Banking and Economic Development
Brazil, 1889–1930

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Chapter 6

Institutional Development in Banking

In January 1911, the president of the Banco do Brasil fired the bank's branch manager in Pará, the center of the Amazon rubber commerce.[1] The manager had extended credit beyond the limit of his responsibility and taken undue lending risks. The price of rubber had plummeted and rubber merchants could not repay their debts. In November the bank brought a lawsuit against the former manager.[2] In 1911, the bank recognized losses of 1,936 contos (approximately U.S.$625,000), or about 30 percent of the bank's net profits for the year.[3] This situation revealed changes in the manner of conducting banking that were important in its evolving role in the Brazilian economy. A branch manager, who was a full-time employee (but not a shareholder) of the bank, was held accountable for a defined volume and risk-structure of business. Being able to be sued by the bank represented a heightened level of personal responsibility assigned to bank managers. In the branch manager's defense, exceeding the authorized credit exposure only became a problem when rubber prices declined precipitously.

Until the early years of the twentieth century, the lack of established procedures, protections, and regulation enhanced the risk of bank failures. With institutional development to address these weaknesses, individuals and firms began to see banks as increasingly secure conduits for their business endeavors. The increasing share of the money supply that the public held in bank deposits, rather than currency, was the most succinct demonstration of this development. Enhancing its safety and credibility, given its unstable history, required that the banking system actively establish the parameters of its business. Banks needed to address the internal causes of previous failures and anticipate new threats if the business community were

to develop confidence in their ability and if banks were to turn themselves into attractive investments for potential shareholders. They could not remain viable conduits of commerce if the experience of the Banco do Brasil in Pará were common. The challenge to banks was to identify and manage their risks. They did so by investing effort and money in means of accumulating and using information, developing management controls, and limiting their business when necessary. As a result, other economic agents gained confidence in the banking system, and banks could sustain rapid growth even while facing serious constraints.

Recent research within the framework of institutions and development economics examines the role of banking in "development" using measures and concepts that have interesting historical applications. Coining the term "contract-intensive money" for the share of bank deposits in the money supply, Clague et al.[4] conclude that the ratio indicates the extent to which economic agents have confidence in the contracts that routinize and depersonalize their activity. The contracts that banks maintained with their borrowers and depositors were among the earliest and most common to develop. Banks routinely entered into contracts for taking deposits and extending credit. Their prevalence suggested the extent to which economic agents accepted that the contracts effectively protected their rights to the property underlying their transactions.[5] Therefore, the proportion of contract-intensive money serves as an indication of the extent of institutional stability and evolution. These concepts help to understand the importance of the long-term increase in the share of the money supply composed of bank deposits and the increasing efficiency and stability that identified the beginning of the modern banking system (as found in Chapters 3-5).

This chapter explores how Brazilian contracts and financial property became more secure during the early twentieth century, and it considers the limits to their increased security. It finds that evolving management procedures created the framework for depersonalized and decentralized decision making and increasingly managed the risks of banking with improved information, technology, and operating procedures. However, the chapter also explores aspects of the conservatism governing banking in the early twentieth century that impeded their ability to engage in more expansive practices. Conservative procedures protected banks against risk. While these procedures evolved in manners that allowed banks to expand and to simultaneously maintain their stability, risk protection remained a high priority to Brazilian bankers. One important reason for their continuing conservatism was that prevailing legal and regulatory structures limited the improvements that banks could bring about of their own accord.

The chapter outlines important considerations that enabled banks to function more effectively within the Brazilian economy. It also serves as an important case study for the economy as a whole. There is no reason to expect that the evolution toward a depersonalized framework for conducting economic endeavors should have been limited to banking. In fact, logic suggests that these developments applied broadly to the business community. The parties with whom banks entered into contracts understood, and often shared, the concerns of bankers. Because bankers engaged in a wide variety of business undertakings, successful practices in one endeavor had a natural conduit to others. One would expect them to spread to additional endeavors, as the need arose. The findings of this chapter have broad applicability for understanding changes in the underlying rules by which economic agents functioned in the early twentieth century. Nevertheless, given the ambiguities of defining and enforcing financial transactions, these protections may have arisen earlier within banks than in other businesses.[6]

INSTITUTIONS, PROPERTY, AND BANKS

"Institutions" is one of the most amorphous terms in the social scientist's lexicon. The term applies to the general structure of formal and informal rules by which society functions.[7] Institutions come in various forms, including government (by consensus or coercion), organizations, individuals, abstract understandings, and codified law. Institutions, and their development over time, fundamentally affect material well-being. Among the most important uses of institutions have been to define what constitutes property, who can own it, and the manners in which property can generate additional wealth. At least as important, institutions also protect the rules of property ownership. They determine the extent to which owners of property enjoy and control its use, including the transfer of its ownership, and they reveal the extent and security of property rights. Systems of property law codify the rules of ownership and exchange, and their enforcement.[8] Protecting property incurs significant costs "associated with the transfer, capture and protection of rights";[9] these are often called transactions costs. The most important costs of transacting are those of managing the risk of the exchange: gaining and using information, policing the value of exchanges, and ensuring contract enforcement.

Transactions costs for banks are the costs of gathering and monitoring information about its clients—especially borrowers—managing the risks of bad investments, and ensuring contract enforcement when investments fail

(i.e., when a borrower does not repay credit as scheduled). In banking, property is less tangible than is often the case in other endeavors. Bank assets (primarily credit) and liabilities (deposits and investor capital) categorize the property concerns of banks. Unlike real property in land and goods, bookkeeping entries evidence their existence. Although their application may arise earlier and more strongly in financial transactions, the issues and concerns with respect to property rights were not different in banking than in other economic activities. Therefore, exploring the specific concerns about property rights, and how banks dealt with them, contributes to understanding the development of banking, as well as the interactions between banks and other economic sectors.

Brazilian banks needed to institutionalize procedures and standards of operation to support their enhanced scope and scale. Institutional shortcomings continued to impede the ability of banks to extend credit more expansively. Nevertheless, during the First Republic their successes at institutionalizing their practices were significant. Banks tried to minimize their risks of lending by maintaining accurate and timely information on their borrowers. In fact, for the business community one of the benefits of banking was that it facilitated the depersonalization of commerce by serving as a repository of information. When a bank intermediated the financial aspects of transactions, by securing financing or even by simply holding documents, the principle parties could engage in commerce with a wider array of agents. Merchants and producers did not need to know each other or rely on their webs of personal networks to have confidence that their counter-parties would fulfill their obligations. The banks took that risk.[10] In response, however, bankers needed to accumulate information about their clients and their clients' businesses. Banks were especially concerned with gathering information regarding the creditworthiness of specific borrowers and the general economic conditions affecting their clients' businesses. Banks needed to be able to make informed credit decisions in order to provide investors (shareholders and depositors) with safe profits. One of their key functions was to centralize knowledge and information of financial and credit risk. The basis for banks' specialized knowledge was their exposure to a wide variety of borrowers and investment opportunities. Banks continually assessed their borrowers' business and financial conditions. By doing so, they accumulated a wide familiarity with investment options and business circumstances. This advantage was cumulative; as the scope of bank activities widened, so did their access to information.

Banks provided some of the most informed analyses of economic conditions, and they became quite skilled at using their own transactions to

gauge general trends.[11] Annual reports and Board of Directors' minutes continually assessed the effects of crops, production, money supply, and international market and political conditions for their business implications.[12] As their client bases grew beyond the range of closely related and well-known borrowers, banks' expertise in sectoral business analysis and their advantage in accumulating information across a wide selection of borrowers became more important. This knowledge helped them to offset the problems of asymmetric information that they faced with any given client. That is, banks continued to suffer disadvantages with respect to understanding specific borrowers, since any party would always have a better understanding of its circumstances and intentions than its counter-party (the bank). However, bankers' wider attention to the competitive and market conditions of borrowers offered perspectives on the general risk level of a total portfolio that individuals could not match.

More so than smaller, informal financial agents, banks developed an advantage in that they centralized information about their borrowers and the specific uses of credit that allowed them to make the risky decisions to extend credit. They generated consistent information about a wide range of investments and borrowers, giving them a privileged perspective on the full range of economic activities underway in their market. In addition to specific borrowers, banks also monitored the value of the businesses that they financed. For example, pledges to the ownership of coffee beans often guaranteed credit to a coffee merchant. As a result, the lending bank needed to understand the international coffee market, both to ensure that the value of the guarantee remained constant and to monitor the financial prospects of its client, the coffee merchant. For investors, banks offered significant economies of scale with respect to accumulating information. Without having to attain an equivalent base of knowledge to make efficient investment decisions, shareholders and depositors could benefit from a bank's information and expertise in specific businesses.

For banks, gathering information was crucial in order to maximize these benefits and to minimize the risks of adversely selecting bad investments. Even so, bankers were continually aware of their risk of loss. They required collateral to guarantee loans in order to ensure that if a loan failed, the debtor had property that the bank could repossess in lieu of payment. The judicial system was available to mediate the resolution of failed contracts. In the most extreme manifestation, bankruptcy courts mediated the settlement of debts of companies and individuals that failed financially. As a final resort, banks maintained reserves to cover debts that were not repaid or fully collateralized.

MANAGING RISKS

Brazilian banks were acutely attuned to the problems of protecting their property and managing the risks attendant to their credit contracts during the First Republic. Concerns about property protection and efforts to implement procedures to minimize risk were common to all banks. The composition of ownership was irrelevant. Whether owners were foreigners, state governments, or small, closely knit groups of individuals, the problems of protecting their investments were universal.

The best means available to bankers to protect their property was to minimize their credit problems. Credit was the source of both their revenues and losses. Bankers had more control over their ability to meet their responsibilities to redeem deposits than they had over ensuring the repayment of credit commitments.[13] Balancing returns against the risks of lending was, perhaps, the most sensitive concern of bankers. They often looked for ways to expand their credit portfolios, while minimizing their risks. At the same time, potential borrowers used every opportunity to complain about the lack of credit. However, neither of these positions demonstrated that the banking system was ineffective or that credit was in short supply. The business and profit interests of banks motivated them to expand revenues while minimizing risks; and borrowers decrying the availability of credit were actually complaining about the prevailing interest rates.

In managing the total level of credit exposure and allocating it among alternative uses, Brazilian banks actively took account of risks and potential returns. As early as 1901, the financial community recognized the difficulties of allocating credit to productive uses, as opposed to applications perceived to be less risky. At that time, interest in using the banking system to facilitate the circulation of currency and manage the exchange rate superseded its potential application for productive investment, because of the inability to control "speculation":

> If the banks realized their business, trying to harmonize their interests with those of the nation which gives them such generous concessions, they could always find gainful revenues distributing the notes that appear during the harvest season; thus transforming to a continuous circulation the current intermittent circulation of letters of exchange, regularizing the supply and demand, and finally achieving the exchange rate. . . . Unfortunately, this does not occur, thus facilitating a high level of speculation.[14]

Banks continued to explicitly reassure their shareholders of their concern in balancing profit and risk throughout the First Republic.[15]

Banks created a variety of methods to minimize their lending risks. The four most important protections invoked by the banking system were to limit the universe of acceptable borrowers, to extend credit only for short periods of time, to obtain sufficient collateral to protect against defaults on debt, and to develop personnel and professional skills that improved the information available for each credit decision. These protections also constrained banks from innovative or expansive uses of funds.[16]

Selecting Borrowers

Perhaps the most common form of choosing borrowers occurred when small, closely knit groups of individuals owned banks as conduits for their own business activities. The business group based on kinship and social association provided the organizational basis for much financial innovation.[17] In the previous chapter, the formation of Comind, the Banco Italiano del Brasile, Banco Português, and Banco Boavista offered examples of this sort of arrangement. New domestic banks incorporated during the First Republic were often recapitalizations of previously existing, informal *casas bancárias.* These organizations often increased their capital and changed the form of their legal organization without enlarging their group of participants (as in the cases of Comind and Boavista). The close relationship between banks and their entrepreneurs could take complicated forms. In addition to linking their fortunes, interlocking directorships of individuals simultaneously on the boards of banks and borrowing entities could tighten creditor/borrower relationships, rather than contribute to depersonalizing the credit relationship.

Imprudent lending was not the only possible outcome of these relationships in which close ties influenced credit decisions. Banks were in business to make money. If advancing credit to their own enterprises were not profitable, they would shift the use of their resources, or go out of business. Entrepreneurs generally found severe limits to the willingness of their partners to finance ventures that revealed themselves to be flawed. Insider lending could also offset the fundamental problem of asymmetric information that underlay any credit decision.[18] Bankers understood that financial disclosure by their borrowers offered useful, but only limited, information. Borrowers would always know more of their circumstances and future prospects than their financial statements revealed, and they could share additional information selectively. Relying on reputation and social relationships, close organizational and personal ties between borrower and banker served to minimize information asymmetries and to lower the transactions costs of monitoring the circumstances of borrowers. There-

fore, while the bias toward insider lending occurred, it is unlikely to have distorted the allocation of credit toward demonstrably inefficient or risky uses on a consistent or large scale.

The attitude of foreign banks with (perhaps) less access to local personal ties in credit decisions revealed the importance of those ties. British commercial banks assessed their risk somewhat more severely than did their domestic competitors, describing much of the credit extended by Brazilian banks as accommodation notes (short-term credit extended to borrowers based on the personal relationship between the borrower and the banker).[19] They characterized this form of lending as an expression of inefficient or uneconomic personalism. This type of complaint may have reflected the relative disadvantage that foreign banks faced in extending the domestic reach of their business. When concerned about its dealings with a failing bank, the first information the head office of the Bank of London and Brazil requested of its Rio de Janeiro office was the lists of names and occupations of the bank's directors.[20]

During the early years of the twentieth century, bankers viewed lending to limited-liability, publicly registered corporations (of which they were not participants) as particularly uncertain.[21] They believed that the risks in lending to these organizations were different from traditional lending to individuals because the liability of each of the investors (shareholders) was limited to the amount of his investment.[22] Further, in practice, the value of a corporation's capital fluctuated severely. In essence, bankers remained uncertain that they could rely on the contracts between their organizations and other corporations. Oversight and understanding of corporate financial affairs were new, complicated, and not always well understood. It was not always clear how the law could hold corporate entities to the same standards and requirements as individuals.

Therefore, one of the early means of protecting against the risks of corporate lending was to lend to the principal individuals participating in an enterprise, rather than to the enterprise itself: "At times the share of debt based on purely personal credit, including some accepted for commercial firms, translated funds administered by the Bank to individuals for commercial uses that developed business with little or no capital . . . ."[23] In at least one instance, the Banco do Brasil declined to extend credit to an incorporated entity in Bahia (the Companhia Light & Power de Bahia) because its shares traded on the exchange in Salvador, rather than Rio de Janeiro.[24] Such practices as lending to the individuals rather than their corporations or only to companies listed on certain exchanges defeated the purposes of incorporation, since one of the major benefits of incorporation was to limit the personal risk of the organizers while investing in new ventures. Limited-liability companies undertook large industrial enterprises and infrastructural development. To the extent that banks viewed this form of organization cautiously, corporations were disadvantaged in credit markets.[25] Therefore, without sufficient legal and institutional development, modernizing economic activity of organizations was not encouraged in bank credit markets.

However, over the course of the First Republic, limited-liability corporate organization appears to have gained acceptance among Brazilian bankers. In cases in which an enterprise, rather than an individual, guaranteed credit, public registration of the company was an important substitute for personal relations in providing financial information.[26] Publicly chartered corporations were subject to conditions of disclosure of financial condition that did not apply to individuals. Provisions for public incorporation required the minimal collection of 20 percent of the statutory capital, the public disclosure of trading volume and prices for equity shares on a securities exchange, and the publication of semiannual financial reports. These requirements helped to communicate that the corporations were legitimate, adequately capitalized, and had viable ongoing business concerns.[27] The mandatory disclosure of corporations' balance sheets and the ongoing publication of share prices offered information about their financial standing that banks turned to their advantage, as they became confidant in the legal form of organization.

Duration of Credit

A more mechanical method available to banks to protect themselves against credit risk was to maintain a series of short-term contracts with borrowers to minimize the duration of their exposure.[28] Bank statutes established the maximum maturity of credit instruments.[29] The exclusive reliance on short-term credit mitigated the need to monitor information about the changing financial conditions of individual borrowers, since lenders could simply stop lending at the first sign of a problem.[30] However, viable borrowers could easily have their credits renewed upon maturity.[31] In fact, at the time of its formation, one of the concerns about access for private-sector credit to the Banco do Brasil Rediscount Office was the impetus it could give to undue continuation of debt: "Money in circulation [*dinheiro em gyro;* currency] is not useful, because notes that need to be paid are only renewed. . . . The Rediscount Office served to give resources to the banks with large sums in circulation, but does not receive payment. . . ."[32]

Despite the importance that bankers attached to this protection, banks

often experienced difficulty if they tried to exercise their right to withdraw credit from individual borrowers when credit quality deteriorated. Withdrawing credit from a deteriorating borrower could precipitate default by disrupting an already-precarious cash flow. In these cases, a bank could choose to continue its credit exposure, rather than forcing the borrower into bankruptcy.[33] Although its risk increased, a bank could avoid a loss, at least temporarily. Frequently, financial conditions improved sufficiently to avoid bankruptcy. In addition, a lender would often have more than one credit instrument extended to a borrower at any one time. Therefore, a bank's total credit exposure could be significantly greater than the single defaulted instrument. By law, a default declared on one instrument put the borrower in bankruptcy; all of the credit outstanding would be in default and at risk. While efforts to avoid bankruptcy could provide financing to commercial concerns during difficult periods, it could also put a bank in a position of providing funds on a long-term basis under unfavorable circumstances:

> The decline of coffee and of the exchange, reflecting the general course of business, led commerce almost to a paralysis in its receivables and sales. In turn, it made the situation of the banks extremely difficult; the more so since commerce and industry generally come to consider the bank as a[n equity] partner, whose capital remained permanently in the companies, and not as a reserve which they drew upon provisionally. Restricting credit, even in reasonable proportions, the lives of these companies became impossible. So, in this regard, the action of banks has to be monitored with great caution.[34]

Considerations with regard to continuing credit extended to all manner of distressed borrowers. Whether it was a widow struggling to settle her deceased husband's debts or the national shipping line (Lloyd Brasileiro) in financial straits of a heavily politicized nature, Banco do Brasil directors kept close, and not always polite, track of renewals on questionable borrowers.[35] Contingent on the ability to maintain close oversight, the Bank of London and Brazil continued lending to J. P. Wileman, who was often in financial trouble during the years he published *Wileman's Review,* a newsletter on economic circumstances in Brazil.[36] Similarly, Comind and the Crédito Real de Minas Gerais closely monitored troubled coffee merchants.[37]

Continuing short-term credit to a distressed borrower gave banks opportunities both to withdraw credit within a fairly short time horizon and to monitor the creditor's situation frequently (at each credit "roll-over" date). Although these provisions did not offer perfect protection, bankers strongly opposed giving them up, since they believed that ". . . there is no

greater danger to a credit establishment than the immobilization of its funds in long-term operations. . . ."[38] The flexibility of extending short-term credit, with the possibility of continual renewals, could effectively convert short-term obligations into medium- or long-term capital, while preserving the legal form of protection for the bank.

Collateral

Ample collateral requirements to secure credit were a related protective mechanism that bankers routinely used. By pledging collateral, borrowers assigned to the bank the legal right to take ownership of specified property (the collateral) in the event that credit was not repaid. Banks clearly saw this as an important protection. Collateralization standards were rigorous and banks followed them strictly. Bank statutes detailed the requirements, and transactions entailing varying degrees of risk carried corresponding amounts of collateral.[39] Beyond the statutory requirements, if the risks appeared to merit additional protection in specific cases, borrowers had to pledge incremental collateral.[40]

Collateral could take a variety of forms. For discounted notes, individuals could personally guarantee the credit, or borrowers could pledge goods as collateral. Loans required the specific guarantee of precious metals or diamonds, Treasury notes (apólices), marketable goods, stocks, or bonds. Bankers had learned the risks of depreciating market value of assets that had cost them dearly during the 1890s. When assessing the adequacy of collateral, banks valued all goods and financial assets substantially below their current market value in order to protect against a decline in prices of the collateralized goods. Usually, banks applied a discount of 20-25 percent to the market value of the goods, as specified in their statutes.[41] In some cases, the appraised value of collateral was two to three times the amount of the loan.[42] Banks could refuse to advance loans upon discovering that the promised collateral fell short of their expectations. Once, on doing so, the president of the Banco do Brasil justified his action to the president of Brazil and refused to modify it.[43] At least once, a borrower collateralized a loan with its own debentures.[44] This offered the (insecure) protection that, in the event of a bankruptcy proceeding, claims on the debentures would receive more favorable consideration than credit. Banks carefully structured these provisions to ensure that they could recover the full value of the original credit, should the collateral be liquidated to remedy a default.

The difficulty in structuring credit instruments to accommodate mortgage lending on rural real estate was the most obvious and serious collateralization problem facing banks. In fact, the long history of Brazilian

property rights and their difficulties may have roots in the problems of collateralizing rural real estate.[45] The intertwining of plantation and commercial finance had proven extremely disruptive to the viability of sugar plantations from the earliest colonial days.[46] Portuguese imperial law responded to these difficulties by preventing the breakup of plantations for the purpose of collecting on defaulted debt. In practice, this meant that during the colonial period and the Empire, creditors could not take possession of land, slaves, mills, and other large-scale equipment in order to settle failed debts, if the repossession seriously diminished the productive value of the remaining estate. Schwartz identifies this, logically enough, as a major explanation for the credit shortages that he believes impeded settlement and expansion.[47]

These concerns did not abate for the few banks undertaking mortgage lending during the First Republic. Bank statutes included procedures for valuing real property and establishing appropriate collateral. They did not permit nonpartible collateral to guarantee mortgages.[48] For example, the statutes of the Crédito Real in Minas Gerais included the constraint that: "The bank will not lend: . . . for real estate 'pro indiviso', unless the mortgage is established for the whole, and with the unanimous consent of all co-owners. . . ."[49] This serious limitation in lending to an agricultural concern meant that any part of an estate could not be possessed if it made the entire holding less productive. Further, banks required a high level of collateral when extending mortgages. The Crédito Real would accept the rights to mortgaged urban buildings[50] to guarantee the credit, but they would only do so if the mortgage had a maximum duration of five years, and they valued the collateral at one-third the current market value of the buildings.[51] Alternatively, they often accepted railroad bonds as mortgage collateral, because of their more secure value.[52] Concerns about the possibility of issuing bad mortgage credit were strong enough that the Banco de Crédito Hypothecário e Agrícola do Estado de São Paulo proudly published in its annual report of 1925 that "[a]t the moment the bank does not own a single fazenda."[53] The problems of collateralization perpetuated the attraction of personal guarantees for credit and inhibited the potential for depersonalizing the benefits of banking. To compensate, bank operating statutes typically simply prohibited agricultural credit; when provided for, onerous collateralization requirements governed its terms.

The long-term reliability of property rights was also a factor in banks' continual inability to raise the long-term funding necessary to finance mortgage loans. Since mortgage credit represented a commitment of funds for five to ten years, banks required that they have a source of funds that

matched the duration of the loans. Prior to the financial crises of 1900-01, banks that undertook long-term lending did so either without matching sources of funding or by issuing long-term bonds to the public (finding few purchasers). Whether because of credit or funding problems, these banks did not survive. Failed banks with mortgage portfolios during the First Republic included Banco de Crédito Real de São Paulo, Banco União de São Paulo, and Banco Rural e Internacional. After the 1906 restructuring of banking, the only banks to routinely engage in mortgage lending did so with funding from state-issued bonds. As a result, the state governments' creditworthiness was ultimately at stake, beyond the banks', for the mortgage portfolios. Banespa and Crédito Real of Minas Gerais were the most prominent examples of this mechanism providing for the entrée of state governments into the banking system. Recognizing the pervasive problems of providing mortgage and agricultural finance, the Federal Treasury continually assessed the prospects for opening an agricultural bank of national scope (or an office within the Banco do Brasil). Each banking reform during the First Republic included unsuccessful efforts to create a national institution to promote mortgage and agricultural lending.[54] The 1905 rechartering of the bank anticipated such a facility, as did the statute amendments of 1923.[55] These, and a separate effort to open a national mortgage bank in 1913, failed because of the Treasury's inability to find a sufficiently large market to purchase the notes that it would have issued to fund the long-term credit.[56]

The problems of valuation and protection that inhibited mortgage lending also applied to other credit instruments. The cost and procedural complications of valuing assets and collateral were important considerations in commercial lending. Difficulties in establishing and maintaining the value of collateral impeded financing of both mortgage lending and credit for export commodities with rapidly fluctuating prices. Extremely rapid declines in coffee and rubber prices made bankers very nervous for this reason. As the most dramatic example, the average price of coffee on international markets in 1920 was 57 percent of the average price in 1919 (measured in mil-réis[57]). Therefore, banks extending a constant amount of credit to a coffee merchant during this period, without adjusting collateral, would have lost an equivalent amount of protection (57 percent, since the collateral would have been coffee). In addition, the likelihood of a problem with the merchant's creditworthiness would have increased, since his revenues declined commensurately with the fall of coffee prices. This problem also reinforced the role of short-term credit instruments in the banker's portfolio. Each renewal of a note offered an occasion to recalcu-

late its underlying collateral. Bankers' attention to collateral and its valuation in the early twentieth century suggests that they had learned from the failures of 1900-01, when many failed banks held overvalued assets of defaulting borrowers. The inability to protect against credit risks remained pervasive throughout the First Republic and justified bankers' insistence on strong procedures.

The Professionalization of Bankers

As the volume of business and available information increased, banks adjusted their procedures for making lending decisions. In the early years of the Republic, bank boards of directors met weekly, at a minimum, and decided on each credit proposal, including each renewal of existing credit instruments.[58] With time, directors concerned themselves with the credit approval process, rather than individual credit requests. Directors adopted the practice of establishing credit authorization limits for branches and individual bankers. They adjusted lending limits either as economic conditions changed or as an employee advanced in rank.[59] As banks expanded in size and geographic reach, directors delegated credit authority to their bankers in the offices geographically nearest the borrower. Banks maintained better knowledge of their borrowers' financial conditions by keeping the decision to extend credit with a source close to the borrower. The banks that opened branches (the Banco do Brasil on a national basis, and other banks within their state of charter) relied on branch managers for credit decisions.[60] They recognized that the success of the branches in distant locations depended on having accurate and timely local information: "... in order to disperse bank credit to regions of the interior, it will always be preferable to create local organizations to support the branches of the credit institutions in the [regional] capitals and principal production centers."[61]

By the mid-1910s, at least the Banco do Brasil and Banco de Crédito Real de Minas Gerais had introduced an important accounting innovation. They applied transfer prices to deposits in order to promote an efficient allocation of deposits throughout their branch networks.[62] Branches that accumulated deposits in excess of their credit lent their funding capacity (deposits) to other branches, allowing the credit of the borrowing branches to exceed local deposits. However, the borrowing branches paid for the use of the transferred funds, in a manner that was analogous to paying interest on deposits from the public.[63] Applying a cost to the funds, with the attendant necessity to earn an interest rate above that cost, created an incentive to extend credit only when a minimum threshold of profit could be earned. This procedure both protected against unwise credit risk and reinforced the connection between deposits and credit.[64] In effect, branch managers needed to decide whether it was prudent to borrow money in order to expand. These banks applied many of the criteria to their branches that they used for their borrowers and depositors.

Decentralization, depersonalization, and professionalization of banking did not proceed smoothly. In 1910 and 1911, the Banco do Brasil suffered heavy losses from its first efforts to expand services to new geographic and sectoral markets, servicing the rubber commerce in Pará. In addition to firing and suing the branch manager, the bank began to implement controls over the lending functions that it had decentralized. Initially, the directors imposed new restraints to lending in support of the rubber trade. They tightened collateral requirements, valuing the rubber pledged as collateral at 50 percent of the market price (reduced from 75 percent), and they imposed a maximum credit limit of five contos per borrower.[65] After that experience, the Banco do Brasil and other banks began to implement procedures to monitor their delegated managers, and to more rigorously define the limits of managers' authority. By 1912, bank directors addressed the delegation of authority on a routine basis. The Banco do Brasil and Banco de Crédito Real de Minas Gerais implemented accounting procedures and centralized management procedures that were intended to enhance and monitor the delegation of authority.[66] By 1920, at the Banco do Brasil, personnel were chosen on the basis of examination (public *concursos*), rather than purely on the strength of personal recommendations and judgments. Exceptions to the rule of personnel decisions (both hiring and promotions) by examination may have continued after their introduction. However, some individuals who thought they had influence with the president of the bank did not gain employment because of insufficient exam results.[67] After its 1926 restructuring, Banespa instituted public *concursos*. It is not clear if, or when, other banks used competitive *concursos* for hiring. But, by the 1920s, the responsibilities of bank directors had shifted from the approval of specific transactions to the definition of bank policies.

The development of a profession of bankers arose during the First Republic from the simultaneous requirements of growth and protecting banks' claims on their property. Employees gained responsibility for credit decisions, and they required skills and the confidence of bank owners to commit the resources that the banks commanded. Further, the Commercial Code of 1890[68] mandated that incorporated enterprises maintain internal audit committees of accountants responsible for monitoring and reporting the financial condition of corporations. Two specialized middle-class professions emerged from the growth of banking and its attendant

requirements for information and financial accountability.[69] Full-time bankers and accountants developed specialized skills and commitments to particular professional activities that coexisted with personal ties to companies. They engaged in a wide range of activities that required sophisticated information and judgment. Among the responsibilities of these employees were: to assess potential borrowers' creditworthiness, to forecast economic prospects for all businesses to which the bank lent, to continually monitor and update collateral requirements, to keep track of the banks' own financial circumstances, to guard against internal defalcation, and to maintain detailed, accurate accounting systems.

These employees depicted the emergence of new, prosperous, educated, specialized, urban professions with standards of meritorious performance. In short, they were white-collar, middle-class occupations. Individuals entering these professions formed professional associations. For example, in 1922, the Bankers Association of Rio de Janeiro organized. It was a forum for bank owners to orchestrate their common interests (often with respect to influencing regulatory and monetary policy actions) and for professional bank employees to develop their skills and common interests.[70] The formation of the Bankers Association constituted one example of the closely knit business groups and newly emerged professionals coming together to form professional technocracies and interest groups into powerful associations.[71]

Costs of Risk Management

The cost of borrowing money (the interest rate on loans and the effective discount rate applied to purchases of commercial paper) included three components. The cost of money was the most important. The average cost of money combined the rates that banks paid to depositors to attract their money and the cost of raising funds in open money markets. An analogy with other businesses would be that money was the major factor input that banks purchased. The second component of bank costs was the cost of maintaining bank operations (commonly known as overhead). Under this rubric falls the transactions costs that banks incur to institute sound business practices and to protect against risks. Finally, bank shareholders required a return on their investment, their stock dividend, to compensate them for the use of their funds and the risks they incurred. The return on borrowing needed to be sufficient to generate profits for the banks' owners.

Transactions costs of gathering and using information must have been expensive for Brazilian bankers in the early twentieth century. Brazilian banks did not, for most of this period, publish itemized income statements that distinguished between the costs of funds and operations expenses.

Therefore, the data are not available to determine banks' transactions costs.[72] Listing the nature of these costs, however, both suggests their extent and reveals that their major component was in developing a cadre of professional, full-time bankers with the expertise to exercise finely attuned judgments. Decentralized and depersonalized banking procedures required the employment of increasing numbers of educated, trained, and concomitantly expensive professional staff. For concrete financial protection against problems that did occur, all banks also maintained reserves to mitigate possible credit losses, and they left cash uninvested in order to protect themselves against large deposit withdrawals. Both practices incurred significant opportunity costs since they diminished the income-generating capacity of their resources. Banks also tended to be early users of communications technology. The geographic spread of telegraph and telephone lines deeper into the reaches of Brazil often came at the initiative of banks, in their efforts to improve the timeliness of their information.[73] Banks made the investments necessary to protect their risks in order to protect the third component of the creditors' cost: profits to bank shareholders. To shareholders, profits represented the return that they needed in order to commit their capital to the wealth-creating endeavors, and to absorb residual risks that would not disappear from banking, despite increasingly elaborate protective practices.

LEGAL PROTECTION OF PROPERTY; DEFAULTS

Bankers recognized that short-term exposure, collateral, credit management procedures, and information were not sufficient protection against their risks. Despite rigorous procedures, borrowers still defaulted on their debt obligations, either because bankers had misjudged circumstances or because of unpredictable changes in circumstance. Further, banks realized credit losses when the value of collateral was not sufficient to repay the full amount of credit or when the total capital of the defaulting company was less than its debts.

As a last resort, banks tried to rely upon the legal system to enforce their contracts. However, the system of legally defined property rights often compounded the effects of insecure credit. The legal system often jeopardized claims on financial property. Requirements of traditional real property, agricultural producers, and landowners defined the evolution of property rights.[74] Since the colonial period, property rights had developed to reflect the types of property transactions that were most prevalent, those governing land and agricultural production. Complex, and perhaps economically inef-

ficient, practices and law reflected the concerns of transferring and protecting rural, agricultural property. The uncertainty of claims on financial instruments offset the protections of banks' risk-minimizing procedures. Insecurity diminished the ability of banks to extend credit to risky new ventures.

Insufficient protection for the recovery of debt was a serious problem throughout the First Republic.[75] The laws and Commercial Code simply did not address issues involving financial property. The Commercial Code of 1850 (often amended and reformed in 1890), did not explicitly recognize most financial assets as property. Therefore, the characteristics and transferability of equity stocks, debentures, bank credit and deposits received no legal consideration. The lack of clarity in property law extended to the identification of financial assets, the means for declaring bankruptcy, the procedure for settling debts in a default liquidation, and the means for adjudicating ownership disputes in transfers of financial assets. For banks, these shortcomings resulted in increased aversion to risky lending because of the possibility that they would not be able to minimize the losses from a credit default.

In an important example, as late as 1929, current accounts (including bank accounts) had no legal definition. As a result, no consistent procedures were in place to close or settle current accounts in bankruptcy.[76] This had both legal and financial implications. No codified rules governed access to current accounts of bankrupted parties, impeding the settlement of ongoing transactions. It was unclear whether the bankrupted party could claim any funds from the accounts, despite the fact that the bankruptcy laws gave ownership to the creditors.[77] This ambiguity left open the opportunity to settle some transactions outside of the *pro rata* settlement process for all creditors in a bankruptcy case.[78] As a result, no legal basis existed to determine the distribution of financial assets and obligations arising from involuntary transfers of property, such as defaults, estate settlements, or even simple misunderstandings. The conservative attitude that banks had in accepting collateral on loans and the impressive extent to which banks went to avoid default proceedings against borrowers demonstrated the difficulties that bankruptcies entailed.

When extending credit, the most severe manifestation of risk was the bankruptcy of a borrower. Bankruptcy followed upon default of payment obligations. However, a default did not require that creditors declare a bankruptcy. Debtors could be in default on many, or even all, payment obligations for an extended period of time without having a bankruptcy declared. Any single creditor, bank or otherwise, could declare a borrower in default, thus putting the borrower, and all of his credit, in bankruptcy.[79]

Once bankruptcy was declared, the law required that all creditors settled their accounts jointly. Further, if liquidation of the bankrupted party's property settled less than half of the debts, resolving the bankruptcy and distributing remaining assets required unanimous agreement of all creditors. The law protected the role and the interests of the bankrupt party, sometimes in preference to those of creditors.[80] Early during this period, even the ability to declare a default on incorporated entities was questionable. The fact that no individual could be found responsible for the whole entity generated this indeterminacy.[81] The difficulties of liquidation procedures and the likelihood of losses seriously undermined the legal recourse that bankers relied upon to protect against risk.

Creditors recognized their weak position in bankruptcy proceedings.[82] As a result, banks made extreme efforts to avoid declaring defaults. They frequently continued credit to borrowers even while recognizing their deteriorating financial condition, and at times banks continued extending credit specifically in order to avoid a bankruptcy.[83] The tendency to continue credit in order to avoid bankruptcy may have been especially strong during the recession preceding World War I:

> A considerable number of failures occurred and more would have been forced but for the characteristic indisposition of Brazilian business men and foreign merchants engaged in business in Brazil to crowd their customers. . . . Interest rates, to be sure, have advanced, and the merchant pays for all the accommodation he gets. . . .[84]

A bank might become active in the management of a failing firm, in order to avoid declaring a bankruptcy. In one early instance, the Bank of London and Brazil engaged in transatlantic correspondence about the management of a failing textile company's practices of inventorying cotton.[85] In another, particularly graphic, example, the Bank of London and Brazil (and subsequently the Bank of London and South America) maintained an unhappy oversight and management role in the firm of coffee merchant P. J. Nicolson. Beginning in 1923, bank correspondence documents contentious negotiations that included the bank's vetoing the firm's reorganization plans, influencing its business plans, voicing decisive discontent with firm management practices, and threatening the firm with declaring an irresolvable default.[86] These unpleasant exchanges were transatlantic; they occurred in London and Brazil, over a period of years. Nevertheless, at least through 1929,[87] the bank avoided a situation that forced the company into bankruptcy.

Bankruptcy settlements suffered severe delays and difficulty because of the requirements of uniform action.[88] Unanimous agreement on liquidation procedures, and the likelihood of losses, seriously complicated the ability of bankers to protect against the risk of borrowers' defaults. When one creditor was determined to liquidate his position with a distressed debtor, another creditor could try to convince the first to not force a bankruptcy, or he could assume the first creditor's position. The experience of the Companhia de Tecidos de Botafogo provides a good example of the full range of activities a bank could employ to avoid the bankruptcy of one of its borrowers.[89] The Banco do Brasil first tried to persuade banks to not declare bankruptcy in order to avoid the default of the company in 1915. The efforts of a consortium of banks to avoid the company's bankruptcy faltered when the Bank of London and River Plate threatened to initiate proceedings. The Banco do Brasil then tried to acquire the company's debt. Ultimately the bank was willing to make an exception of its operating statutes to become a major shareholder in the firm. The Banco do Brasil's directors authorized the acquisition of up to 60 percent of the stock of Companhia de Tecidos de Botafogo at its original par value, rather than current depreciated market price.[90]

Banks found many resourceful ways to circumvent the need to act in concert during bankruptcy negotiations. In one case, the Bank of London and South America office accepted fifty cases of *goiabada* (guava paste) from a Pernambucan merchant "on condition that we do not embarrass the concordata" and that it be "kept strictly secret."[91] It is not clear what the bank did with the *goiabada.* (Unless the office staff chose to consume it, they would have marketed it to other merchants in an attempt to recover the value of the credit.) The transaction was clearly outside of the *pro rata* liquidation procedures. Later in 1929 the same bank used its private information on a distressed client in Pelotas, Rio Grande do Sul, to liquidate its credit prior to the announcement of an impending default.[92] These examples ought not suggest that the Bank of London and South America was more aggressive than other banks at circumventing bankruptcy negotiations. More likely, distance from higher-level management required written communication in matters that others may have preferred to leave undocumented.

During the severe recession of the late 1920s, resistance to "throwing good money after bad" became more pronounced. One of the largest banks published in its annual report: "The firms that are not punctual almost entirely do not merit the credit that had been conceded to them; and there is only advantage in their disappearance, although the losses they caused have been high."[93] The Banco do Brasil (at this period, without responsibilities as a monetary authority) was very specific to its shareholders that the bank was not jeopardizing its business during the recession. The bank reduced its willingness to renew or increase credit. Notably, it took physical possession of real estate acquired in defaults.[94] However, even during these conservative and contractionary years, the Banco do Brasil continued credit to avoid bankruptcies in specific instances,[95] while forcing failures in others.[96]

Bankruptcy laws and the Commercial Code were not amended during the First Republic to accommodate the difficulties presented by financial property.[97] To the extent that property law did not evolve to recognize new forms of ownership, it constrained the ability of financial instruments, such as bank credit and deposits, to represent ownership or indebtedness. Brazilian law did not recognize financial property until the monetary and commercial reforms of 1946, and it was only fully recognized with the banking reforms of 1964.[98] Under these circumstances, traditional, informal channels of credit, with their security based on personal relations, proved more certain and retained their advantages relative to bank borrowing. Traditional sources of funds may not always have allocated capital to its highest earning or most productive use. However, as long as social and personal relations were the primary channels for allocating capital, the constraints imposed by those relations served the same effective purpose as codified property law.

REGULATION

The inability or disinterest of state and federal governments to protect the property of banks extended beyond the concerns of bankruptcy. Ongoing bank regulation and oversight of business activities were slow to develop in Brazil. At the national level, the Treasury Ministry recognized early the desirability of maintaining a centralized oversight function for banks for the purposes of regulating monetary policy. The laws of public incorporation required that all corporations publish their balance sheets monthly in their local financial press; and they published audited semiannual financial reports with their annual reports to stockholders.

Regulations passed in 1918 mandated that banks report financial data to the Treasury.[99] The decree was only implemented in 1922, with the creation of the position of national banking inspector.[100] An earlier attempt, in 1907, to impose a reserve requirement of 15 percent on bank deposits went unenforced.[101] With the formation of the Banking Inspectorate, the Ministry was defensive about instituting any reporting requirements. The Treasury explicitly stated that the banking inspector did not require any

data in excess of the securities-exchange standards, and that the new regulations would give the Ministry enhanced abilities to track the activities of foreign banks.[102] It remains unclear how the Treasury enforced and maintained its regulations, and how it verified the reported data. Neither did the Inspectorate develop regulatory oversight to establish minimal standards of bank safety, such as responsive capitalization, during the First Republic. In essence, private-sector banks were left to determine, establish, and maintain their own credibility. For the public, such oversight could have provided valuable information about the viability of the banks themselves, easing decisions to deposit with or invest in specific organizations. Further regionally specific studies would illuminate whether state governments were more aggressive regulators of banks. But little suggests that to be the case. Parenthetically, it should be noted that such a situation could serve to reinforce the dominance of the Banco do Brasil and the state-owned banks, since their privileged positions with governmental authorities enhanced the perception that they would not be allowed to fail. Privately owned banks relied on more informal and less comprehensive procedures to convey such information to their clients and investors. From all perspectives, risk protection was an area in which the State did not involve itself in private-sector concerns.

CONCLUSION

By organizing banks, entrepreneurs took advantage of legal opportunities that limited their risks of diversification, and they established increasingly secure and depersonalized mechanisms of financing that subsequently could be applied broadly to wider groups of clients. Although the banks began from small and closely knit business networks, they paid close attention to establishing codified and routinized operating procedures. These procedures applied to all operations the banks undertook, providing the mechanisms to expand their interests and exposure beyond those of the original investors. Statutes specified permissible operations, collateralization requirements to protect the safety of individual transactions, management structure, and the distribution of profits. These means allowed banks to expand safely during the First Republic. By creating organizations that economic agents "knew," they established organizational structures that with time, confidence, and success could gradually expand their scope of operations. From the early twentieth century, banks policed and protected their property with increasing care. Specific management practices evolved for improving information about clients and economic expectations. These

tools allowed the safe expansion of banking in dynamic response to economic growth. As a result, contract-intensive money became more secure.

Even so, structural and legal constraints continued to hinder the effect of banking in private-sector development during the First Republic. Banks' continual and rigorous evolution of practices to ensure the integrity of contractual obligations created serious limitations. Efforts that banks undertook to mitigate their credit risks and enhance their legal protection constrained the extension of credit and imposed complicated and expensive procedures. Changes in management practices were more evident than improvement to the legal protection of bank property rights. The slow change in legal code and practices served as a constraint against more dynamic banking. The question arises: Why did these protections not develop? Two possibilities are that strong interests impeded the development of a dynamic banking system, or that the demand for bank credit was not yet sufficiently strong to merit substantive institutional and legal changes. No systematic evidence supports the hypothesis that specific interests impeded the development of the banking system in this regard. The second, and more likely, possibility suggests that traditional private financial channels often could continue to serve their original purpose effectively. While traditional small and closely aligned groups may have continued to serve the best interests of investors and entrepreneurs, much economic development theory considers them less than optimal for long-term development of capital markets.[103] Depersonalization proceeded slowly.

Notwithstanding these experiences, by the end of the 1920s, an appreciation of the symbiotic relationship between economic and banking well-being reflected the growing importance of banks. The financial community recognized that bank restraint was important in controlling financial crisis: "The failures in November [1928], although they affected a limited circle of businesses, provoked a general retrenchment. They caused much apprehension and losses to some banks."[104] But, at the same time:

> Had it not been for the calm, the proverbial honor, the secure action displayed by large firms and banks, the situation would have been much worse.
>
> The directors of many banks were quick to re-establish confidence. The retrenchment of the principal institution [the Banco do Brasil] imposed the expected prudent attitude.[105]

Its institutionalization was an important component of the confidence and prudence that the business community recognized by its increased use of the banking system. Banks both implemented standards of depersonal-

ized and decentralized practices and maintained the protection afforded by personal networks. They focused very intently on establishing their claims to ownership of assets and on determining the limits of their business when they could not protect their claims. They invested in the physical- and human-resource capabilities. These efforts manifested themselves in the evolving identification of acceptable client bases for banks, in the short-term and collateralized characteristics of their business transactions, and in the active development of professional skills. As a result, the contractual obligations, representing banks' business transactions, became increasingly secure. When banks confronted the competing institutional constraints that compromised their notions of property ownership, they both took protective measures and restrained their exposure to potential risks. The evolution and broader application of formal and informal criteria defining the institutional framework of the banking system allowed it to became more firmly embedded within the web of economic transactions.