Chapter 1

Capital Markets and Economic Development

São Paulo, Brazil, is the wealthiest and most economically developed region in Brazil and is the industrial leader of Latin America. The development of the state of São Paulo is widespread, but its spirit is most closely associated with the capital city, which shares its name and which was the original site of the state's famous industrialization. The city of São Paulo is a visual metaphor for capitalist development; it is a rambling metropolis, packed with skyscrapers and high-rise apartment buildings. A sprawling city like Los Angeles, São Paulo is far denser for being built up as well as out. Portions of São Paulo still resemble Los Angeles's 1920s bungalows and 1950s suburbs of single-family homes, but these are quickly being reconfigured into the high-rises more typical of New York City to accommodate both the housing needs and safety needs of the city's constantly expanding population. Its neighborhoods are far flung, distinct from one another, and linked by lengthy bus routes and snaking metro lines. It can take three hours to cross the city by way of its streets, which become notoriously clogged in frequent rainstorms.

The success of this industrial base has extended to the state of São Paulo, which houses most of the largest cities in Brazil. What were secondary or satellite cities for much of the twentieth century, Campinas, Ribeirão Preto, São José dos Campos, among others, are growing industrial cities in their own right. The prestigious University of São Paulo has begun establishing

campuses in hinterland cities, much like the University of California system spread throughout that state, a sure testament that the growing vibrancy of economic life has spread beyond the state's capital city. These universities and think tanks compile data and generate the indexes that take the pulse of the nation's well-being. São Paulo's commercial and industrial associations are among the most vocal and influential economic lobbyists in Brasília, the nation's capital. The state of São Paulo is the heart of the nation's economic power and consciousness.

This first-world image stands in sharp contrast to the unflattering stereotypes often associated with the rest of Brazil. Brazilians are portrayed, even by other Brazilians, as a sun-worshiping, work-averse population ruled by patronage and reciprocal obligation rather than the economic relations of the market. São Paulo is the recipient of masses of the destitute and underprivileged that pour out of the Northeast every year in search of a fair shake and a real job. This characterization of a wealthy, indifferent, spoiled Northeastern elite, popularly criticized for turning a blind eye to the misery around it, sits uncomfortably with the Paulista population.[1] Residents of São Paulo state feel their hard work should set them apart from the problems of poverty and underdevelopment that plague the Northeast and the interior. It is not uncommon to hear the opinion expressed that if only São Paulo could distance its fortunes from the backward "country" to the north, it would be free to realize its full potential. An independent São Paulo would claim its rightful place in the first world.

São Paulo's modern fortune, famed entrepreneurial drive, and phenomenal industrialization experience all grew out of the coffee boom of the late nineteenth century. Coffee had arrived in Brazil in the eighteenth century, but was produced on a large scale for export only in the nineteenth. Once international demand proved to be strong, coffee plantations quickly expanded to satisfy it. Coffee was so well suited to the local conditions that by 1831 it had surpassed sugar as Brazil's principal export.[2] Initially established in Rio de Janeiro, coffee plantations spread ever south and west in search of new fertile soils as world demand grew. In what is now considered a fateful moment in Brazilian economic history, coffee jumped the border from Rio into the Province of São Paulo, as the state was known under the Empire, where it achieved its fullest expression. Rich red soil, perfect rainfall, and cheap and abundant land attracted planters who had tried their hand at other crops with varying success. In coffee they found their fortune. Expanding demand in the European market, demand fueled by rapid urbanization and rising incomes, meant that Brazil could sell all it planted. With no real com-

petition from anywhere else in the world, São Paulo dominated Brazilian and international coffee production by the turn of the twentieth century.

As late as 1880, however, this region showed no signs that it would become the economic center of the country. São Paulo had been a virtual backwater in the nineteenth century, sparsely populated and better known for its middling quality cotton and sugar and its highway robbers than for its currently renowned entrepreneurial spirit. Although modern-day Paulistas speak proudly of a distinguished heritage going back four hundred years, most of their ancestors arrived in the eighteenth century and were hardly noble. The majority were subsistence farmers existing on the margins of a mule train path carved between Rio Grande do Sul in the south and Minas Gerais to the northwest.[3] As late as the arrival of the Portuguese Court to Brazil in 1808, the province of São Paulo was relatively poor.

The inauguration of the Santos-Jundiaí Railroad in 1867 opened up the Paulista West to large-scale coffee production for the first time by connecting hinterland to port. This new line, and the domestic railroad development it spurred, acted as a great stimulus to commercial agricultural production by extending the viable frontier for coffee production well into São Paulo's vast and fertile interior.[4] The number of coffee trees that were planted grew fivefold in the last two decades of the nineteenth century. By the turn of the twentieth century, the state of São Paulo alone was contributing over half of the world supply of coffee.[5] São Paulo's coffee production had become so huge that this single crop from this single region generated some 40 percent of the total value of Brazilian exports by the early twentieth century. These export earnings contributed to a breakaway sprint in income per capita gains in the southeast region of the country, creating many a coffee baron out of the marginal Paulista planters, while the sugar-producing Northeast lay behind in the dust.[6]

The meteoric rise in São Paulo's wealth was remarkable on its own but has become almost legendary by the additional fact that this fortune was just as quickly reinvested in a variety of other sectors that turned out to provide the basis for São Paulo's enduring economic development. Unlike any crop that came before it, coffee increased the volume and pace of export business, created demand for agricultural machinery and implements that stimulated domestic machinery and metalworking, drove domestic textile production by needing millions upon millions of jute sacks for the beans, and stimulated infrastructure investment throughout the state. By 1920, São Paulo had surpassed Rio de Janeiro as the industrial leader of Brazil and by 1940 had established the largest industrial base in Latin America.[7] In a demonstration of

good fortune experienced by almost no other export economy, São Paulo transfigured its economy from a primarily agricultural one to a predominantly industrial one, with lasting effects for its population. Coffee, then, generated both wealth and development.

A central question in Brazil's economic history is how São Paulo came to industrialize so quickly and dominate so thoroughly the Brazilian economy. After all, coffee was not Brazil's first important export crop nor its last. Sugar before and rubber after both failed to transform their respective regions with the breadth and depth of the coffee economy. The unusual experience of the coffee economy led to a series of scholarly inquiries into the relationship between agriculture and industrial development. The most important and well known of the industrialization studies identified what came to be know as the "coffee complex," a series of links between coffee and the broader regional economy that both stimulated and reinforced the development process. One of the first books to study the link between coffee and development was Warren Dean's 1969 work, *The Industrialization of São Paulo, 1880–1945*. In it Dean argued that the powerful alliance of modern-minded coffee planters and entrepreneurial immigrants came together to generate the industrial base on which the region would build its fortune. Immigrants, principally from Italy, brought with them their knowledge of machinery works and applied this industrial knowledge to the problem of coffee cultivation. Over time, they married into planter families and reinforced a willingness to diversify proceeds from the coffee business into other channels.

It is notable that the majority of these channels related directly to the coffee business, such as metalworking and machinery companies that produced agricultural implements, chemicals firms that produced synthetic insecticides, drying and roasting plants that prepared coffee for the market, and textile firms that wove rough sacks to ship the coffee beans. The demand for inputs for the coffee business created a segue into industry and eventually created a base for future diversification. By the 1920s, industrialists were a class apart from the planters and lobbied for economic representation and protection that no longer coincided with the interests of their planter relations. This, Dean argued, was a critical step in consolidating a separate industrial base.

Dean's work shook up the traditional Brazilian historiography on economic development because Brazil's leading economic historians had asserted that export agriculture and industry were separate beasts, incompatible and in constant struggle with one another. The accepted wisdom had held that industry only emerged when the export economy was disrupted and the country was left with little else but to turn inward and develop its

other sectors.[8] After Dean identified the symbiosis between the agricultural and industrial interest groups, rather than the presumed antagonism, other scholars took up the question of coffee-driven development. Some searched for the origins of the imbalance in regional fortunes Brazil has experienced in the nineteenth century, both to understand São Paulo's development success and to explain other regions' failures.[9] Others examined the question of whether a late developer, even a successful one like São Paulo, could really have a complete development experience given that it was competing against North Atlantic economies in an industrialized world with only coffee beans as its leverage.[10]

Regardless of the underlying questions they asked, these works all examined the characteristics that contributed to São Paulo's transition from agriculture to industry. Dozens of researchers attributed this development to one or many factors that included the introduction of a wage-labor (therefore consumer) class, the construction of a regional transportation network, the development of commercial facilities such as warehouses, and the mastery of simple industrial processes such as toolmaking and cloth weaving to supply the coffee trade.[11] A vigorous and entrepreneurial planter class, first identified in Dean and seconded by virtually every subsequent work, took the lead in the regional economy and nurtured these new economic sectors. These planters invested their progeny and their money in a broad range of activities, from import firms and warehouses to tool and textile manufacturing facilities, to both profit from the expanded chain of transactions and to protect their assets from overexposure to the vagaries of weather and soil conditions. São Paulo emerged from this scholarly flurry as the stellar example of economic diversification and development.

The curious thing about this body of research is that while it generally agreed that a strong link between coffee and industry was responsible for São Paulo's development, it placed little emphasis on the institutional mechanisms that allowed a link to form in the first place. How, for example, did planters "transform" their coffee wealth into industrial wealth? How was capital mobilized to build the transportation networks and other infrastructure that lined planters' pockets while benefiting the larger regional economy? How did entrepreneurs, responding to the growth in economic activity, marshal the resources to turn an idea for a coffee-related product into a working factory?

In the context of the industrialization studies, this transformation was the result of a progression presumed to be so natural that it required no explanation and exhibited no specific institutional features. In fact, I argue that this transformation occurred as the result of a very real set of institutions that

evolved during the coffee boom and early industrialization—the capital markets. This book examines the emergence, development, and diversification of capital market institutions from their earliest, highly personalistic forms through the coffee boom and bust, to maturity in the early twentieth century. I argue that the diversification of the capital markets in São Paulo, conditioned by government regulatory legislation, provided crucial mechanisms through which the abundant wealth generated by the coffee boom wound its way into the urban commercial and industrial companies that transformed São Paulo.

Capital markets are institutions or arrangements that bring together buyers and sellers seeking a similar product, money. Like any other type of marketplace, capital market institutions provide a place where people looking for capital can find it, and where people who have surplus capital can make it available for others to use. We routinely use these institutions every day. From banks and stock exchanges to check-cashing stores and wealthy relatives, capital markets gather loose change from a broad range of places. In their scattered form these funds would probably be insufficient to finance a large loan, but when they are consolidated by capital market institutions they can finance big-ticket acquisitions, from cars and vacations to machinery and factories.

Capital market institutions historically have been critical to the process of economic development. In their absence, or before their emergence, the ability of a society to mobilize its resources for productive gain was limited to the size of its immediate good fortune. If a society was lucky and produced a surplus, its savers could pool their resources and lend them out for productive use. But this sort of primitive capital market was fraught with difficulties. Because the savings of any individual would likely be insufficient to fund a larger investment project, many individual savers would have to agree upon the best use of their funds. If a particular individual was well-off and predisposed to lending out a portion of his or her money, the decision-making process would be dramatically simplified, but access to these funds would likely be made available only to known neighbors, relatives, and business contacts. In the days before the emergence of formal financial intermediaries, then, access to a community's resources depended on the goodwill and business intentions of the savers. Lending was based on personal connections and was limited by the willingness of the lender to assume risks. Information and trust were paramount.

The advent of modern financial institutions, the most common of which are banks and securities exchanges, broke the constraints of traditional society. No longer were individuals, whether agriculturalists or entrepreneurs,

limited to their personal web of connections to raise funds. They could go to a bank and tap the resources of savers they never met, or go to the stock market with an idea and a little seed money and raise capital from investors in another community entirely. By drawing in resources from a broad pool of savers and by making these resources available to investors, these formal capital market institutions freed the process of development from the constraint of a community's immediate resources and facilitated the essential mechanism that fosters economic growth and development: the investment in new or better or more productive activities and techniques.[12] Formal or impersonal intermediaries are more efficient and more effective than personal intermediaries at promoting economic development, though personal and impersonal intermediaries can and do coexist.

The transition from one type of intermediary to the other, from personal to institutional, has to do with what economic sociologists identify as the production of trust, a cousin to what economists call information costs.[13] This approach argues that institutions form and change in response to alterations in social variables, such as the level of familiarity between parties involved in economic exchanges. When communities are small and economic transactions are stable in number and in agents, interactions will likely be based on some personal connection. Parties involved in an economic exchange will have some knowledge of a business or an entrepreneur based on past experience with them or based on some shared personal characteristic, such as a family tie or a shared cultural background.

Under conditions of rapid change, however, the personal relationships on which social and economic interactions rely can break down. In this case, something must take the place of the personal relationships. Economic sociology posits that the stress of a rapidly growing economy will replace personal forms of intermediation typical of traditional economies with increasingly formal, institutional relationships. In this scenario, institutional forms of trust, like the existence of a regulatory board, can facilitate economic exchange. Institutional forms of trust prevail because some objective measure will substitute for personal knowledge to signal the trustworthiness of the parties to an exchange.[14]

The Evolution of Financial Institutions in Europe and Latin America

Capital market institutions, like other types of social and economic arrangements, combined personal and formal mechanisms of trust based on the size and financial requirements of the communities they served. Before the eighteenth and nineteenth centuries, when the banks and exchanges that

dominate the modern capital markets became more common, a variety of private capital market institutions operated to satisfy the demand for money. These private markets all shared the feature of being based on some personal relationship with the parties involved, in which personal reputation facilitated borrowing.

In early modern France, for example, notaries created an important capital market by bringing together savers and borrowers drawn from their clientele.[15] The notaries' intimate knowledge of their clients' economic lives, and their trustworthiness, put them in the ideal position of having access to a broad pool of funds and a wide network of potential borrowers. Notaries placed the surplus funds of some of their clients in long-term loans to others of their clientele, and appear to have provided the only significant source of funds for domestic credit. Moreover, the notarial connection was personal, but the saver/borrower connection was not. Like modern institutions, the notary eliminated the constraint of savers and borrowers knowing each other long before formal banks or exchanges were common.[16]

The Catholic Church acted as another type of informal financial intermediary. Because it was one of the wealthier institutions in the early modern world, thanks to its resources flowing from landed estates, dowries of religious personnel, donations, and tithes, it was a natural source of lendable funds to domestic enterprise and consumers. That the Church was an important creditor in the early modern world is widely recognized as ironic since the Church had laws against usury, which prohibited lending money at interest. But the Church, as well as good Christian businessmen, found ways around usury laws that smoothed the functioning of capital markets through the ages. Italian bankers, for example, dealt not in loans but in contracts or letters of exchange. The business transactions we would call "credit" became recast as a simple agreement between two parties. Moreover, the Church defined usury as any interest rate above the prevailing market rates. These semantic twists allowed them to make money on earth and preserve their place in heaven at the same time. As the market economy expanded in the twelfth century, the Church shifted away from a literal interpretation of usury to accommodate the new flows of credit without condemning entire sectors of society to damnation.[17]

Merchants were the greatest beneficiaries of the Church semantics because they were by far the most important financial intermediaries in the early modern period. For centuries, they had worked out ways of accommodating their clients with credit instruments in order to take advantage of the new luxury goods coming out of the Orient and the specialized manufactures that were flourishing throughout Europe.[18] Merchants had long

contributed to economic activity by facilitating the circulation of goods and services by carting regional products to established fairs and trading cities. In these locations they hammered out rough credit mechanisms that worked around the problems of multiple currencies and the settlement of imbalanced accounts. By the fifteenth century, interregional trade was becoming "incorporated," as merchants associated themselves with a particular firm or series of correspondents to acquire better information about the market as well as to spread risk. With the vast new overseas trade routes opened as a result of the fifteenth- and sixteenth-century voyages of discovery, merchant credit practices were standardized in what has been termed by a leading scholar as "the first financial revolution."[19] The standardization of credit vastly improved the possibilities for trade and exchange on the international front.[20]

Merchant credit was different from notarial or Church credit because it was primarily directed toward long-distance trade rather than the commercial or consumer uses that are associated with domestic economic development. Still, the standardization of financial practices that helped expand trade after the sixteenth century had a direct impact on the growth and development of the domestic economy. First, the standardized letters of credit that emerged from this revolution were transferable and over time took on the role of money, creating liquidity in the economy. Second, and arguably more important, the expansion of trade affected the domestic economy by transmitting international demand to local productive markets. The ease of international trade and finance made it ever more possible to produce goods in one region or country and sell them to another place altogether. This process was a boon to the putting-out system in Europe, in which merchant-entrepreneurs organized networks of cottage producers into a sort of production line to assemble products for sale outside the immediate village. Problematic though it was, the putting-out system was an important precursor to the Industrial Revolution.[21]

In Latin America, as in Europe, Church credit and merchant credit provided important financial resources for the domestic economy. The Catholic Church was the single largest lending institution in the colonial era. One particularly lucrative type of loan for the Mexican Church was a mechanism known as the *censo*, an ecclesiastical mortgage that put up a landed estate as collateral against a long-term line of credit. Because the *censo* was granted in perpetuity, landowners had both their landed asset and liquidity, as long as they made the interest payments on time, about 5 percent of the value of the loan.[22] Brazilian religious orders lent money in much the same way, earning significant portions of their income from the extension of credit.[23]