Introduction

Public and private credit are closely allied, if not inseparable.

—Alexander Hamilton

In 1909, on the eve of the Revolution, Mexico possessed forty-one formally incorporated financial institutions of various kinds.[1] Two of those institutions, the Banco Nacional de México (Banamex) and the Banco de Londres y México, together controlled more than half the assets in the banking system. In the same year, the United States enjoyed the services of 18,723 banks and trust companies.[2] High concentration has continued to characterize Mexican banking down to the present day. In fact, Mexico currently has fewer financial institutions than before the Revolution of 1910, and the two biggest banks continue to collectively control roughly half the assets in the banking system. Banamex was still the nation's single largest bank as recently as two years ago.

Why did such a concentrated financial system emerge, why did it persist for so long, and what effects did it have on the Mexican economy? This book argues that financial concentration was the product of the way Mexican governments made credible commitments to respect private property rights. Regardless of their stated ideologies, Mexico's rulers recognized that they needed to come to an accommodation with potential creditors. First, they understood that they needed a source of credit in order to restore political order. Second, they understood that without a functioning financial system, there could be no economic growth, and without economic growth, there would be no tax revenues. In short, they realized that restoring the financial system was crucial to their own political survival.

Mexico after independence experienced more than fifty years of political chaos until Porfirio Díaz assumed power in 1876. Thirty-five years later, it entered another prolonged period of instability (1910–29), punctuated by one of the great social revolutions of the modern world (1913–17). There is no economic sector as sensitive to political instability as the financial system. Under instability, governments and factions aspiring to be governments have strong incentives to steal bank cash reserves, force financial institutions to make them loans, engage in the unrestrained printing of currency (thereby setting off an inflation that will essentially be a tax on holding cash), and change the rules that regulate banking and the securities markets so as to maximize the government's access to funds. The story of Mexico's financial system is therefore fundamentally political.

How did governments facing armed resistance and a real chance of being violently overthrown credibly promise to repay their debts? Porfirio Díaz's strategy in the 1880s was to create a bank with a legal monopoly over lending to the federal government. Díaz's regime also selectively enforced property rights to give elites tied to powerful local strongmen-cum-politicians a stake in the political system. The threat of revolt by these strongmen assured politically connected local elites that the federal government would not prey on their wealth. The result was an extremely concentrated banking system, which interacted with the politicized nature of property rights in Porfirian Mexico in such a way as to produce an extremely concentrated industrial structure.

The Mexican Revolution (which began in 1910) violently ended the Porfirian regime, but it failed to alter the basic political calculus. The new rulers came to power during a period of extreme political instability. Between 1910 and 1929, the country underwent a revolution, a counterrevolution, a counter-counterrevolution, three civil wars, and four violent coups or attempted coups. Just as Díaz had done, the leaders who attained power in 1920 selectively enforced property rights and allowed the bankers themselves to write the laws regarding entry into banking. In addition, the government created a hostage: a government-owned commercial bank (the Banco de México, or Banxico). As a result, the domestic banking system recovered rapidly during the 1920s, despite ongoing violence and political instability. The result was the same as the Porfiriato: a continuing high level of financial and industrial concentration. This is not to say the Revolution had no effects —but in the long run, the Revolution failed to sever the links between banks and politics. If anything, it strengthened them.

In more general terms, this book's argument runs as follows. Governments establish politically connected private institutions with a monopoly

over lending to them in order to establish credibility. By giving one institution a monopoly, a sovereign government enables lenders to coordinate their actions in the case of nonpayment. This thereby increases the government's credit limit by raising the penalty attached to defaulting. Political connections reinforce the government's credibility, by transforming bankers from residual to priority claimants on the success of the state. The more unstable the political situation, the more important these connections become.

The strategy involves granting the government's bankers special privileges, both as a compensation for risk and a result of the bankers' political connections. These bankers will therefore be well positioned to engage in rent-seeking. In the absence of secure property rights, this can retard the development of the financial system, limit access to capital, encourage concentration, and slow economic growth.

Why are financial systems vital for the functioning of a country's economy? In essence, because they match savers to investors. Financial systems consist of the interconnected network of banks, brokers, and exchanges that raise, securitize, distribute, trade, and continually value assets. They turn illiquid physical assets into liquid contracts that can be traded, sold, or collateralized. At the simplest level, these contracts are banknotes, which are nothing more than a promise by a bank to redeem a piece of paper for gold or silver. At a more complex level, these contracts can be shares in corporations, which entitle the holder to a percentage of the profits of that corporation for the duration of the corporation's existence. Even more complex financial contracts can be written, providing different rights contingent on different external events. Regardless of the complexity of the contract, the underlying function of the financial system is twofold. It eliminates the need for parties in a financial transaction to have to have direct knowledge of one another, and it makes financial contracts easy to value and exchange.

Families, of course, can partially fill in for the lack of a financial system. Family members can share resources with each other. A father, for example, may lease land to a son, or an uncle might lend equipment to his nephew. Private individuals can also lend or transfer wealth among each other, based on their personal relationships and reputations. Unfortunately, families and family networks are only so big. An economy that relies solely on them for capital greatly limits its potential for future growth.

Financial systems match savers to investors through two types of intermediaries: banks and securities markets. Banks take in funds from depositors, offering interest in return for the use of the funds. Banks also raise capital by selling equity in themselves (shares of stock) or by long-term borrowing (bonds). These funds, regardless of their source, are then lent at interest.

Thus, banks serve to connect savers and borrowers—without the need for these individuals to actually know one another. In addition, the underlying contracts that allow banks to take in and lend out funds makes the wealth represented by those contracts highly liquid. Thus, to cite an obvious example, savers can transfer bank deposits in order to make payments—this is what happens when bills are paid by a check. The crucial advantage is that the underlying projects that those deposits finance do not have to be liquidated in order to make the payment.

Securities markets, and the brokers who underwrite and trade on those markets, allow firms to sell claims on their future earnings for immediate cash. Endless numbers of derivative contracts have been created in recent years, but there are basically two sets of contracts that brokers and securities markets create and trade: equity participation in a firm (that is, shares of stock); or long-term loans (that is, bonds). The crucial feature of both sets of contracts is that they are liquid. Stocks and bonds can be sold without liquidating the underlying investment, and buyers and sellers do not need to have direct knowledge of one another.

In theory, banks and securities markets are substitutes for one another. As a practical matter, however, banks and securities markets are closely interconnected and their activities are interwoven. To cite an obvious example, banks might raise capital by selling equity shares in themselves. Without the existence of a securities market to make the bank's shares liquid, few investors would purchase them. Similarly, banks may serve as underwriters of new shares in other companies, essentially purchasing the shares from the firm and then reselling them on a secondary market. Banks may also discount commercial paper (essentially a promissory note of short duration issued by a firm) that can then be traded on a market. Indeed, one of the primary functions of banks in the nineteenth century was precisely this kind of discounting. A firm would write a promissory note to a supplier that it would pay a debt in a specified number of days. The holder of the note would then sell the contract to a bank, which would give him or her immediate cash, but at a discount off of the face value of the note. These notes could also be traded on a securities market, where they might be bought and sold by banks as well as by private individuals.

The functioning of the organizations and markets that make up the financial system are crucial to private individuals, firms, and governments. The financial system allows private individuals to smooth their consumption and make purchases that would require them to save for an inordinately long time from their current income. Similarly, the financial system allows firms

to expand faster than would be possible had they to rely solely on their own reinvested profits. The financial system also allows firms to borrow their way through downturns in the business cycle, thereby allowing them to hold more of their assets as productive tangible capital (buildings, machines, stocks of raw materials, and inventories kept on hand during the production process), and less as unproductive cash (hoarded to protect the firm in a downturn). Finally, the financial system allows governments to raise revenues in excess of those it can obtain through taxation. Essentially, financial systems allow governments to raise funds by writing a contract that allows them to obtain immediate cash in exchange for a claim on future tax revenues.

Without an efficient financial system, the cost of capital faced by firms, governments, and individuals will rise. Inefficient financial intermediation will hamper new investment because investments will be less liquid, and the time horizons of investors will shorten. Without a stable payments system, transactions costs will rise dramatically, shortening both time horizons and the ability to sell goods and services at a distance. In short, the functioning of modern economies is intimately tied to the functioning of their financial systems.

Governments have a special role in the formation and evolution of financial systems. First, the public sector influences the development of financial intermediaries and markets through its own demand for credit. Second, the government establishes the rules that govern the functioning of financial intermediaries. Financial systems are intended precisely to allow claims on real—and often immobile and illiquid—resources to be represented by relatively liquid contracts. Rules laid down by the government determine the security of these claims, and how easily they may be traded or transferred. In fact, the government not only determines the security of financial contracts but also who can create them and the circumstances under which they can be created. It is the government, not the market, that determines which group of financiers will receive a bank charter, the level of reserves that the bank must hold, and the composition of those reserves. In short, the government is a participant in the financial system and simultaneously governs the financial system.

There is, in short, a holdup problem between government and the financial system. Governments need access to credit from the financial system. The financial system needs the government to enforce property rights, without which economic agents cannot write or enforce financial contracts. The privileged role of the government, however, means that it can behave opportunistically. Banks and private individuals, foreseeing this, will decide not

to invest at all. Unless the government can tie its own hands, the financial system will not develop and the government will be denied the very resources it needs for its own survival.

Porfirian Mexico solved the holdup problem through the creation of a specially privileged bank. The newly established regime desperately needed money in order to carry out its basic functions, but it lacked the administrative capacity to raise internal taxes or the reputation to contract international loans. Many other countries have at some point in their history solved a similar dilemma in a similar manner. The Bank of England, for example, became England's premier financial institution by swapping its shares for debt issued by the war-pressured English monarchy in 1694. The monarchy benefited by concentrating its debt in a single institution, which could be induced to offer lower interest rates and easier repayment schedules. In return, the Bank of England became the sole repository for the government's tax and loan receipts. It earned fees from transferring government funds overseas and facilitating interest payments on England's various debt issues, and enjoyed insider knowledge about future government plans.[3] Like England, the Porfirian regime needed to create a single bank large enough for its financial needs. Without such a bank, the government would have been unable to carry out its most basic functions. This would have ensured additional decades of political instability. Declaring that Mexico did not need a bank with special privileges would have been the equivalent of declaring that Mexico did not need an effective national government.

Chapter 1 discusses the basic credit problem the Porfirian government faced: How can a sovereign debtor credibly promise that it will repay its debts? President Porfirio Díaz needed to establish a bank large enough to provide his government with credit *and* make a credible commitment to that bank's owners that his government would repay its debts. In 1884 the Díaz government therefore engineered the merger of two preexisting banks into a semiofficial superbank, the Banco Nacional de México (Banamex).

The charter that created this superbank granted it a monopoly on all federal lending and control over all federal spending—all tax collection and federal payments passed through its hands. Since all loans to the government now went through a single intermediator, the government could no longer strategically default on some creditors while continuing to borrow from others. The Porfirian government had in fact tried to play this game in the early 1880s, which provoked a series of financial crises. The temptation to circumvent Banamex's monopoly meant that, in practice, credibly granting a private bank a monopoly over lending was not as simple as theory might imply. The government had to make it impossible to borrow without Bana-

mex's knowledge or permission. The result was that by 1885 a private institution had been given effective control over the implementation of all public spending. In short, creating Banamex solved the coordination problem among lenders and insured that the government would face a credible credit boycott should it default. This was particularly important in reestablishing the government's credibility with foreign creditors.

The Porfirian government, however, had to satisfy two not entirely consistent goals. First, it had to secure a source of credit for itself. Second, it had to give powerful local strongmen a stake in the national political system. Chapter 2 describes how the Porfiriato reconciled these goals. The long-run solution required that a deal be brokered among all of the players: the stockholders of Banamex, the stockholders in the country's second-largest bank (the Banco de Londres y México), the stockholders in smaller banks, and the powerful state governors. The resulting arrangement shared many (although not all) of Banamex's special privileges with the Banco de Londres y México. The state banks were given partial local monopolies, and the state governors were enabled to award federal concessions to their cronies. Holding the arrangement together was the fact that the federal government reserved for itself the right to charter banks. Thus, competition among states for bank business could not ratchet downward the legal barriers to entry into banking. No state could unilaterally liberalize, because this would damage the interests of the other state governors, who would support the federal government in disciplining the liberalizing state. Nor could the federal government behave opportunistically by unilaterally changing the rules, because that might spark a revolt among the state governors who benefited from the arrangement.

Politicians and bankers justified the advantages granted Banamex by claiming that it fulfilled the functions of a central bank of rediscount, providing liquidity to the rest of the banking system in times of need, calming panics, and supplying a uniform national currency. Chapter 3 analyzes these claims. It musters quantitative and qualitative evidence to show that Banamex carried out none of the above functions. In fact, despite claims by its own officials, the Porfirian government recognized that the banking system lacked an effective lender of last resort.

If Banamex was little more than a commercial bank with special privileges, then what were the costs of those privileges? In other words, did Banamex succeed in taking advantage of its rent-seeking opportunities? The answer is yes. Chapter 4 examines the public costs of the Porfirian financial system. It uses a variety of quantitative tools to demonstrate that after risk is properly taken into account, Banamex earned returns in excess of those available in a

competitive market. These estimates, and other data reported by the banks to the Finance Secretariat, are then used to test the hypothesis that the two national banks exercised market power over Porfirian lending. The results indicate that they did, to the detriment of the overall efficiency of the financial system.

How did this banking structure affect the rest of the economy? In order to answer this, we need to know how the protected banks of Porfirian Mexico made their investment decisions. In other words, how did these banks go about their business? How did they match savers to investors? Chapter 5 focuses on the individual banks and their commercial strategies, using bank minutes and private credit reports to demonstrate that Porfirian banks overcame information asymmetries by making long-term loans and investments to individuals and firms connected to their directors. This practice is known as *insider lending*. Elite entrepreneurial families chartered banks in order to channel capital into their enterprises. They raised funds first by selling stock in the bank on the Mexico City stock market. Investors purchased these stocks knowing they were, in effect, investing in the network of enterprises controlled by the bank's directors. Chapter 5 argues that insider lending was not deleterious in and of itself. Rather, it allowed Mexican banks to serve as "engines of economic development" and financed a great deal of Mexico's economic growth.

The interaction of widespread insider lending and insecure property rights, however, contributed to a high level of industrial concentration. Chapter 6 discusses a simple model of lending when property rights are uncertain. It then uses evidence from the Mexican textile industry to test the model's predictions. The results indicate that firms linked to banks grew far faster than their competitors. Bank-linked firms were no more productive or profitable than their competitors—but they had access to outside capital and credit while their competitors did not. Insecure property rights meant only the largest companies could circumvent the restrictions on banking by going directly to the securities markets for capital. In other words, the only interests capable of getting around the regulations were those the regulations were designed to benefit.

This and other, real and perceived, imbalances in Mexico's growth processes set off the Mexican Revolution of 1910–20, an extremely violent and disruptive interregnum, in which more than one million Mexicans died or fled to the United States. The Porfirian commitment mechanisms collapsed in the face of armed revolt. Chapter 7 describes the confiscations, hyperinflation, sequestrations, and general uncertainty of the period. It details the

ever-shifting but increasingly hostile relationship between the bankers and the various revolutionary factions.

Political stability did not magically return after the last *successful* violent change of government in 1920. Attempted coups, warlordism, and sporadic outbreaks of civil war continued until 1929. The new government faced the problem of reestablishing credibility under conditions not dissimilar to those faced by Porfirio Díaz in 1876.

Chapter 8 examines how postrevolutionary governments, under the financial leadership of Alberto J. Pani and Manuel Gómez Morín, succeeded in reestablishing a credible commitment to refrain from confiscation and hyperinflation and to repay new *domestic* debts. The essence of the strategy was the same as Don Porfirio's. The bankers and other potential creditors were invited to write the rules governing their own activities. In addition, the government used its access to petroleum tax revenues—a source of income not available in the 1880s—to proffer a "hostage" to its creditors in the form of the state-owned Banco de México, or Banxico. The government put up 50 million pesos in hard currency, which was then lent out to the bankers or used to cheaply finance the "entrepreneurial" activities of selected politicians. Altering the rules of the game afterward would therefore lead to the loss of this capital and damage the interests of politically powerful individuals.

In this way, an undemocratic regime with a record of predation succeeded in committing to protect an important group of private property holders. This commitment did not lose credibility until the 1970s. The new regime reinstitutionalized old barriers to entry and created new opportunities for rent-seeking. It also tied public confidence in the banks almost completely to confidence in the ruling party and further politicized the provision of credit in Mexico.

The book draws on a multiplicity of sources to draw its conclusions. The primary sources for information about the internal functioning of Porfirian banks came from the minutes of Banamex's board of directors, available in the Archivo Histórico del Banco Nacional de México (AHBNM), and those of the Banco Mercantil de Veracruz, found in Galería 2 of the Archivo General de la Nación (AGN). Additional data about bank lending patterns in the Porfiriato came from the minutes of the directors of the state-run Caja de Préstamos and the credit books published by the R. G. Dunn credit agency's Mexican branch. The Caja's minutes were found in Galería 2 of the AGN, and the AHBNM contained the R. G. Dunn volumes.

These were supplemented by the *memorías* published by the Finance Sec-

retariat, and available in the Bancroft library at the University of California's Berkeley campus, and various articles published in the contemporary financial press. Issues of both the *Economista Mexicano* and the *Mexican Herald* are available on microfilm at Stanford University in Palo Alto, California, and copies of the *Boletín Financiero y Minero* are available at the Hemeroteca Nacional, located on the main campus of the Universidad Nacional Autónoma de México (UNAM) in Mexico City.

Quantitative data was gathered mainly from monthly reports submitted to the Finance Secretariat and published in the financial press, or from the market pages of the *Economista Mexicano* and *Boletín Financiero y Minero.* Post-revolutionary information came from Finance Secretariat reports, the *Boletín Financiero y Minero*, and the reports of the Comisión Nacional Bancaria, available at the Cosío Villegas library of the Colegio de México in Mexico City and the Hemeroteca Nacional. Other data came from the annual reports of the Banco de México.

What are the implications of this study for the historiography of Mexico and an understanding of economic growth and development? First, undemocratic dictatorships can sustain partial credible commitments to respect property rights. Mexico sustained just such a commitment on the basis of specific promises to a *subset* of asset holders—the holders of federal bank charters. Commitments, therefore, are not simply credible or incredible. Limited commitments can sustain economic activity, at least for a time. There are, however, economic costs to being governed by a dictatorship—cronyism is a second-best solution compared to the rule of law.

Second, history matters. The outcomes of short-term political processes can shape and constrain events decades later. Banks may everywhere and at all times face certain problems, and exist to carry out certain economic functions, but they do not inevitably emerge out of economic theory. Rather, they emerge from contingent factors that are often political and driven by the instrumental needs of the government. These factors then shape banks' structure and mode of operation long after the government's immediate instrumental needs have passed.

Third, individual banks in Mexico operated much like their counterparts in the early-nineteenth-century United States, lending to their own directors or people closely associated with them and serving as conduits for attracting impersonal capital from across the region (via deposits), the nation (via equity sold on the Mexico City stock exchange), and overseas (via equity sold elsewhere and wealthy immigrants to Mexico). Far from being pernicious or fraudulent, this practice allowed banks to overcome the scarcity of good financial information about outside credit risks. Social linkages com-

pensated for poorly enforced property rights. When combined with the general insecurity of property rights, however, insider lending contributed to an extremely concentrated industrial structure, which persisted until the late 1990s. Only the firms with social and political links to the distributors of banking charters could access outside capital. The firms that grew the fastest, therefore, were the best-*connected* firms, not the *best* firms. This was the cost of dictatorship.

Perhaps, over time, a decentralized, democratic, and stable political system could have emerged from Mexico's unstable nineteenth century. That, however, is not what occurred. Moreover, it failed to occur twice, after the violence of the nineteenth century and after the violence of the Revolution. In both cases, historical circumstances and the government's immediate needs meant that the second-best theoretical option was the first-best *available* option. Implementing the rule of law is not always historically feasible. The real alternative in the 1880s and again in the 1920s was not limited democratic government, but rather continuing chaos. Only in the past few years has a pluralistic democracy emerged in Mexico and with it the hope that the constraints of the past might be overcome.