and therefore represent a bigger risk exposure to lenders than microfinance clients. SMEs require a more in-depth credit review process than microfinance clients. Still, SMEs often fall into the middle market for lenders—too big for traditional microfinance yet too small for mainstream banks.

3.1 Microfinance

Over the past five to ten years, microfinance has grown rapidly, driven in part by the global recognition of its value

as a development tool, and in part by promotion by national governments, international development bodies, donors, and socially oriented investors. It is estimated that the number of borrowers served by microfinance institutions (MFIs) is as high as 120 million to 190 million.⁵⁸ MFIs can be registered institutions such as nongovernmental organizations (NGOs) and cooperatives, or small nonprofit organizations, and are only one of the various types of entities that offer microfinance services. In addition to MFIs, many commercial lenders and consumer lending companies are moving downstream and offering microfinance products, a move that highlights the huge potential that this market segment holds for commercial lenders. The microfinance business model is designed to fit the financing preferences of low-income consumers and entrepreneurs through the use of low-value, short-tenure loans with several installment payments.

During the years of rapid growth, from early 2000 to about 2008, microfinance enjoyed a reputation for strong asset quality and low delinquency rates. Over the past three to four years, however, the quality of microfinance portfolios has deteriorated worldwide, with increasing portfolios-at-risk values. Several factors contributed to this deterioration, such as inadequate risk management systems and controls, internal organization weaknesses, and excessive growth in narrow geographies, combined with unhealthy lending practices that affected borrower repayment incentives and behaviors. All these factors resulted in overindebtedness as witnessed in several markets, including Morocco, Bosnia and Herzegovina, Pakistan, Egypt, Cambodia, and India.⁵⁹

⁵⁷ Microfinance Gateway, <http://www.microfinancegateway.org/p/site/m/template.rc/1.26.12263/#1>

⁵⁸ Lyman et al., 2011.

⁵⁹ Ibid.

The search for solutions to this crisis has highlighted the critical role that credit reporting can play in averting or reducing the risks of overindebtedness and borrower defaults. Although credit reporting alone cannot create credit discipline in a market, or compensate for inadequate underwriting standards, it can improve microlenders' abilities to originate loans and manage credit risk and it creates a powerful incentive for repayment among borrowers.

Traditionally, CRSPs served the mainstream banking and consumer lending sectors, leaving low-income consumers and MSMEs outside the credit reporting infrastructure. Credit information products developed for more traditional lenders like commercial banks were designed to deal with larger loan values—and with longer tenures and less frequent repayment schedules—than MSME loans. Microlenders tended not to have the data required to populate credit reporting databases, and collecting this data would require significant efforts and costs to create the right infrastructure and capacity. In countries where bureaus or registries reported collecting information from microlenders, they dealt with larger, regulated microlenders, which still left out a large portion of microlenders lending to those at the base of the pyramid.⁶⁰

A credit reporting service provider that caters to the needs of microlenders offers the following benefits to these lenders:

- Better methods for risk management as sharing credit information reduces a lender's uncertainty about a borrower's exposure, and at the same time protects the borrower from becoming overindebted
- Significant cost reductions as lenders attain the ability to screen borrowers quickly
- Increased lending volumes over time due to automation of credit granting decisions
- Promotion of responsible borrower behavior as the lenders' clients develop awareness of the use of credit reporting and how maintaining a good credit history is beneficial for them.

Microfinance has been brought into the ambit of credit reporting through different methods. In some cases, credit bureaus have expanded their databases to include payment data on low-income individuals (and expanded their data subject and customer bases to include data from MFIs); in other cases, credit registries have incorporated nonbank microlenders; in yet other instances, MFI-specific client databases have been created. Each of these methods is described briefly below:

Credit bureaus: Credit bureaus collect a wide range of information on a borrower's financial and credit situation, including information from nonfinancial institutions and MFIs. Whereas most low-income earners may not have formal salaries or other banking history information, they may have utility or telecommunications accounts and payment histories from other credit providers including retailers and MFIs. Credit bureaus have the ability to collect this information, collate it, and provide it to microlenders for a range of purposes, for example, to indicate the relative creditworthiness of the borrower, assess risk, verify identity, collect debt, and monitor fraud. Credit bureaus offer the largest coverage and are in a position to offer broad information to MFIs.

In India, an MFI credit bureau project was launched in June 2009 through IFC and local sponsors working closely with the existing credit bureaus. As of the end of 2011, approximately 45 MFIs were reporting to credit bureaus and approximately 55 million client records had been uploaded. Currently, more focus is being placed on increasing the reach of MFI reporting to credit bureaus, greater use of credit information, and client awareness regarding credit reporting (see India case study, Chapter 7, section 7.4). In Egypt, Morocco, and Nepal, discussions are underway to link MFIs to existing credit bureaus. In Bangladesh, IFC is working with an association of microfinance institutions to support credit reporting for MFIs. The most likely solution will be a bureau that caters specifically to MFIs and that would be supervised by the country's Microcredit Regulatory Authority.

Credit registries: Credit registries usually mandate reporting and compliance by regulated financial institutions, including

⁶⁰ Ibid.



regulated microlenders. Consequently, microlenders that are not regulated are usually excluded from credit reporting requirements. In some countries, credit registries continue to maintain thresholds for loan reporting values, which implies that microloans of low value would not be captured by these registries. However, in many countries oversight and regulation of microlenders is growing, particularly in light of the recent spate of crises in this sector, thus bringing more microlenders under formal oversight of the regulatory bodies and thus improving their chances of being a part of the credit information sharing system.

MFI-specific client database: In some situations, MFI-specific client databases are generated in the absence of any formal framework or structure for sharing of credit information among MFIs on their clientele. These databases are generally limited in scope and tend to cover only negative information on MFI clients. Further they do not include information from other possible lenders to these clients, thus presenting a fragmented picture of borrower credit history. However, they are generated to fulfill a specific need at a specific point in time, and generally evolve over time to become more comprehensive credit reporting service providers, as was the case of Sin Riesgos in Nicaragua⁶¹ and the FINRURAL system in Bolivia (before it became a part of the credit bureau, Infocred).

3.2 Regional Developments in Microfinance Credit Reporting

Sub-Saharan Africa (SSA) is a region with a rapidly growing microfinance sector with over 700 MFIs, 5.3 million active borrowers, and a gross loan portfolio of \$7.2 billion.⁶² However, credit reporting in the microfinance sector is still in its infancy because credit reporting systems in general, (even for mainstream lenders) are relatively new and still maturing. South Africa is the only exception, with a relatively sophisticated MFI credit reporting system. Some of the challenges faced by lenders participating in credit reporting systems are described below.

⁶¹ Ibid.

⁶² Mix Market estimates as of September 2012. Based on 31 countries reporting data to MixMarket. <http://www.mixmarket.org/mfi/region/Africa>

⁶³ Economist Intelligence Unit 2012.

⁶⁴ Based on MixMarket data for 12 countries reporting in 2011, <http://www.mixmarket.org/mfi/region/East%20Asia%20and%20the%20Pacific>

In Mozambique, the central bank maintains a registry of all loans, including microfinance loans, which is online and available to MFIs for a fee. However, the quality of information is weak and not suitable for rural MFIs with limited connectivity. In Rwanda, the credit bureau collects and distributes data to regulated MFIs for a fee. MFIs are required to report loans above a certain threshold (over \$300) to the bureau. In Uganda, the credit bureau serves the regulated microfinance sector, however, it leaves out a large number of informal creditors that serve the microfinance market. In other countries, such as Nigeria and Tanzania, the legal framework provides for the participation of regulated microfinance providers in credit reporting systems. In Tanzania, no service providers are currently operational, and in Nigeria, shortcomings in the legal framework impede the proper functioning of bureaus. In Ghana, although bureaus are operational, microfinance lenders are not mandated to participate and avoid participation because of the high costs involved. Madagascar has a credit bureau for microfinance institutions, which can receive data for free. MFIs, particularly smaller MFIs, face reporting constraints due to infrastructure and connectivity issues. Information sharing is fragmented, however, as a separate bureau exists for commercial lenders.⁶³

As can be seen, the microfinance sector in much of Africa still faces substantial capacity obstacles such as connectivity, lack of enabling frameworks, and fragmentation, among other things. There is also reluctance on the part of MFIs to share customer data, either with other MFIs or mainstream lenders because they fear their best customers would be poached by competitors. Because of these challenges, newly established CRSPs do not see MFIs as an attractive market segment compared with the formal banking sector and other data providers and users such as telecommunication companies and utility providers.

East Asia and the Pacific (EAP) had over 400 MFIs with 14.9 million active borrowers and a gross loan portfolio of \$36.9 billion in 2011.⁶⁴ In the Pacific Islands, only four countries (Fiji, Papua New Guinea, Tonga, and Vanuatu) had credit bureaus, all established within the past 10 years.

In Fiji and Papua New Guinea, some MFIs have joined the credit bureaus; and, as the newly established credit bureaus in Tonga and Vanuatu progress, it is expected that MFIs will soon become members.

In East Asia excluding the Pacific Islands, credit reporting for microfinance is still a novel concept and occurs only in Cambodia, which launched a private bureau in March 2012. Regulated MFIs are required by law to contribute information on all their loans to the credit bureau; and they must request a credit report for each new credit application or renewal of existing facilities, regardless of the amount of the loan. The very small nonregulated MFIs have not yet joined the credit bureau.

Eastern Europe and Central Asia (ECA) had a microfinance market that was served by over 400 MFIs, with 2.3 million active borrowers and a gross loan portfolio of \$8.8 billion in 2011.⁶⁵ The region's microfinance sector faced significant challenges over the past five years, in particular in Central Asia where overindebtedness became problematic, in part due to lack of mechanisms for systemic risk management, insufficient information in credit reporting structures (credit registries and credit bureaus), and ineffective supervision. Some of the challenges in credit reporting for the sector are described below.

In Armenia, MFIs report and obtain services from the private credit bureau. Although many credit reporting structures (for instance, in the Kyrgyz Republic, Bosnia and Herzegovina, and Moldova) also collect information from the microfinance sector, coverage is low and data quality continues to be an issue. In Azerbaijan, regulated MFIs are mandated to report their loan information to the credit registries and also share information with the credit bureaus on a voluntary basis. In the Kyrgyz Republic, MFIs participate in the bureau, but participation is not mandatory and data quality remains an issue. Tajikistan has

established a private credit bureau, which, once operational, will collect information from microfinance lenders.

Microfinance credit reporting could benefit from further strengthening in the region with regards to explicit regulation of MFIs to enable their participation in the credit reporting system, greater investment in technology platforms for MFIs to enable credit reporting, capacity building of MFIs to use credit information data for underwriting and risk management, and encouraging service providers to provide more MFI specific products.

Middle East and North Africa (MENA) has a microfinance market that is smaller than in other regions with over 80 MFIs serving 1.1 million borrowers and a gross loan portfolio of \$901.3 million.⁶⁶ Because of political changes in the region, particularly in Egypt, Tunisia, and the Republic of Yemen, there has been an increase in nonperforming loans. Of the 20 countries in the MENA region,⁶⁷ only six have either a credit bureau or a registry. The majority of these serve only regulated financial institutions, which are mainly banks. Recently, Egypt, Tunisia, Morocco, and Jordan, among others, have taken steps to integrate MFIs into their formal credit reporting systems.

In Egypt, I-Score (Egypt's credit bureau) and the Egyptian Microfinance Network (representing MFIs in Egypt) are working in partnership to integrate data from MFIs into I-Score's database, which already includes credit data of regulated and nonregulated financial institutions. This agreement was reached after I-Score conducted a pilot test using samples of data from MFIs. The results showed a high level of cross lending between microlenders and banks, and to a smaller extent within the microlending sector itself. These results encouraged MFIs to agree to share their customers' credit information. (For a detailed discussion of the I-Score model, see the Egypt case study in Chapter 7.)

⁶⁵ Based on MixMarket data for 20 countries reporting in 2011, <http://www.mixmarket.org/mfi/region/Eastern%20Europe%20and%20Central%20Asia>

⁶⁶ Based on MixMarket data from 10 countries reporting for 2011, <http://www.mixmarket.org/mfi/region/Middle%20East%20and%20North%20Africa>

⁶⁷ The MENA region, as defined by IFC, includes: Afghanistan, Algeria, Bahrain, Egypt, the Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, West Bank and Gaza, and the Republic of Yemen.



A similar pilot program was conducted in Pakistan. Led by the Pakistan Microfinance Network (focusing on the Lahore microfinance market), 15 MFIs submitted data to one of Pakistan's private credit bureaus. The pilot proved successful, with the MFIs reporting benefits including reduced lending costs and a decrease in nonperforming loans. Accordingly, it has been agreed that the program will be replicated nationwide. It is expected that this initiative will eventually help MFIs build capacity to make better credit decisions leading to healthier portfolios and, consequently, a more inclusive and risk-balanced microfinance market in Pakistan.

In Morocco, all MFIs are mandated to provide data every month to the private credit bureau. However, the cost of accessing the bureau's reports has been cited as a prohibitive factor in stimulating MFI uptake of the system. Prior to the development of the bureau, smaller MFIs formed a network, Réseau de la Microfinance Solidaire, to share information among themselves. The Réseau de la Microfinance Solidaire helped develop a common format for data sharing with the bureau (once it was established) and retrieving information from the bureau through the central bank. The three major MFIs already have CPU-to-CPU connections in place. The central bank played an important role in brokering a pricing negotiation between the bureaus and MFIs.

Like the other regions, MENA faces its share of challenges to integrating MFIs into the credit reporting system. Common obstacles include enabling legal and regulatory frameworks that support data sharing by MFIs, MFI resource constraints, telecommunications infrastructure, and internet connectivity issues among others. MFIs are reluctant to share data for fear of losing their best customers. Pricing plays a big factor in the decision of MFIs to participate in a credit reporting system. Bureaus tend to charge microlenders prices that they would normally charge banks or other large lenders for products that are not entirely tailored to meet MFI needs, thus repelling potential microlender clients. Discussions between the CRSPs, microlenders, and regulators (as has taken place

in Morocco and Egypt) help to narrow the differences in objectives between credit reporting service providers on the one hand, and microlenders on the other hand.

South Asia (SAR) represents the largest market for microfinance borrowers with 75 percent of the world's microfinance borrowers, or 74 million borrowers. India and Bangladesh make up the biggest markets for microfinance in South Asia.⁶⁸ The chief challenges in developing microfinance credit reporting systems in South Asia are similar to those in other regions, including lack of capacity on the MFI end (systems and technology), data quality issues (e.g., inadequate identification information and incomplete information), connectivity and infrastructure issues, affordability of credit reporting products for MFIs, lack of enabling legal and regulatory framework, and political stumbling blocks.

In India, the 2010 microfinance crisis in Andhra Pradesh, provided necessary impetus to the microfinance credit reporting agenda, which had already started to take shape in mid-2010. In May 2011, two of the four licensed credit bureaus in India started providing credit reporting services for microfinance institutions and reported 67 million loan accounts at the end of that year (see the India case study in Chapter 7, section 7.4.) Work is underway to develop a credit reporting system for microfinance institutions in Bangladesh, but these efforts are still years away from fruition.

Latin America and the Caribbean (LAC) has a large microfinance market with over 500 MFIs serving 18.1 million borrowers and a gross loan portfolio of \$27.7 billion.⁶⁹ Of all regions, Latin America and the Caribbean is the most advanced in terms of credit reporting systems for the microfinance market.

Ecuador, Bolivia, and Peru are widely known for their progressive credit reporting systems incorporating information from the regulated and nonregulated microfinance sectors. The Ecuador model, (see Ecuador case

⁶⁸ Mix Market 2012.

⁶⁹ Based on Mix Market data for 21 countries reporting for 2011, <http://www.mixmarket.org/mfi/region/Latin%20America%20and%20The%20Caribbean>

study in Chapter 7, section 7.1) has been followed in other countries. Recent changes in the credit reporting market in Ecuador, however, stand to undermine the effectiveness of the system.

In Mexico, MFI credit reporting services are provided through two credit bureaus. Although the law does not mandate it, funders of microfinance institutions increasingly require these institutions to consult bureaus in an attempt to control portfolio quality and indirectly check potential overindebtedness. The market for microfinance credit reporting remains fragmented, however, as the two bureaus do not currently share data with each other, although recent regulatory changes are attempting to address this issue.

3.3 Small and Medium Enterprise Finance⁷⁰

Access to finance is a key constraint to SME development and growth, especially in emerging markets. In their early stages, SMEs are often financed internally by the owner's savings or earnings. Sustained growth, however, usually requires external funding. A 2003 World Bank study⁷¹ that looked at data from 5,000 firms across 51 countries found that in countries without credit bureaus, 49 percent of small firms reported significant financing constraints, as opposed to 27 percent in countries that did have credit bureaus. The study also found that in countries with credit bureaus, the probability of a small firm obtaining a bank loan was 40 percent versus 28 percent in countries without credit bureaus. A more recent World Bank study based on data from 99 developing countries found that small firms are large contributors to total employment and job creation, but have lower productivity growth than larger firms because they are hampered by inadequate financial infrastructure and regulatory environments (in

addition to other obstacles), and called on authorities to design policies to overcome these challenges.⁷²

Historically, small business borrowers have represented a difficult market to serve because of the traditional high-cost of subjective credit evaluation. The SME business owner's personal finances are often comingled with those of the business, and this distinction is not immediately apparent to lenders. The difficulty in assessing the creditworthiness of SME businesses causes lenders to adopt protective measures, such as imposing higher interest rates, requesting substantial collateral, or denying credit altogether to SME borrowers. The financial services company Wells Fargo pioneered the adaptation of consumer lending technologies to small business lending in the 1990s in the United States. It established that the business owner's consumer credit history proved highly predictive of the credit performance of that business. This and other innovations in small-business lending have since been adopted widely in developed countries and have also begun to find their way into emerging markets.

In the United States, an industry consortium launched small business credit reporting only in 2002. Several emerging market credit bureaus in Thailand, India, Turkey, and Saudi Arabia incorporated provision of small business credit reporting into their business plans early on to avoid the mistakes of their more developed counterparts. In Singapore, the SME Credit Bureau was created in 2002 and became fully operational in 2005 as one of the first credit bureaus in the region that collates data with both consumers and small and medium enterprises (SMEs). In India, the country's first rating agency focusing primarily on MSMEs was created in 2005 to improve credit flow to the sector.⁷³

Drawing on lessons learned from 164 case studies, the SME Finance Sub-group of the G-20 and the Global

⁷⁰ This Guide focuses on credit reporting systems. Accordingly, the discussion in this section focuses on best practice in establishing and developing credit reporting systems to improve SME access to finance. For a comprehensive look at SME finance, please see IFC 2010, SME Banking Knowledge Guide. Also visit SME Finance Forum, an initiative launched by IFC as a knowledge-sharing platform for data, research, and SME best practices, at www.smefinanceforum.org.

⁷¹ Love et al., 2003.

⁷² Meghana et al., 2011.

⁷³ For a more detailed discussion on Singapore's SME credit bureau and India's SMERA, see IFC 2010, SME Banking Knowledge Guide, 34–36.



Partnership for Financial Inclusion issued a 2011 report⁷⁴ that identified a number of policy related issues constraining SMEs' access to finance, not the least of which was weak credit reporting systems. Among the report's recommendations for scaling up SME financing and for establishing an enabling environment for SMEs were:

- Develop country specific diagnostics and strategies
- Develop a supportive legal and regulatory framework
- Strengthen the financial infrastructure (including credit information systems, secured transactions, and payment systems)
- Design effective government support mechanisms
- Build consistent and reliable data sources on SME finance
- Build capacity of financial institutions to cater to SMEs.

3.4 Credit Reporting Systems and Secured Transactions

As identified in Section 3.3, the challenges of lending to the SME segment prompts lenders to impose high collateral requirements on SME businesses to secure their loans. Both lenders and SME borrowers are faced with challenges, however, when it comes to granting and taking credit against collateral. The two main challenges are:

- In most jurisdictions, the definition of collateral generally implies fixed/immovable assets such as land and property, and ignores the more common moveable assets of SMEs. Because moveable assets such as vehicles, equipment, and inventory are not considered formal collateral, lenders are not willing to grant credit against them. In emerging economies, 78 percent of the capital stock of business enterprises is typically movable assets such as machinery, equipment, or receivables, and only 22 percent is immovable property.⁷⁵ Because most SME borrowers have more immovable

collateral than movable collateral, they are unable to meet collateral requirements to secure a loan. Lenders lose out as well, as they are unable to tap into the huge borrowing base of SME and microborrowers with movable assets.

- Weak legal and regulatory frameworks surrounding the use of collateral can present a challenge to lenders in collecting debts. If legal enforcement mechanisms are weak or ineffective, the costs to lenders of pursuing delinquent debtors are increased. Faced with the potential of higher costs incurred in obtaining a legal remedy, either through the judicial system or extra-judicial processes, lenders may choose to grant credit at unfavorable terms to SME borrowers and microclients, or deny them credit altogether.

The first challenge can be addressed by the creation of collateral registries, public databases that register interests in or ownership of assets. Lenders can consult a registry to ascertain ownership of assets, and whether or not a particular piece of collateral has any potential claims against it. The registry enables potential borrowers to establish the legitimacy of their collateral in securing a loan. The second challenge can be addressed by developing strong legal and regulatory frameworks to facilitate these secured or "collateralized" transactions. This aspect is beyond the scope of this Guide and is not discussed further.

Generally, collateral registries collect information only on certain classes of movable or immovable property of borrowers. Meanwhile, information collected by CRSPs includes borrowers' credit histories and past payment behaviors. Theoretically, information on one borrower (credit history, past payment behavior, mortgage, immovable property, and assets encumbered by security interests) could be collected by, and be available from, one location. Accordingly, there are potential synergies between CRSPs and collateral registries. More mature credit reporting service providers with developed databases and sophisticated technology platforms have the capacity to incorporate information from collateral registries. These

⁷⁴ Global Partnership for Financial Inclusion 2011.

⁷⁵ Safavian et al., 2006.

providers may also have the potential to develop their own collateral database and perform the function normally performed by collateral registries.

CRSPs can provide access to data in a collateral registry either by establishing and hosting a collateral registry as part of their value-added services, or by joining an existing collateral registry database and sharing the technology resources. In developing markets, where technical infrastructure and local capacity are inadequate to support the development of a separate credit reporting service provider and a collateral registry, joint solutions are likely to gain acceptance.

Three models can be considered in setting up a joint credit reporting service and collateral registry:

- Create a CRSP and collateral registry within the same private-sector institution
- Create a public-private sector partnership
- Establish the function of both CRSP and collateral registry under one government agency, such as the central bank.

A version of the first model is being undertaken in Sri Lanka, where the credit bureau, Credit Information Bureau (CRIB), has been mandated by law to create and operate the movable property registry. IFC is providing technical assistance to CRIB and the government to help develop the

appropriate legislative regime, create the collateral registry, and develop the appropriate business model to support the operation.

A version of the public-private partnership model can be found in some countries in Latin America, such as Colombia and El Salvador, where the government has delegated public functions, such as the establishment and management of the collateral registry to private-sector institutions (e.g., the chambers of commerce). An example of the third option can be found in China, where both the credit registry and the collateral registry are managed under the Credit Reference Center, which is a public service unit under the People's Bank of China.

Benefits of a joint infrastructure are that it enables a more efficient utilization of scarce technical and human resources, and allows the sharing of common disaster-recovery facilities and business continuity plans. However, differences between the two types of services need to be taken into account when setting up a joint infrastructure. Whereas the data contained in CRSPs are private and individual, data held in collateral registries are publicly available. Thus any type of joint infrastructure should involve an appropriate governance arrangement that ensures the two databases are kept separate while being hosted in the same infrastructure. There should be transparent service-level agreements between the government entity and the CRSP hosting the collateral registry.

Legal and Regulatory Framework



The overall legal and regulatory framework for credit reporting should be clear, predictable, nondiscriminatory, proportionate, and supportive of consumer rights. The legal and regulatory framework should include effective judicial or extrajudicial dispute resolution mechanisms.⁷⁶ Ideally, the legal and regulatory framework should enable and promote the development of secure, efficient, and reliable credit reporting systems, while fostering competition in the credit market and protecting the rights of consumers with respect to their personal information. As recognition grows that credit reporting systems are vital to strengthening financial infrastructure and ultimately access to finance, more and more countries are increasing efforts to create an optimal legal and regulatory environment for these activities.

The legal framework for credit reporting differs from country to country, and may include a combination of credit reporting laws, banking laws, data protection laws, consumer protection laws, fair credit granting and consumer credit regulations, and personal and corporate privacy and secrecy provisions. In some countries, specific credit reporting laws have been enacted. Most of these laws have been developed over the past decade and were modeled after the Fair Credit Reporting Act (1971) in

the United States.⁷⁷ Other countries have adopted credit reporting regulations, usually issued by the ministries of finance or central banks based on powers bestowed on them through banking legislation.⁷⁸ The European Union and several countries regulate credit reporting activities under broad data protection laws that cover not only credit reporting activities but also other relationships and transactions involving data management and exchange.⁷⁹

Because credit registries generally cover the regulated lending sectors (banking), they derive their mandate to operate through a country's banking laws. Credit registries are typically overseen by central banks that are entrusted this role through banking laws. Credit bureaus, conversely, are usually covered under specific credit reporting laws and/or laws relating to data and consumer protection and are often regulated by central banks or other financial supervisory authorities. Because credit reporting markets are expanding to include several different types of data providers (such as microfinance institutions, telecommunications providers, and utility providers), the scope of applicable legislation is also expanding, since these nontraditional data providers are covered by separate legislation. Although the central bank usually regulates microfinance institutions, in several countries, the microfinance sector has a different regulator

⁷⁶ World Bank 2011a, General Principle IV.

⁷⁷ Specific credit reporting laws can be found worldwide, for example; Ley de Buros de Credito in Ecuador; Ley de Sociedades de Informacion Crediticia in Mexico; Law on Credit History Bureaus in Moldova; Credit Bureau Act in Sweden; Credit Information Bureau of Sri Lanka, Act No. 18 of 1990; Credit Information Companies Regulation in India; and Credit Reporting Bill in Guyana.

⁷⁸ Some examples include the recently passed Decree on Credit Information Activities in Vietnam, regulations on a credit risk center in Spain (Circular 3/1995 of Bank of Spain), regulations on a credit risk center in Italy (Circolare N 139, 1991 de la Centrale dei Rischi, Bank of Italy), regulations on credit reporting and scoring companies issued by Central Bank of Egypt, and regulations CN/27/G/2007 and CN/28/G/2007 on credit information, issued by Morocco's Bank Al-Maghrib.

⁷⁹ Examples can also be observed in emerging markets particularly in Latin America and Eastern and Central Europe (e.g., Argentina, Chile, Colombia, Uruguay, Bulgaria, Moldova and Romania).

or is not regulated. Telecommunications and utility providers are regulated by a different set of nonfinancial regulators. Because a variety of authorities are involved in regulating credit reporting systems and the participants in these systems, a key challenge in creating an enabling legal and regulatory environment for credit reporting systems is ensuring alignment in the objectives of these regulatory bodies and increased dialogue and collaboration across the different regulators and overseers.

Whichever approach is followed, the legal framework should support the key concepts in credit reporting, reflect the full scope of credit reporting functions and operations, and accommodate evolving trends. In practice, the legal framework surrounding credit reporting generally should:

- Establish the rules for a fair, competitive, and efficient market in the provision of credit reporting services
- Establish the rights and obligations of the different participants in the credit reporting system, namely the CRSP(s), data providers, and users.
- Provide clear guidelines on the kinds of data that can be collected and the permissible purposes for which it may be shared
- Provide guidance on data security obligations, data retention periods, and other compliance matters
- Establish consumer rights and provide a framework for consumer concerns with credit reporting data
- Establish rules for compliance and actions in the event of noncompliance.

Because legislation can be difficult to change once put in place, the legal framework for credit reporting should be broad and flexible enough to accommodate evolving trends in the credit reporting market. For instance, legislation may require CRSPs to “take reasonable steps” to verify the accuracy of consumer information reported to it, or to “have in place policies and procedures” that deal with data privacy and security. Such provisions are not prescriptive and allow for interpretation during the process of implementation.

Regulations enable authorities to implement the specific provisions of legislation. Regulations are easier to change than legislation and tend to be more prescriptive. Central banks, regulators, overseers, and other authorities should, in the initial phases of developing a credit reporting system, consult the *General Principles for Credit Reporting* as the framework from which to draft specific operational regulations.⁸⁰ The involvement of all stakeholders in creating regulations promotes transparency and facilitates better compliance with the eventual standards. Lawmakers and policymakers are assisted in implementing legislation through detailed regulations that provide more specific guidance on how each aspect of legislation should be carried out. Regulations are enforced through various government agencies. Regulations on credit reporting systems generally cover the following aspects:

- Establishing licensing or registration processes to ensure that service providers have the financial, business, and technological capacity to provide an efficient credit reporting service
- Ensuring that service providers adhere to minimum levels of maintaining data accuracy (minimum information inputs should be clearly defined, and other permissible methods of validating information should be prescribed)
- Specifying permissible data sources
- Ensuring service providers adhere to minimum levels of maintaining data security
- Ensuring service providers adhere to consumer privacy safeguards (instances when consent is required, disclosure, and “permissible purposes” should be clearly defined in the rules)
- Prescribing a process for consumer rights’ safeguards (the redress mechanisms and process to be followed in the event of a complaint must be clearly set out in the rules)
- Prescribing permissible purposes for data collection and use
- Establishing power of the authority to handle escalated or unresolved consumer complaints

⁸⁰ See World Bank 2011a for more details.



- Establishing power of the authority to conduct compliance inspections
- Establishing power of authority to take appropriate action in the event of noncompliance (including reviewing and conducting hearings and issuing penalties and fines)
- Establishing power of the authority to conduct audit checks
- Providing consumer education and outreach.

In line with the *General Principles for Credit Reporting*,⁸¹ the overall legal and regulatory framework should be clear and predictable, ensuring that the various participants in the system (CRSPs, data providers, and users) are aware of the consequences of their actions. Rules should be nondiscriminatory and apply equally to participants in the system with few exceptions. Laws and regulations should apply proportionally to the various participants to ensure some participants are not unfairly penalized over others. While considering protection of data subject and consumer rights, laws and regulations should strive to balance data protection needs against the practicalities of achieving such protection levels.

Sections 4.1 and 4.2 discuss key issues for credit reporting legal and regulatory frameworks surrounding data collection, retention, disclosure and security, and data subject rights. Section 4.3 discusses licensing and registration of CRSPs as a mechanism used by regulators to control who can provide credit reporting services in a market. In some countries, an entity is entrusted with oversight of the different parties in a credit reporting system to ensure compliance with the respective legal and regulatory framework. Section 4.4 discusses the oversight function including objectives and roles of the overseer.

⁸¹ Ibid.

⁸² Ibid., General Principle I.

⁸³ See, for example, South Africa.

4.1 Data Collection, Retention, Disclosure, and Security

Defining data scope and data sources: Section 1.3 has already discussed negative and positive data, and comprehensive or full-file credit reporting. Generally, the scope of data that can be collected and distributed by a credit reporting system is defined by the legal framework. In some countries, the scope is wide, whereas in others, the legal framework is set up to permit reporting of only negative data and prohibit the collection and sharing of positive credit data.

A database with negative-only data, while excluding highly exposed borrowers that have defaulted in the past, continues to exclude them from access to finance for long periods following their defaults regardless of their current financial performance and other favorable information. CRSPs that collect a wide range of information are able to generate more comprehensive credit reports. They are more reliable and more efficient than CRSPs that operate on a limited scope of data. Ideally the legal framework should allow for inclusion of positive and negative data in credit reporting to facilitate better credit granting decisions.

Essentially, all data that is *relevant* for an analysis of creditworthiness, including data in public records, should be collected, while the collection of *irrelevant* data may be prohibited.⁸² Data is considered relevant in relation to the purpose for which it is collected. So for instance, in some countries, CRSPs are prohibited from collecting information about a consumer's race, medical status or history, religion, or other information that is deemed irrelevant for purposes of analyzing creditworthiness and making credit decisions.⁸³ In other countries, notably the United States, a broader range of information—including, employment, judgments, tax liens, and other information in public records—may be collected by CRSPs and information from CRSPs can be used for purposes beyond the granting of credit, such as employment reference checks or for the collection of debt.

In addition to permitting positive and negative data, the legal framework for credit reporting should permit comprehensive credit reporting which allows for the collection of data from a wide variety of sources and sectors, including retail, small business, microfinance, credit cards, insurance, telecommunication companies, utilities, and others. Ideally, the legal framework would permit the following data sources:

- Banks operating in the same country
- Mortgage finance companies
- Finance leasing companies
- Microfinance institutions
- Insurance companies
- Institutions that offer credit to MSMEs
- Asset management companies
- Suppliers of goods and providers of services on a post-paid or installment payment basis (telecommunications and utility providers, retailers, and health providers)
- Other credit reporting services (CRSPs and collateral registries)
- Identification databases and other private or public records
- Other sources of relevant information provided the express consent of the data subject is obtained and confidentiality of the information is maintained.

The last provision is particularly important as it allows CRSPs to obtain other *relevant* information from nontraditional data sources such as organs of the state and courts, entities involved in fraud and corruption investigations, educational institutions, and debt collectors.

Access to public information is relevant for credit reporting purposes because information available through public records can enhance the quality of the data that credit

reporting service providers can collect. For instance, public records like identification databases, civil status records, and court proceedings can enable better identification of a borrower and give a more holistic picture of his or her credit history. There is no worldwide standard on access to public information and the jurisprudence differs from region to region. Some countries have adopted laws on access to information that classify data and establish levels of accessibility based on a need-to-know basis.⁸⁴ Ideally, the legal framework should make provision for access to relevant public information by credit reporting service providers.

Retention periods: Legislation typically stipulates a specific length of time that information can be stored and disclosed. Although historical information enables lenders to assess a borrower's credit quality over a period of time, the legislation should specify a cut-off period for information disclosure, after which time information is no longer distributed to users to give borrowers a fresh start. Doing Business survey data show that payment history information is usually maintained for a minimum of five years. Public records relating to bankruptcy are usually retained for seven or more years. In some countries, such as in Brazil, information is never deleted, although it may not be distributed beyond a certain number of years.⁸⁵ In some countries with negative-only reporting systems, once a bad debt is paid off, all negative data related to it is deleted from databases, either because it is mandated by law or simply because it is common practice in the market place. Such practice is detrimental to the ability of creditors to make informed credit granting decisions. Rather than erasing information on defaults once loans have been repaid, this information should be stored with the rest of the borrower's file for an assigned period of time. According to Doing Business survey data, out of 84 credit bureaus that provided information, only 15 preserved historical information for less than five years while 69 preserved data for five or more years. For credit registries, out of 88 that provided information, 75 preserved information five to ten years or longer.⁸⁶

⁸⁴ For example, in Guatemala, Nicaragua, and Ecuador in Latin America, and is embedded in the European Directive 2003/98/EC on the re-use of public sector information in the European context.

⁸⁵ Doing Business Indicators (database), 2012, "Getting Credit" indicator.

⁸⁶ Ibid.



Data disclosure and permissible purposes: The ability to collect and analyze a wide scope of data from a wide range of sources does not necessarily permit CRSPs to use or disclose the information put together using such data. To safeguard consumer privacy, some legal frameworks set up a finite list of “permissible purposes” for which collected data may be used. Permissible purposes vary from country to country, but in most cases include “assessing an application for credit.” The list of permissible purposes can require separate express consent, for example, when considering a candidate for employment.⁸⁷ Conversely, some countries expressly prohibit credit reference checks for purposes of employment.⁸⁸

Generally, the more value-added services the CRSP wishes to provide, the more extensive the permissible purposes need to be, and the more the issue of consent for disclosure will come into play. Accordingly, the regulation listing permissible purposes should, in addition to listing specific purposes, make provision for other purposes *provided* the consent of the consumer is obtained prior to the credit report being issued. Ideally, the legal and regulatory framework defining permissible purposes would include the following purposes:

- Assessing an application for credit, insurance, or a mortgage
- Reviewing existing credit facilities
- Developing a credit scoring system
- Acceptance of guarantees
- Application for services (for example, when a person applies for a mobile phone service contract in the United States, the telecommunications company may conduct a credit check of the applicant)
- Verifying personal credentials
- Payment history in respect of continuing credit services with retailers

- An investigation into fraud, corruption, or theft
- Considering a candidate for employment (in some countries, this is permitted with the express consent of the subject)
- Tenancy contracts (in some countries, the lessor is permitted to conduct a credit check of the lessee applicant).

Data security: In addition to defining the scope and sources of data, and purposes for which data may be collected and used, the legal and regulatory framework may impose standards to ensure accuracy, confidentiality, and security of information in databases used to generate credit reports. Since consumer protection is the motivation for such requirements, responsibility for accuracy and security is taken out of the prerogative of credit reporting service providers and data providers and made a legal obligation. Some common threats to data security include hacking, improper use by CRSPs or their employees, and tampering.

As such the laws and regulations governing the operations of CRSPs require that credit reporting service providers take active steps to ensure the protection of data against loss, corruption, misuse, or theft. This legal requirement is usually drafted as a general obligation requiring the operator to take reasonable steps and establish processes to cope with the logical, physical, and organizational aspects of data security. For example, see the regulations in South Africa and the OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data.⁸⁹ The level and detail of security arrangements necessary for each credit reporting service is not usually specified by the regulator. For more details on the specific measures that CRSPs can undertake to ensure data security, see Section 5.6.

⁸⁷ For example, disclosing information for employment purposes requires a separate express consent from customers in South Africa and the United States.

⁸⁸ For example, Chile.

⁸⁹ For South Africa, see the National Credit Regulations, GG 28864, May 2006 (s.18). Principle 11 of the OECD Guidelines provides that, personal data should be protected by reasonable security safeguards against such risks as loss or unauthorized access, destruction, use, modification or disclosure of data. <http://www.oecd.org/document/>

4.2 Consumer Rights

Consumer rights within the context of credit reporting systems refer to privacy of the data subject's information and of the accuracy of products and services developed using this data. There is no definitive approach to the protection of data subject rights within credit reporting systems. For instance, in the United States, no specific legislation protects data subject privacy rights, but the Fair Credit Reporting Act defines specific permissible purposes for which data can be used and disclosed, which offers some protection of the data subject's privacy. In the European Union, directives establish a broad range of consumer protections that go beyond the credit reporting systems. The objective, regardless of the approach taken, is establishing consumer confidence and trust in the credit reporting systems.

Consumer protection and privacy considerations are closely linked to the purposes of data collection and disclosure. Legal and regulatory frameworks can use consumer consent⁹⁰ and permissible purposes as mechanisms for protecting the rights of consumers with respect to their data. Data collection, disclosure, and permissible purposes have been discussed in Section 4.1.

Depending on the jurisdiction, the regulator may require a data provider to collect explicit or implicit individual borrower consent to provide data to a CRSP and to access a credit report prepared by a CRSP. The objective of consent is to enable the data subject to control the flow and use of his or her personal information. Typically, banking secrecy laws restrict disclosure of customer accounts and transactions information without the customer's consent. Such provisions are often cited as an impediment to the development of a comprehensive credit reporting system. However, in the banking industry, obtaining consent to collect personal information usually makes provision for sharing such information with third parties for specific

purposes. For example, banks may share information with the banking industry supervisor or with other financial institutions as long as they are regulated by the same supervisory authority.

In many countries, including Thailand, Kazakhstan, Mexico, Peru, and Panama, as well as in the European Union, laws require explicit borrower consent for a data provider to provide information to the CRSP. If data providers do not have consent to share their customer information with CRSPs, the CRSPs may be required to secure consent directly from data subjects. In the absence of specific legal and regulatory frameworks, or in case of nonregulated lenders, an agreement between lenders and the CRSP to collect consent and share information is advisable, but is rarely followed in practice. Consent is not applicable for all types of CRSPs. For instance, a registry collecting data from regulated entities under a banking law mandate would not require consent to collect this data or provide it back to the regulated entities.

In the interest of maintaining operational efficiency, the legal framework should place the onus of obtaining and maintaining a record of borrower consent for data submission on data providers and sources. In the event of a dispute, the data provider must be able to demonstrate that it had obtained borrower consent in accordance with the law. For example, a typical bank consent appears in its privacy policy, a copy of which is usually signed by the customer at account opening, or when he or she applies for credit. Privacy policies outline how the bank or creditor manages its customers' personal information and it describes generally the sorts of personal information held and for what purposes. Customers should know up-front for what purposes their information is collected, and to what uses such information may be put. In countries with developed credit reporting systems, the consent given to banks by their customers usually makes provision for consent to share the customers' data with credit reporting service providers.⁹¹

⁹⁰ Consent is defined as "a data subject's freely informed and specific agreement, written or verbal, to the collection, processing and disclosure of personal data. World Bank 2011a, see Glossary.

⁹¹ Usually a privacy policy informs the customer of the bank's intention to collect personal information, and also informs the customer about the purposes for and circumstances under which the information can be disclosed to third parties. The privacy form, the signing of which usually amounts to consent to share information with credit bureaus, may typically state, "We may collect and share your information with third parties to offer you other products and services for marketing purposes or to assess credit applications."



Data accuracy and redress mechanism: Data accuracy is critical to the subject of consumer rights, because inaccuracies in data can lead to negative consequences for a consumer. Errors in credit decisions may result from incorrect or inadequate information supplied to the CRSP, problems with assignment of information to the wrong consumer file (for instance where there are similarities of names and addresses), or if the CRSP sends the wrong file to the requesting creditor.

To protect consumers, laws governing credit reporting may require that specific minimum information inputs be captured in each consumer file. This requirement must be complied with by both the CRSP and the data providers and sources. For instance, it may be a legal requirement that the information submitted to a CRSP contain a consumer's identifying information such as his or her full name(s), date of birth (where available), identification number or passport number (where available), address and contact information (where available), and details regarding current employment status (where available). The rule should allow the CRSP to use other methods of identification and matching when traditional methods are not available. For an example of nontraditional identification methods such as biometric identification, see Box 5.1.

Imposing strict standards for data accuracy by imposing excessive penalties in the event of erroneous reports based on incorrect information could impede the free flow of information and affect the efficiency of the reporting system.⁹² Ideally, regulation should place responsibility without imposing strict liability. Legal provision should require that CRSPs, data providers, and other data sources take all reasonable steps to ensure that the information collected and reported is accurate, up-to-date, relevant, and valid. Imposing responsibility without strict liability also means that when the CRSP identifies incorrect information, it should notify the data provider, who is responsible for correcting the information. Only in the event of knowledge

of an error and failure to take corrective measures should liability for noncompliance arise.

Consumers also have a role in ensuring their information is correctly reported. The legal framework usually grants consumers the right to access their own credit reports, and the ability to challenge incorrect or incomplete information in their files. Modern credit reporting systems provide consumers with the right to access their credit reports free of charge on a periodic basis (e.g., once per year) or in specific circumstances (e.g., if the consumer is the victim of fraud).⁹³ In a groundbreaking move, Callcredit, a credit bureau in the United Kingdom, recently introduced its Noddle service that provides consumers with free credit reports for life. As discussed in Section 1.4, such rights are only effective if consumers are aware of them and kept informed of changes that affect these rights.

When a data subject challenges the information on his or her record with the CRSP, the legal framework generally requires the CRSP or the data provider to investigate the claim, identify the source of error if the claim is valid, and take corrective steps to rectify the error. Responsibility for correcting the error lies with the source of the error. If a borrower disagrees with the final decision with respect to his claim of data error or omission, the borrower should be entitled to obtain resolution through a judicial (court system) or extra-judicial process. Depending on the jurisdiction, this process might be conducted through the data protection agency as in most European Union member countries, a consumer protection body, a unit within the central bank, or other oversight body.

In addition to providing data subjects with the right to access, challenge, and correct information in their files, the legal framework may require transparency of credit decisions. Transparency means that data subjects should be notified of adverse credit decisions that have been taken against them based on a credit report. Accordingly, the rule

⁹² For example, as has happened in Thailand when the restrictive Credit Information Business Act, B.E. 2545 (2002) law was passed in 2002.

⁹³ For example, the U.S. Fair Credit Reporting Act requires credit reporting companies to provide a consumer with a free copy of his or her credit report at the consumer's request once every 12 months. In addition, when a consumer notifies a credit reporting services provider about an error in the file, the service provider must send the dispute back to the creditor/data provider. The creditor/data provider must investigate the dispute and report back to the service provider, which must then correct its records and notify the consumer of the outcome of the dispute.

usually provides that any person who uses a credit report to deny an application for credit, insurance, employment, or to take other adverse action against a data subject, should notify the data subject of their decision and inform him or her of where the report was obtained. This knowledge is an incentive to data subjects to protect their credit reputation or improve their credit profile, especially if an adverse decision has been taken based on such information. The legal framework may also provide for consumers to claim compensation or damages in case of adverse events stemming from the use of erroneous data.

4.3 Licensing or Registration of CRSPs

Some jurisdictions have adopted a scheme of entry and exit requirements for CRSPs, which serves to mitigate risks associated with consumer rights, competition within the credit reporting market, and business sustainability. A licensing process can be used to place restrictions on who

can collect data on consumers and MSMEs for the purposes of generating credit reports. Licensing is also a method of governing the operations of CRSPs by stipulating observance of minimum business standards. The licensing process is usually an evaluation of the proposed operator's business, financial, and technological capacity to provide a secure and efficient credit reporting service, and the operator's ability to observe obligations respecting privacy laws and consumer rights. (See Box 4.1.) Where licensing is a requirement, the legal framework must provide clear and precise guidance on the qualities and abilities an operator must demonstrate. The legal framework also makes provision for the unlikely event that a service provider goes out of business, exits the market, or has its license revoked. In such instances, provisions are made for the transfer of data to the regulator until an alternative provider is identified.

Many countries require credit reporting service providers to register with the regulator. If the process of registration is mandatory and entails filing information about the CRSP's business, financial, and technological capacity, it is

Box 4.1 Licensing Credit Bureaus in Kenya

The Central Bank of Kenya recently licensed two credit bureaus under its 2008 Banking (Credit Reference Bureau) Regulations, which began operation in 2009.⁹⁴ Under these regulations, a person may not establish or operate a credit bureau unless he or she is incorporated as a limited liability company under Kenya's company laws, and is licensed to operate a credit bureau by the central bank.

The regulations detail the requirements and process that must be met by a proposed operator. An application must be filed accompanied by specified supporting documents showing the nature of the planned business and its organizational structure, internal control systems, and monitoring procedures. The supporting documents must include a market analysis; ownership, management and governance structure; operation manuals pertaining to databases (methods of uploading, processing, and updating data); proposed security and control measures; and the proposed fee structure.⁹⁵ In addition to provisions for granting a credit bureau permission to operate, the regulations list specific activities in which the bureau is allowed to engage: to obtain and receive customer information; store, evaluate, and update customer information; compile and generate reports from customer information; assess the creditworthiness of customers; and sell reports to institutions. The new system also requires banks to disclose and share the credit details of their borrowers with other money-lending institutions.

⁹⁴ IFC advised the Kenyan government and other stakeholders over a two-year period on the complicated process of developing the new credit reference regulations. The Banking (Credit Reference Bureau) Regulations 2008 govern the licensing, operation and supervision of credit bureaus by the Central Bank of Kenya. The two new credit bureaus went live in 2010.

⁹⁵ For more details, please see these regulations at <http://www.cgap.org/p/site/c/template.rc/1.9.44955/>



similar to a licensing process.⁹⁶ Even if there is no licensing or registration requirement, the operations of a CRSP are usually subject to some oversight, especially with regard to data collection, security of data, data privacy, and consumer rights. These provisions may be contained in a country's banking laws, company laws, or other laws touching on consumer protection.

4.4 Oversight and Enforcement

The primary objective of overseers of credit reporting systems is to ensure the safety and efficiency of these systems.⁹⁷ Authorities engaged in oversight typically include central banks, financial supervisory bodies, data protection authorities, ministries of finance and commerce, or consumer protection authorities. Oversight is exercised over CRSPs, traditional data providers, as well as users of credit reporting products and services.

Given that oversight over different aspects of credit reporting systems can be entrusted to different overseers, the oversight function requires collaboration among the different overseers. In case of cross-border flows of data, this collaboration should extend to overseers located in different markets. Overseers should clearly communicate their objectives to the market to promote transparency and accountability of the different oversight and regulatory bodies.

The overseer of the credit reporting system must have the necessary human and financial resources to actually undertake oversight and enforcement activities – a key challenge in many markets, where oversight and regulatory functions are defined, but the institutions are not provided with the capacity to perform their functions. The role of oversight is evolving in most emerging markets.

As with legislation, oversight and regulation should provide for appropriate enforcement measures that encourage compliance by all parties, but are not so stringent as to discourage the operation of credit reporting services. For instance, the regulatory framework could make provision for issuing notices of noncompliance in the event of alleged or real noncompliance with safeguard obligations. Under this process, service providers are given the opportunity to remedy violations without adverse action by the authority. Penalties and damages should be imposed in the event of willful or negligent noncompliance with regulations (for instance, inaction despite notices) and with respect to noncompliance with consumer rights provisions.

Provisions in credit reporting regulations that deal with specific matters as opposed to processes, are not usually enforced through the “notice” system. For instance, if a report is disclosed for a nonpermitted purpose, a violation has *per se* occurred and the notice process would be useless. Accordingly, the oversight role should combine enforcement provisions that follow a compliance notice process with enforcement provisions for outright violations. Finally, while the industry may be regulated by an authority with powers to review complaints, issue specific compliance measures, and impose penalties, recourse to the traditional court system should not be excluded.

4.5 Governance and Risk Management

The governance arrangements of credit reporting service providers and data providers should ensure accountability, transparency, and effectiveness in managing the risks associated with the business and fair access to the information by users.⁹⁸ CRSPs are usually created as entities with separate legal status, thus are subject to corporate laws

⁹⁶ For example, the National Credit Regulator in South Africa is tasked with the registration of credit providers, credit bureaus, and debt counselors. Registration of credit bureaus entails the filing of supporting documents about the operator's business information and structure including human resources, financial statements, operational resources (procedures to safeguard databases), and procedures for handling consumer complaints.

⁹⁷ World Bank 2011a.

⁹⁸ World Bank 2011a, General Principle III.

and business practices in their countries. In most modern economies, corporate governance mechanisms and controls for corporations are mandatory.⁹⁹ Governance arrangements capture the relationships among the CRSP's management, its shareholders, its clients, and external stakeholders. Governance and risk management measures are important in the context of credit reporting service providers because these entities are entrusted with sensitive data pertaining to consumers. The success and continuity of a CRSP's operations are considered to be of broad public interest.

The legal framework may include broad provisions to ensure adequate governance arrangements for credit reporting service providers. Some such provisions include:

- Laying out minimum criteria for qualifying shareholders, directors, and other CRSP management officials, who are collectively responsible for the overall operation of the CRSP
- Holding management and board members accountable for compliance with the legal framework
- Requiring the CRSP to appoint independent external auditors and undertake regular audit and compliance reviews
- Setting rules related to the fair and equal access to information by the users.¹⁰⁰

Regulations may specify the reporting requirements for CRSPs by which regulators and oversight authorities can ensure compliance with the legal framework. Such requirements may entail disclosing key financial results, material changes or proposed changes in ownership structure, and other key information that could affect the governance arrangements of the CRSP.

In addition to these legal controls, CRSPs should have internal controls and policies to ensure that the risks to which they are exposed are adequately managed or mitigated. Similar requirements on governance and risk management apply to other participants in the credit reporting system,

including data providers and users. The legal framework for credit reporting may cover the requirements for these participants, but more frequently, they are covered by the legal frameworks governing their activities.

4.6 Cross-Border Data Flows

As consumers and businesses increasingly migrate from one jurisdiction to another, financial markets are becoming regionalized and globalized, generating increasing demand for credit reporting on data subjects outside of their home markets. Cross-border data flow is a useful mechanism through which a data subject's credit can be monitored from multiple markets. With cross-border data flow models, a borrower applying for credit in a country where he or she has no credit history, but who has a credit history in his or her country of origin, can be assessed easily since the information is available to potential creditors in both countries.

Although in principle this credit reporting model would work well in the regional context where several countries are in close proximity, and whose citizens have free movement from country to country, there are several potential challenges in the exchange of such data. All the challenges of providing credit reporting services in a domestic market apply to cross border data flows, with some challenges being more prominent, including: the existence of multiple national legal and regulatory frameworks that may not be aligned to facilitate such data flows; issues in matching data subjects correctly; issues concerning standardization of data formats, inputs and data quality across markets; identification and mitigation of risks arising from cross-border data flows; and a heightened need for protection of data subject rights with respect to privacy, to name a few. Moreover, putting in place infrastructure to facilitate such credit data flows can be expensive.

Given the relevance of cross-border data flows for several markets worldwide, the *General Principles for Credit*

⁹⁹ OECD 2004 and, in the United States, the Sarbanes Oxley Act of 2002.

¹⁰⁰ OECD 2004; World Bank 2011a, General Principle III describes the ideal governance arrangements for credit reporting services and data providers: The governance arrangements of CRSPs and data providers should ensure accountability, transparency, and effectiveness in managing the risks associated with the business and fair access to the information by users.



Reporting devotes a principle to it, which states that “Cross-border credit data transfers should be facilitated, where appropriate, provided that adequate requirements are in place.”¹⁰¹ In order for cross border data flows to be facilitated, certain preconditions should be fulfilled, such as a demonstrated need for such data flows based on the existence of strong financial and economic integration of the relevant markets, national-level policies for financial integration, small size of markets, and the economic viability of setting up systems that enable such cross-border data flows. The general principles highlight the importance of a cooperative framework between the multiple regulators and overseers in markets with credit data flows and careful assessment and mitigation of all risks arising from such data flows, in addition to providing guidance on the challenges noted above.

Several models of cross-border data flows exist. For instance in the European Union, several credit registries have signed a memorandum of understanding to facilitate the exchange of credit data among the registries, for supervisory purposes.¹⁰² Cross-border data flows can exist between different bureaus in different markets, as well as through a bureau serving several markets through one location. This latter arrangement, called the “Hub & Spokes” model, is discussed in more detail in Chapter 5. Discussions are under way to consider cross-border data flows in several regional blocs such the East African financial community, Central African countries, and the Union Economique et Monétaire Ouest Africaine (UEMOA) region.

¹⁰¹ World Bank 2011a. General Principle V.

¹⁰² World Bank 2011a.

Developing Credit Reporting Systems in Emerging Markets



Developing a credit bureau or credit registry is a time- and resource-intensive project involving the commitment of many stakeholders such as government, supervisory authorities, regulators, credit reporting service providers, data providers, users, and consumers. This chapter, drawing on the *General Principles for Credit Reporting* introduced in Chapter 1 together with IFC experience and expertise in the process of setting up credit reporting systems in client countries, outlines key practical aspects of that process, in particular:

- Assessing market conditions
- Changing perceptions and building awareness
- Ensuring adequate data availability
- Ensuring financial sustainability
- Creating an appropriate business model
- Identifying appropriate technology needs
- Identifying operational and practical considerations
- Establishing an appropriate legal and regulatory framework.¹⁰³

These activities can be carried out simultaneously or in sequence depending on the availability, capacity, and needs of the stakeholders involved. The following sections provide additional guidance on the objective of each activity, who should be engaged, and how it can be carried out.

5.1 Assessing Market Conditions

A market assessment can help determine whether a CRSP is financially sustainable in a particular market and, if so, in what form. Different stakeholders can play a role in assessing the market conditions. Development institutions like IFC can work with government authorities or creditor associations to undertake an assessment. The components of this in-depth analysis may include the following aspects, which are discussed below:

- Market analysis
- Stakeholder analysis
- Technical scoping study
- Legal and regulatory environment assessment
- Specifying staffing requirements and identifying available skills in the labor force.

5.1.1 Market Analysis

A market analysis projects demand and costs to enable the credit reporting service provider to price its products and services. Pricing is one of the key factors in sustainability, and crucial investment decisions such as software acquisitions and disaster recovery plans should be aligned with the pricing strategy to avoid potential losses. A typical market analysis focuses on the following:

- Population size, which indicates potential customer base for lenders
- Size of existing retail and SME credit market and potential for growth

¹⁰³ This aspect has been discussed in Chapter 4.

- Level of sophistication of the credit market in terms of products and services
- Size of the existing CRSP(s) in terms of borrowers covered
- Capacity and scope of data in the CRSP's database
- Potential demand for credit information
- Existing and potential data sources and public information sources
- Extent to which the demand for credit information is satisfied by existing providers
- Risk of competition from other CRSPs
- Credit market trends
- Legislative or regulatory limitations.

5.1.2 Stakeholder Analysis

The stakeholder analysis assesses the potential stakeholders (e.g., lenders, nontraditional data providers, authorities, policy makers) of the credit reporting system and their commitment to the project by asking the following questions:

- Is there a broad consensus among lenders on the usefulness of credit information sharing?
- Who are the potential members or users of the proposed CRSP(s)?
- Are lenders willing to share positive and negative data?
- Do lenders have the technological capacity to share the data?
- Are the regulatory authorities supportive?
- What is the potential business model for the CRSP?

5.1.3 Technical Scoping Study

The objective of a technical scoping study is to assess the technical capacity and readiness of the lenders to participate in the credit reporting system. It involves sending detailed questionnaires on the nature and formats of available data

to all potential participants (lenders) and following up with meetings to discuss the survey results. The focus includes issues such as:

- Types of consumer and MSME credit products offered
- Level and growth rates of retail and MSME credit, by product
- Current and expected number of credits issued to inform projections about the potential volume of inquiries
- Availability of electronically stored historical information
- Borrower consent to disclose information to a CRSP
- Availability of unique ID numbers for individuals and MSMEs, or other identification methods
- Level of sophistication of lenders' internal information management systems
- Technology and infrastructure constraints of lenders and potential necessary upgrades
- Level of awareness among lenders on issues related to credit reporting
- Level of technical and communication infrastructure in the country, whether it will be able to support the needs of the proposed CRSP, and potential necessary upgrades that would require significant investment.

Comprehensive analysis of the technical capacity is needed to determine whether a technical partner is needed, develop the technical specifications for the proposed credit reporting service, and help lenders make any changes needed in their technology platforms to enable them to join the credit reporting service. Technology needs and the qualities of a strong technical partner are further discussed in Section 5.6.

5.1.4 Legal and Regulatory Environment Assessment¹⁰⁴

This component entails consultations with regulators and qualified legal experts to assess the country's legal landscape.

¹⁰⁴ See also Chapter 4.



The main issues to be addressed with regulatory agencies are:

- Is information sharing permitted or limited?
- What is the existing legislation relevant to information sharing and the proposed credit reporting service?
- Who are the oversight and enforcement authorities relevant to information sharing and credit reporting services?
- Is an operating license or registration required to establish a CRSP?
- What are the implications of the legal framework for the service provider's operations?
- If the regulatory environment is limiting or not enabling, what regulatory reforms need to take place to achieve an environment conducive to information sharing and credit reporting?
- What new rules or regulations are being proposed?
- How organized are consumer groups, and how likely are they to oppose information-sharing plans?

The proposed service provider should ascertain (as part of its market assessment) that it is allowed to legally operate before finalizing any aspects of its operations. If the market assessment reveals that the legal and regulatory environment is not enabling, further efforts to engage legislators and oversight authorities should be made promptly, as the process of introducing amendments or creating new laws takes between one and five years. Depending on the complexity of a country's rule-making processes, government authorities and regulators who are supportive of the development of the credit reporting system may tackle the necessary regulatory changes simultaneously with the project's design or set-up phase.

5.1.5 Specifying Staffing Requirements and Identifying Available Skills in the Labor Force

A CRSP relies on information technology skills, which in many countries may be in short supply. In this final part of the market conditions assessment, the aim is to match the skills required for the operations with the skills available

in the market and to estimate what skills training will be needed. Section 5.7.1 discusses the organizational structure and staffing requirements of a newly established CRSP.

5.2 Changing Perceptions and Building Awareness

A critical step in developing a credit reporting market, is to change perceptions and build awareness on credit reporting within the sector and community. Bank secrecy and stiff competition typically characterize the lending environment. Lenders are generally resistant to sharing positive data on their clients for fear that competitors will steal their good customers. For political reasons, authorities unfamiliar or uncomfortable with sharing financial information may also be resistant to this concept. In markets where cash is still predominantly used for daily transactions and the credit culture is weak, the public is unlikely to understand the importance of providing their data to credit reporting service providers. In markets where credit is more prevalent, borrowers may be hesitant to share their personal data out of privacy concerns.

Consequently, the initial phase of building a CRSP should focus on building awareness among lenders and their clients, the public, government officials, policy makers, regulators, and other potential participants on the benefits of the credit reporting system. The market analysis and the stakeholder analysis discussed in Section 5.1 will give the key stakeholders driving the reform process an insight into the issues that need to be addressed through awareness raising efforts. Tools that can be used to change perceptions and build awareness include the following:

Roundtables and conferences. Consensus and buy-in of stakeholders is achieved through building awareness of the benefits of information sharing. In 2012, IFC facilitated the first regional conference on credit reporting for countries of the UEMOA. The event was instrumental in laying the groundwork in developing a credit reporting system for the region. Similar consultations instrumental in promoting the establishment of credit bureaus were followed in Tajikistan, Morocco, Kenya, Egypt, Vietnam, Russia, and several other countries. The APC in Panama regularly holds seminars to

educate SMEs and consumers to understand their credit reports and how it impacts their ability to get credit.

A range of stakeholders can be involved in consultations, conferences, and roundtables, including:

- Supervisory and regulatory bodies such as the central bank and other financial supervisory authorities
- Other government bodies, for example, ministries of finance or commerce
- Policy makers and lawmakers
- Credit reporting service providers (existing and/or potential)
- Lenders, including banking and nonbanking financial institutions, microfinance institutions, leasing companies, insurance providers, and other creditors such as utilities and retailers
- Other potential data providers (public data sources)
- Consumer representative organizations and the public.

These events can be organized by the key stakeholder driving the process of credit reporting development, typically a central bank or a banking association, depending on the country context. Development partners like IFC are also regularly involved in arranging and facilitating such events.

Media. Media coverage of conferences and roundtables, as well as articles on the role of credit information with expert opinions and reflections on the local debate can be useful in promoting credit bureau development. For example, conferences on the role of credit information held in Azerbaijan, the Kyrgyz Republic, Tajikistan, and Russia were well covered in the local press. As a result, public awareness of the need to build a credit history and to submit one's credit records to a credit bureau improved significantly. Initially, media coverage can be facilitated through the key stakeholder driving the process. Once a system is developed, credit reporting service providers may choose to provide press releases or attract media coverage to promote the concept of credit reporting.

Internet. A CRSP's website should be user friendly and contain consumer-oriented information on aspects of

consumer credit and credit reporting. The site must also direct consumers on how to access their credit reports and explain the channels available to challenge and rectify inaccuracies identified in their credit reports. Credit reporting service providers can take advantage of advances in social networking tools such as Twitter and Facebook. (See Chapter 1, Box 1.1 for a description of Panama's "Finances under Control" awareness program.)

Awareness-raising activities should deliver different, targeted messages to different stakeholders. Each stakeholder will, at some stage, require support from various government bodies, supervisory and regulatory bodies, policymakers and lawmakers. Awareness raising targeted at government officials, policy makers, and regulators should address the following issues:

- The importance of input from government officials, policy makers, lawmakers, overseers, and regulators in creating a safe and efficient credit reporting system
- The role of government and the need of government leadership in developing a legal and regulatory framework that is conducive to credit information sharing
- The importance of information sharing for financial stability and expansion of credit (different products, more borrowers, different choice of providers)
- The benefits of improved oversight of the financial sector
- The role of authorities in:
 - encouraging data providers to participate in and use the credit reporting service providers
 - overseeing activities of credit reporting service providers and ensuring compliance
 - enabling credit reporting service providers' access to public records
 - ensuring consumer privacy rights are upheld.

For an audience of financial and nonbank creditors and other data providers, awareness-raising efforts should focus on explaining what they can gain from being a part of the credit reporting system. Efforts should be made to educate these participants about their rights, roles, and



responsibilities in the credit reporting system. Specifically, awareness raising should:

- Address concerns about sharing information and dispel fears of losing market share due to such information sharing
- Highlight and explain different roles of a credit registry and/or credit bureaus
- Explain the different measures that could be enforced to prevent competitor institutions from poaching customers
- Emphasize the need for cooperation among a country's banking, financial, and nonbank financial institutions for the credit reporting service to succeed
- Assure lenders of the confidentiality of all information provided and discuss the obligations of lenders to treat confidential information appropriately
- Explain the importance of sharing full-file information sharing and positive data
- Encourage broad participation by bank and nonbank lenders in the credit reporting service
- Encourage timely and accurate data submission and emphasize the importance of compliance
- Emphasize the benefit of improved risk evaluation throughout the account lifecycle
- Emphasize improved transparency in risk management
- Promote the introduction of updated credit control policies and procedures taking into account the information in the credit reporting service provider's database
- Highlight the need to educate staff about credit reporting
- Address how an adequate legal and regulatory environment provides for an efficient and smooth credit reporting environment.

At different stages in the process of credit reporting development, the key stakeholder driving the process may organize outreach to the public. Government authorities, overseers, and regulators may want to explain

their roles and overall support for the development of the credit reporting system. Credit reporting service providers or data providers can establish links with consumers and explain how consumer data is handled and treated to allay fears about data privacy and security. Such awareness raising efforts should:

- Explain the role of a credit reporting service provider and the benefits it offers
- Discuss the types and nature of data that will be collected and the purposes for which this data will be shared or disclosed
- Discuss the obligation of CRSPs to respect the privacy of personal information, and their duty to treat all such information as confidential
- Discuss conditions under which consumers can access their own data
- Discuss the redress mechanisms that will be available to consumers to challenge and correct erroneous information on CRSP databases
- Emphasize the importance of consumer consent to enable data sharing
- Emphasize the role of the consumer in providing the most accurate information.

In addition to educating the public about credit reporting, campaigns should educate the public on using credit responsibly and reducing the risk of becoming overindebted.

5.3 Ensuring Adequate Data Availability

Data refers to all the information collected, processed, and used to generate reports and value-added services by a CRSP. The different types of data providers to a CRSP were defined and discussed in Chapter 1, section 1.2. The market analysis discussed in Section 5.1 gives the CRSP a sense of the challenges it will face in collecting data to populate its database. To ensure adequate data availability, the CRSP should pay attention to the characteristics of data and data collection described in the following sections.

5.3.1 Data Quality

Data quality is the most important element in successful credit reporting. CRSPs must take steps to ensure that the data they use is accurate, complete, and up-to-date.¹⁰⁵

To ensure a high quality of credit reporting, data should be:

- Accurate
- Sufficient, relevant, and collected on a systematic basis from all reliable, appropriate, and available sources
- Timely (updated on a continuous basis and available to users promptly)
- Retained safely for a sufficient amount of time.

The role of ensuring data quality and constantly working to improve it falls in various degrees on data providers, credit reporting service providers, and data subjects.

According to the *General Principles for Credit Reporting*,¹⁰⁶ accurate data is free of error, truthful, complete, and up-to-date. Inaccuracies in data can result in adverse events such as the inadvertent refusal of a good consumer's credit application or the extension of credit to a bad borrower. Credit reporting service providers rely largely on data providers for accuracy of data content. Responsibility for the input of information, and therefore the accuracy of information supplied, should remain with the data provider. However, the CRSP is responsible for validating the data before uploading it onto its database. The data-capturing system of the service provider should not allow alteration of the records supplied by the lender. Although a service provider may accept or reject a file supplied by the lender, it cannot make changes to the file, thus limiting the service provider's liability in the event of information errors.

A credit reporting service provider should have a method for consolidating data into uniform formats. If information is incomplete, it should have a method for matching and merging separate pieces of data to construct a complete file on a data subject. Ideally, the credit reporting service provider and the data providers should agree on minimum data inputs, and on methods to store data subject information

in a format that allows the credit reporting service provider to easily extract the information and upload it onto its own system to further match and merge with other data.

A challenge to data accuracy and validation is the lack of uniform identification schemes. Issuing national unique identity numbers is usually within the prerogative of the government. Adopting an identification system at the initial phases of establishing a credit reporting system would be ideal, but is not always realistic. Therefore, in jurisdictions without national identification numbers or where the use of such identification numbers is prohibited by law, CRSPs may have to develop their own system to identify data subjects using matching algorithms that traditionally combine name, address, and date of birth. In New Zealand and Germany, for example, CRSPs use sophisticated matching solutions because legislation prevents the recording of unique identifiers or specific unique IDs do not exist. In Australia, the one unique identifier available (tax file number) can by law be used only for tax purposes.

The ability to use algorithms to match pieces of data is restricted in emerging markets where crucial basic data such as names, addresses, and dates of birth are often unreliable or missing. In Uganda, CompuScan, a credit bureau based in South Africa, sought to overcome this challenge by developing a biometric-based identification system for financial institutions (see Box 5.1).

5.3.2 Data Sufficiency

As discussed in Chapter 1, section 1.3, several studies have shown that inclusion of data from nonbank lenders into a credit scoring model generates scores with a higher predictive power, whereas credit reporting fragmented by industry has less predictive power. Credit reporting service providers should collect both negative and positive data to provide lenders with the most comprehensive picture of their portfolios. Broadly speaking, all data that is relevant for an analysis of creditworthiness, including data in public records and private nonfinancial sources, should be collected. In many countries the collection of irrelevant data

¹⁰⁵ World Bank 2011a, General Principle I.

¹⁰⁶ Ibid.



Box 5.1 Adoption of Biometrics in Uganda

A feasibility report commissioned by the Central Bank of Uganda in the mid 1990s precipitated the development of a credit bureau to serve the banking community and its clients. In establishing the credit bureau, the lack of an adequate borrower identification system in Uganda, (i.e. an official ID), prompted the central bank and its technical partner, CompuScan of South Africa, to consider the option of developing a biometric-based finance card to uniquely identify borrowers. The biometric fingerprint system, known as the Financial Card System, allows licensed financial lenders, with the help of the credit bureau, to link borrowers' fingerprints to their loan repayment information across any institution in Uganda. After enrolling in the system, each borrower receives a financial card.

A national mandate that all banks and financial institutions in Uganda issue financial cards to their borrowers to enable proper identification necessitated the deployment of biometric hardware throughout the banking sector to take fingerprints and photographs of potential borrowers. In 2009, all bank branches in Uganda had the software and hardware set up allowing for enrollment to commence. The solution was developed to work both online and offline with direct hook up to the fingerprint database.

The credit bureau was rolled out in stages. Data collection from participating institutions is at an advanced stage with 95 percent of the institutions supplying monthly data loads to the bureau. For almost a year, CompuScan spent significant effort and resources enabling financial institutions to cleanse data and develop systems and processes so that data can be shared with the bureau. Even for the most advanced lenders, these requirements were extensive, and detailed project planning was required to ensure that the project started correctly.

As for financial cards, a number of challenges emerged. For example, the costs of compliance have proven prohibitive for some institutions as they had to purchase additional hardware to satisfy customer service levels, establish or increase internet access, and invest in new credit control processes and methodologies. Also, the expansion of financial card to a wider lending audience such as microfinance lenders, retailers, and telecommunication companies has been limited.

Uganda, much like any other economy, is subject to risks of fraud, especially impersonation fraud. The financial card solution significantly reduces banks' (and individuals') exposure to this type of fraud. By June 2012, monthly registrations had declined because a majority of borrowers had been identified on the system. Twenty-nine institutions with more than 550 enrollment / registration outlets were established to assist in new client enrollment or customer verification. As a result of the ability to properly identify the customers using a common platform, lenders have been able to reap the intended benefits of the nation's new credit bureau.

is explicitly prohibited. Irrelevant data includes data about a consumer's race, medical status or history, religion, or other information that is deemed immaterial for purposes of analyzing creditworthiness.

Whereas, in principle, a CRSP would choose to collect data from as many different sources as possible, in reality, legal and regulatory frameworks surrounding credit reporting may not support data collection from some sources. In

some countries, such as Australia, positive credit reporting is prohibited by law, although discussions are underway to move to a positive reporting system. In other instances, nontraditional providers of data, such as utilities and telecommunications companies may fall under a different regulatory purview than traditional data providers like banks and financial institutions. The respective legal and regulatory frameworks may not permit data sharing with credit reporting service providers.

Some public records, such as identity registries for individuals and businesses, might not be available to the public or access may be restricted. CRSPs should seek to negotiate special agreements with public records agencies to ensure a smooth and systematic flow of information crucial for validating the identity of the data subject. In some cases it may be necessary to define a cost-recovery scheme to alleviate the financial burden on the public agency. Depending on the legal and regulatory environment facilitating access, CRSPs may also enter into agreements with private data sources to collect data. To ensure that all CRSPs in the market have access to a wide range of data sources, it is recommended that data providers and other data sources do not enter into exclusivity contracts with any specific CRSP.

In addition, the technology platform of the service provider must be designed to receive data in different formats. In some markets small banks and nonbanking financial institutions may be unable to provide data electronically. The service provider should have the capacity to accept data on DVDs, CDs, diskettes, magnetic tape, or other portable data storage devices as long as they are secured by encryption or another appropriate method. It should have the ability to systematically upload new data onto its platform.

5.3.3 Data Timeliness

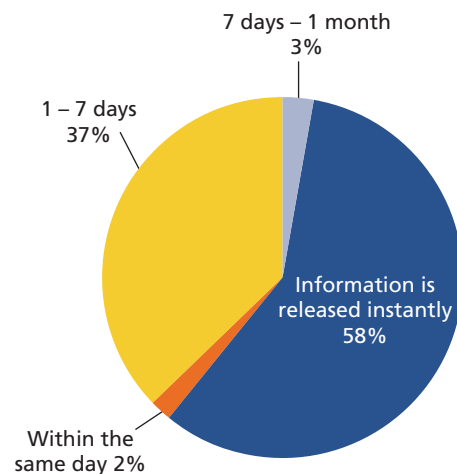
Data should be made available in a timely manner because creditors make critical credit-granting decisions based on the information they receive from credit reporting service providers. This timeliness requirement requires data providers and other data sources to update their databases frequently (i.e. within a specified number of days after the occurrence of a specified relevant event, or at end of each billing cycle). Updated data must be provided to the CRSP systematically, usually on a predefined schedule as agreed by the CRSP and data providers. Updated data should be incorporated into credit reports, which should be accessible to subscribers as soon as practical.

The World Bank's Doing Business survey data¹⁰⁷ indicates that 58 percent of credit bureaus (in a survey of

78 credit bureaus) reported that data requests were met instantaneously. All but 3 percent of the credit bureaus filled requests within seven days (see Figure 5.1). The key indicators for the timeliness of service include:

- **Time between obtaining the query and issuing the report:** In many countries, the process is automated. Depending on the search capacity of the software, it may take just a few seconds. In many developing countries where the reports are not provided online, the process may take hours or, in some cases, days. Minimizing the delivery time is an important objective for the CRSP.
- **Time to assimilate data and update records:** This refers to the time between receiving data or updates from the data providers and its integration into the CRSP's database. Validating and merging data received from lenders may take anywhere from one day to one month¹⁰⁸ depending on the quality of the data supplied by the lenders, the reliability of identifiers, or the merging algorithm. This parameter is critical to ensure that the data available to lenders is up to date.
- **Time to correct errors:** Of the 78 credit bureaus surveyed in the Doing Business survey, approximately 76 percent reported taking less than two weeks to rectify errors. Another 8 percent reported taking between two

Figure 5.1: Average Time Between Request and Release of Data



Source: IFC calculation based on Doing Business 2004 data.

¹⁰⁷ Doing Business Indicators (database), 2004, "Getting Credit" indicator.

¹⁰⁸ Ibid. Based on information from 62 credit bureaus.



weeks and one month to correct errors.¹⁰⁹ Generally, when a CRSP finds errors in a file, it sends a correction to the data provider, who has the responsibility of correcting errors.

5.3.4 Data Retention¹¹⁰

Data should be retained safely for a sufficient amount of time. Most credit reporting service providers retain data from five to seven years. In some markets, the length of time that data may be stored is restricted by legislation. The retention period of data is determined by the purpose for which the data is to be used. On the one hand, data should be kept for a sufficient amount of time to allow for debt collection and reducing the risk of overindebtedness, which, based on global experience, ranges between five and seven years. In jurisdictions where credit scoring and other value-added products have been developed, data should be retained for at least three years to allow sufficient observations to build predictive scores. Data for supervision and statistical purposes may need to be retained for a longer period. For example, in the United States, data remains on credit bureau records for two, seven, or nine years, depending on the type of credit or debt. In some countries (e.g., Brazil), data is never deleted from the database.

A distinction should be made between the length of time that data is retained, and the length of time data is included in a credit report or disclosed. Typically, legislation provides guidance on how many years data can be disclosed, which, based on information from Doing Business surveys, ranges from three to five years. Different types of data are subject to different distribution time limits. For example, data relating to previous inquiries (the data footprint that is left on the credit bureau each time an institution requests a credit report on a data subject) is of little value to lenders beyond 12 months, and is, therefore, usually masked from credit reports after a year. In Brazil, while data is never deleted, it may not be distributed beyond a certain number of years; for instance, negative information is distributed for five years and positive information is distributed up to 15 years.¹¹¹

In some countries with a negative-only reporting system, once a bad debt is paid off, all negative data related to it is deleted from databases, either because it is mandated by law or because it is common practice in the marketplace. Such a practice may paint a false picture of a borrower who may be a recalcitrant debtor who pays off an old loan only to get a fresh loan, which he or she then fails to repay. Conversely, disclosing data, especially negative data, for excessively long periods (more than five years) can unduly penalize a borrower who has otherwise reformed his or her payment habits. Most countries opt to limit the number of years that negative information may be shared to give previously delinquent borrowers a second chance at accessing credit.

The agreement between the CRSP and the data providers will usually stipulate how long information will be shared, when it will be archived (and for what purposes archives may be used), and when it will ultimately be deleted. In practice, data is archived rather than deleted so that it is always available, but is no longer distributed after a defined time period.

5.4 Ensuring Financial Sustainability

A CRSP needs to be financially sustainable, regardless of the market in which it operates, and regardless of the primary function it performs. The size of the credit-active population dictates the level of sophistication and complexity of the credit reporting system to be implemented. In emerging economies, a very large proportion of the population is often unbanked, with the result that existing credit accounts reflect only a small percentage of the potential market. Credit bureaus depend on volume (number of inquiries or consultations by their users) to be sustainable and to generate profits. Although credit registries are not focused on profits, they should have access to a consistent source of funds to maintain registry operations.

¹⁰⁹ Ibid., information not available for 13 credit bureaus.

¹¹⁰ See also Section 4.2 of this Guide.

¹¹¹ Doing Business Indicators (database), 2012, “Getting Credit” indicator.

CRSPs (mostly credit bureaus) make their profits by selling reports in response to queries from their users/members. Without a large borrower base, CRSPs would have to charge high fees for their credit reports, which could reduce the demand from lenders. In countries where the use of credit is not widely prevalent, CRSPs might face this challenge in their initial years of operation. Developed countries with small populations, such as Iceland (population 320,000) and New Zealand (population 4.5 million) are able to operate small but profitable credit reporting services because their populations, though very small, use credit markets actively. For example, in New Zealand, where the economically active population is estimated at slightly more than 2 million, one of the three credit bureaus receives about 4.5 million queries a year.

In emerging markets where the economically active population is too small to generate sufficient demand from lenders, a regional solution may be the viable option. TransUnion Central America, for example, operates a regional credit reporting service covering five countries.

5.5 Creating an Appropriate Business Model

After conducting its market assessment, the proposed credit reporting service provider should have an overview of the market environment and be ready to move into the “design and build” phase. Since conditions differ from country to country, the best design is one suitable to a country’s market environment, taking into account global best practices. Accordingly, the results of the market assessment will direct the next steps: deciding on the best model for the credit reporting service, developing a business plan, and creating an enabling legal framework.

The market assessment influences the model and business structure of the proposed credit reporting service. The most common models¹¹² are:

- Credit bureaus
- Credit registries
- Public-private credit reporting service provider.

¹¹² See also Chapter 2 of this Guide.

5.5.1 Model 1. Credit Bureaus

Chapter 2 covers the basics of credit bureaus and discusses the potential range of shareholders or owners of bureaus. Some markets demonstrate a willingness, as determined by stakeholder interest and readiness, to allow credit bureaus to provide credit reporting services. The most common ownership structures are bureaus in which creditors/lenders are shareholders and bureaus that are independently owned and operated (see Section 2.2.1 for benefits and disadvantages of each structure).

Regardless of the ownership structure, a key consideration in determining the optimal model for a credit bureau is whether to host the bureau on shore or off shore. Credit reporting is a capital-intensive business in which significant investments are required for start up, and for the continuous technological updates required (e.g., quality, security, integrity of data, value-added services development, compliance with the legislation). Countries with large populations (such as China, India, Brazil, Indonesia, Russia, and Mexico), solid consumer credit industries, and credit culture normally represent an attractive business case for international credit bureau operators. Significant volumes of inquiries dramatically shorten the break-even period for a bureau to attain financial sustainability, thus allowing the business to generate earnings and profits.

Conversely, markets with smaller credit-active populations lack this appeal, and may face more difficulty attracting large international bureau operators. Fortunately, an alternative option, the Hub & Spokes model, which has been successfully tested in small markets (Latin America, Europe, Pacific Islands, and Africa), offers a viable solution. Box 5.2 shows the example of a Hub & Spokes arrangement in Central America.

The Hub & Spokes model is optimal for smaller markets where establishing individual CRSPs would not be economically viable. Under the Hub & Spokes structure, a single, internationally operating CRSP is set up to serve multiple small markets. As the name suggests, the “hub” houses data in silos from each country while each “spoke” receives and delivers secure data to the respective country



Box 5.2 Hub & Spokes Model in Central America

A successful Hub & Spokes model for credit reporting – TransUnion Central America – operates in Central America. Established in 1999, TransUnion Central America now has a hub in Guatemala and regional spokes in Honduras, El Salvador, Costa Rica, and Nicaragua, covering a population of over 38 million.¹¹³ Historically, lack of full-file credit bureaus in Central America was a constraint to credit access for consumers and micro, small, and medium sized businesses. Developing individual credit bureaus for each of these countries would have required investment disproportionate to the scale of the individual markets. A credit reporting system that could serve all five countries provided an optimum solution.

The individual country service providers (spokes) share and leverage the modern and sophisticated technological system that has been developed in the hub, allowing for improved efficiency. Furthermore, the creation of a single cross-border credit reporting service facilitates the design of standardized products and services across all five countries, which greatly benefits lenders with cross-border business operations.¹¹⁴

Figure B5.2.1: Hub & Spokes Model in Central America



Source: IFC 2012.

¹¹³ The hub was originally established in Costa Rica. In 2007, it was moved to Guatemala because of higher quality of telecommunications networks, and lower operational costs. This shift was done rapidly and without any disruption.

¹¹⁴ Guatemala does not have a comprehensive legal framework covering credit reporting or data protection to facilitate the institution of this Hub & Spokes model. Any changes in the legal and regulatory framework in the hub or any of the spokes could have implications for this model and the bureau in terms of being compliant with the framework.

in which it is based. This configuration centralizes many of the common, repetitive, and time-consuming tasks such as data cleansing, security, customer-support, and system maintenance. This model leverages highly sophisticated security systems that are already in place for the hub, and provides high-security facilities and systems to store data from the spokes at a fraction of the cost of creating such secure facilities from scratch. Because of the sensitive nature of the data housed by a CRSP, the selected service provider must have extensive experience in managing a credit reporting service to international standards and be able to ensure that no data is shared across the silos without a data-sharing agreement. The Hub & Spokes approach not only offers top service quality for users/data providers, but is also a way for small emerging markets to overcome innumerable challenges linked to the time and cost of developing credit reporting services. Other advantages include reduced staffing needs and personnel training costs, and the ability to leverage products, technical experience, and the sophisticated value-added services used in advanced markets. The web-based technology used by most bureau operators allows easy inclusion of other countries / lending sectors regardless of size.

Another example of the Hub & Spokes model is found in South Africa, where TransUnion runs a credit bureau that services Namibia and Botswana. In Europe, some of the large credit bureaus operate the Hub & Spokes model or offer business continuity coverage to off-shore operations through a similar configuration, including an outsourced arrangement for the Czech Republic and the Slovak Republic operated from Italy by CRIF (see Box 5.3). Several emerging markets, such as the UEMOA region in West Africa, and some island nations in the Caribbean (Belize, Bahamas, Barbados, Guyana, Suriname and the eight OECS countries - Anguilla, Antigua & Barbuda, Dominica, Grenada, Montserrat, St. Kitts & Nevis, St. Lucia, and St. Vincent and the Grenadines, are considering a Hub & Spokes approach. In the Pacific, Fiji, Papua New Guinea, Tonga, and Vanuatu are currently participating in a Hub & Spokes arrangement, with the hub hosted in New Zealand. Two other island nations, Samoa and the Solomon islands, intend to join the Hub & Spokes arrangements as soon as they are available, tentatively in 2012 or 2013.

5.5.2 Model 2. Credit Registries

The market assessment might indicate a market preference, particularly by the central bank, or other financial sector supervisory authorities and regulators, to develop a credit registry to meet the credit reporting demands. Chapter 2 touched on the purpose, features, and organization of credit registries. Registries are generally operated by central banks or other authorities charged with a supervision function in an economy. Given that these registries house data that enable authorities to monitor the systemic risk levels in a market and maintain financial stability, credit registries are typically hosted in the country in which they are established. The principles of data quality, integrity, security, and financial sustainability apply to the operations of a credit registry.

In some instances, the entity housing the credit registry may also be responsible for overseeing its operations and ensuring that it is in compliance with the legal framework. In Bangladesh, for instance, the central bank is charged with operating the credit registry, as well as overseeing its operations. Given the inherent conflict in this situation, it would be advisable for the central bank to entrust the two functions – operation and supervision – to two separate departments to ensure the integrity of the system. For example, in China, the credit registry, the Credit Reference Center is operated by the People's Bank of China, with its supervision falling under the Credit Information Services Bureau, a separate department of the People's Bank.

5.5.3 Model 3. Public-Private Credit Reporting Service Provider

In some instances, market stakeholders may indicate a preference for a hybrid model, which involves both the private sector and the public sector. This model is based on a strong and significant partnership between the public and private sectors, in which the public sector plays a significant role in developing the infrastructure and process for credit information collection and sharing. Central banks, in their capacity as regulatory and monitoring bodies for financial institutions, are well placed to steer required legal reforms, and also to build awareness about the benefits of information sharing among financial institutions. In many



Box 5.3: Outsourcing from the Czech Republic

Banks in the Czech Republic were eager to get the credit reports that credit bureaus would supply, and they were willing to pay for them on a per-transaction basis. But they were not willing to invest in the development of a costly data security infrastructure. The solution was to outsource the operations of the credit bureau to CRIF, a leading Italian credit bureau.

In partnership with CRIF, two credit bureaus were set up in the Czech Republic, a banking bureau in 2001 and a nonbanking bureau in 2004, both using CRIF's facility in Italy. In 2006, the two credit bureaus began sharing credit information with each other (based on consumer consent), thereby allowing financial institutions to have access to reliable cross-industry credit information.

Using CRIF's platform, banks were not required to invest in the development of the credit bureau infrastructure such as a new local data center and related security infrastructure, or hardware and software. They were able leverage the shared data center of CRIF Italy, and were thus able to benefit from a higher level of data security than would have been conceivable in an in-country bureau. Fortunately, the legal environment posed no problems: Czech law states that personal data can be processed abroad, provided that the hosting country abides by data protection laws that are the same or stricter than those in the Czech Republic.

The business model based on outsourcing was designed to achieve the most cost-effective solution, along with the highest level of security. It also generated positive impacts on the overall operations of the two credit bureaus. With a local staff fundamentally focused on clients instead of IT issues, the bureaus achieved a much faster start-up both in terms of data collection and data dissemination. Best practice internal processes were put in place to fully integrate the two cross-border technical structures. Last but not least, the technical and process environment facilitated development of value-added products, reducing cost and time to market.

The bureaus have reached almost full penetration in the retail banking market, with 26 member banks (nearly 100 percent market share) and 27 nonbanking financial institutions (over 80 percent of leasing and consumer finance lenders). The banking bureau match rate or hit rate¹¹⁵ is 90 percent, which is comparable to the hit rate in the most developed bureau markets. Nearly 14 million records are in the banking credit register, covering over 5 million people. The nonbanking bureau now has an additional 3.2 million credit files on 2.2 million people.

Inspired by the success of the Czech credit bureaus, the Slovak Republic chose to develop an outsourced credit bureau as well. In partnership with CRIF, a banking bureau was set up in 2004, and a nonbanking bureau in 2008. Both bureaus operate out of Italy.

¹¹⁵ This is the ratio of the number of reports issued to the number of queries received and is an important indicator of the ability of the bureau to satisfy lenders' demand for information.

countries, financial institutions have a high degree of trust in their central bank's role as an independent third party. In the absence of a data protection authority, central banks are often in position to leverage this "capital trust" to establish credit reporting services in partnership with the private sector.

This model offers several advantages, notably providing the central bank with a wealth of free information to enable it to perform its primary function of monitoring and managing systemic credit risk. This model also:

- Prevents the creation of a monopoly on information sharing by allowing as many local and international private entities as possible to enter the market where the size of the market supports competition
- Lays the groundwork for the creation of a solid, competitive, and dynamic information-sharing market, which will allow for competition in terms of prices and quality of services, with the obvious resulting advantages for lenders and consumers
- Establishes a complete and seamless credit information system that is accessible to all lenders
- Facilitates the inclusion of data provided by entities not regulated by the central bank.

One key disadvantage of this model is the duplication of effort involved in setting up the technical infrastructure. As the collector of data from the entities that it supervises, and the distributor of data to CRSPs, the central bank must establish a basic technical infrastructure (a data warehouse). Furthermore, the central bank as aggregator of data must have and maintain the capacity to continue to provide this service, which may be costly. Some public-private partnerships are discussed in detail in the case studies on Ecuador, Egypt, and Morocco in Chapter 7.

The models described above are not exclusive. A country may have a registry and one or more bureaus operating side by side. The models used are determined by the market assessment, in particular, by the stakeholder assessments, which reveal which structure is preferable for the market as well as the optimal number of bureaus as determined by the size of the credit market.

5.6 Identifying Appropriate Technology Needs

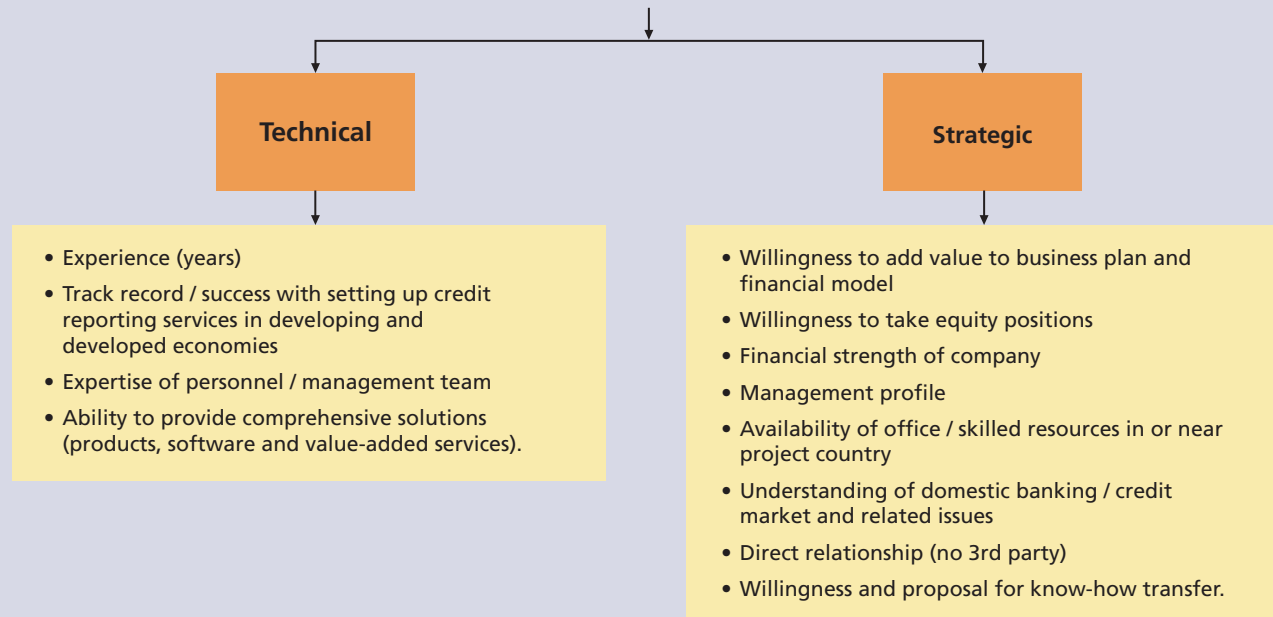
CRSPs require adequate technical infrastructure and communications networks to process and manage data and databases, as well as to offer effective and secure delivery of credit reports to their clients. CRSP technical infrastructure systems are not off-the-shelf solutions that can be acquired and installed into a computer hardware system. CRSPs must develop or acquire locally adapted and customized systems that will enable data collection from existing and new data sources. The development process may take 6 months to 18 months, and involves an analysis of available data from data sources, preparation of functional specifications, actual system development, and acceptance testing. The process of lenders extracting data from their core systems is one of the most challenging and potentially time-consuming elements that must be addressed as a CRSP is established and should not be underestimated.

Cost should not be the only driver in the decision to develop or purchase a technology platform for a CRSP's operations. In addition to a solid technical infrastructure, a CRSP requires unique knowledge and experience because of the complexity of its technical infrastructure and high sensitivity of the data held. In some emerging markets, newly established CRSPs face a shortage of specialized information technology and business skills. Accordingly, in such markets, the participation of an established and experienced CRSP, either as a shareholder or technical partner, can benefit a new CRSP in terms of technical expertise, reputation, crucial business know-how, and the expertise to develop value-added services as the CRSP grows and the market matures.

Technological advancements in the last decade have dramatically alleviated the cost of developing information technology systems for the credit reporting industry. Until a few years ago, the industry mostly operated on heavy and costly mainframes. It is now possible for new CRSPs in emerging markets to acquire information technology platforms from external sources—usually internationally reputable technology providers—rather than "build" them in-house. Figure 5.2 lists the qualities of a strong technical partner.



Figure 5.2: Qualities of a Strong Technical Partner



Source: IFC 2012.

When selecting a technical partner, the CRSP should evaluate a potential partner according to the following criteria:

- **Technical:** Does the potential partner have the capability to implement the system in accordance with the local technical specifications? Does it have a track record in implementing credit reporting services in similar markets?
- **Strategic:** Is the potential partner able to commit to the CRSP over the long term?
- **Financial:** Is the cost of the system in line with the demand for services?

The CRSP's technology system must perform the following basic functions:

- Collect, validate, and merge data
- Generate and distribute reports
- Provide data security and backup.

These functions are described in more detail in the sections below.

5.6.1 Collect, Validate, and Merge Data

The success of a CRSP's operations depends on its ability to extract credit performance data from financial institutions and other lenders, and deliver credit reports in an easy-to-use format. In countries as diverse as Russia, India, and Egypt, extracting data in a format acceptable to the respective CRSPs was a major challenge that required substantial investment in information technology resources to upgrade old legacy systems. It has proved easier to extract credit card records, which tend to be hosted on modern systems that store data in a logical format. Legacy banks, often state-owned or recently privatized banks, and MFIs with large branch networks face a major challenge because often their records are paper-based and their credit functions decentralized. For CRSPs operating in these markets, the practical solution is to start collecting credit portfolios that have better-quality data from banks that are able to provide such data easily, and then gradually start collecting data from more lenders and more portfolio types.

The CRSP is responsible for validating all data it receives before uploading it. The initial phase may be labor intensive. The CRSP's system must include automated processes to check for completion of all mandatory fields and conformity to the standard format. The system must also be able to reject files that have critical errors or missing information and return them to the data provider to resend a corrected file.

After the data have been validated, the CRSP must merge the new data into its database. The system must be able to locate the respective subject, be it an individual or a legal entity, using national unique identifiers, such as passport or identity card numbers or tax IDs or other match and merge techniques discussed in Section 5.3.1. The objective of the CRSP is to be able to match the incoming data with the single best possible match from all the files held on the bureau database.

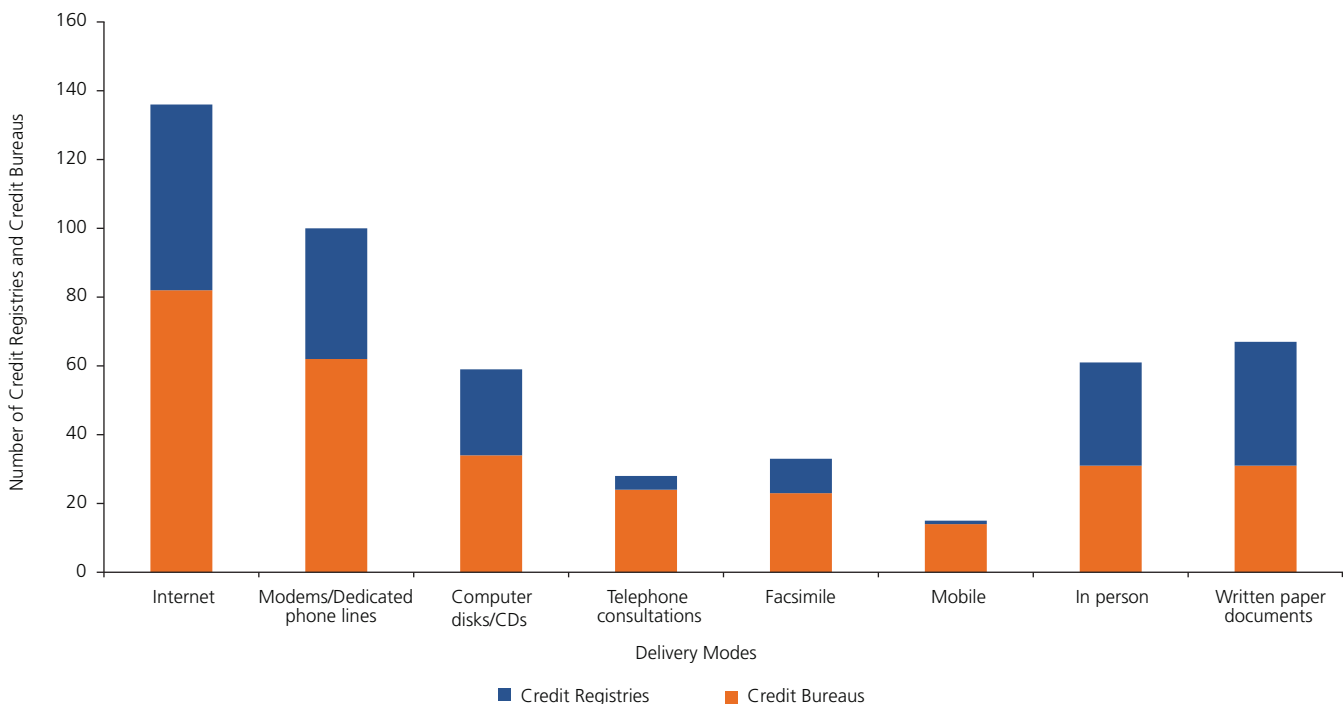
Once the correct subject file has been identified, the system will update the existing record or, if the information relates to a new borrower, create a new credit file in the database.

5.6.2 Generate and Distribute Reports

When enough data has been uploaded and the CRSP's process for validating and merging data is in place, the CRSP is ready to generate reports. The reports remain available on the CRSP's database for use by users. Figure 5.3 shows several common delivery modes used by CRSPs. The typical modes of access for users are:

- **Online access:** The user's system is connected to the CRSP's interactive system, from where the user extracts reports as required. The interaction is system-to-system that is, performed entirely through the user's system with no human interaction. Host-to-host connectivity may be a good solution for a newly established CRSP, since some data providers with large volumes of customer data could integrate their database system with the CRSP's system, thereby eliminating data duplication and streamlining work flow.
- **Dialup or Web:** The user accesses the CRSP's system via traditional internet browsers and PC software. Once connected to the CRSP's system, the user provides authentication information (user name, password,) to

Figure 5.3: Common Delivery Modes for CRSPs



Source: IFC calculation based on Doing Business 2012 data.



validate access. This mode of access is less expensive and is preferred by users who are either not technically capable of permanent system-to-system connection, or who submit limited inquiries to the CRSP.

- **Batch access:** Data providers deliver information to the CRSP electronically or via portable storage devices. The batch access method provides users with a cost-effective means of processing large volumes of inquiries. It is usually recommended for processing of risk monitoring for large client portfolios.
- **Consumer access:** Consumers seeking copies of their own reports must be able to either approach the credit bureau in person, via an approved agent network, or, as in Singapore, via a sophisticated web-based solution.

5.6.3 Provide Data Security and Backup

Data security¹¹⁶ is a high priority for CRSPs and data providers because they manage highly confidential consumer information. Secure systems protect the data and reports and in doing so protect the CRSP's integrity and reputation. The enormous amount of data collected is stored in database systems that are subject to concerns such as loss, tampering, destruction, theft, or misuse. Specific measures and safeguards should be adopted to cope with the logical, physical, and organizational aspects of data security; with the objective of containing, limiting, and responding to data security breaches. Ensuring data security is an ongoing obligation and safeguard measures should be regularly reviewed and updated to be effective against newly emerging threats. Security policies might include:

- Limiting access to the database via mechanisms for identifying and authenticating users (including staff and contractors)
- Maintaining and monitoring logs to track each access to the database
- Protecting the database against cyber breaches (hackers)
- Maintaining a database back-up
- Continually updating all items stored in the offsite recovery database

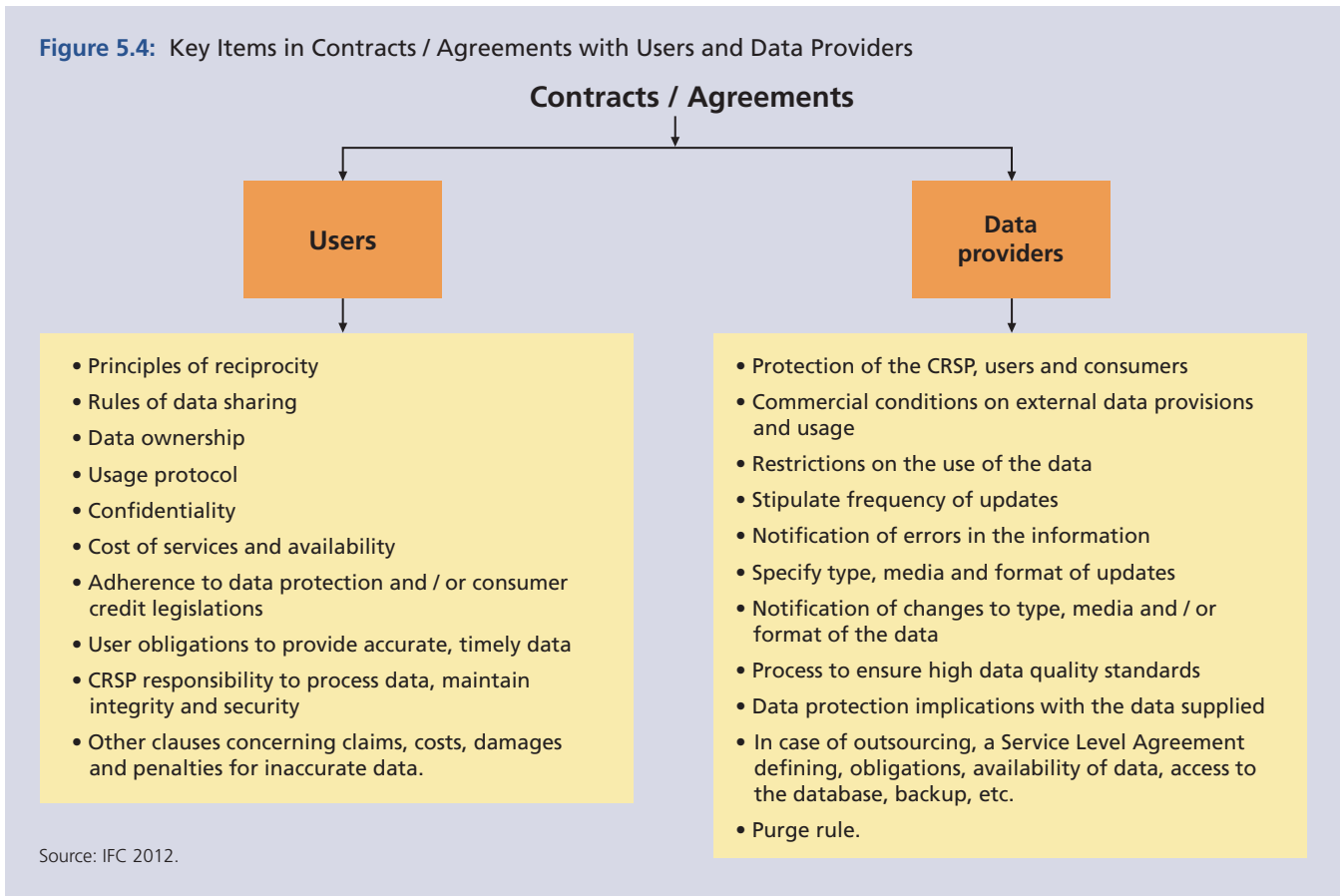
- Periodic testing of backup hardware and recovery plans
- Delineating authority among network administrators and staff
- Ensuring physical security of the facility, the systems, and the data
- Organizational security policies and procedures for handling different data security breaches.

The CRSP should create a plan for responding to different threats and assign specific accountability to different personnel (e.g., network administrators, IT directors) for ensuring compliance with security policies and procedures. CRSPs should develop and routinely test business continuity plans. CRSP management should provide for regular audit checks to ensure adherence to and enforcement of security policies and procedures. Staff should be aware of the security policies and procedures, changes to these policies and procedures, and consequences of violating the policies and procedures. Extensive background checks should be conducted on new hires. In addition, management should review and update security policies and procedures periodically to ensure that they are consistent with several factors, such as changing standards for data security, changing regulations, and system upgrades.

5.7 Operational and Practical Considerations

The first operational task of a CRSP is collecting data from data providers and uploading the data onto its own database for further processing. Data sharing between CRSPs and data providers/sources is usually governed by agreements between the parties. Since the principle of reciprocity is one of the bases for exchanging information, data providers are generally also the users of data. In some exceptional cases, a data provider (e.g., a public data source) may agree to only supply information and not make inquiries of the CRSP. Figure 5.4 summarizes the key issues that should be addressed in agreements between CRSPs and its users and data providers.

¹¹⁶ According to General Principle II, "Credit reporting systems should have rigorous standards of security and reliability, and be efficient." World Bank 2011a.

Figure 5.4: Key Items in Contracts / Agreements with Users and Data Providers

In the case of registries, the legal mandate to provide data will overrule the need for agreements, however, the registry and data providers still need to agree on data formats, data inputs, reporting frequency, mode of reporting, and other details.

5.7.1 Organizational Structure

Pre-operational phase: Initially, staff members should cover more than one role, whenever possible. The early phase of a CRSP can essentially be run by a general manager/project manager, an office/communication manager, and a technical coordinator. Ideally, employing a general/project manager who is knowledgeable, experienced, and well connected in the financial sector is a critical factor for success. In addition to providing technical assistance, a reputable international technical partner can also provide strategic and business development support to management. Finance, administrative and legal functions can be outsourced in the beginning.

Operational phase: Once the CRSP becomes operational (i.e., the system starts selling its first reports) several factors affect the decision on staffing. A CRSP's function and its employees' duties are to obtain credit history data from data providers and to sort and aggregate the data into personal credit histories. The CRSP's system then generates reports based on the captured data. Among the factors to consider in determining workloads are the following:

- Number of existing and potential subscribers
- Number of branches/workstations connected to the CRSP
- Inquiry volumes
- Competitors' strength
- Consumer awareness and education needs
- Projected and actual database size
- Growth plans for the CRSP
- Complexity of operations (e.g., need for off-line checks/updates overnight or on weekends).



The main divisions of the operational CRSP are: IT and Operations, Compliance, Business Development and Marketing/Sales, and Finance/Administration. Divisional heads in each area report directly to the chief executive officer (CEO)/managing director, who manages the company’s activities and, in turn, reports to the board of directors. The board, whose members are appointed by the shareholders/owners of the bureau, is responsible for the overall corporate governance. Ideally, the board should include an independent director, one or two members of the executive team (the CEO /managing director and operations director/representative of the technical partner). The board of directors nominates one of its members as chairman of the board. Figure 5.5 shows a sample organizational structure of a CRSP.

Staffing requirements and responsibilities for an operational CRSP are outlined in Table 5.1.

The database team is responsible for validating all data received from data providers before it is uploaded onto the system. The CRSP should operate a help desk to assist users

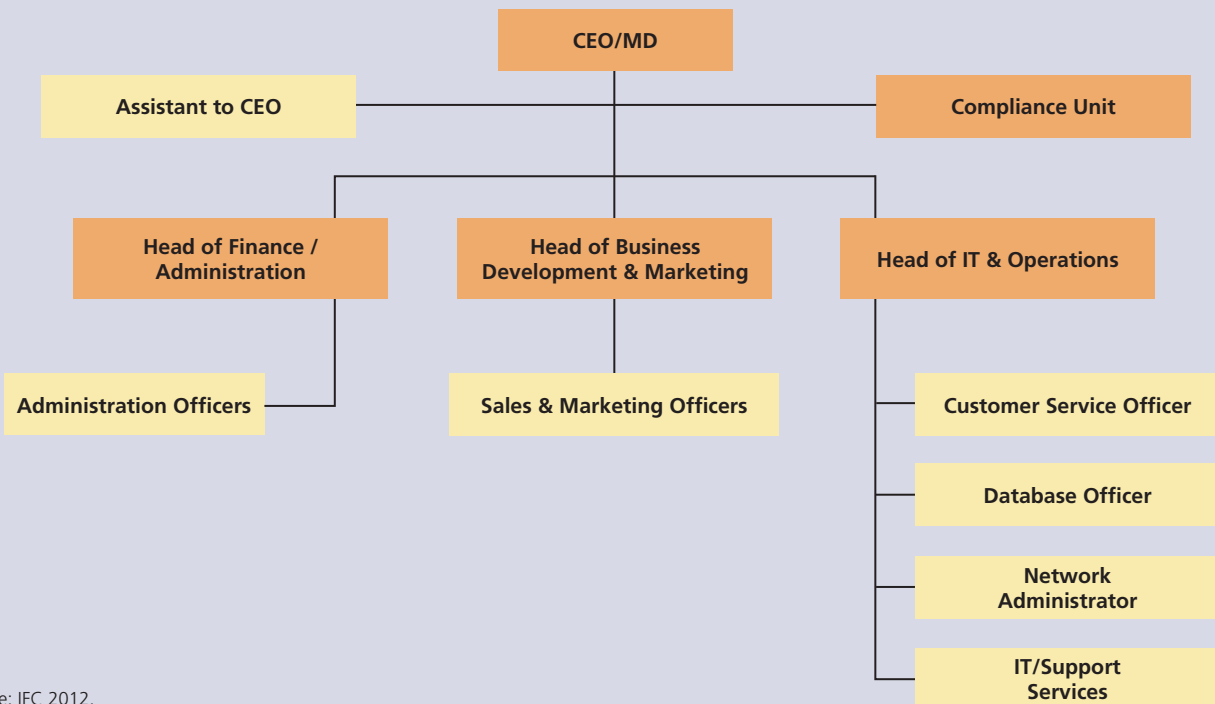
who have problems connecting to the system, uploading data, and modifying some of their data. They may also assist new lenders that require additional help in enabling their internal systems to interconnect to the CRSP system.

The customer service department deals with consumers and firms that have queries regarding credit reports or their information on the CRSP’s database. Staff in this department should be knowledgeable on the CRSP’s redress mechanisms such as registering customer complaints and providing educational information to customers in accordance with the CRSP’s operation policies.

To accommodate the needs of growing numbers of users and borrowers and their respective requests, most of the growth in staff will occur in the customer service department. The sales and marketing group also need to grow to promote the CRSP’s products and services as it seeks to expand into new markets.

Last but not least, it is recommended that the CRSP appoint a compliance officer(s) early on in the process of setting up

Figure 5.5: Sample Organizational Structure of a CRSP



Source: IFC 2012.

Table 5.1: Operational Phase Staffing

Role	Key Tasks
CEO/Managing Director	<ul style="list-style-type: none"> • Overall bureau strategy • Marketing / business development activities
Head of Finance and Administration	<ul style="list-style-type: none"> • Finance and administrative operations • Human resources functions (recruitment, compensation, performance management, career development).
Finance / Administration	<ul style="list-style-type: none"> • Day-to-day administrative and bookkeeping operations.
Legal Counsel	<ul style="list-style-type: none"> • Overall legal support • Internal legal training.
Head of Business Development & Marketing	<ul style="list-style-type: none"> • Market segmentation • Product development • Branding • Advertising • Sales and promotion.
Sales & Marketing Officers	<ul style="list-style-type: none"> • Maintain relationship with existing clients and enroll new client • Implement sales & marketing plan and achieve business objectives • Advertising, conferences/exhibitions • Sales and promotion • Market research • Media affairs • Identify new data sources.
Head of IT & Operations	<ul style="list-style-type: none"> • Vendor relations • Data management • Technology management • Network and security operations • Customer service.
Customer Service Officer	<ul style="list-style-type: none"> • Consumer Help Desk.
Database Officers/Analysts	<ul style="list-style-type: none"> • Data validation and quality checking • Data uploading • Emergency updates.
Network Administrator	<ul style="list-style-type: none"> • Network administration • Subscriber communications interfaces • Network security.
IT Support Service	<ul style="list-style-type: none"> • Housekeeping • System administration • Subscriber and internal Help Desk
Compliance Unit	<ul style="list-style-type: none"> • Internal process audit • External compliance • Oversee data quality and dispute resolution process.

Source: IFC 2012.



operations. CRSPs, which are regulated in most countries, need a compliance officer to ensure that the CRSP is in compliance with its regulatory obligations, its internal operational policies, and industry codes of conduct. The compliance unit should closely and consistently coordinate its function with relevant CRSP departments (including database officers and management) to ensure that the CRSP is in compliance with its internal and external obligations.

5.7.2 Financial Projections

Forecasting financial outcomes of a newly established CRSP requires an assessment of potential revenue and costs, and an identification of the drivers in each of these categories.

Revenue Projections: The main revenue driver for the CRSP is the number of credit reports or value-added services sold. Revenue projections are based on the estimated demand for credit reports and the pricing of reports. In most cases, the CRSP charges a flat membership fee plus a charge per inquiry (per click). Volume discounts usually apply, and it is common to have a pricing matrix depending on the volume of inquiries and the type of user. Table 5.2 provides a hypothetical pricing matrix based on the annual inquiry volume per user. The cutoff points for volume discounts are determined by projected demand and average expected inquiries.

It is important to note that the pricing matrix in Table 5.2 is purely hypothetical and is not intended to provide a benchmark for any market. Pricing in each market will ultimately be determined by the size of the market in terms of credit active population, the number of records in the database, the number of users of the system, and the volume

Table 5.2: Hypothetical Pricing Matrix for Credit Reporting Service Providers

Inquiry volume	Price per Inquiry (in \$)
<25000	1.75
25001 – 50000	1.00
50001 - 100000	0.95
100001 - 250000	0.85
250001 - 500000	0.8
>500,000	0.7

Source: IFC 2012.

of inquiries generated by these users. In general, lenders in countries where the size of the credit-active population is small, will be faced with higher prices. Within a given market, lenders that generate smaller volumes of inquiries (based on the size of their lending portfolio), including smaller microfinance lenders will be faced with higher prices. The issue of pricing for microfinance lenders has been noted earlier in the various microcredit reporting regional developments, and continues to be a hotly debated agenda item.

The inquiry-demand estimate should be based on a survey of potential users. The financial projections for revenue should allow for time between the launch of a CRSP's operations and the breakeven point at which it achieves its targeted inquiry volume. Technical issues related to connecting a lender to the CRSP and integrating the CRSP's information into the billing cycle of the lender institution are common and may take at least three to six months to resolve. The growth rate for the volume of inquiries is based on the projected credit growth rate for the economy and the expected number of new users joining the bureau. Growth rates of 50 percent and above are feasible in the first three to five years of a CRSP's operations in a country with stable credit growth and new users joining the CRSP.

Cost Projections. In large part, costs are driven by the choice between acquiring the CRSP's technology platform and developing the technology platform in-house. With either choice, the possible cost range is wide and depends on the level of sophistication of the system and the types of products it is expected to provide.

Cost projections based on the assumption that an existing platform will be acquired should include the following cost elements:

- Development/customization/installation fee for the technology platform (usually paid in installments)
- Maintenance fee, usually a flat fee paid monthly, quarterly, or annually
- License and royalty fees paid to the technical partner based on the number of inquiries received by the system in addition to fees to cover ongoing updates and enhancements to the system, usually at an agreed-upon rate

- Consultancy fees charged by the technical partner for any service over and above the services specified in the development and maintenance agreement.

Other elements to be addressed in the cost projections include hardware such as database and network servers, network equipment and workstations, system software applications, office furniture and equipment, utilities and telecommunications expenses, and labor costs, which can be substantial. In some cases, an important cost component is the cost of the data that the CRSP may acquire from external data sources; for example, a source that contracts to provide data only to the CRSP.

Over and above the basic operating costs, there will be a variety of costs associated with business continuity and risk mitigation, key areas covered in the general principles.¹¹⁷ Of these, the largest component is typically the cost of operating a disaster recovery site—a business contingency in the event that the primary data center becomes inoperable. A variety of disaster recovery solutions are possible depending on the urgency required to reinstate services, which have a direct bearing on cost. The quicker the required backup the more costly the solution. The options fall broadly into three categories:

- **Hot stand-by** – effectively a mirror copy of the live database operating in parallel to the main data centre at a different location. If the primary site fails, the back up system kicks in seamlessly with almost no loss of service to the user.
- **Warm stand-by** – a duplicate of the hardware environment that has been pretested but typically does not contain live data. In a disaster the most recent data back ups would have to be loaded before services can be resumed, which may take several hours.
- **Cold data back up** – a process of taking regular copies of the database and storing them off site to protect against the destruction of the primary site. Although this method protects the raw data, which is the real value of the CRSP, in a disaster it may be several days before the service can be reintroduced for users.

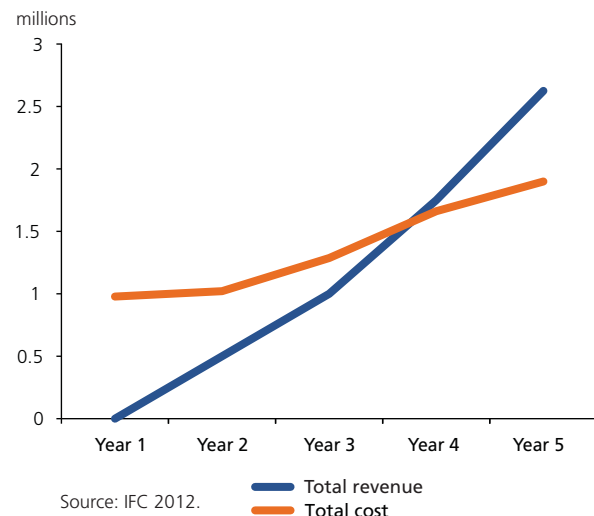
Typically new CRSPs in emerging markets find it difficult to justify the costs of implementing more than rudimentary disaster recovery solutions. As the CRSP services become more embedded in the business- critical processes of its users—for example, incorporated within scoring solutions or automated application processing systems—service availability becomes increasingly important and more sophisticated and expensive disaster recovery solutions are required.

Table 5.3 provides a hypothetical profit and loss statement over the first five years of a CRSP.

Based on this hypothetical financial plan, the CRSP would break even in the third year of operations. In most cases, CRSPs reach the breakeven point over a three-to-five year period (see Figure 5.6).

In preparing a business plan for the CRSP, it is important to assess high and low scenarios for profitability because the successful operationalization of the CRSP depends on many external factors. For example, the CRSP often faces start-up delays caused by banks’ inability to upload data. In many countries, historical data is simply not available to populate the database. The first few years may be dedicated to building a database from scratch. Underestimation of

Figure 5.6: Breakeven Point for a Newly Established Credit Reporting Service Provider



¹¹⁷ World Bank 2011a, General Principles II and III.



Table 5.3: Hypothetical Profit & Loss Statement

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Total revenue (in US\$)	0	500,000	1,000,000	1,750,000	2,625,000
% change in revenue	0		100	75	50
Costs					
Operating cost					
Labor	315,000	346,500	450,450	585,585	761,261
Rent	50,000	52,500	55,125	57,881	60,775
Utilities	1,500	1,800	2,160	2,592	3,110
Office equipment, supplies	7,000	8,000	8,000	8,000	8,000
Telecommunications	14,400	17,280	20,736	24,883	29,860
Audit, legal and other fees	12,000	12,000	12,000	12,000	12,000
Insurance	13,000	13,000	13,000	13,000	13,000
External data, marketing	20,000	25,000	30,000	37,500	46,250
Total operating costs (\$)	432,900	476,080	591,471	741,441	934,256
% of total cost	52	55	54	53	53
Fixed costs					
Rent, furniture, other fixed costs	20,000	20,000	20,000	20,000	20,000
System hardware & software	75,000	75,000	75,000	75,000	75,000
Technology platform	300,000	300,000	400,000	550,000	725,000
% of total cost	36	34	37	40	41
Total fixed cost	395,000	395,000	495,000	645,000	820,000
Total cost (\$)	827,900	871,080	1,086,471	1,386,441	1,754,256
% change in cost		5	25	28	27
Net income before interest & taxes (\$)	(827,900)	(371,080)	(86,471)	363,559	870,744
Tax	0	0	0	109,068	261,223
Net income after taxes (\$)	(827,900)	(371,080)	(86,471)	254,491	609,521

Source: IFC 2012.

costs or time required to customize and implement the system is common. Usually, this means the CRSP has to pay high consulting fees to the technology provider to finalize the system implementation, which is likely to delay the timing of the breakeven point.

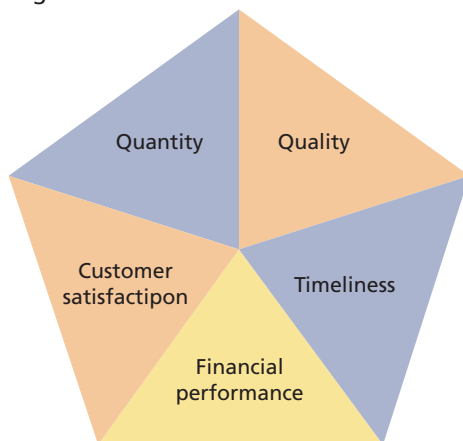
Although the need to generate revenue is obvious for credit bureaus, which generally operate for profit, it is not as clear for credit registries. Most credit registries are established under the mandate of a banking law, on a not-for-profit basis, to enable prudential supervision and systemic risk

monitoring of the financial system. Traditionally, the experience has been to not charge users (regulated financial institutions) for reports. This was the case for most registries operating in Latin America and the Caribbean. Thus, revenues for a registry would be zero. In some countries (e.g., Lebanon, China, Bangladesh, and soon the Maldives), the law empowers the registry to recover operating costs of its services. Pricing policies that enable the registry to recover costs seem prudent in light of the objective of maintaining financial sustainability of operations.

5.7.3 Measuring Effectiveness of a Credit Reporting Service Provider

The effectiveness of a CRSP, like that of any other business, can be measured in many ways. A good performance measurement system includes multiple dimensions of performance, including financial, operational, and behavioral characteristics. The key categories for measurement include: quality, quantity, timeliness of products and services delivered, financial performance, and customer satisfaction (see Figure 5.7).

Figure 5.7: Key Performance Indicators of a Credit Reporting Service Provider



Source: IFC 2012.

Quantity. This category is a measure of the volume of goods and services delivered. Relevant indicators include:

- Number of queries received by the system over the reporting period. This measure is the key measure of the demand for the CRSP's services.
- Number of credit reports sold. This measure is the key output measure for the CRSP. It can also be tracked at the product level, for example how many basic reports are sold, how many reports with credit scores are sold.
- Number of borrowers with credit records in the system at the end of the reporting period. This measure can be tracked for different categories of borrowers, such as firms and individuals.
- Number of records in the system at the end of the reporting period. Each borrower may have more than

one credit line and the history on each credit line is stored separately.

- Hit ratio. This is the ratio of the number of reports issued to the number of queries received. It is an important indicator of the ability of the CRSP to satisfy lenders' demand for information. The hit ratio is indicative of the depth of data available in the CRSP.
- Number of products offered. This measure could include basic reports, detailed reports, credit scores, portfolio monitoring, and fraud detection.

A CRSP's objective is to simultaneously increase its coverage ratio, defined as the number of borrowers in the system divided by the economically active population, and its hit ratio. Considering only one of these two measures does not provide an adequate understanding of the CRSP's performance. For example, a CRSP could have a high hit ratio but a very low coverage ratio, a situation often found in markets with underdeveloped credit markets. This assessment indicates that the formal financial system serves a small group of individuals and most lenders continue targeting the same group for new lending.

Quality. This category refers to the accuracy, completeness, consistency, and updated nature of the CRSP's data. Information, the main asset of the CRSP, only has value if it is accurate and current. Relevant indicators of quality include:

- Number of complaints: The CRSP must have a mechanism to receive and log complaints from consumers/borrowers about the accuracy of information in their credit reports.
- The percentage of complaints with inaccuracies due to actions of the CRSP: Many complaints that a CRSP receives may be unjustified or result from errors stemming from the data provider. Tracking the number of complaints that can be attributed to the CRSP's actions allows the CRSP to improve the quality of its processes.
- Data quality reports: The CRSP should run data quality reports to analyze the completeness and consistency of the data. Such reports produce tabulations of fields such



as IDs and addresses, dates of birth, and other identifying information, and allow the CRSP to determine whether there are duplicate or incomplete files in the system.

- Number of rejected files: When accepting a data file from the data provider, the CRSP runs simple consistency checks on the data (e.g., checking for minimum inputs). If the file does not pass this test, the system rejects it and sends it back to the data provider. Tracking the number of rejected files allows the CRSP to monitor the quality of data available in the market.

Timeliness. CRSPs should monitor their performance based on how quickly they can respond to inquiries/requests from users, how quickly they can turn around requests to rectify errors, and how quickly they can update, assimilate, and merge records.¹¹⁸

Financial Performance. Whereas return on equity, profit margins, and operational costs are standard indicators of financial performance, the CRSP may also track more specific indicators, such as:

- Profit margin per product line. The services that CRSPs (mostly bureaus) provide vary greatly and are bound to have different levels of profitability and cost structure. For example, while the CRSP may sell raw data at a relatively low cost, it may sell analytical products, such as credit scoring and portfolio monitoring, at higher margins.
- Profit margin per client. Bureaus aim to attract large creditors by providing significant volume discounts. On the flip side, smaller creditors such as microfinance institutions are less likely to pay the same prices for credit reporting products as their banking counterparts. The bureau would stand to gain by offering lower prices to small creditors to attract greater numbers of them to enroll as bureau users. Analysis of profit margins by client allows a bureau to better tailor its pricing strategy.
- Registries that do not operate for profit will nonetheless want to closely monitor the sustainability of their operations year after year.

Customer satisfaction. Methods used to measure this category include customer surveys or actions taken by customers, including:

- Number of complaints. By tracking complaints from lenders and data subjects separately, the bureau can identify areas for improvement.
- Average time to resolve complaint. Providing fast responses to complaints is one way of improving client satisfaction. One approach is to operate a help desk with staff available to answer questions and complaints promptly.
- Systematically tracking a set of key indicators enables the CRSP to monitor its performance and formulate a clear strategy to improve service.

¹¹⁸ See also Section 5.2.2 of this Guide.

Developing Value-Added Services



Value-added services (VAS) comprise a broad class of products that more sophisticated credit bureaus can offer.¹¹⁹ Such services entail the processing and analysis of raw credit and financial data to produce tools that can be easily integrated into other financial products and tools. The range of potential value-added services is extensive and includes, but is not limited to:

- Marketing services
- Credit scoring
- Application processing
- Portfolio monitoring
- Fraud detection
- Collections.

Raw credit data can be useful in each of these areas, however, significant time, resources, and expertise is required for proper analysis and interpretation. A variety of techniques, ranging from simple data aggregation and cross-referencing to complex statistical algorithms, can be employed to provide the lender with a simple interpretation of the information (e.g., a risk score).

6.1 Automated Decision-Making Systems

Given the volume of decisions often required to manage a typical retail portfolio (e.g., grant/reject facility, overlimit authorization, cross sell/up sell, past due action required), many lenders have turned to automation to maintain

efficiency. However, raw data in the form of a credit report can be extremely difficult to integrate into such systems. Fortunately, many types of VAS (e.g., application processing systems and behavioral risk assessment), lend well to inclusion within automated systems.

The major benefit of automated decision-making systems is that they allow users to manage many customer decisions on an exceptions basis, rather than having to review each case. This ability reduces the need for employing highly experienced, and often very expensive, individuals to make mundane or rudimentary decisions, and allows lenders to channel employees into more productive tasks.

Larger financial institutions that operate in developed markets typically develop customized value-adding tools, either using in-house analytical teams or contracting with one of the numerous specialized companies that have emerged to service this market. Smaller financial institutions, particularly in emerging markets, may have customer databases that are too small for such solutions to be statistically reliable, or find it difficult to justify the capital cost of development.

In emerging markets, therefore, the credit bureau can play an important role in making these services available to a broader audience, by pooling data across a range of customers, and by spreading the cost of development across its user base.

Although users still have to pay for these services, typically on a “pay as you go” or “per click” basis, they get immediate

¹¹⁹ Based on the functional differentiation between bureaus and registries, discussed in Chapter 2, value-added services generally fall under the domain of bureaus, although some registries, such as in France and Palestine, do offer credit scoring products.

access to the benefits of improved lending methodologies, more cost-effective processes, and increased operational efficiency that, under other circumstances, would be available only to larger institutions.

6.2 International Industry Trends in Developing Value-Added Services

The range of value-added services offered by credit bureaus has broadened significantly over the past 20 years fueled both from the demand side—users wanting increasingly sophisticated products—and the supply side—bureaus trying to increase/maintain income margins in an environment of downward pressure on commodity prices (the cost of the raw data).

The scope of products offered is a function of the environment in which the credit bureau operates; that is, the extent to which the raw data can be used. The trend in developed markets has been to create a suite of value-added products aligned to what is sometimes referred to as the “customer life cycle” (see Figure 6.1, which mirrors the core business functions most lenders apply when managing customers: prospecting and marketing, new business

acquisition (loan processing), customer relationship management, and collections.

The credit bureau, typically, builds products or solutions that help its customers in each of these business functions make better or faster decisions by using the predictive nature of bureau data. In effect, the bureau is recycling its databases so users access files more than just at the point of an initial loan inquiry. For example, a behavioral scoring system may access a customer’s credit file monthly to identify updates rather than only at the point of application.

Some VAS may be no more than enhanced bureau reports, such as an alert service that pro-actively advises a lender of a change to a customer’s file, and requires little in the way of analytical expertise. Having introduced these services at a relatively early stage, most credit bureaus aim to move up the value chain to add increasingly more sophisticated tools, such as scoring and credit information management software. These more complex solutions have the dual benefit of generating greater revenues for the bureau, and also of locking clients in to bureau services, (i.e., making users more reliant on the supplying bureau and thus less likely to turn to competitive sources of information).

More mature bureaus tend to use specialized internal analytical teams to develop and maintain these value-added services. More frequently, however, bureaus outsource their development, often to the same specialized vendors that supply custom services directly to the lenders. The critical issue, however, is not who develops the services, but when they can be offered.

In most developed countries, credit bureau databases have had many years to develop, are rich in information, and usually offer high-quality data, thus providing an ideal base for data mining and data modeling. In many emerging markets, however, credit bureau databases are considerably less rich: they may have information only from banks and may not have been operational long enough to house historic information and build the diversity of information sources required for value-added products. In these circumstances, it may be difficult, or indeed impossible, to build some of the more sophisticated solutions, such as credit scoring.

Figure 6.1: Customer Life Cycle: Offering Value-Added Services



Source: IFC 2012.



Planning for the development of VAS requires an understanding of the stages required for a credit bureau to “mature.”

Stage 1: Initial deployment. At inception, a new credit bureau must work to build its database of records. In some instances, no data may be available and the bureau must start from scratch. In other instances, the regulator can step in and mandate that all regulated entities collect consent from their borrowers to share historical and new credit data with the bureau. This process, which should occur prior to the bureau development process, enables the bureau to populate its database with historical records.

Stage 2: User acquisition. Although not necessarily the case in all countries, the trend in many emerging markets is for the initial development of credit bureaus to take place within the banking community. The main driver of this approach is that the banks are the major providers of credit and have one clearly defined supervisory entity. The first step is to upload the data from the initial members, that is, the lenders.

Stage 3: Data diversification. In parallel with Stage 2, the bureau attempts to augment the basic credit history data with other forms of information that may be beneficial to users, such as electoral rolls, identity records, court judgments, telephone numbers, and company registration records. This type of data can be particularly useful to members: it may be predictive of future borrower behavior or it may make their processes simpler by providing a portal to a “one-stop data shop.” The data also provide a valuable source of information for data mining and modeling.

Stage 4: User diversification. Even if banks take a pro-active role in establishing the credit bureau, it is often clear from the outset that, at some point, the user base should expand to include nonbank creditors, such as telecommunications companies and microfinance lenders. The introduction of new users can have a profound effect on the composition of the bureau databases and, therefore, the predictive nature of the data. For example, in several countries, expanding to include telecommunications providers has improved the predictive power of the inquiry database as the pattern of

telecommunications payments may be indicative of future defaults on bank credits.

Adding new bureau members also has implications in terms of reciprocity, namely access to the information on the basis of their level of data contribution. The rules of reciprocity extend to the design and delivery of value-added products. A bureau score that incorporates positive credit history information, for example, should not be made available to a member that provides only negative information, even if the member never actually sees the positive data.

Stage 5: Database maturity. Credit bureau databases change over time as the availability of data sources and the number and type of users change. Databases tend to grow in both depth and breadth, but not always. Privacy restrictions can result in changes to the availability of certain types of information as was seen in the United Kingdom in 2000 when restrictions were placed on using electoral roll information.

In general, the core bureau database needs a period of time to mature through the above stages of development in order for its data to be predictive of a future outcome (see Section 6.3.1). The ever-changing nature of the database explains why value-added products and services require continuous monitoring and fine tuning. Estimates based on today’s data may not apply 12 months from now as the overall economic environment may change.

Stage 6: Service expansion. There are no rules as to when VAS can be introduced. Simple services, such as expanded credit reports, can be introduced at low cost at a relatively early stage, even during stages 2 and 3. Bureaus typically develop more sophisticated products, such as credit scoring, which are usually more expensive to build and maintain, when the database and to some extent the user base have reached a level of maturity where the resulting products will be both robust and have a reasonable shelf life. This level is most likely to occur once the bureau has reached stages 3 or 4. It is only when the bureau has reached stage 5, however, that a broad suite of products, as described in Figure 6.1, can be contemplated.

Two other key factors that a bureau would typically take into consideration when developing VAS are return on investment and users' capacity to adopt the service.

Return on investment: A clear business case must exist for the development of a VAS. The projected revenue from the sales of the services must cover the investment cost and produce positive return. The pricing and marketing strategy often includes bundling VAS with the sale of core data.

The capacity of users to adopt the service: Members will only demand a service if they have the capacity to use the service to improve some element of their own processes. A bureau score, for example, adds no value unless the lender is able to integrate it into its credit underwriting process to lower the costs of credit approval. User-side constraints have a significant bearing, especially in emerging markets, on who will use the services and in what quantities.

Even in developed markets, the uptake of new bureau products and services is not guaranteed and typically requires a highly pro-active sales and marketing department/staff to promote the product. In emerging markets, the problem of acceptance is even more pronounced. Except for the international banks, many lenders in emerging markets lack an understanding of the lending methodologies that can be implemented using VAS and of the information technology infrastructure needed to deploy them.

Credit bureaus in emerging markets should not underestimate the need for in-house outreach training, market development, and sales functions. As products become more sophisticated and more analytical, bureaus should also recognize the need to have internal specialist resources to monitor and maintain the products and, perhaps more importantly, communicate the benefits to potential users.

Developing VAS can benefit both the bureaus and their customers and ultimately may improve access to finance for the broader community. The opportunities, challenges, and ensuing benefits, however, will vary depending on a bureau's individual circumstances and the market.

6.3 Products

The following list, although not inclusive of all of the value-added products credit bureaus provide, serves as a guide to the key services typically available. The accompanying examples indicate how these products are deployed in certain markets and may not be applicable to all circumstances.

6.3.1 Bureau Scores

A credit score is a number assigned to a borrower based on his or her ability and capacity to repay debt. This number falls within a range with a higher score indicating a higher probability that a borrower will repay. This score is computed from available credit history information using a statistical model or mathematical algorithm. Credit scores can be used in the loan approval process for simple accept/reject rules or for more sophisticated risk-based pricing rules and credit limits.

“Bureau score” refers to credit scores developed on the basis of the credit bureau data and are different from the credit scores developed on the basis of the data supplied by an individual lender. Bureau scores are based on the information pooled across many creditors as well as public information sources and thus include characteristics otherwise unavailable to the individual lender, such as total exposure, number of outstanding loans, and previous defaults within the system. All of these are highly predictive measures of future repayment. Credit bureaus typically build scores using three historical data files that are unique to the credit bureau:

- Defaults on previous credit transactions
- Positive payment behavior (trade line data)
- Previous searches/inquiries.

In certain circumstances, the models may include other types of data, such as:

- Third-party data (e.g., court judgments and bankruptcies)
- Demographic data (e.g., applicants' personal attributes, such as age)



- Geo-demographic data, aggregated information at the geographic level.

Each of these components could potentially add predictive power to a bureau score, but care must be taken to ensure that the resulting models do not conflict with a lender's existing decision-making process. For example, a bureau score that incorporates the customer's age may be incompatible with a lender's custom scorecard that also includes age. Typically, therefore, a credit bureau may choose to develop a suite of models rather than just one model to accommodate as many different customer requirements as possible. Examples include:

- Positive bureau score for closed user group members providing both positive and negative data and typically used as a plug-in or addition to in-house custom scores
- Enhanced bureau score incorporating additional customer demographic data and typically used on a stand-alone basis by lenders with no other scoring models
- Industry-specific bureau scores using data derived from specific industry sectors, such as banking or telecommunications
- Public domain bureau score using data available in the public domain and, therefore, available to all customers.

Because different users can use the scores for different purposes, the credit bureau typically uses a variety of different distribution channels. In its simplest form, the credit score can be incorporated into a credit report, usually with some explanation as to its meaning. Alternatively, the bureau may supply the score to the users electronically so that it can be incorporated into customized scoring solutions or automated software applications. A third and increasingly popular service is a regular batch service that rescores complete portfolios periodically. The charging structure for each of these services also varies although most bureaus charge users on a per-score or per-click basis.

When adequate quantities of reliable information are available, bureau scores can be statistically derived, typically by using some form of multivariate regression analysis. The techniques used to develop the models are similar to those

used for any other type of customized model development. However, several unique challenges can complicate the process of building/deploying bureau models, as described below.

Retrospective data: A key requirement of the analysis is the ability to observe the transition of a credit file from the point at which an application was made, through the observation period, to the outcome point. This requires the bureau be capable of retrospectively reconstructing a credit file at various points in time. With adequate archiving of the database, reconstruction may not be a significant issue. However, changes in customer name, address, ID numbers, and the like can cause tracking problems if not appropriately addressed.

Thin file: The data files may range from extremely detailed, as when a data subject has a variety of pre-existing credit facilities with various outcomes, to very thin, as when the bureau has no pre-existing information on the applicant. In cases when a bureau has only a limited amount of data on borrower performance and outcomes, standard statistical multivariate analysis may not apply and other methods should be used.

Scoring model calibration: The bureau builds the credit scores from a broad spectrum of customer histories found in its database. The derived scores are typically calibrated for an average portfolio; that is, the distribution of customers across the range of scores reflects what is seen across the whole spectrum of customers at the bureau. While probability of default at any given score should remain constant for all users, the cumulative good-to-bad odds will vary from portfolio to portfolio depending on the risk profile of the applicant base. This can have a profound effect on the way lenders manage their cut-off strategies (the scores at which the lender chooses to accept or decline applicants). It is highly recommended, therefore, that individual portfolios be retrospectively tested before the models are implemented.

In emerging markets where either the market is too small or the credit bureau is insufficiently mature to have confidence in the data, the bureau may consider offering models that rely more heavily on customer demographic characteristics

than on credit performance data. Although less predictive, these models often provide a useful introduction to the methodology for lenders with little or no previous experience in credit scoring.

6.3.2 Software Applications

A key advantage of credit scoring is the bureau's ability to establish a quantifiable measure of risk in what is otherwise a highly subjective process. Having a numeric value (a measure of probability of default) for risk is valuable in its own right but becomes increasingly powerful when integrated into automated processes and used to proactively manage strategy and a lender's appetite for risk.

To help facilitate this process, many credit bureaus in mature economies have developed a range of software solutions that complement both the raw bureau data and the scoring process adopted by sophisticated lenders. These solutions are commonly provided either as software applications—customized to specific user requirements and maintained within the client's own systems environment—or as bureau solutions, more generic in nature and hosted at the bureau. The available solutions are many and varied, but the following represents a summary of the more popular applications.

Application Processing: A key driver of profitability in mass market lending environments, such as consumer loans and credit cards, is the ability to keep the cost of new business acquisition to a minimum. Many financial institutions have turned to automated application processing systems as a means of streamlining the credit-granting process. Many examples of such systems exist, but the common design incorporates several fundamental features:

- **Electronic data capture:** Typically an application processing system has a series of standardized data capture screens. These screens allow the operator to capture the information necessary to process the decision and, perhaps more importantly, store the customer data in a format that can later be used for analysis.
- **Rule/scoring engine:** The system captures the application data electronically, then the software automatically applies policy rules, such as minimum required lending criteria, and scoring algorithms, including score cut-off criteria.
- **Decision output:** An automated application processing system assimilates all of the input data, including any available online information from the credit bureau; applies the rules and scoring models from the decision engine; and presents the operator with a recommended course of action, such as accept, refer, or reject. This output is then queued so that the final decision is presented to an individual with the appropriate level of underwriting authority. The degree of complexity of such software solutions varies depending on the technical sophistication of the user. Advanced decision systems are capable of managing almost all aspects of the decision-making process, including customer segmentation and strategy allocation (e.g., terms, limits, and product features) and even champion/challenger strategy setting to test the lender's appetite for risk.
- **Behavioral scoring (card management solutions):** For a variety of credit products, such as credit cards, charge cards, and overdrafts, the initial decision whether or not to lend is only the first of many decisions taken during the life of the lender-borrower relationship. These dynamic products require a greater degree of monitoring than term loan products because the exposure to risk increases over time. Additional credit decisions must be made on issues, such as limit management, overlimit authorizations, and card reissue. Behavioral credit scoring is an adaptation of traditional scoring techniques designed to observe and evaluate the payment behavior patterns of borrowers. The output score changes to reflect the changing risk profile over time and can be used either to automate routine decisions or provide operators with an immediate assessment of current risk. A range of powerful software solutions has been designed to host card management solutions and provide strategic control over practically all aspects of customer relationship management. Although complex and expensive, these systems have become almost an integral part of mass market credit management.
- **Model Tracking and Performance Monitoring:** An overlooked benefit of introducing credit scoring



methodology into the lending process is the ability to monitor customer risk in an objective and quantifiable manner. Undertaking this analysis requires an in-depth understanding of the way the models are performing. Several credit bureaus provide score diagnostic tools that monitor and report on the performance of scorecard characteristics in terms of their continuing ability to discriminate and the way shifts in the applicant population may create misalignments that would affect the quality of the decisions.

- **Collections Scoring:** Collections scoring systems help lenders identify and differentiate between clients that have a high probability of payment despite late payments, and those that have a high probability of nonpayment. Based on these scoring systems, lenders can apply tailored strategies/collections actions that more accurately reflect the risk of a client, as opposed to relying on traditional strategies such as past due times (for instance, all clients that are 30 days late receive the same call/letter). Lenders stand to benefit because a tailored strategy helps reduce delinquencies and losses, provides a more pro-active collection strategy, and enables them to use their resources more efficiently.

6.3.3 Collections Services (Receivables Management)

A long and often successful association has existed between credit bureaus and debt collection companies. In several instances, negative information in credit bureaus has been derived directly from information gathered by debt collection companies (as was done by Baycorp in New Zealand, Credit Reference Bureau in East Africa, and InfoScore in Germany).

Many collections products and services are available, with the following three among the most common.

- **Tracing:** Tracing products use the credit bureau data to identify the whereabouts of a customer with whom a lender has lost contact (“skips”). These products either trawl bureau databases to identify contact information of which the lender may be unaware (e.g., telephone numbers or a new address) or place a marker on the customer file so that if the customer subsequently makes

another application for credit, the previous lender can be informed.

- **Debt management:** Debt collection is an expensive and time-consuming function and typically requires specially trained and dedicated personnel. Some lenders, therefore, opt to outsource this function, sometimes to credit bureaus. These services are usually performed on a fixed-fee basis or on a performance basis, under which the collector gets to keep a proportion of any monies recovered.
- **Debt purchase:** Credit bureaus that specialize in receivables management may choose to take the ultimate risk and buy distressed or nonperforming accounts from the credit provider. In these circumstances, the bureau purchases the outstanding balances from the lender at a discount, assumes responsibility for collecting the debt, and keeps the proceeds once the debt has been collected.

6.3.4 Collateral Registries

For secured loans, a lender needs to establish that the collateral used for the loan actually exists and is unencumbered. Developed credit bureaus often attempt to become more than just a source of credit data by providing customers with access to associated lending information, such as collateral registries. Bureaus can provide this service either by building an automated link to a third-party database or by building and hosting the service themselves (see section 3.4). Whether dealing with fixed assets, such as land and buildings, or movable assets, such as motor vehicles, these services typically provide two basic functions:

- **Inquiry:** This function allows users to ascertain the bone fide nature of the asset and whether or not there are any encumbrances prior to purchase or acceptance of the asset as collateral.
- **Registration of interest:** This function allows the lender or individual to register a notice of a charge or lien on the asset.

6.3.5 Marketing Services

The use of credit bureau data, especially closed-user-group data, for marketing purposes is often a highly contentious

issue. In many countries, including Australia, laws either prohibit the use of such data or restrict it to specific applications. In many other countries, especially in emerging markets where lenders are already nervous about sharing credit information, marketing applications are intentionally excluded from the definitions of permissible purpose in either the industry code of conduct or the membership agreement between the bureau and its customers.

There are, however, several value-added marketing services that the bureau can provide that do not necessarily involve the use of credit bureau data. The range of potential products/services that can be offered is extensive. The most common examples are described below.

Customer profiling: Historically, many financial organizations have suffered from poor knowledge management systems (e.g., paper-based customer records). Consequently, these organizations have relied heavily on branch distribution channels to obtain comprehensive information about their customers. Customer profiling attempts to bridge this knowledge gap by providing analytical services that profile the attributes of particular types of customers. This service may include augmenting the lender's existing customer information with additional data from the credit bureau. The subsequent analysis identifies homogeneous customer clusters or segments that have similar profiles—such as young, credit-active high achievers—that can then be used to help the financial institution either provide a more tailored relationship or better target promotions to cross-sell and up-sell.

Modeling: As with credit scoring, the number of applications for modeling services is extensive. Among the more popular are propensity modeling and response modeling. Propensity modeling tries to predict the likelihood that a particular prospect will take up a marketing offer; response modeling measures the effectiveness of particular marketing campaign to increase the responsiveness of customers in the future and thereby optimize the cost of new business acquisition. More complex forms of modeling include applications such as customer worth or customer life-time value. These techniques analyze customer potential not only in terms of actual, current contribution/profit but also in terms of

what a customer may contribute over the lifetime of the relationship.

Geo-demographic analysis: Geo-demographic modeling looks at the relationship between geographical areas, indicated by zip codes or postal codes, and the types of individuals/businesses that live/work in a given area. The technique creates similar customer profiles to those described above but does so using aggregated rather than individual data.

List services: In countries that have a mature direct marketing industry, many credit bureaus have developed products and services to assist with customer prospecting. These services range from providing prospect lists (e.g., the names and contact details of potential customers) augmented with credit bureau data or geo-demographic data, to the outsourced management of a client's customer relationship management database.

Mail screening: Again, in countries that use direct mail extensively as a means of acquiring customers, the credit bureau can be useful in helping ensure efficient targeting of potential customers. Mail screening removes from a mailing list those applicants who are most likely to be rejected for an offer of credit if they were to apply. This screening saves the lender time and effort. This service also has positive customer benefits in countries that operate a do-not-mail database—a screening facility for consumers who prefer not to receive unsolicited marketing offers.

Where marketing services are permissible (e.g., the United States and United Kingdom) and are used extensively, they have proven to be a highly lucrative form of added value for the credit bureau and a significant value-added proposition for the user. These services also have a positive effect on the risk management process of the bank by allowing the bank to prescreen the offers.

6.3.6 Portfolio Monitoring

Monitoring and maintaining credit quality is a task that all lenders undertake but one that has taken on more prominence in recent years with the introduction of Basel



III reforms. Some credit bureaus have been providing services in this field for many years, using a range of standard reporting and bureau scoring products.

Portfolio monitoring services: These services advise a lender of any significant change to a customer's credit file, such as a default registered by another lender.

Batch screening: This service allows lenders to periodically update the risk profile of entire portfolios by reviewing the current credit scores of its clients.

Monitoring and reporting: These services typically help smaller lenders with limited internal analytical capacity to produce the management information required to track credit quality.

Implementing the Basel Committee on Banking Supervision's¹²⁰ Basel II,¹²¹ advanced internal ratings-based approach requires all lenders to be capable of calculating not only "probability of default" but also "loss given default and exposure at default." With the recent financial crisis and the introduction of Basel III¹²² reforms, the need for lenders to comply with the best practice risk-management guidelines have created an increased focus on the ability of lenders to monitor portfolio quality. Credit bureaus with developed analytical capabilities have seized this opportunity to use advanced modeling, software solutions, and consultancy to help their clients with these compliance issues.

¹²⁰ The Basel Committee on Banking Supervision consists of senior representatives of bank supervisory authorities and central banks from Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, Hong Kong SAR, India, Indonesia, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. It provides a forum for regular cooperation on banking supervisory matters, and usually meets at the Bank for International Settlements (BIS) in Basel, Switzerland, where its permanent secretariat is located.

¹²¹ *Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework- Comprehensive Version* sets out standard guidance for banks in measuring capital adequacy and the minimum standard to be achieved. The framework was developed by the Basel Committee for Banking Supervision with the objective of being adopted in their respective countries. This framework and the standard it contains were endorsed by the Central Bank Governors and Heads of Banking Supervision of the Group of Ten countries. Revisions to the framework were made in 2009. Relevant publications on Basel II can be found <http://www.bis.org/publ/bcbs128.htm>, <http://www.bis.org/publ/bcbs157.pdf>, <http://www.bis.org/publ/bcbs158.pdf>, and <http://www.bis.org/publ/bcbs159.pdf>

¹²² *Basel III: A Global Regulatory Framework for more Resilient Banks and Banking Systems* and *Basel III: International Framework for Liquidity Risk Measurement, Standards and Monitoring* together form the Basel III reforms proposed by the Basel Committee on Banking Supervision. The reforms aim to strengthen global capital and liquidity rules with the goal of promoting a more resilient banking sector. The objective of the reforms is to improve the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source, thus reducing the risk of spillover from the financial sector to the real economy. More details can be found at <http://www.bis.org/publ/bcbs189.pdf>. and <http://www.bis.org/publ/bcbs188.htm>.

6.3.7 Fraud Detection

As an economy's retail credit market grows, so will the incidence of fraudulent financial transactions. Fraudulent activity can range in severity from what is sometimes referred to as soft fraud—embellishing application information to obtain credit—to hard forms of fraud, such as identity theft. A variety of products and services can be developed on the back of the bureau platform to help lenders identify and prevent fraud. These products include, but are not limited to, the following:

- **File cross-referencing:** These relatively simple products cross-reference various data files to identify anomalies.
- **Known/suspect fraud closed user groups:** These industry initiatives, such as the Credit Industry Fraud Avoidance Scheme in the United Kingdom, pool information about known or suspected fraudulent activity.
- **Fraud scoring:** This product category includes custom built models for individual institutions or generic models developed by the credit bureau.
- **Fraud detection systems:** These sophisticated software solutions use a combination of rules logic, scoring, and enhanced databases to identify application fraud. A range of software solutions has also been developed specifically to track card fraud by means of payment behavior analysis.

6.4 The Use of Credit Information Data for Prudential Supervision¹²³

Because banks and other financial institutions are highly leveraged, several international guidelines have been set to control the systemic risks that these institutions pose to the economy. These standards are captured by the Basel reforms.

The 2007–2008 financial crisis has shown that both, the market on one hand, and supervisors (financial institutions supervisors) on the other hand, were poorly equipped to deal with systemic risk issues stemming from widespread and concentrated exposure to credit risks in the financial markets. Supervisory authorities did not have access to broad, timely, and reliable information, especially about off-balance-sheet exposures that tend not to be regulated, and also were not adequately prepared to deal with complex and innovative financial instruments (e.g., derivatives, options, asset-backed securities) to assess all the risks assumed by financial market players. The tools that supervisors used in conducting on-site inspections and off-site monitoring of regulated institutions—econometric models, stress testing, accounting criteria—were dated and unable to preemptively identify the potential risks assumed by the system as a whole and make recommendations for appropriate preventive action.

Credit registries play an important role in supporting the prudential supervision and risk monitoring function of supervisory bodies. Data from credit registries that would be useful for prudential supervision, include but is not limited to: borrower type and identification data, credit information data, current risk classifications and collateral and guarantee information, all of which would enable supervisors to model the probability of default of different borrowers and calculate and monitor potential loss given defaults of the various creditors. Credit bureaus have also started complementing the information collected through registries for prudential supervision purposes. Such data

includes information on consumers and firms, account history information, and payment history information. To be effective, however, credit registries and bureaus must contain accurate, complete, and up-to-date records and supervisors must be able to access credit information data from a comprehensive range of data sources.

Supervisors can use the information contained in credit registries complemented with data from bureaus to monitor the credit risk undertaken by an individual institution, by a peer group of institutions, or by the financial system as whole. The information contained in registries allows supervisors to assess the quality of credit assets and get a holistic picture of the concentration of risk exposures (e.g., by sector, geographic distribution, type of borrower, or type of credit). Thus supervisors can assess whether financial institutions meet capital adequacy requirements as stipulated by their country's relevant legislation or the Basel framework, which in turn is an indicator of the systemic risk level in the economy. Systemic risk levels rise when a large number of financial institutions are exposed to the same risks. Supervisors can keep track over time of the losses incurred in every single credit, compare the level of risk and credit classification for a particular borrower across the financial system, compare levels of provisions and, consequently, capital allocation according to the risk level.¹²⁴

Supervisors typically use off-site surveillance and on-site inspections to monitor the overall health of the financial institutions they supervise. Data in credit registries and bureaus can serve as important inputs into the various tools that supervisors use in these inspections and surveillance. On-site supervisions can be costly and time consuming. Moreover, supervisors are unlikely to be able to analyze every credit record in the portfolio of the financial institution that it is inspecting. Credit registry or bureau data can provide useful “sample data” that highlight key trends and characteristics in a financial institution's portfolio, including changes in portfolio quality due to the introduction of new financial products. Supervisors can

¹²³ Whereas the Section 6.2 on value-added services speaks specifically to products developed by bureaus, this section on prudential supervision relates directly to a function performed by regulators using credit registry databases, occasionally complemented with data provided by credit bureaus.

¹²⁴ Girault et al., 2010.



use the information from the sample data to determine what areas of an institution's portfolio needs closer review and thus allocate their time and resources more effectively. Samples obtained from credit reporting service providers can also flag discrepancies in the financial institution's risk classifications and ratings of borrowers and whether adequate loan-loss provisions have been made.

Whereas frequent on-site inspections cannot feasibly be conducted, off-site surveillance tools can support supervisors in continuous supervision and monitoring. Once again, data from credit reporting service providers can provide a valuable input into some of the tools that supervisors use in conducting off-site surveillance. These tools are:

Indicators: Supervisors can use the data obtained from service providers to create regular reports containing different indicators that summarize the exposure to credit risk of different financial institutions. Some such indicators are: concentration expressed as a percentage of total risk exposure, concentration expressed as a percentage and origin of funds, exposure by economic sector, volume of nonperforming loans, credit classification, level and evolution of credit provisioning, growth of credit portfolio, growth by credit lines, historical loss for each line of credit (eventual adjustment of regulation and capital requirement), both at an individual level and at an institutional and system level. The indicators can help supervisors verify whether the financial institutions are in compliance with prudential regulation for borrower risk classification and also indicate the level of interlinkages among different financial institutions (which raises the level of systemic risk). These indicators can also provide a framework for comparison of borrower ratings across different financial institutions in an economy and flag outliers or aberrations to the authorities. It may also provide valuable confirmation that regulated entities are complying with any mandatory requirements to submit data to credit reporting service providers, and consulting this data before extending credit.

Early warning systems: The indicators developed using data from credit reporting service providers can be modeled into early warning system models that enable supervisors to focus on vulnerabilities and critical levels of exposures in the market. This modeling enables them to focus their surveillance and inspection efforts and thus optimize the

allocation of supervisory resources. Early warning systems can prompt early action on the part of the supervisory bodies with minimal disruptions to the financial markets.

Stress testing: Supervisors use stress testing models to understand the impact of different economic shocks on financial market players. Based on the various scenarios developed and the results of the stress testing, supervisors can recommend adequate capital levels to absorb losses associated with large, and often unpredictable, shocks. For instance, supervisors can stress test the impact of a downgrade of one, two, or more levels of borrower risk classification in a portfolio and compare the effects of this downgrade given by a financial institution or the system as a whole. The results would demonstrate potential impact on capital requirements and profitability due to additional provisioning requirements. Supervisors can also stress test the actual level of provisioning against different economic conditions, as well as the consistency and robustness of rating systems and credit classification models used by financial institutions over a period of time.

Transition matrices: Another tool used by supervisors is the transition matrix. Banks and other creditors generally develop their own internal borrower ratings systems, which classify borrowers by their risk profiles. Supervisors are increasingly developing such rating systems to validate the systems developed by the financial institutions that they regulate. Transition matrices track movement of borrower ratings, based on individual credit operations, from one level to another (upgrade or downgrade) over different periods of time such as three months, six months, one year, or five years. Data from credit reporting service providers can provide valuable inputs into transition matrices. Supervisors can analyze differences in ratings across different time periods, geographical areas, economic sectors, volatility in ratings, average default rates for borrowers subgrouped by similarities in credit type, financial institution type, or other factors. Over a period of time, series of observations of behaviors across a transition matrix can provide supervisors with greater insights into the probabilities of default and the level of risk in the system.

Although the possibilities of using credit reporting data to support the prudential supervision function are limitless,

challenges remain. Whereas supervisors oversee only regulated financial institutions, financial markets comprise other types of creditors that are unregulated and yet may be interconnected with the formal banking system as major customers of the banking sector or as having the same exposures as the banking sector. Using credit registry data that only provides information on regulated lenders limits the ability of the supervisor to assess the risks posed

to the system as a whole from this interconnectivity of regulated and unregulated lenders. Credit registries should aim to collect data from a broad range of financial market participants to ensure that significant exposures across the financial system are adequately captured. Since credit bureaus generally collect a wider range of information, incorporating data from credit bureaus can complement the data from credit registries.

Case Studies



This chapter examines five case studies that provide examples of setting up credit reporting systems. The examples of Ecuador, Egypt, Morocco, and Cambodia illustrate the pro-active support of a strong regulator, with a clear vision of defining the most optimal credit reporting solution for the country. The case study of India presents a more complex political environment, with a divergent set of views and priorities expressed by the involved stakeholders. Each of the case studies highlights challenges faced in collecting data and operationalizing the credit bureau,¹²⁵ and analyzes how these challenges were overcome. The IFC was directly involved in the establishment of the credit reporting systems in four of the five countries examined; the study on Ecuador was based on IFC discussions with local stakeholders.

In Ecuador, the regulator sanctioned the development of private credit bureaus following a banking crisis and, in a unique approach to ensuring uptake of credit reporting requirements mandated by the law, decided to act as an interface between the regulated lenders and the privately licensed credit bureaus. The flexibility of this private-sector solution provided an opportunity for nonregulated lenders, including microfinance institutions, to participate in the credit reporting system, thus enhancing the overall coverage of the credit reporting system.

As discussed in Chapter 4, legislation and regulations are increasingly mandating lenders to share data with credit bureaus. Once mandatory sharing is implemented, either by legislation or through a central bank regulation (as in Morocco), regulators need to decide what role they wish to play in the credit information-sharing system. In

Egypt, the regulator played a strong role by encouraging the development of a legal and regulatory framework that mandates information sharing with a privately operated credit bureau that is licensed and supervised by the regulator. The regulator maintains an internal database of information from regulated lenders for prudential supervision and risk-monitoring purposes, but is not involved in the activities of the private credit bureau. Under this model, the role of the regulator in the actual process of credit information generation is limited, and instead the regulator can focus its efforts on areas core to its functions, such as supervision, licensing, and regulation. The case study on Egypt discusses new developments with the bureau and efforts to improve coverage by including other sectors such as microfinance.

In Morocco, where the regulator also played an important role in establishing the credit reporting system, the regulator opted to act as interface between the regulated lenders and private credit bureau, similar to what was done in Ecuador. In addition, the regulator also licenses and supervises the credit bureau. The authority of the regulator and the trust and reputation it had built for itself in the lending community were critical in the development of the system. The Morocco model is effective in an environment where lenders are hesitant to share data, and the involvement of the regulator helps mitigate the risk of lenders refusing to share data. However, this approach works best when there is more than one licensed bureau to ensure that users receive suitable products and services at competitive prices.

In Cambodia, the regulator once again took a pro-active approach to supporting the development of all facets of the credit reporting system from development of the legal and

¹²⁵ See Chapters 1 and 5.

regulatory framework to supporting the development of a private bureau. In this case, stakeholders benefited from a prior experience of working with a regulator-run registry that had failed to meet the needs of the regulated lenders and the broader lending community. This experience created a strong consensus among lenders to support a private-sector solution serving all lenders. Overall, the project benefitted hugely from strong support not only of the regulator but also of the lending community, including banks and microlenders.

The India case study demonstrates IFC's efforts to integrate microfinance institutions into the formal credit reporting system in a volatile political environment with a multitude of stakeholders holding different viewpoints. A key takeaway was that systematic outreach and awareness raising throughout the process is critical to ensuring project success. Although lenders understood (in varying degrees) the importance of credit reporting as a risk-management tool in identifying high risk individuals with little to no credit experience, potentially larger benefits of credit reporting were not perceived: namely, the ability of the credit reporting service provider to help identify good borrowers (who typically outnumber bad borrowers by a factor of 10 to 1). These good borrowers are individuals and small businesses that have demonstrated they can meet financial commitments and can build a track record that will enable them to obtain further funding to grow their businesses at lower costs in future. A key argument for the participation of MFIs in credit bureaus should be focused on these positive benefits rather than whether they will fix an overindebtedness problem that is more likely to result from irresponsible lending than from information opacity. The lesson learned is the need to keep a balanced view and promote the holistic benefits that such participation would deliver and an environment that encourages such involvement.

Each case study points out the challenges faced in collecting data (as discussed in Chapter 1) and in operationalizing a new credit bureau, as well as how these challenges were overcome.

7.1 Ecuador: Supportive Regulator and Pro-Active MFI Network Facilitate Credit Information Sharing between MFIs and a Private Credit Bureau

In the late 1990s, Ecuador suffered a banking crisis that resulted in a huge drop in GDP, widespread unemployment, and harsh social conditions as reflected in increased poverty across the country. To fight growing poverty, the government promoted measures and tools to enable easy and broad access to finance by the lower-income population, primarily living in rural areas. One tool was enabling regulations introduced by the Superintendencia de Bancos y Seguros (SBS) in 2003 that permitted the establishment of private credit bureaus, and provided the SBS a regulatory and oversight capacity over these bureaus. Until then, the SBS had operated a credit registry, which was the only provider of credit reporting in the country. The credit registry collected information only from regulated lenders and there was no provision for credit reporting for microlenders, which were largely unregulated.

Following introduction of the regulation, the SBS licensed six private credit bureaus. The public credit registry of the SBS was closed to lender inquiries. Instead, the SBS handed over all the data collected from regulated entities through the registry to each of the licensed credit bureaus. Each bureau was then free to complement the data with other sources of information, develop and negotiate agreements with different data providers and users, and compete with each other on the basis of differentiated product and value-added service offerings.

Bureaus that sought to include coverage of the rural population (in line with the government's financial inclusion agenda) were initially faced with difficulties. Historically, these segments had been excluded from the traditional banking sector (26 institutions), thus little to no data existed in terms of payment histories. MFIs, both regulated and nonregulated, had stepped in to fill this lending gap and were serving an estimated market of over 1.7 million customers. Because the majority of these MFIs were small nonregulated entities focused on the rural areas,



they were not mandated to share information with the credit registry, nor did they voluntarily share information among themselves.

Recognizing the need for credit information sharing among microlenders, an association of MFIs, Red Financiera Rural (RFR), launched a pilot project, SERVIR, in 2005 to share information between the nonregulated MFIs and one of the licensed credit bureaus. Initially the pilot was limited to two provinces in the central part of the country. These provinces were characterized by a large number of MFIs (at least 250), high rates of poverty, a predominantly rural (four-fifths), indigenous population, and many small-scale producers of goods and services. Ten microlenders (mainly NGOs, cooperatives, and credit unions) initially agreed to share and exchange data with the bureau. The intention was to monitor the results and ascertain the benefits, with the goal of eventually extending coverage to MFIs in other provinces.

RFR played an important role in facilitating collaboration between the MFIs and the bureau. It helped the MFIs select Credit Report as the best bureau to partner with based on the strength of its technology platform, financial soundness, ownership by the international credit reporting firm Equifax (representing experience), and price per report guaranteed to RFR members.¹²⁶ RFR employees worked with the bureau and the MFIs to undertake diagnostics of the microlenders' lending processes, data, and technological systems, and then helped define the structures for credit information data collection including minimum data inputs, data quality rules, data collection, validation and processing rules, method of data delivery, and the types of products and services that would be affordable and useful.

The supportive role of the regulator must be noted here. When the SERVIR project was launched, Ecuador displayed a strong legal and regulatory environment that supported credit information sharing and protected borrower rights. Regulated MFIs were obliged to contribute data to the SBS, which supplied all licensed bureaus with the same information base. Lenders were mandated to inquire with at least one credit bureau before providing credit.

Nonregulated MFIs had an avenue for credit information sharing through the private credit bureau, Credit Report, which provided tailored services and differentiated pricing to this segment of lenders.

The results of project SERVIR were positive, enabling the project to expand to include MFIs in the rest of the country. According to statistics from SBS, from December 2004 to June 2006, MFIs' portfolio volumes grew 53 percent. Credit default rates (1 day) decreased from 41 percent to 10 percent, the number of clients increased by 33 percent, while the average loan amount increased from \$1,800 to \$2,400.

The legal and regulatory framework in Ecuador provided for key roles for the public central credit information entity and private credit bureaus. Today, Ecuador has a fairly advanced, full-file and nonfragmented credit reporting system. Of the country's 500 NGOs, over 330 share data with the credit bureau. RFR continues to work on promoting credit reporting among microlenders not already a part of the bureau and on negotiating prices, while providing basic training to associates on using credit reports and scoring systems. In addition, RFR uses credit bureau data to supply financial analyses in standardized format to its members on a monthly basis.

Despite the strength of the framework, in 2011, after years of intense competition and bare bones pricing (reports cost less than \$0.10 each), only Credit Report remained of the six initial credit bureaus. The unique access it had to data on borrowers at the base of the pyramid through RFR's members was a key factor contributing to its success, giving it superior market coverage compared with its competitors. For RFR and the MFIs it serves, working with a privately owned credit bureau provided access to data from other parts of the credit market; access to related tools, such as credit scoring; and access to quality data—all at a very attractive price. The competitiveness of the market is questionable however as Credit Report is the only remaining bureau in the market.

¹²⁶ Lyman et al., 2011.

7.2 Egypt: Strong Regulator Supports Establishment of Country's First Private Credit Bureau

I-Score, formerly Estealam, is the first credit bureau in Egypt. It was established in 2005 and became fully operational in 2008. The founders and shareholders consist of 25 banks and the Social Fund for Development. The role of I-Score is to provide Egyptian banks and other creditors with accurate, factual information relevant to the history and payment habits of their clients or prospective clients, thus enabling them to better assess their clients' creditworthiness. I-Score also educates the public on the benefit of having good credit histories, and the consequences of negative credit events. I-Score's financial literacy role has been a major contributor in changing and modifying the financial behavior and culture among borrowers.

The Central Bank of Egypt was highly instrumental in creating a legislative framework conducive to the operations of a bureau. In November 2005, I-Score (then Estealam) requested IFC's technical advisory support to develop the bureau. In addition to assisting with developing the I-Score business plan, IFC provided technical support throughout I-Score's implementation process, which commenced in November 2005 and culminated in I-Score's launch in 2008.

The first step in the process involved extensive consultations between stakeholders and the regulatory authority to amend existing laws and introduce new rules that would simplify information sharing. Legislative amendments were introduced to allow the exchange of information among banks and mortgage finance and financial leasing companies and to allow the sharing of such information with private credit bureaus and the central bank supervisory system without obtaining borrower consent. The new legislation also mandates all users, (i.e. subscribers of I-Score) to obtain credit reports and utilize the services provided by the private credit bureau prior to making a decision on a credit application. In September 2006, I-Score, through

a competitive selection process and with advisory support from IFC, contracted Dun & Bradstreet South Asia Middle East Ltd., as a technical partner to provide software solutions and operational know-how in the creation of its database.

By working closely with the Central Bank of Egypt, IFC, the financial community, and an experienced technical partner, I-Score successfully established a transparent and advanced credit reporting service that offers services in both Arabic and English. Since its inception, I-Score's data center has vastly expanded to include 8.8 million data records—an almost tenfold increase from its baseline of 0.9 million borrower records initially held by the Central Bank of Egypt's credit registry. I-Score currently services the credit information needs of 55 institutional subscribers, which include 41 banks, 8 mortgage finance companies, 4 leasing companies, the Egyptian Social Fund for Development, and 1 retailer. All banking institutions and the Egyptian Social Fund for Development have completed the credit data migration process to I-Score. In addition, several mortgage finance and leasing companies have submitted their data to I-Score. Currently, I-Score is offering a range of services to its customers including credit reporting, bureau scoring, account monitoring, and data analytics.

As of December 2011, I-Score has issued over 8 million credit reports, signed up 55 subscribers and improved on Egypt's ranking in the Doing Business indicator "getting credit." The total number of records in the bureau (consumers and firms) rose from 3.9 million at the end 2008 to 8.7 million as of December 2011, with over 23 million credit facilities. Consumer loan portfolios grew from \$14.6 billion in June 2008 to over \$17.6 billion at the end of 2011. Loan loss provisions had declined from 15.3 percent in March 2009 to 10.4 percent in March 2011 while percent of nonperforming loans had declined from 13.4 percent in March 2009 to 11 percent in September 2011. According to *Doing Business 2012*, Egypt advanced 78 places to rank 78 in 2012, up from 156 in 2007. The bureau's coverage increased from 0 percent in 2007, to 13.7 percent. Egypt's score on the *Doing Business 2012* CII increased from 2 out of 6 in 2007 to 6 out of 6 in 2012.¹²⁷

¹²⁷ World Bank 2011b.



Recently, Egyptian MFIs have decided to join I-Score as members and data providers. In the beginning of 2011, after nearly three years of operations, I-Score was still trying to add MFI data to its database, hitherto fed by contributions from banks and mortgage and leasing companies. Mistrust of the intentions of the bureau and traditional lenders had caused MFIs to develop plans for building a separate “microfinance credit bureau,” which would have led to fragmentation of information in the market.

At the same time, the Egyptian microfinance market was beginning to face a crisis of repayments in the microfinance sector, similar to Morocco’s experience in 2008–2009.¹²⁸ Rising portfolio volumes were accompanied by a corresponding increase in portfolio at-risk ratios (portfolios more than 30 days overdue). Discussions were underway to strengthen microlending practices in Egypt and spare it from a similar crisis.

Extraordinary situations require unusual solutions. In 2011, I-Score and IFC proposed a cross-tabulation analysis to three of the largest Egyptian MFIs. The aim was to compare a sample of their loan portfolios with the data in the I-Score database to see if there was evidence of cross-lending (borrowers being granted lines of credit by other lending sectors, such as banks). The results were both unexpected and alarming for the MFIs:

- Over 14 percent (nearly 50,000) of the MFIs’ clients in the sample had been granted credit lines (one, two, or more) by the banks, corresponding to an outstanding balance of nearly LE 500 million (thrice as much as the MFIs’ total outstanding balances).
- 6,000 of these MFI/bank customers were 90 plus days past due
- 460 of them were undergoing legal actions
- 100 (approximately) showed dishonored checks records

¹²⁸ For more details on the microfinance crisis, please refer to Reille 2010.

¹²⁹ Recognizing the critical role that credit bureaus and registries play in helping financial institutions assess and manage credit risk, IFC’s Private Enterprise Partnership (PEP)-MENA launched the MENA Credit Bureau Program in July 2005, building on the experience of the IFC Global Credit Bureau Program. The program aims to promote the creation and use of credit information and reporting services throughout MENA, thus helping retail consumers and MSMEs create “reputational collateral.” Credit history information is essential for financial institutions to be able to increase financing to these segments, particularly MSMEs, a priority market segment for IFC. The program’s clients include central banks, banking associations, and private credit bureaus with global and regional expertise in the areas of legislative reform, business planning, partner identification, and new product development.

- In addition, roughly 13,000 MFI clients had been granted credit lines (one, two, or more) by other MFIs, with an outstanding balance of LE 14 million.

The incidence of multiple lending as demonstrated by the cross-tabulation analysis sufficed to dissuade the MFIs from keeping their data separate from other lending sectors. Vertical information silos would not provide the necessary quality and completeness of information needed to conduct responsible and reliable lending.

Following the cross-tabulation analysis, in early 2012, IFC entered into an agreement with the Egyptian Microfinance Network, an umbrella organization of the main MFIs, to support the integration of four of the largest MFIs into the bureau over a year. The objective was to ensure a smoothly functioning system of data submission and uptake of the bureau by MFIs, as well as to help MFIs obtain the capacity to make better credit decisions using credit reports, thus leading to healthier credit portfolios.

I-Score has been flexible in supporting the needs of microfinance institutions: special prices have been agreed upon for MFI lenders, technical support is being offered, a free trial period for newcomers is granted, and the development of ad-hoc services is part of the package tailored for Egyptian MFIs.

7.3 Morocco: Establishing a Public-Private Partnership for the Credit Reporting System

In 2005, the Central Bank of Morocco (BAM) in partnership with IFC’s Global Credit Reporting Program and the IFC regional office for the Middle East and North Africa¹²⁹ embarked on a project to create a national credit reporting

infrastructure that would support the development of the first private credit bureau in Morocco. An initial diagnostic at the outset of the project showed that the Moroccan market suffered from fragmentation of credit-information-sharing initiatives and the reluctance of key lenders to share information. BAM had a credit registry that maintained records on banks' lending operations. As the credit market grew, the registry struggled to meet the market demand. To improve information availability, BAM was preparing for a major upgrade of its credit registry.

According to the banking law of 1993, BAM had the right to centralize credit information from regulated entities. Just before the project started, and after IFC presented its preliminary diagnostic, the banking law was amended to give BAM the right to decide whether to handle credit reporting in house or delegate it to the private sector.

In 2005, at BAM's request, IFC experts conducted a technical and market diagnostic of a select sample of financial institutions' retail and SME lending portfolios to assess their capability to provide data as well as to receive and integrate credit bureau information into their credit underwriting and portfolio management processes. Characteristics of the credit market in Morocco included a high incidence of collateral in lending, a high rate of nonperforming loans, and a lack of sufficient physical or useable collateral. In the absence of collateral and any other reliable information about potential borrowers, lenders were restricted to lending to a small subset of the potential borrower population. Projections suggested that consumer credit would be the primary driver of growth for lenders. This prediction further confirmed the need for a credit reporting system to support, nurture, and control this growth in the Moroccan market.

A review of available credit information on banks in BAM's credit registry revealed (1) limited scope and questionable quality of data, (2) limited information technology connectivity, (3) inaccurate identity data, and (4) limited database and reporting design. It was also noted that the

registry would contain serious information deficiencies if it were used to store and retrieve a high volume of information. In its diagnostic report, IFC recommended to BAM that the design, construction, and operation of the database(s) be undertaken by the private sector. In particular, IFC recommended the approach followed in Ecuador, whereby BAM could maintain a leadership role among financial institutions.

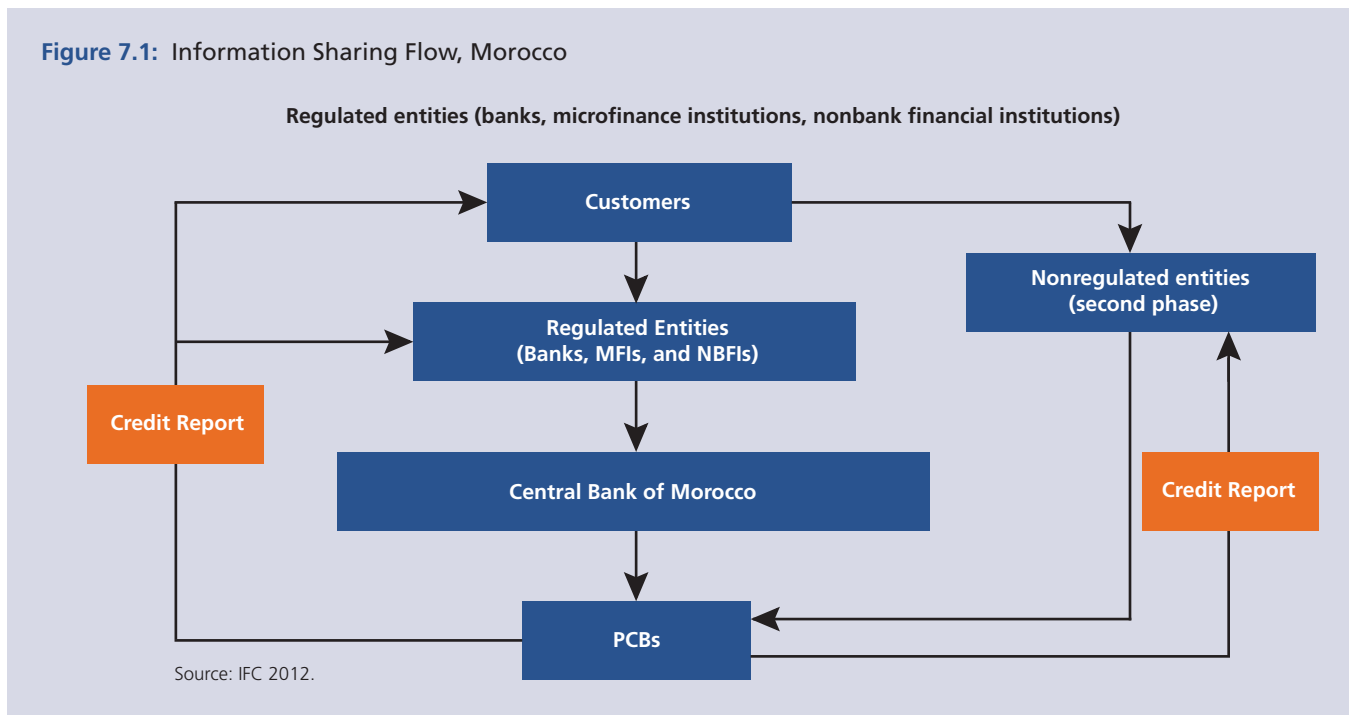
IFC recommended that BAM develop the technical infrastructure of its credit registry to receive all types of borrowers' information (positive and negative) from the universe of lenders. The registry would then consolidate this information and make it available to any private credit bureau licensed by BAM. Once the first private credit bureau was fully operational, lenders regulated by BAM (banks, microfinance institutions, and nonbanking financial institutions) would no longer be allowed to access the registry, (but would continue to provide information) and would be required to consult at least one credit bureau prior to making any credit decision. Initially, only regulated entities would be able to consult the bureau, but eventually nonregulated entities would be able to provide data directly to any private credit bureau based on consumer consent. Under principles of reciprocity, this would allow them to consult the bureau as well. Licensed credit bureaus would all receive the same set of information from BAM and then compete on the basis of differentiated product and service offerings and prices. Figure 7.1 illustrates the information sharing flow of the model.

IFC also provided recommendations on the legal and regulatory framework for credit reporting. BAM would license and regulate credit bureaus, and have access to information to assist its supervision of the financial system. IFC recommended that the most suitable way to create an enabling private credit reporting legal framework would be through circulars issued by the BAM. Hence, BAM issued circulars outlining the scope and type of information to be collected from all regulated lenders, including positive and negative information, and the terms and conditions for lenders to access such information.¹³⁰ The circulars

¹³⁰ The Banking law in Morocco was modified to allow BAM to become the licensor and supervisor of private credit bureaus. BAM issued several regulations in 2007 (2/G, 27/G, 28/G), to regulate credit reporting including consumers' rights, mandating sharing and inquiries, clarifying shareholding pattern limits for users, and so forth.



Figure 7.1: Information Sharing Flow, Morocco



made it mandatory for regulated entities to supply updated information to BAM on a periodic basis as well as to inquire about a customer before granting credit. In addition they gave the customer the right to view his or her credit report and dispute false information, among others. BAM also issued a code of conduct to cover operational aspects and to govern the relationship between the lender, the private credit bureau, BAM, and the customer.¹³¹ With the circulars and the code of conduct, a solid legal and regulatory framework was created to govern the private credit bureau industry in Morocco.

In September 2007, BAM issued the first private credit bureau license to Experian Morocco, which provides both positive and negative credit reporting information. By implementing the model recommended by IFC, Morocco has established a transparent, competitive, and advanced credit information-sharing infrastructure. After Experian Morocco was established, BAM created a separate credit bureau supervision unit that oversees activities of the credit bureau, and monitors data exchanges between data providers, the bureau, and users. BAM has also been building

an information repository to assist in its supervisory role as a regulator of the financial system.

To pre-empt the creation of a monopoly, the legal and regulatory framework allows BAM to license more than one bureau. Supplying all private credit bureaus with the same set of information from BAM further reduces the danger of having a monopoly. Licensed private credit bureaus are then free to compete based on prices and quality of service. Although, BAM has not yet licensed a second bureau, it intends to do so.

Experian Morocco became operational in November 2009 and regulated lenders started to provide data to BAM periodically. As of February 2012, the database had collected over 3.7 million borrower records (both individuals and firms) from lenders representing over 4.7 million active credit facilities from 15 banks, 12 finance societies, and 4 MFIs. The quality of the information collected by the database has constantly improved and the credit bureau is working on expanding its sources of information.

¹³¹ Users and data providers cannot hold more than 30 percent of the credit bureau's shares as a group, and not more than 5 percent individually. This requirement overcomes conflict of interest situations arising out of majority data provider/user participation in the shareholding structure.

Morocco now has a clear vision as to the positive role that private credit bureaus can play in improving access to finance. This vision, coupled with an effective enabling environment, attracted considerable attention from international credit bureau operators interested in investing in a new credit bureau in Morocco. The model selected for Morocco is potentially a viable solution for many countries and has significant advantages for improving data consistency and establishing a competitive environment for credit bureau operators.

7.4 India: Integration of MFIs into the Credit Reporting System

The Indian microfinance sector is potentially the largest in the world, but also the least well served. In the past few years, microfinance has grown at a tremendous rate in India. However, fast growth has led to a number of complex issues, many of which culminated in the recent repayment crisis in Andhra Pradesh. The Indian MFI sector was impacted by the global financial crisis, which was brought to a crescendo in Andhra Pradesh in 2009. The impact of multiple borrowings and financial overindebtedness led to reported suicides of poor farmers, significantly affecting the industry and leading to excessive intervention by the Andhra Pradesh government. Key factors leading up to the crisis were: concentration and proliferation of MFIs in a few states resulting in multiple lending and overindebtedness issues and information asymmetry or lack of any credit information sharing among MFIs.

In June 2009, several months prior to the beginning of the Andhra Pradesh crisis, IFC was in discussions with the newly formed Microfinance Institutions Network (MFIN),

an organization of 46 of the leading nonbank financial companies and MFIs whose combined business constitutes over 80 percent of the Indian microfinance sector,¹³² on creating credit information-sharing mechanisms for the microfinance sector. The industry responded to the Andhra Pradesh crisis in a proactive and unified manner by putting in place some self-regulation and representation via MFIN. About the same time, three new credit reporting entities¹³³ were going through a process of applying for an operating license from the Reserve Bank of India. Although no industry consensus was emerging on the best type of credit reporting system, it was becoming clear to stakeholders that credit reporting in the microfinance sector had become necessary¹³⁴ to enable microfinance providers to obtain credible information on clients, provide better and more efficient services, improve risk management processes, reduce transaction and operational costs, and increase client outreach. IFC's intervention was timely in bringing key players together to explore tangible solutions to the problems facing the industry with the development of a credit information system.

IFC provided advisory services to its client, MFIN. IFC's assistance included bringing together existing and newly licensed credit bureaus and MFIN's members as well as other non-MFIN members, to agree on the practical steps needed to share credit information among the MFIs and with the credit bureaus. The project's first objective was to complete a scoping/feasibility study and design an implementation roadmap for MFIN clients to gauge their readiness and capacity to contribute borrower and loan information, and also to retrieve credit reports for use in their loan assessment process. IFC's role was to enable MFIs to start reporting data to credit bureaus. As the project evolved through regular interactions and workshops with stakeholders, it achieved much more beyond the original objectives.

¹³² Microfinance Institutions Network (MFIN).
See: <http://www.mfinindia.org/>

¹³³ India has four licensed credit bureaus including CIBIL, Equifax, High Mark, and Experian.

¹³⁴ In due course, both the Malegram Committee Report of January 2011 to the Reserve Bank of India (<http://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/YHMR190111.pdf>) and the subsequent Microfinance Institutions Bill of June 2011. (http://finmin.nic.in/the_ministry/dept_fin_services/micro_finance_institution_bill_2011.pdf) came out strongly for the participation of MFIs in credit bureaus. In fact, the new bill introduced in parliament in May 2012 requires microfinance institutions to become members of Credit Information Bureaus. Furthermore, the two MFI associations, MFIN and SaDhan, launched a joint code of conduct (<http://www.sa-dhan.net/Inner.aspx?Others/CodeConduct.htm>) in December 2011, recommending that their members contribute to at least two credit bureaus and utilize credit reports for identifying overindebtedness.



The project was divided into three phases. In the first phase, which lasted six months starting in June 2009, IFC conducted a scoping study to gauge the readiness of the microfinance sector to participate in a credit bureau, the viability of MFI credit reporting, and the level of stakeholder interest and commitment. Simultaneously, IFC, in collaboration with MFIN, conducted 11 workshops in cities across the country to raise awareness of credit reporting among MFIs. IFC facilitated discussions among key stakeholders and licensed credit bureaus to agree on a common data format that MFIs could use to submit data to the credit bureaus, as well as a list of requirements for a common credit information report.

In the second six-month phase, IFC assisted and advised MFIN on the practicalities of designing the most optimal business model, including how best to integrate the MFIs into a multibureau environment while maintaining competitiveness among bureaus, identification of a software extraction tool to support MFIs that lacked capacity with data extraction tasks, and providing advice on pricing for credit information reports based on global benchmarks. At the time, several ongoing political, legal, and regulatory changes were affecting the sector as the federal government and Andhra Pradesh sought to impose restrictions and regulations on the sector in the aftermath of the local crisis.

In the last phase of the project (12–15 months), IFC helped all stakeholders with implementation, specifically that of collecting and submitting data to the bureaus. There was significant political pressure to have a working credit bureau as soon as possible that was capable of providing credit reports on MFI borrowers. The challenge of obtaining good-quality data from the MFIs for the bureaus to upload was undertaken with zeal by both sides. The MFIs' loan account data was generally found to be of reasonable quality. However, the demographic details of each borrower, (e.g., names, addresses, dates of birth, voter ID, ration card) caused the most problems. Because India does not yet have a national ID for all citizens, the bureaus had to rely on other characteristics of the borrower's demographic profile to match files. Considerable effort was expended by both MFIs and bureaus to collect additional data elements (such as father's name or spouse's name) to correct erroneous data, build capacity of MFIs to extract and submit data

on a regular frequency, and develop and test sophisticated matching algorithms to adapt them to the Indian setting.

One of the main challenges was the potential market fragmentation among the many parties seeking a systemic data-sharing solution for the sector. There was a need to galvanize the various parties steering initiatives with similar intentions to link the microfinance sector to credit reporting systems (e.g., stand-alone MFIs, bureau for nonbank financial corporations, association-run credit bureaus, FINO credit bureau, and other possible solutions). IFC recognized their efforts, however considered them noncomprehensive because some promoted use of negative-only data, sectorial sharing of data, or closed user groups. IFC's role was to prevent market fragmentation from a combination of uncoordinated side initiatives and to promote comprehensive sharing of credit information on all accounts from all MFIs nationally. IFC achieved this goal by participating in several roundtables, conferences, and high-profile events with stakeholders to discuss the benefits of having a comprehensive credit reporting system.

By May 2011, two credit bureaus, High Mark and Equifax, had started providing credit reporting services for MFI clients. Approximately two-thirds of the 300 MFIs in India were members of at least one bureau and either submitted data regularly or were in the process of setting up their data submission. Coverage of the existing MFI borrowers by the bureaus was 80 to 90 percent, as almost all of the major nonbank financial corporation MFIs was using a bureau. As of May 2012, High Mark operated India's largest rural and microfinance database of 75 million accounts and 40 million borrowers. Close to 7.5 million credit inquiries were conducted in the 12 months since its launch.

The impact of the project is yet to be seen given that two bureaus have just started including MFI data. IFC, in conjunction with MFIN, identified its remaining objectives as bringing on board nonparticipating MFIN members as well as non-MFIN members; continuing to address data quality issues; and incorporating systematic outreach and awareness-raising efforts to MFIs and MFI borrowers on the benefits of credit reporting, the importance of on-time payments, and other matters. IFC also recognizes the need to leverage the opportunity to research the impact of credit

reporting on borrower behavior. Such research would be a critical part of long-term outreach and awareness-raising efforts in continuing to integrate the sector into the credit reporting system.

7.5 Cambodia: Developing a Private Credit Bureau with Strong Government and Stakeholder Support

In 2006, the National Bank of Cambodia (NBC) established a pilot credit information sharing system within the national bank. The system, had some structural and functional limitations, but provided valuable information and experience to the NBC. A pilot of the system, in which voluntary participation was limited to banks, confirmed that there was a latent demand for credit information sharing that extended beyond the banking sector to the MFI sector and the wider lending community. The NBC decided to undertake efforts to expand credit information sharing to the broader market and enlisted the support of IFC and the World Bank.

IFC assisted NBC in developing a robust regulatory framework that met the specific needs of Cambodia. This advice was provided by the World Bank Financial Infrastructure unit, supported by a prominent local lawyer. IFC also provided inputs into defining the components of the regulation, undertaking wide-ranging consultation on the draft regulations, incorporating feedback and input from stakeholders, and securing the passage of the regulations and promoting their implementation.

At the request of the NBC, IFC conducted an in-depth analysis of the Cambodian banking and MFI markets to gauge the ability and willingness of the local lending community to share sensitive personal information. Results showed universal support from both sectors for sharing of credit information to be made compulsory, and for the use of credit reports to be made mandatory. There was also wide support for the private sector to take the lead in establishing a comprehensive credit bureau that would cater to the entire lending community, including retailers,

utilities, and telecommunications companies. Based on recommendations provided by IFC, the NBC decided to pursue the option of setting up a private sector credit bureau, while continuing to play a key role in the entire process.

IFC worked primarily with two Cambodian associations (the banking association and the microfinance association) to establish a private credit bureau. This process entailed identifying the optimal business model and related business rules (expressed as a memorandum of association) including equity participation and subsequent payment, selection of directors, and dividend payments through numerous stakeholder discussions and with local legal support.

Banks and MFIs collaborated to establish a working group to plan for credit bureau development and to select a technical vendor and a strategic partner. IFC supported stakeholders and the NBC in designing a transparent vendor selection process that reflected the needs of the market.

Once the strategic partner was selected, the lending community established an implementation committee with key representatives nominated from local banks, microfinance institutions, and the NBC to determine business rules and specifications for the credit bureau. Being able to openly discuss and agree on these rules with the technical partner was seen as critical. IFC organized a forum that allowed for opinions and different lenders requirements to be addressed.

There were numerous problems with the availability and quality of data in the market, due to the different technical and resource capacities of the various lenders, records being maintained in English and the local language, irrelevant data being captured, lack of a unique identifier, and other factors. All stakeholders were required to invest substantial time and resources into cleaning up their databases. Some used the establishment of the credit bureaus as a reason to invest heavily in new core banking systems to better manage their businesses. IFC, in its honest broker capacity, worked with a French multilateral to help some of the smaller MFIs replace inadequate loan management systems with a core banking solution that allowed them to improve service to



their borrowers and to interact with the credit bureau in a manner compliant with legal requirements.

A key issue that took considerable time to resolve was the pricing of credit reporting products for lenders, particularly for the smaller MFI lenders. Given the small size of MFI loans, the MFI sector wanted the banking sector to pay a greater proportion of the costs of using the bureaus, despite the fact that MFIs, would, by virtue of their lending volumes, be the greatest users and beneficiaries of the bureaus. IFC supported several rounds of discussions and supplied global pricing benchmarks to enable stakeholders to come to agreement on a trial pricing regime, whereby loans below \$500 were charged a modest fee, and those above that amount, were priced slightly higher than the average price charged by startup bureaus in other jurisdictions. At the end of the trial period, pricing and usage data will be reviewed so that an appropriate pricing model can be adopted that will provide a financially sustainable model for the bureau and a reasonable return to the shareholders on their investment.

IFC also facilitated site visits for NBC representatives to Egypt, Peru, and Singapore, so that the NBC could gain insight into how the central banks in other countries have successfully created environments in which they work closely with the private sector to support the establishment of credit reporting systems.

After a wide consultation process, a Prakas (set of regulations) designed to meet the needs of the Cambodian market was formally approved by NBC. The Prakas included some unique requirements, such as the right of the NBC to nominate a director to the board of the private credit bureau, and a provision for an independent director to represent shareholder interests. The Prakas required that all regulated lenders provide mandatory data on all existing loans to the bureau (notwithstanding the loan size) and all new applications for loans, as well as any renewals or restructuring of existing credit facilities be subject to a credit inquiry. This requirement was designed to enhance the quality of lending, increase access to finance and financial services to those without real collateral, and prevent overindebtedness. According to the Prakas, pricing policies must be signed off by an independent credit

reporting council of between 5 and 11 members chaired by the NBC. This council was set up to prevent excessive fees and reflects the importance of MFIs in the Cambodian market.

Lenders were given nine months' notice to adapt their systems and to provide the required data or face possible penalties. As the Cambodian market consists of 68 banks and MFIs (with loan volumes ranging from 150 to over 400,000), with systems and sophistication to match, special efforts had to be made by the bureau to meet these unique challenges.

The Prakas also covers other usual items such as permissible purposes; data sources, collection, distribution, quality, and retention periods; security; consumer rights; access and challenges to data; dispute resolution, and offenses and penalties.

With IFC assistance, stakeholders selected Veda Advantage from New Zealand as its strategic partner, and then set up the private Credit Bureau of Cambodia. The company was licensed by NBC, and the bureau was launched on March 19, 2012. The initial upload of 1,405,722 loans from 67 of the 68 banks and MFIs was a great achievement, and a testament of the efforts of all lenders to clean up their data. Some of the big banks in Cambodia decided to invest in the bureau, resulting a shareholding of 51 percent by local stakeholders and 49 percent by Veda Advantage. Veda Advantage proved to be a strong fit as a technical and strategic partner, given its experience developing bureaus in other markets and its commitment to work proactively with stakeholders to address the various challenges in developing the bureau. Veda, in conjunction with the Credit Bureau of Singapore has provided dual language, in-depth training for local stakeholders, which was seen as critical to the overall success of the bureau.

Although it is too soon to know the impact of this credit reporting effort that took about seven years, some initial bureau statistics provide interesting analysis of the market. The initial upload of 1.4 million records to the bureau showed a total portfolio across banks and other regulated lenders (including MFIs) of over \$3.6 billion and a borrower composition of 97 percent women. Borrowers holding

more than one loan represented about 13 percent of total of unique borrowers identified in the system, signaling potentially increasing levels of overindebtedness.

Currently, the Credit Bureau of Cambodia caters only to lender's consumer borrowers but will move in the near term to deliver reporting for SMEs. It is also intended that the bureau will shortly develop an application processing solution for major users and will create a link to the collateral registry so that lenders may either check to see whether moveable collateral offered is subject to another

security or if the lender wants to lodge a security to do that on their behalf in an agent capacity. The bureau also intends to secure access to public data sources, such as company and business records, so that these can be incorporated into their reports.

The Credit Bureau of Cambodia was a successful launch in a reasonably quick time, illustrating the importance of securing buy in from stakeholders and of learning the lessons from home and abroad.

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Annex 1.1: Europe and Central Asia Region

POSITIVE AND NEGATIVE CREDIT BUREAUS Europe and Central Asia Region

- No credit bureau exists
- Negative
- Positive
- No information

Note: Positive bureaus contain both positive and negative data and are otherwise also known as full-file or comprehensive bureaus.

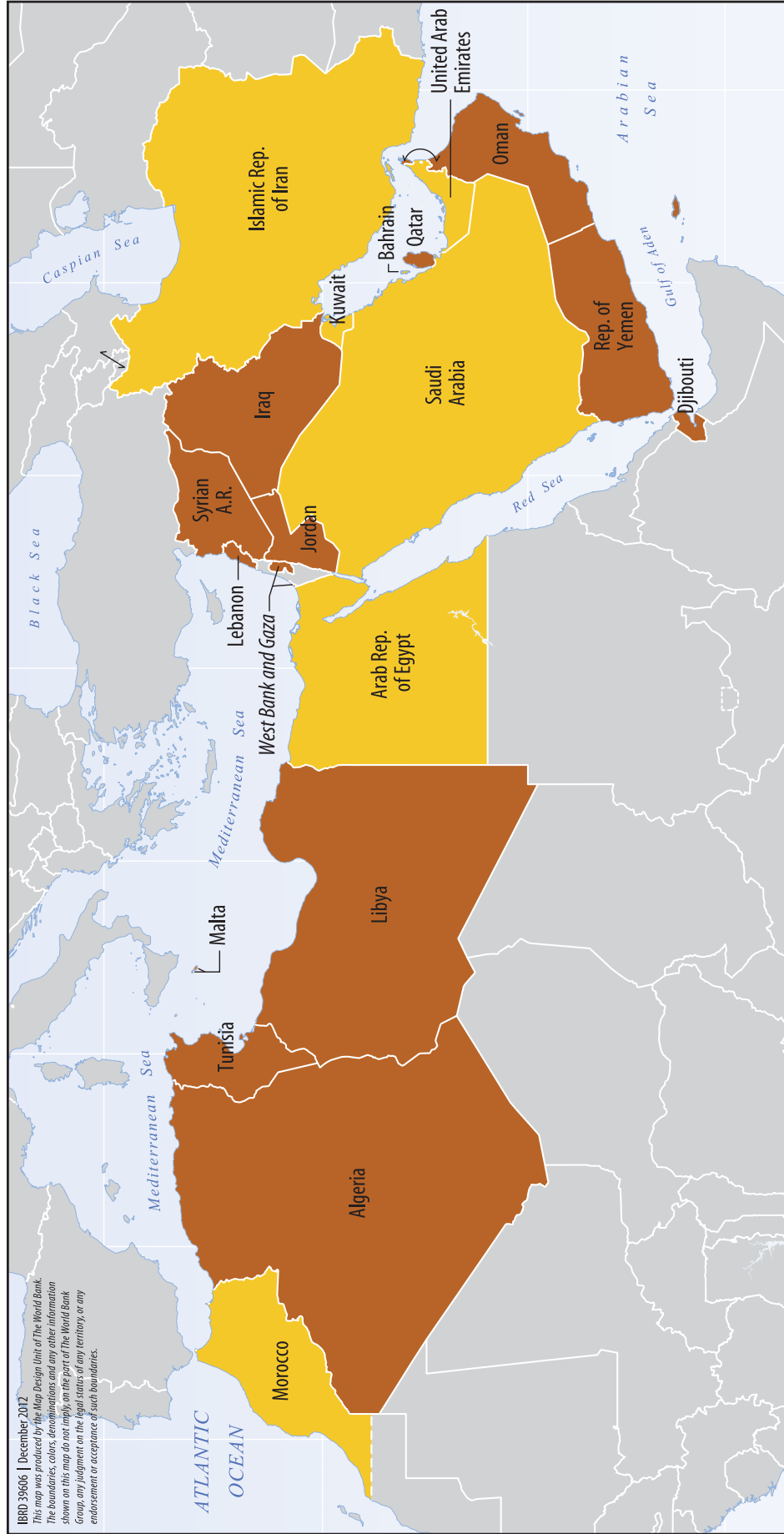


Annex 1.2: Middle East and North Africa Region

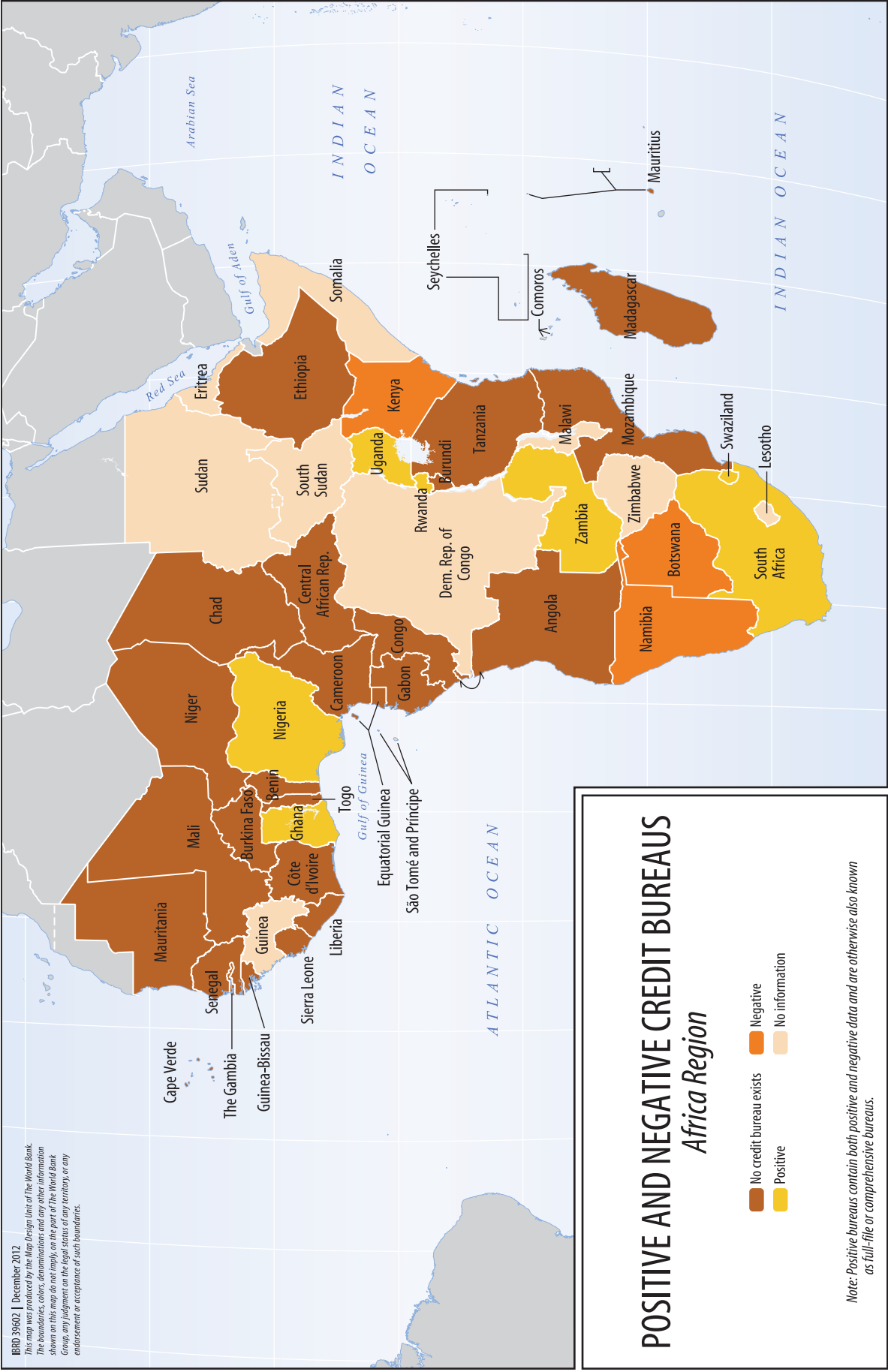
POSITIVE AND NEGATIVE CREDIT BUREAUS Middle East and North Africa Region

- No credit bureau exists
- Negative
- No information
- Positive

Note: Positive bureaus contain both positive and negative data and are otherwise also known as full-file or comprehensive bureaus.

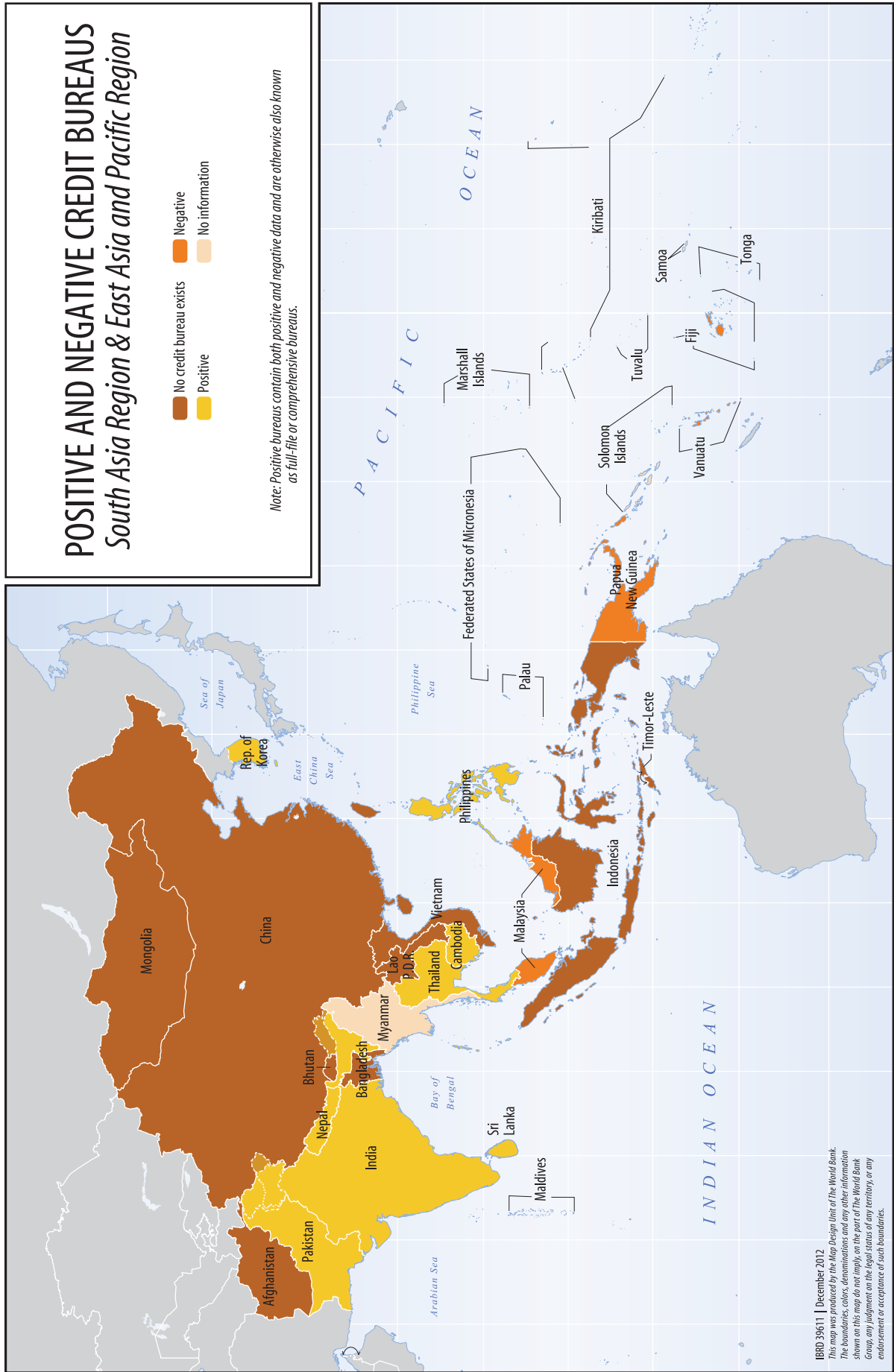


Annex 1.3: Africa Region



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Annex 1.4: South Asia Region and East Asia and Pacific Region



Annex 1.5: Latin America and Caribbean Region

POSITIVE AND NEGATIVE CREDIT BUREAUS *Latin America and the Caribbean Region*

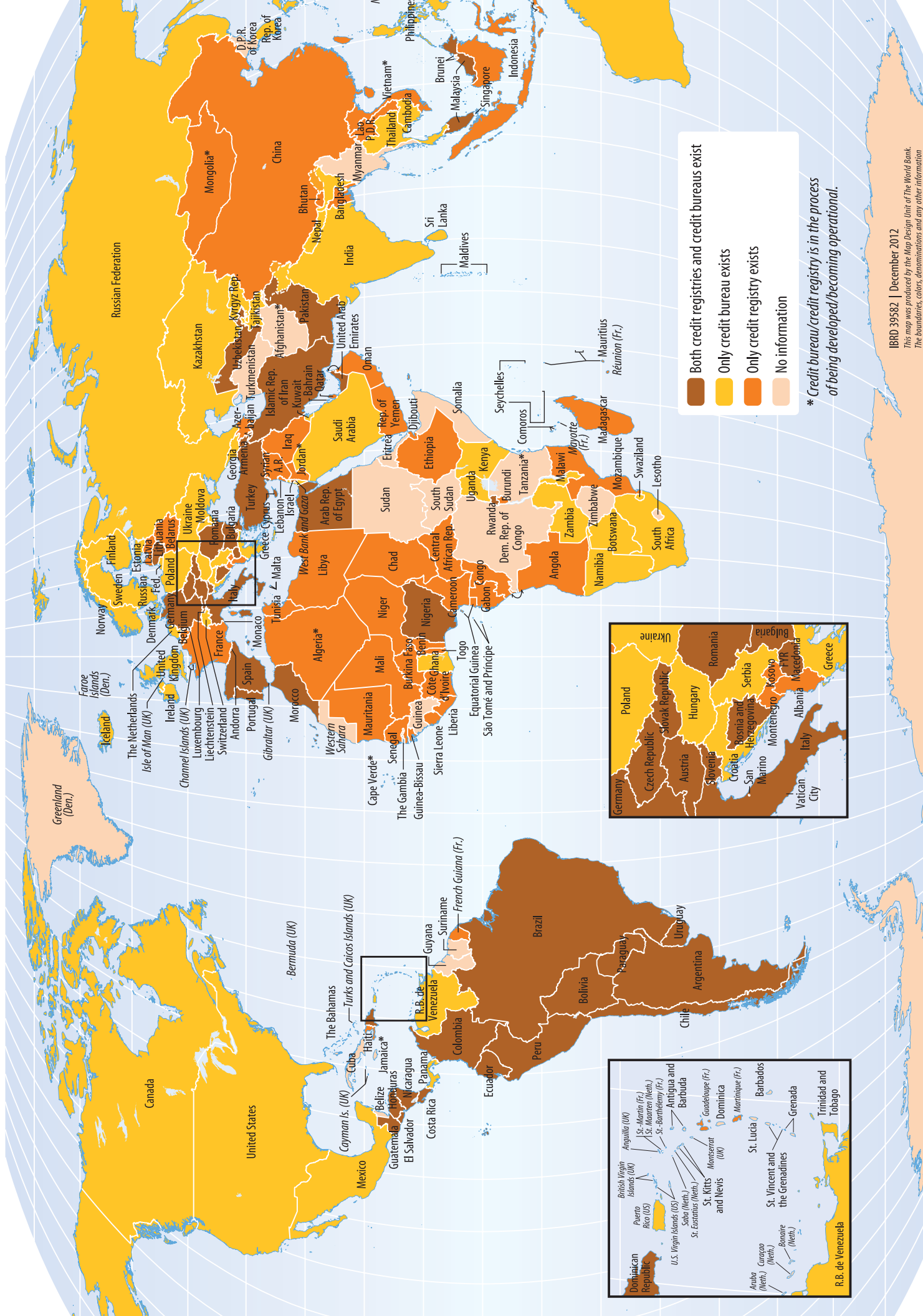
- No credit bureau exists
- Positive
- Negative
- No information

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Note: Positive bureaus contain both positive and negative data and are otherwise also known as full-file or comprehensive bureaus.



OVERVIEW OF CREDIT REGISTRIES AND CREDIT BUREAUS AROUND THE WORLD



- Both credit registries and credit bureaus exist
- Only credit bureau exists
- Only credit registry exists
- No information

* Credit bureau/credit registry is in the process of being developed/becoming operational.

