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Laws vs. Contracts: Legal Origins, Shareholder Protections, and Ownership Concentration in Brazil, 1890–1950

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Abstract

The early development of large multidivisional corporations in Latin America required much more than capable managers, new technologies, and large markets. Behind such corporations was a market for capital in which entrepreneurs had to attract investors to buy either debt or equity. This paper examines the investor protections included in corporate bylaws that enabled corporations in Brazil to attract investors in large numbers, thus generating a relatively low concentration of ownership and control in large firms before 1910. Archival evidence such as company statutes and shareholder lists document that in many Brazilian corporations voting rights provisions, in particular, maximum vote provisions and graduated voting scales (that provided for less than proportional votes as shareholdings increase), balanced the relative voting power of small and large investors. In companies with such provisions the concentration of ownership and control is shown to have been significantly lower than in the average company. Overall, from the sample of Brazilian companies studied it seems like the concentration of control was significantly lower before 1910 than what it is today.

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Introduction

The early development of large multidivisional corporations in Latin America required much more than capable managers, new technologies, and large markets. Behind such corporations was a market for capital in which entrepreneurs had to attract investors to buy either debt or equity. This paper examines the investor protections included in corporate bylaws that enabled corporations in Brazil to attract investors in large numbers, thus generating a relatively low concentration of ownership and control in large firms before 1910.

The main argument of the paper is that the development of equity markets at the turn of the twentieth century in Brazil required companies and their founders to be willing to offer protections to outside shareholders, especially small investors, in order to encourage them to buy equity. When these protections were included, they reduced agency costs and guaranteed small investors they would have certain protections against the possible abuses of large investors or other insiders. These shareholder protections are an important consideration because, according to the theory of the firm as stated by, for example, Jensen and Meckling, outside investors risk extraction or expropriation of value by a company's managers and insiders.[1] How to mitigate that risk through contract provisions that afford outside investors some degree of security has for several decades been a topic of debate among academics and practitioners interested in corporate finance and corporate governance.

According to Jonathan B. Baskin and Paul J. Miranti, Jr., it was not until companies resolved this agency problem through contractual arrangements that the basic problem of information asymmetry between insiders and investors that early corporations were able to induce outside investors to buy securities on a large scale. According to these authors,"differences in goals and access to knowledge frequently

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[1] Michael C. Jensen and William H. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics* 3-4 (October 1976): 305–360.

placed investors at a disadvantage in dealing with their corporate agents." They argue that "investor wealth, for example, could be threatened either by corporate agents' opportunism or, in the extreme case of moral hazard, by dishonesty," adding that "such risks could be diminished by more effective contracting." They saw the solution not in national legislation, but in liens secured against enterprise assets, in the case of bonds, or incentive compatible contracts that accommodate outside investors' monitoring of agents through the creation of boards of directors or, ultimately, improvements in financial reporting.[2]

Yet lately the focus of that debate has shifted away from firms and contracts to national differences in the extent to which national company laws protect shareholders. A large body of scholarly work known as the law and finance literature maintains that companies can enact bylaws that mitigate abuses by managers and other insiders, but that including such protections results, especially in developing countries, in contracts that are exceedingly complex and difficult to enforce (because judges are not trained to interpret and enforce such contracts). For this reason, according to this literature, what matters most for equity market development are investor protections written into national company and securities laws that, by imposing a degree of standardization upon them, make corporate charters easier to enforce, and, indeed, research has found equity markets to be more developed in countries that have legislated more shareholder protections.[3] In fact, it turns out that countries that follow the common law legal tradition currently provide stronger protections for investors than countries that follow any of the three civil law legal families (French, German, and Scandinavian).[4] Among the implications of these findings are (1) that investor protections in national laws

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[2] Jonathan B. Baskin and Paul J. Miranti, Jr., *A History of Corporate Finance*, Cambridge and New York: Cambridge University Press, 1997, especially p. 6. See also Jonathan B. Baskin, "The Development of Corporate Financial Markets in Britain and the United States, 1600-1914: Overcoming Asymmetric Information," *The Business History Review* 62-2 (Summer, 1988), pp. 199-237. The latter paper lays out the basis of the main idea behind Baskin's book with Miranti.

[3] Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, "Legal Determinants of External Finance," and "Law and Finance."

[4] See, for instance, Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, "Law and Finance," Tables 2 and 4.

matter for the development of capital markets, and (2) that the legal tradition a country follows has a bearing on the kind of investor protections it can provide and exerts a long-term effect on the development of equity markets in the country.

Using historical evidence on shareholder rights included in corporate charters and ownership concentration this paper questions the both of these ideas. In particular, the idea that differences in legal systems really impose clear differences in investor protections and financial development in the long run. This deterministic argument should make us feel rather uncomfortable when looking at history over long periods of time given that it implies strong-path dependence and provides little room for changing circumstances over time. What if things were different a hundred years ago? This is why this paper suggests that more historical research is needed to determine to what degree the national institutional environment is truly determined by legal origin and to what extent it constrains corporations from devicing their own contracts to solve the main principal agent problem. The company-level evidence from Brazil shows that both legal tradition and the national regulatory regime are not necessarily binding. On the contrary, companies and their shareholders can overcome adverse institutional environments by devising contracts that include protections for small shareholders, as long as there is a basic regulatory framework that guarantees some of those protections will be enforced by the judicial system.

Evidence against the idea that legal traditions adopted hundreds or decades ago determines a natural ordering of countries in terms of legal protection for investors and the development of equity markets is now growing rapidly. We know, for example, from Rajan and Zingales, that German and French civil law countries had larger equity markets than their common law counterparts circa 1913.[5] More recent research shows that in the United States corporate governance practices were less protective of small

[5] Raghuram Rajan and Luigi Zingales, "The Great Reversals: The Politics of Financial Development in the 20th Century," *Journal of Financial Economics* 69 (2003): 50.

shareholders in the past than today.[6] Indeed, substantial variation in corporate governance practices and regulations has been documented over time and across states in the nineteenth-century United States, and recent papers by Leslie Hannah report significant variation in corporate governance practices worldwide circa 1900, many quite different from what we observe today.[7,8]

This paper shows that between 1890 and 1910 Brazilian corporations and their founders were able to attract outside investors and maintain concentration of ownership and control at relatively low levels by including in their corporate statutes provisions that limited the power of large shareholders. Archival evidence such as company statutes and shareholder lists document that in many Brazilian corporations voting rights provisions, in particular, maximum vote provisions and graduated voting scales (that provided for less than proportional votes as shareholdings increase), balanced the relative voting power of small and large investors. In contrast, investor protections embedded in national laws are shown not to have been necessary for the early development of equity markets in Brazil. But even if such provisions were not included in national legislation, as was the case in some states in the United States in the nineteenth century, investor protections in Brazil did not exist in a void of national

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[6] See Naomi Lamoreaux and Jean-Laurent Rosenthal, "Corporate Governance and the Plight of Minority Shareholders in the United States before the Great Depression," in Edward Glaeser and Claudia Goldin (eds.), *Corruption and Reform*, Chicago: University of Chicago Press, 2006, pp. 12152, and Leslie Hannah, "The Divorce of Ownership from Control from 1900: Re-calibrating Imagined Global Historical Trends," *Business History* 49-4 (July 2007): 40438. For a discussion of how ownership was more highly concentrated in the past than today, see Kenneth Lipartito and Yumiko Morii, "Rethinking the Separation of Ownership from Management in American History," mimeo, Johns Hopkins University, 2007.

[7] For the history of voting rights across states, see Colleen Dunlavy, "From Citizens to Plutocrats: 19th-Century Shareholder Voting Rights and Theories of the Corporation," in Kenneth Lipartito and David B. Sicilia (eds.), *Constructing Corporate America: History, Politics, Culture*, Oxford: Oxford University Press, 2004, pp. 66-93, and "Corporate Governance in Late 19th-Century Europe and the United States: The Case of Shareholder Voting Rights," in Klaus J. Hopt, H. Kanda, Mark J. Roe, E. Wymeersch, and S. Prigge (eds.), *Corporate Governance: The State of the Art of Emerging Research*, Oxford: Clarendon Press, 1998, pp. 5–39. Corporate governance practices in early Ante-Bellum New York are explored in detail by Eric Hilt, "When Did Ownership Separate from Control? Corporate Governance in the Early Nineteenth Century," NBER Working Paper 13093, May 2007.

[8] Leslie Hannah, "Pioneering Modern Corporate Governance: A View from London in 1900," *Enterprise & Society* 8 (September 2007): 642-686, and "The Divorce of Ownership From Control from 1900: Re-calibrating Imagined Global Historical Trends."

legislation.[9] Brazilian legislation helped small investors monitor firms' activities by mandating regular disclosure of financial accounts, including full disclosure of directors' compensation, and providing strict penalties for fraud during initial public offerings (IPOs) of stocks and bonds.

The case of Brazil is particularly interesting because, in Latin America before World War I, it boasted the second largest equity market and largest number of traded companies (even when normalized by size of country).[10] This is puzzling given that the country supposedly has one of the worst possible institutional inheritances of the Americas. A Portuguese colony, Brazil became a catholic country that embraced the French civil law tradition, two institutional features that have been linked to small financial markets and weak investor protections.[11] High mortality among Portuguese settlers and a high proportion of natives (later slaves) to settlers have also been linked to

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[9] Colleen Dunlavy argues that mandatory maximum vote provisions and graduated voting scales included in state company laws in the United States in the middle of the nineteenth century created a more democratic (her word is plutocratic) voting system that constrained the proportion of votes that could be controlled by any large shareholder during shareholder meetings. See Colleen Dunlavy, "From Citizens to Plutocrats: 19th-Century Shareholder Voting Rights and Theories of the Corporation," and "Corporate Governance in Late 19th-Century Europe and the U.S.: The Case of Shareholder Voting Rights."

[10] Arguably Cuba had the largest equity market in Latin America circa 1913, yet the number of corporations traded was very small. Also, Raghuram Rajan and Luigi Zingales estimate that in 1913 the stock market capitalization to gross domestic product (GDP) ratio for Brazil was 25%, and for both Argentina and Chile, 17%. The author estimates that in that year Rio de Janeiro had 335 listed corporations, São Paulo 145 (excluding cross-listings), giving for the number of traded companies per million people 20.8 (assuming a population of about 23 million). Rajan and Zingales' estimates of that ratio for that year were for Argentina 15.29, for Chile, 20.62, and for Cuba, 12.69. (See Raghuram Rajan and Luigi Zingales, "The Great Reversals: The Politics of Financial Development in the 20th Century," *Journal of Financial Economics* 69 (2003): 50, Tables 3 and 5, and Aldo Musacchio, "Experiments in Financial Democracy: Corporate Governance and Financial Development in Brazil, 1882–1950," unpublished book manuscript, Harvard Business School, December 2007, Tables 3-5 and 3-9.)

[11] On the relationship between religion and financial development, see René M. Stulz and Rohan Williamson, "Culture, Openness, and Finance," *Journal of Financial Economics* 70 (2003): 313–349; for the relationship between legal origin, investor protections, and financial development, see Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, "Legal Determinants of External Finance," *Journal of Finance* 52-3 (1997): 1131-1150, and "Law and Finance," *Journal of Political Economy* 106-6 (1998): 1113-1155.

weak rule of law.[12] In marked contrast to the period examined here, Brazil today does have weak rule of law, weak investor protections, and high ownership concentration.

A Quick Look at the Recent Literature on Shareholder Protections

An influential series of papers known as the law and finance literature argues that minority shareholders are afforded protection by a basic set of principles, or rights, embodied in corporate laws with which companies are obliged to comply. Smaller investors are presumed to be encouraged by these protections to participate in the ownership of corporations, thereby deepening equity markets.[13]

According to La Porta et al., the basic set of small investor protections incorporated in national company laws should include voting rights for all shareholders (specifically, one-share, one-vote provisions) and six other six protections. They create an index of shareholder protections based on how many of these six protections were included in a nation's company laws. The provisions are (1) proxy voting, whereby shareholders absent from shareholder meetings are permitted to vote, (2) that shares not have to be deposited before shareholder meetings (some companies required this to prevent shareholders from selling their equity for several days after a meeting), (3) cumulative voting or proportional representation whereby minority shareholders can elect board members, (4) the right of minority shareholders to challenge directors and assembly decisions in court, or the option to sell their holdings and end their participation in the firm in the event of disagreement with a managerial or assembly decision, (5) shareholders' first right to purchase new stock to prevent their share of the

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[12] Daron Acemoglu, Simon Johnson, and James Robinson, "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review* 91 (2001): 1369-1401. In a less deterministic fashion, Stanley Engerman and Kenneth Sokoloff proposed that the initial endowments of the region mattered for long-term development. For them, places with high ratios of natives or slaves to colonizers that relied on large-scale agriculture (e.g., plantations) usually ended up with weaker institutions and weak rule of law. See, for example, Stanley Engerman and Kenneth Sokoloff, "Factor Endowments, Institutions, and Differential Paths of Growth," in Stephen Haber (ed.), *Why Latin America Fell Behind*, Stanford: Stanford University Press, 1997, pp. 260–304.

[13] See Rafael La Porta, Florencio Lopes-de-Silanes, Andrei Shleifer, and Robert Vishny, "Legal Determinants of External Finance."

company from being diluted in the event the assembly decides to expand total equity, and (6) that the percentage of capital needed to call an extraordinary meeting be less than or equal to 10%.[14] Coding countries according to how many of these protections were accorded by national laws in 1995, the authors found the countries with greater numbers of protections to have larger equity markets (and higher numbers of corporations traded) and the extent of these protections to be highly correlated with the legal tradition a country follows, leading them to conclude that "because legal origins are highly correlated with the content of the law, and because legal families originated before financial markets had developed, it is unlikely that laws were written primarily in response to market pressure."[15] Their assertion is thus that a country's level of investor protections is determined by the legal tradition it follows.

But historical evidence presented by recent research suggests that investor protections were not necessary for the development of equity markets. Julian Franks, Colin Mayer, and Stefano Rossi found that Great Britain's stock markets evolved rapidly after 1890 despite the lack of shareholder protections in national laws. Franks, Mayer, and Hannes Wagner reach similar conclusions in their work on Germany, which developed a significant equity market after 1930 without the benefit of shareholder protections in its national laws. In the case of Germany, banks substituted for explicit legal protections by intermediating between investors and companies and thereby providing the protection and trust needed to quell investors' fear of fraud by company directors and founders.[16]

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[14] The methodology to estimate the index of shareholder rights comes mostly from Rafael La Porta, Florencio Lopes-de-Silanes, Andrei Shleifer, and Robert Vishny, "Law and Finance," Tables 1 and 2.

[15] See Rafael La Porta, Florencio Lopes-de-Silanes, Andrei Shleifer, and Robert Vishny, "Legal Determinants of External Finance," p. 9.

[16] For the case of Great Britain, see Julian Franks, Colin Mayer, and Stefano Rossi, "Ownership: Evolution and Regulation," Institute of Finance and Accounting Working Paper FIN 401, London Business School, 2004, pp. 3-4. The German case is discussed in Julian Franks, Colin Mayer, and Hannes F. Wagner, "The Origins of the German Corporation--Finance, Ownership and Control," *Review of Finance* 10-4 (2006): 537–585. Similar arguments about the role of banks in corporate governance in Germany are offered by Caroline Fohlin, "Does Civil Law Tradition and Universal Banking Crowd Out Securities Markets? Pre-World War I Germany as a Counter-Example," *Enterprise & Society* 8-3 (September 2007):

Finally, Eric Hilt's research on early New York corporations reveals that corporate bylaws often provided important protections to small investors in the form of voting provisions that limited the power of large shareholders. Dunlavy also argues that voting rights matter and that company laws in certain U.S. states protected shareholders more when they included mandatory graduated voting scales (i.e., fewer votes per share as shareholdings increase). Yet those protections disappeared after the 1880s as many of the most industrialized US states began to mandate one-share, one-vote provisions. In fact, even if the U.S. is the stereotypical case of a country with strong shareholder protections today, and with some relatively good practices in the earlier part of the nineteenth century, Naomi Lamoreaux and Jean Laurent Rosenthal find protections for minority shareholders to have been relatively weak during the late nineteenth and early twentieth centuries in the United States, using an extensive set of court cases to show that directors and large shareholders "engaged in a variety of. actions from which they benefited at the expense of their associates."[17]

Investor Protections in Brazil

Table 1 presents the rights embodied in Brazil's joint-stock company laws between 1882 and 2001, following the methodology of La Porta et al. The index of shareholder rights on paper (i.e., the anti-director rights index in the bottom row) sums the number of shareholder rights they deem relevant to the development of equity markets that are present in national laws. According to this measure, Brazilian shareholders enjoyed little protection against directors' abuses before 1940, precisely the time when equity markets first peaked in that century. Only two relevant shareholder

602–641; and Jeffrey Fear and Christopher Kobrak, "Diverging Paths: Accounting for Corporate Governance in America and Germany," *Business History Review* 80-1 (2006): 1-48, and "Banks on Board: Banks in German and American Corporate Governance, 1870-1914," mimeo, Harvard Business School, May 2007.

[17] See Eric Hilt, "When Did Ownership Separate from Control? Corporate Governance in the Early Nineteenth Century"; Colleen Dunlavy, "Corporate Governance in Late 19th-Century Europe and the U.S.: The Case of Shareholder Voting Rights," p. 28; and Naomi R. Lamoreaux and Jean-Laurent Rosenthal, "Corporate Governance and the Plight of Minority Shareholders in the United States before the Great Depression," p. 147.

protections were binding on all corporations in Brazil until 1940. From 1882 until 1891, all corporations were required to allow proxy voting and were not permitted to require shareholders to deposit their shares before assemblies. When the latter right was withdrawn in 1891, shareholders in possession of bearer shares were required to deposit them with the company and register their names in order to vote in shareholder meetings. This provision was not properly against shareholders, but rather a way to maintain a registry of who was to vote in shareholder assemblies.

Table 1 Shareholder Rights in Brazil, 1882–2001

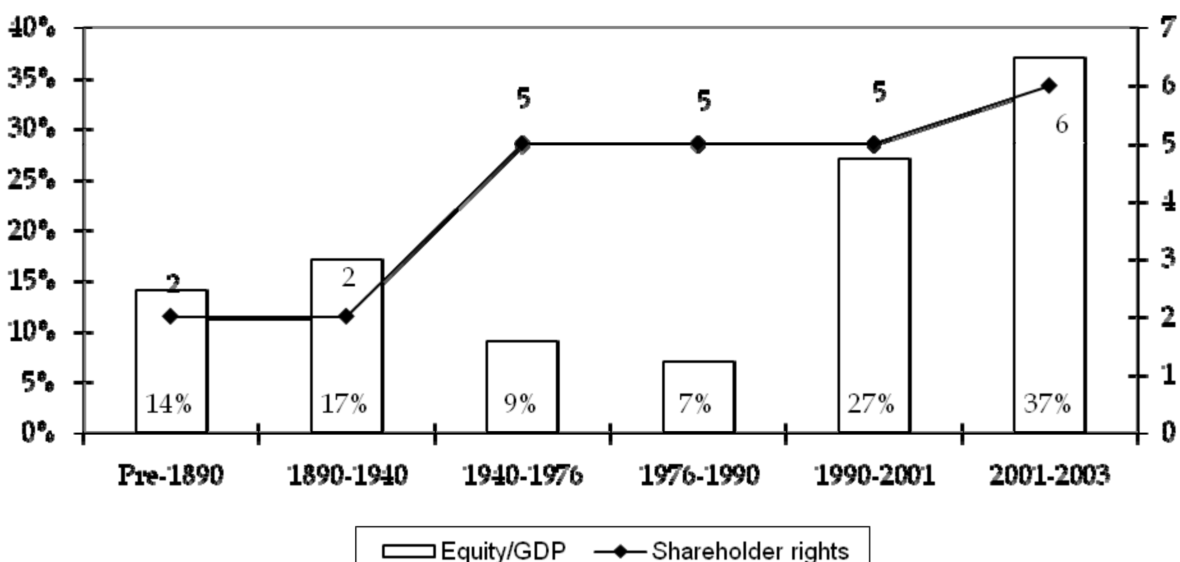
	Brazil						
	1882	1890	1891	1940	1976	1995[a]	2001
Proxy voting	1	1	1	1	1	0	1
Shares not blocked before meeting	1	1	0	1	1	1	1
Cumulative voting or proportional representation	0	0	0	1	1	0	1
Provision for minorities to challenge directors' decisions[b]	0	0	1	1	1	1	1
Shareholders have first right to buy new stock	0	0	0	1	1	0	1
Capital needed to call an extraordinary meeting is less than or equal to 10%	0	0	0	0	1	1	1
Anti-director rights index [c]	**2**	**2**	**2**	**5**	**6**	**3**	**6**

Notes: [a] 1995 rights follow the classification of La Porta et al., "Law and Finance," Table 4.
[b] Withdrawal rights (right of a shareholder to walk away with a fair share of total equity) were temporarily suspended between 1997 and 1999.
[c] The anti-director rights index sums the number of shareholder rights included in existing company laws by period.
Sources: Law 3150, November 4, 1882; Decree 164, January 17, 1890; Decree 434, July 4, 1891; and Decree 603, October 17, 1891, Decree-Law 2627, September 26, 1940, Laws 6404, December 15, 1976, and 10,303, October 31, 2001, available from http://www2.senado.gov.br/.

Shareholder rights on paper were strengthened in 1891 when Brazil's new Company Law introduced the right to challenge in court directors' decisions that contradicted any company statute. After 1882, moreover, shareholders could,

individually or as a group (i.e., via class-action), sue and hold directors personally liable for decisions that caused them a loss.[18]

Figure 1 Shareholder Rights and Average Stock Market Capitalization to GDP, 1890–2003



Source: Table 1 and average stock market capitalization to GDP from Figure 2-2.

Even with few shareholder protections on paper, Brazil enjoyed its first peak in stock market activity between the late 1880s and 1915. In fact, there seems to be a tenuous relation between shareholder protections in national laws and stock market development in that, by the time additional protections for minority shareholders were written into law in 1940, stock markets were already in decline.[19] Moreover, if the literature that relates equity market size to shareholder rights on paper holds, Brazil's equity markets should have prospered between 1940 and the 1990s, when investor protections were strong (in Table 1), and jumped significantly in size after 2001 (after laws provided even more protections). But this is clearly not the evolution observed. As

[18] See Law 3150, November 4, 1882, especially Article 11 and Decree 603, October 17, 1891, Article 189, blocking shares before meeting, and Article 209, allowing legal action against directors.

[19] See Decree-Law 2627, 1940. Articles 17 and 107 permitted shareholders who disagreed with directors or assembly decisions to walk away from the company with the share of net worth that corresponded to the lot of shares held. The 1940 law included the right of minority shareholders to elect members of the board of overseers. Any group of shareholders, ordinary or preferred, that represented at least 20% of capital that disagreed with the election of a member of that board (*conselho fiscal*) could name one member of its preference.

can be seen in Figure 1, the first peak in Brazil's stock market development occurred before 1940. A nearly half-century period of relatively small equity markets ensued, followed by a decline in the 1980s and then rapid expansion since 1994. Some correlation between the level of stock market development and investor protections on paper is observed, but between 1940 and 1976 there is no correlation at all. Moreover, the period of relatively strong shareholder rights after 1976 (excluding the 1995 survey of La Porta et al., which probably missed some rights) is precisely the period during which Brazil has been portrayed as one of the worst countries in which to be a small investor.[20]

The organization of voting rights has also been advanced as an important incentive (or disincentive) to participate in stock markets. The statistical results of La Porta et al. show countries in which national laws mandate one-share, one-vote provisions to have larger financial markets.[21] But few countries' national laws incorporate this provision; in most countries, corporations decide individually how many shares are required to give shareholders one vote in the annual general meeting. A review of past company bylaws in Brazil that reveals significant variation in the voting schemes used is examined below.

Which National Laws Matter for the Protection of Shareholders?

If the legal protections of Table 1 are not what drove investors to participate in financial markets before 1940, what did? The growth of stock markets before 1940 attests that investors trusted securities issuers. For this to be so in an environment in which government monitoring of corporate activities was minimal, investors needed

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[20] The literature that studies "private benefits of control," or the nonpecuniary benefits of those who control a corporation, finds that in the 1990s Brazil was the country with the highest expropriation of shareholder value by controlling shareholders. See Tatiana Nenova, "Control Values and Changes in Corporate Law in Brazil," in *Latin American Business Review* 6-3 (2005): 1–37; and Luigi Zingales and Alexander Dyck, "Private Benefits of Control: An International Comparison," *Journal of Finance* 49 (April 2004): 537-600.

[21] Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, "Legal Determinants of External Finance."

access to accurate information about companies' finances, leadership, and largest shareholders, and the power that insiders had to manipulate directors, name managers, and check and counterbalance the influence of managers and large shareholders.

Brazilian law mandated important protections for shareholders beyond limited liability, introduced in the commerce code of 1850. The Company Law of 1882 mandated Brazilian corporations' publication of a wide array of financial and governance information.[22] All corporations were required to hold at least one general shareholder meeting per year, and shareholders were permitted to examine their companies' books one month before the annual meeting. Following the meeting, and after company financial statements were approved by the overseeing board, a balance sheet with additional details on profits, reserves, and dividends paid as well as full disclosure of all transfers of shares during the year, was required to be published.[23] Although transfers of shares were reported only in companies' official annual reports, balance sheets published once or twice per year by the financial press enjoyed wide circulation in the state in which a firm operated. Net profits (as dividends + change in reserves + changes in other retained earnings) were readily inferred from these balance sheets, and after 1891 corporations operating in Brazil were required to publish as well profit and loss statements.[24]

Brazilian financial statements' sophistication and regularity were neither better nor worse than British companies' of the time, but whereas Brazilian legislation had since 1882 required that *all* companies publish financial statements, similar British legislation did not appear until around 1900. In England, disclosure of financial statements was required for railways in 1868, insurance companies in 1870, gas utilities in 1871, and electricity utilities in 1882; other industries had to await subsequent

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[22] See Law 556, June 25, 1850, Article 298 and Law 3150, November 4, 1882, Article 16.

[23] Law 3150, November 4, 1882, Articles 15 and 16. The overseeing board was composed of three shareholders elected at the shareholders meeting usually to a term of three years. Most of the provisions that regulated the overseeing board were mandated by law.

[24] Decree 603, October 20, 1891, Article 211 required directors to prepare and publish in a newspaper a balance sheet and a profit and loss statement one month before the annual general shareholders meeting.

legislation. At the New York Stock Exchange, disclosure was not required for domestic listed companies until 1895.[25]

Of course, financial disclosure in Brazil was far from perfect. As in England, "depreciation accounting rules were not well developed" and "directors could create secret reserves by understating profits in good years, raiding them—without disclosing this—in bad."[26] Nor did having had mandatory disclosure and limited liability since 1882 prevent a major crisis of investor confidence. A rapid increase in the money supply after 1888, when the rules constraining banks from issuing bearer notes were relaxed, intensified in November 1889 when a republican movement took over the government and the new minister of finance, Rui Barbosa, increased the issue of bank notes by creating (on top of the banks authorized to issue notes) a national system of reserve banks with the right to issue notes with the objective of expanding the money supply. The resulting rapid increase in the money supply was accompanied by an increase in bank loans that fueled a boom in stock market activity.

This speculative fever, called the *encilhamento*, had perverse effects on the wealth of some shareholders of ghost companies and companies that went bust in 1891. Investor confidence in joint stock corporations would have been shaken for a long period of time had it not been for the legislative reaction to the crisis. The Ministry of Justice reacted by asking Dídimo Agapito Veiga Júnior, an expert in company law, to draft a new law that would prevent further corporate fraud. His approach to company law was consistent with the liberal tradition that permeated the ideology of the new republican government. He believed that "the interested parties [i.e., the shareholders] are the ones concerned about protecting their rights through clear and protective bylaws."[27] With this ideology in mind, Veiga Júnior drafted a law that gave shareholders

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[25] See Baskin and Miranti, *A History of Corporate Finance,* p. 141; and Hannah, "Pioneering Modern Corporate Governance: a View from London in 1900," pp. 15–17.

[26] See Hannah, "Pioneering Modern Corporate Governance: a View from London in 1900," pp. 19–20.

[27] Quotes from Mária Bárbara Levy, *A Indústria do Rio de Janeiro através de suas Sociedades Anônimas*, Rio de Janeiro, UFRJ Editora, 1994, p. 179 (translated by the author).

most of the responsibility for monitoring company founders, managers, and other shareholders.

Veiga Júnior recommended, among other things, protections for investors against the fraudulent practices of company promoters or deceiving prospectuses published by securities issuers. Decree 603 of October 20, 1891, for example, required that the prospectus for a new share issue include the names of the company founders, a detailed explanation of the contracts with the bankers or financiers involved in the operation, and the amounts the company was paying these intermediaries in the form of commissions or fees. More important, the prospectus had to be accompanied by a copy of the company statutes after their publication in a newspaper of wide circulation.[28] In fact, since 1882 all new corporations were required to publish their statutes before commencing operations or trading their shares. Decree 603 not only regulated more stringently the issuing of shares, but also provided criminal penalties (including jail sentences and monetary fees) for directors or promoters of new companies that falsified information or violated the bylaws of the corporations for which they worked. Similar penalties (absent jail sentences) were included for members of the overseeing board of directors (*conselho fiscal*) who approved fraudulent practices during their terms.

With Brazil's Company Law mandating private disclosure and requiring that founders and promoters of new corporations publish and publicize their statutes including shareholder lists, the bylaws that regulated corporate governance, and detailed information about executive compensation, voting rights, and share ownership, investors were afforded after 1891 the means to monitor managers and insiders and evaluate prospective investments. A small investor considering buying shares in a company could determine, for example, how powerful large shareholders were (by examining the size of their shareholdings and voting power) and know at the

[28] See Decree 603, October 20, 1891, Articles 89, 90 and 105. See also, Law 3150, November 4, 1882, Article 3.

outset who the directors were, the number of shares and votes they controlled, and their fixed and performance-based compensation.

Other protections for shareholders were left to a corporation's founders and shareholders to decide, and often included in the statutes that were drafted such important shareholder protections as the right of minorities opposed to a merger to walk away from the corporation with payment equivalent to the higher of their share of the total net worth of the corporation or share of the value of the company according to the merger offer, the exclusion of family members from serving on the managing and overseeing boards of directors simultaneously (a provision seldom respected), and the requirement that managers not engage in business deals with family members or related firms without first informing the corporation.[29]

Coincidentally, the disclosure requirements included in Brazilian law after 1891 have recently been linked to the development of equity markets around the world. Recent revisions to the rights that should matter for financial development by La Porta, Lopez-de-Silanes, and Shleifer include, among other indicators, what they call an "index of disclosure requirements" that is highly correlated with different measures of stock market size. Although calculation of this index is not as straightforward as for the shareholder rights presented in Table 1, the index is higher if a prospectus (1) is required by law to be published before the sale of shares, (2) discloses the compensation of directors and key officers, (3) discloses the names and ownership stakes of shareholders who control, directly or indirectly, 10% or more of the voting shares, (4) discloses the share ownership of directors and key officers, (5) discloses for the issuing company contracts outside of the ordinary course of business, and (6) discloses transactions between the issuing company and its directors, officers, or large shareholders. The index is estimated by averaging how many of these protections are

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[29] See Decree 603, October 20, 1891, Article 282 (for shareholder rights in mergers), 148 for restrictions on transactions with family members, and 165 for constraints on family members serving on boards.

present.[30] Brazil after 1891 had at least the first four provisions, which would yield an estimated index of 0.66 (or 4/6).

The level of mandatory disclosure of information was higher in Brazil than in Germany or England at least until 1929. Franks, Mayer, and Rossi estimate that England required only that a prospectus be issued, and Franks, Mayer, and Wagner that Germany had none of the index's disclosure requirements.[31] To gauge the significance of this relative to contemporary standards, if Brazil today had these same provisions (and associated index of 0.66), it would be one of the three French civil law countries with the strongest disclosure requirements, which would be similar to those of Ireland, Israel, and New Zealand among common law countries.[32]

In sum, Brazilian company law preferred to leave to investors the regulation of financial markets and included provisions to help them gather the necessary information to do this job. Beyond the information mandated to be disclosed, *actual* protections that induced shareholders to purchase equity mostly took the form of bylaws included in corporate statutes, some of which are explored below.

Investor Protections in Company Bylaws

Of the provisions to protect small shareholders that might have induced investment in many of Brazil's traded corporations, two in particular, government guarantees and voting provisions, are examined in this section.

Government guarantees. Federal and state government subsidies to corporations that translated into protections or incentives for shareholders typically took one of two forms. Usually associated with railway corporations, banks, and some utilities, a

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[30] Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, "What Works in Securities Laws?" *Journal of Finance* 61-1 (February 2006): 1–32; for the methodology of the index, see Table I.

[31] See Julian Franks, Colin Mayer, and Stefano Rossi, "Ownership: Evolution and Regulation," Table 1, Panel D; and Julian Franks, Colin Mayer, and Hannes F. Wagner, "The Origins of the German Corporation--Finance, Ownership and Control," Table III, Panel B.

[32] See Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, "What Works in Securities Laws?" Table II.

guaranteed minimum dividend paid directly to shareholders through a transfer from the government was one. The other was the granting of privileges such as the right to collect special taxes or duties or awarding of a direct government subvention each year. Shareholders benefited, of course, from reduced uncertainty with respect to corporate performance and whether or not a dividend would be paid, but perhaps most important was that corporations to which government guarantees accrued were subject to more intense monitoring by government officials. By law, a government representative had the right to audit shareholders meetings and revise the financial statements of beneficiary corporations.[33]

Government-guaranteed dividends, probably copied from American, British, or Canadian practices at the time, helped to bridge important information asymmetries that prevailed during the initial stage of railway development in Brazil.[34] There were not great many takers when the government began, in 1852, to offer concessions to build railroads in different parts of the territory.[35] Even into the 1860s and 1870s, Brazilian stock markets were not yet sufficiently deep to finance such extensive ventures, and more guarantees were wanted by foreign investors before putting money into businesses with unproven results.

Thus, the imperial government guaranteed an annual dividend of approximately 5% of equity per company, which provinces could complement with additional subsidies of 2%. If net profits exceeded the government guaranteed amounts, the

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[33] See, for example, Decree 603, October 20, 1891, Article 125 and 126.

[34] The *Investor's Monthly Manual* lists tens, perhaps hundreds, of corporations with guaranteed dividends or coupons, which implies that the practice was common in Great Britain. For government guarantees in Canada, see Anne Carlos and Frank D. Lewis, "Foreign Financing of Canadian Railroads: The Role of Information," in Michael Bordo and Richard Sylla, *Anglo-American Financial Systems: Institutions and Markets in the Twentieth Century*, New York and Burr Ridge, Illinois: New York University Press and Irwin Press, 1995, pp. 383-414.

[35] Some of the earliest railroad companies were not particularly successful, a number failing altogether. The railroad Dom Pedro II, for example, established to transport coffee from the Paraiba Valley to the port of Rio de Janeiro, had to be bailed out in 1865 when it ran out of funds to complete construction. See Flávio A. M. Saes, *A Grande Empresa de Serviços Públicos na Economia Cafeeira,* São Paulo: HUCITEC, 1986, pp. 37–38.

surplus was required to be divided between the company and the government.[36] These subsidies proved to be a powerful incentive, facilitating rapid development of railway companies in Brazil.

Because the subsidies also provided incentives for excessive risk taking on the part of managers and founders, the government regulated and monitored some of these companies rigorously, requiring, for example, earlier than for the rest of Brazilian corporations, the publication of complete financial information including profit and loss statements. As most of the companies awarded these subsidies operated government concessions for railway lines, utilities, ports, or waterworks, in the event the contract was violated in any way or the company driven into insolvency, the concession would revert to the government.[37]

Voting rights. More important than the many disclosure requirements were the provisions that divided power among shareholders. Bylaws that established the voting rights of shareholders were key to encouraging the participation of small investors in equity ownership. There are only a few scenarios in which small investors would want to participate in the ownership of a corporation in which voting power is controlled by a large shareholder.[38] Most investors preferring that the balance of power not be tilted towards insiders, directors, or large shareholders, a significant number of Brazilian corporations (mostly before 1910) used voting rights to distribute power more evenly

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[36] On the history of the expansion of railroads and subsidy policies, see William R. Summerhill III, *Order Against Progress: Government, Foreign Investment, and Railroads in Brazil, 1851-1913*, Stanford: Stanford University Press, 2003, Chapter 3; and Flávio A. M. Saes, *As Ferrovias de São Paulo, 1870-1940,* São Paulo: HUCITEC, 1981, pp. 151–154. A more detailed contemporary account is provided by Chrockatt de Sá, *Brazilian Railways; Their History, Legislation and Development*, Rio de Janeiro: Typ. de C. Leuzinger & filhos, 1893.

[37] This was the case of the Sorocabana Railway in 1902 and the E.F. Dom Pedro II in 1865. See Estrada de Ferro Sorocabana, *Relatório. Anno de 1904,* São Paulo: Typ. A Vap. Rosehan & Meyer, 1905 for a description of the acquisition of the assets of the Sorobana by the federal government; and Flávio A. M. Saes, *A Grande Empresa de Serviços Públicos na Economia Cafeeira,* p. 36 for the story of the E.F. Dom Pedro II.

[38] This might be the case when two rival groups with large shareholdings monitor one another or when a large shareholder with a good reputation monitors the actions of directors or founders. In both cases, small shareholders would buy equity as a way to free ride on the monitoring efforts of the large shareholders.

among shareholders.[39] Before 1932, there were no shares without voting rights in Brazilian corporations; any shareholder who held the requisite number of shares could vote and thus participate in a company's decision-making process. About a third of Brazilian corporations capped the maximum number of votes to limit the power of large shareholders, and many large corporations employed graduated voting schemes that restricted the number of votes that accompanied increases in shareholdings.

Data on voting rights by company, derived from a survey of companies published in the *Brazilian Year Book 1909* (a handbook of Brazilian corporations published in London), are presented in Table 2, which shows the average number of shares needed to secure the right to vote to have been relatively low in most industries surveyed in 1909. On average, Brazilian corporations required that investors hold between five and ten shares in order to vote at shareholder meetings. Approximately 20% of the companies in the sample had one-share, one-vote provisions, a higher percentage in some industries. Banks seem to have been particularly democratic, 46% of domestic institutions having a one-share, one-vote provision. Companies in utilities, ports, and mining were not far behind, 30% embracing this voting provision. Other companies chose mostly the five shares per vote (37% of firms) or ten shares per vote (34%) provision. Only 7% of companies required 20 to 25 shares to one vote.

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[39] Article 15 of Law 3150, November 4, 1882 stated that voting rights were to be established by each company in its bylaws.

Table 2 Voting Rights in Brazilian Corporations c. 1909

	Agriculture N=11	Banks N=23	Insurance N=14	Manufacturing N=44	Mining N=3	Services N=8	Utilities N=17	Shipping N=7	Ports N=2	Railways N=6	Full Sample N=135
Avg. shares to get one vote	7	6	7	7	12	15	20	5	5	6	7
Percentage of companies with											
One-share, one-vote	20	46	13	15	33		33	13	30	21	23
Five shares to one vote	20	19	44	37			50	75	40	53	37
Ten shares to one vote	50	23	44	46	33	50		13	30	16	34
>10 shares to one vote	10	12		2	33	50	17			11	7
Limits on the maximum number of votes											
Percentage of companies	20	27	25	29			50	38	10	21	26

Note: Includes only companies the original bylaws of which were chartered in Brazil. Companies with graduated voting schemes are assumed to use only one scheme of shares per votes (usually five shares per vote).
Source: Compiled by the author from information in *Brazilian Year Book 1909*, London, McCorquodale, 1910.

That Brazilian companies, on average, had relatively low ratios of shares per vote does not translate, however, into worker participation in the ownership and control of corporations. Data on average annual salaries by profession in Rio de Janeiro in 1909 show the cost of a single share (with face value of 200 mil reis) to have equaled the entire *annual* salary of a cook, carpenter, or messenger, and other, relatively unskilled, workers earned less per year than the face value of one share (normally either 100 or 200 mil reis), most jobs at the time paying an average wage of between 100 and 200 mil reis per year.[40] Thus, the reference to "democratic" practices should not be construed to extend beyond the landowners, professionals (e.g., lawyers, accountants, bankers, dentists, and engineers), widows, urban landlords, and other citizens with relatively high incomes or sizable inheritances who could buy corporate stocks.

The importance of voting provisions that limited the power of large shareholders can be gauged from the bottom row of Table 2, which shows that more than a quarter of the companies in the 1909 sample limited the maximum number of votes a single shareholder could cast during a given meeting. On average, 26% of companies capped the maximum number of votes, more than 38% in industries such as utilities and shipping. Although no companies in services and mining and some other industries were observed to use this voting scheme, the sample size is small for those sectors.

Capping the maximum number of votes protected smaller shareholders by (1) limiting the power large shareholders could exert during shareholder meetings, and (2) encouraging the formation of large voting blocks that included smaller shareholders as a way to reach consensus on important assembly resolutions including the election of directors. The decision-making process was thereby rendered more democratic, with smaller investors encouraged either to participate more actively in shareholder assemblies or at least decide which voting blocks to join.

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[40] For salary data, see Mária Eulália Lahmeyer Lobo, *História do Rio de Janeiro: do capital comercial ao capital industrial e financeiro*, Rio de Janeiro: IBMEC, 1978, Table 4.44.

Other corporations adopted graduated voting rights that limited the number of additional votes that accompanied increases in shareholdings, with the result that in companies such as Antarctica, E.F. Paulista, E.F. Mogyana, and Banespa (see the Appendix), the percentage of shares controlled by the largest shareholders was higher than the percentage of votes those shareholders controlled. Why shareholders with large equity holdings might have been willing to settle for disproportionately lower control rights is open to conjecture. Perhaps there was among many Brazilian investors a "democratic" attitude towards corporate governance.

Some corporations included in their bylaws provisions to limit abuses by large shareholders or families with significant shareholdings. The Mogyana Railway and textile mills São Paulo Fabril and Fábrica de Tecidos Esperança, for example, capped not only the number of votes per shareholder, but also the maximum number of votes any single shareholder could hold in proxy for other shareholders.[41]

Voting Rights and Ownership Concentration, 1890–1950

How shareholder protections mattered in practice to smaller investors is reflected in tangible outcomes such as low levels of concentration of ownership and control in large Brazilian corporations. Ownership concentration is a good indicator of the state of shareholder protections for at least two reasons. One, smaller investors unsure of the degree to which they are protected against the abuses of managers or other shareholders would be unlikely to actively participate in equity markets. Two, in the presence of weak shareholder protections, there would be little to stop managers from pilfering company resources. Ownership concentration would compensate for inadequate shareholder protections because large shareholders with large blocks of shares and votes would have more incentive to monitor managers, and the power to dismiss and name new ones to replace any who committed abuses.

[41] See Cia. Mogyana (Mojiana) de Estradas de Ferro, *Relatório da Diretoria em Assembléia Geral...* 1878–1922; and *Estatutos da Companhia São Paulo Fabril*, São Paulo: Companhia Impressora Paulista, 1890.

Data on ownership concentration for a sample of some of the largest Brazilian corporations between 1890 and 1940 shows concentration of ownership in corporations with more protective shareholder rights in their bylaws to have been lower than in the average company. Shareholder lists for some of the largest Brazilian corporations were compiled from data available at the Rio de Janeiro Stock Exchange Archive in Rio de Janeiro and the São Paulo State Archive in São Paulo, and most company statutes, voting rights, and shareholder lists were obtained from the published reports and company charters available in the Official Gazette of the State of São Paulo (*Diário Oficial do Estado de São Paulo*) or the Official Gazette of the Federal Government (*Diário Oficial da União*).[42] The sample of companies with complete ownership data is in the Appendix.

Table 3 Concentration of Ownership and Control in Brazilian Corporations with Maximum Vote Provisions

	Companies w/o maximum votes				Companies with maximum votes			
Industry	Num. of firms	Shares of top 3 sh.	Votes of top 3 sh.	HHI	Num. of firms	Shares of top 3 sh.	Votes of top 3 sh.	HHI
Agriculture	1	0.50	0.50	0.12				
Airline	1	0.61	0.61	0.33				
Banking	15	0.39	0.38	0.21				
Conglomerates	5	0.77	0.80	0.33	3	0.43	0.21	0.06
Manufacturing	8	0.52	0.60	0.24	4	0.58	0.17	0.04
Other	5	0.64	0.64	0.20				
Textiles	18	0.63	0.62	0.29	9	0.49	0.41	0.14
Transportation	7	0.49	0.50	0.17	10	0.14	0.07	0.01
Utilities	4	0.53	0.53	0.17				
Full sample	64	0.55	0.56	0.24	26	0.36	0.22	0.07

Difference of means test (companies with maximum votes vs. those without)

	Shares top 3 sh.	Votes top 3 sh.	HHI
Difference of means	0.19	0.34	0.17
T-statistic	2.81***	5.22***	3.45***

Note: T-statistics marked as follows: + significant at 10%; ** significant at 5%; *** significant at 1%.
Source: All data from the Appendix.

[42] Both archives have special sections on Sociedades Anônimas with files for each company that usually include company statutes, shareholder lists, and changes to statutes every time there was a bond or new share issue. See, for example, the fundo *Sociedades Anônimas* in the National Archive of Brazil, Rio de Janeiro.

Table 3 shows the average concentration of ownership by industry in the sample of Brazilian corporations included in the Appendix. Concentration of ownership and control is estimated by compiling the percentage of shares and votes controlled by the largest three shareholders. Additionally, the concentration of control is estimated using the Herfindahl-Hirschman Index (HHI), a common measure of market concentration, which just adds up the squared share of votes of each shareholder. [43]

Table 3 shows significant differences in the average Herfindahl-Hirschman Index of voting concentration (HHI) and in the concentration of equity and votes controlled by the three largest shareholders in companies with and without voting caps. In companies with maximum votes provisions, the three shareholders with the largest holdings control, on average, 55% of the stock and 56% of the votes. These levels of concentration yield an average HHI of 0.24, the equivalent of having a corporation controlled by four shareholders with equal holdings. In contrast, in companies with maximum votes, the three largest shareholders controlled, on average, only 36% of the stock and 22% of the votes, yielding an HHI of voting concentration of 0.07, the equivalent of a company with approximately 14 shareholders with equal holdings, a significantly lower level of concentration overall. The difference of means test included at the bottom of Table 3 shows the differences discussed above to be statistically significant.

The Antarctica Brewery, which was dominated by a few families of German immigrants with large shareholdings, employed voting caps. In fact, the concentration of share ownership was quite large (the top three shareholders controlled 62% of the equity). But owing to the maximum votes per shareholder restriction (of 40 votes), these

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[43] The Herfindahl-Hirschman Index is a convenient measure of concentration because its inverse (i.e., 1/x) gives the equivalent number of shareholders needed to have a specific level of concentration. For instance, say a company with 200 shareholders had a few shareholders holding a proportion of shares such that the HHI is 0.20 (by definition it is always between 0 and 1). This would be the equivalent of a company with five shareholders with equal shares (or 1/0.20). Even if there are 200 shareholders, an HHI of 0.20 tell us that there is relative concentration of ownership. On the HHI and some of its interpretations, see M. A. Adelman, "Comment on the 'H' Concentration Measure as a Numbers-Equivalent," *The Review of Economics and Statistics* 51-1 (February 1969): 99-101.

families had to broker deals to share power (in 1913, for example, the top three shareholders controlled 58% of total equity but only 12% of the votes). As an additional check on possible abuses by a single family, the company bylaws included a provision that prohibited two members of the same family from serving on the board simultaneously.[44]

Voting caps and graduated voting rights together reduced concentration of control significantly in companies such as E.F. Paulista and E.F. Mogyana. In the 1890s, the largest three shareholders of the Paulista and Mogyana owned 10% and 13% of the total shares, but in most shareholder meetings controlled only 7% and 10% of the votes, respectively. The cap on the maximum number of votes was increased as the capital of these companies expanded, and disappeared altogether in some companies as share issues accelerated during the boom years of stock market activity (1890-1913). For E.F. Paulista, dispersion of ownership continued until the company was bailed out by the government in the 1960s.

The reasons railways ended up with such dispersed ownership vary. One is that the dividends of railway companies were guaranteed by the federal and state governments, which would be expected to encourage smaller shareholders' participation in the companies. Then, too, railways were owned by their main beneficiaries, in this case, coffee planters. The shareholder lists of the most important lines of São Paulo read like the *Who's Who* of coffee plantations.[45] Finally, there is the obvious element of magnitude. Railways required a lot of capital and thus were more likely to have larger numbers of shareholders.

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[44] See *Estatutos da Companhia Antarctica Paulista*, 1891–1913, published in Decree 217, May 2, 1891, Decree 3348, July 17 1899, Decree 10,036, February 6, 1913 and Cia. Antarctica, *Atas da Assambléia de Acionistas da...*, São Paulo, 1891-1927.

[45] See Anne Hanley, "Is It Who You Know? Entrepreneurs and Bankers in São Paulo, Brazil, at the Turn of the Twentieth Century," *Enterprise and Society* 2 (2004): 187-225, for a description of some of the relations between these coffee planters and their role in the network of investors and directors in São Paulo.

A similar voting rights structure mitigated against concentration of control in smaller firms such as Companhia Petropolitana, a textile mill. This company was begun as a family business outside of Rio de Janiero in the 1890s. The shareholder list when it was chartered showed somewhat concentrated ownership in the hands of the few founders, who likely introduced the cap on the maximum number of votes as a check on one another's power. But as the company expanded and began to rely on equity issues to finance its growth, the number of shareholders increased. Although ownership was relatively dispersed by 1928, voting caps reduced the voting power of some of the largest shareholders even more, the top three shareholders controlling 20% of equity but only 12% of the votes.[46]

Table 4 Concentration of Ownership and Control in Brazilian Corporations with Government Guarantees

	Companies w/o gov't guarantees				Companies with gov't guarantees			
Industry	Num. of firms	Shares of top 3 sh.	Votes of top 3 sh.	HHI	Num. of firms	Shares of top 3 sh.	Votes of top 3 sh.	HHI
Agriculture	1	0.50	0.50	0.12				
Airline	1	0.61	0.61	0.33				
Banking	9	0.34	0.32	0.09	6	0.47	0.47	0.34
Conglomerates	8	0.64	0.58	0.23				
Manufacturing	12	0.54	0.44	0.17				
Other	5	0.64	0.64	0.20				
Textiles	27	0.58	0.55	0.24				
Transportation	11	0.35	0.29	0.10	6	0.17	0.11	0.02
Utilities	4	0.53	0.53	0.17				
Full sample	78	0.52	0.48	0.19	12	0.32	0.30	0.19

Difference of means test (companies with graduated voting vs. those without)

	Shares of top 3 sh.	Votes of top 3 sh.	HHI
Difference of means	0.20	0.18	-0.01
T-statistic	2.18**	1.76+	-0.09

Note: T-statistics marked as follows: + significant at 10%; ** significant at 5%; *** significant at 1%.

Source: All data from the Appendix.

[46] See "Companhia Petropolitana," in *Diario Oficial*, April 16, 1898; and Companhia Petropolitana, *Relatorio da directoria da Companhia Petropolitana apresentado à Assembléa Geral Ordinaria dos Snrs. Accionistas*, Rio de Janeiro: Typ. Do jornal do Commércio, 1928 and 1929.

Government-guaranteed dividends might also be expected to have affected concentration of ownership. About one-fifth of the companies in the sample enjoyed this investor protection and, as can be seen in Table 4, companies with government guarantees seem to have had lower concentration of ownership (shares), and especially of control rights (votes). On average, government guarantees reduced the percentage of shares and votes controlled by the three largest shareholders by almost 20% (these differences are statistically significant at 5% and 10%, respectively). Yet, there are no significant differences in the HHI of companies with government guarantees.

Table 5 Concentration of Ownership and Control in Brazilian Corporations with Graduated Voting Scales

	Companies w/o graduated voting				Companies with graduated voting			
Industry	Num. of firms	Shares of top 3 sh.	Votes of top 3 sh.	HHI	Num. of firms	Shares of top 3 sh.	Votes of top 3 sh.	HHI
Agriculture	1	0.50	0.50	0.12				
Airline	1	0.61	0.61	0.33				
Banking	10	0.45	0.45	0.30	5	0.27	0.24	0.05
Conglomerates	8	0.64	0.58	0.23				
Manufacturing	12	0.54	0.44	0.17				
Other	5	0.64	0.64	0.20				
Textiles	25	0.55	0.52	0.22	2	0.97	0.94	0.47
Transportation	3	0.66	0.87	0.30	14	0.21	0.14	0.04
Utilities	4	0.53	0.53	0.17				
Full sample	69	0.55	0.53	0.22	21	0.30	0.24	0.08

Difference of means test (companies with graduated voting vs. those without)

	Shares of top 3 sh.	Votes of top 3 sh.	HHI
Difference of means	0.26	0.29	0.14
T-statistic	3.73***	3.91***	2.46***

Note: T-statistics marked as follows: + significant at 10%; ** significant at 5%; *** significant at 1%.
Source: All data from the Appendix.

Table 5 reports significantly lower concentration of ownership and control in companies with graduated voting schemes than in the other companies in the sample. To give an idea of the differences between the average Brazilian company and those

with graduated voting scales, the HHI is only 0.08 for the latter, with the three largest shareholders controlling, on average, 24% of the votes and 30% of the shares, whereas in companies without these voting schemes the largest three shareholders controlled 55% of the shares and 53% of the votes and had an HHI of 0.22. Concentration of ownership and control was thus more than twice in most companies what it was in companies with graduated voting scales.

Analyzing the effects of these three governance provisions on ownership concentration is difficult because they overlap significantly. For example, Banespa had government guaranteed dividends and graduated voting, whereas some of the railway companies had graduated voting and maximum votes. Also, controlling for industry sees the effects of graduated voting fade as most companies with these provisions are in the transportation sector (they are mostly railways). In fact, for the sectors that have companies with graduated voting schemes it is not clear there are significant differences in ownership concentration among companies of the same sector and without those provisions. In a multivariate regression that controls for company characteristics such as industry and size (using capital as proxy), maximum vote provisions and government guarantees have the strongest effects, reducing ownership concentration by half. The effect of a graduated voting scale on ownership concentration, in contrast, is not significantly different from zero.

Another problem with the analysis is that there were no enduring, maximum vote provisions or graduated voting rights. These provisions tended to disappear from company bylaws over time. In 1926, for example, when the government became a large shareholder, Banespa, the largest bank in São Paulo, changed its statutes and abandoned graduated voting rights.[47]

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[47] The changes made by shareholders to the statutes of Banespa in the extraordinary shareholders meeting of May 29, 1926 are reported in "Decreto n. 17544—de 10 de Novembro de 1926," in *Diario Oficial do Estado de São Paulo,* January 4, 1927. The concentration of control in the bank is clear in the extraordinary shareholder meeting of October 11, 1933 reported in "Decreto N. 2—de 25 de Julho de

The Aggregate Evidence on Ownership Concentration

Still, owing to the investor protections included in corporate bylaws, Brazil's traded corporations had lower concentration of control rights, on average, in the past than today. Before 1910, the three largest shareholders controlled, on average, between 50% of shares and around 50% of total votes.[48] By 2004, the three largest shareholders of the largest 20 companies in Brazil held 51.2% of the shares and 76.6% of the votes. Most of this increase in the concentration of control rights should be attributed to the introduction of nonvoting preferred shares in 1932, which reduced the cost of controlling a corporation and enabled controlling investors to obtain equity finance without sacrificing their control rights.

Moreover, ownership concentration in Brazil before 1910 was not high relative to average ownership concentration in England during the same period. In a sample of 40 British firms between 1900 and 1910, the largest shareholders were estimated to have controlled between 52.86% and 64.39% of total voting equity, slightly higher than the average for Brazil. This is particularly impressive given that London was the most developed financial center of the time.[49]

Family-owned Corporations

Do these results imply that most corporations in Brazil were widely held before the 1920s or so? Not really. The other ownership pattern that prevailed in Brazil after 1890 was the family-controlled corporation, in which family members held large blocks of shares and occupied most managerial positions. An example of a family-owned corporation was the Companhia Fabricadora de Papel (Klabin), controlled by the Klabin

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1934," in *Diario Oficial do Estado de São Paulo*, August 15, 1934. For the Matarazzo company example, see the detailed description in the section dealing with family-controlled corporations.

[48] This was estimated using data in the Appendix, but excluding repeated observations for companies with multiple observations, taking the average by company. Data for 2004 are estimated using the Economatica database and selecting the top 20 companies on the basis of total assets as reported by Bovespa (São Paulo's Stock Exchange).

[49] See Julian Franks, Colin Mayer, and Stefano Rossi, "Ownership: Evolution and Regulation," Institute of Finance and Accounting Working Paper FIN 401, London Business School, 2004, Table 4.

family (see Panel B in the Appendix), members of which occupied three of five directorships from the company's beginnings. Eight of the company's 36 shareholders were family members, and only one of the top five shareholders was not an immediate family member, the other four being three brothers and the partnership Klabin Irmãos & Comp. (a firm of the Klabin brothers). The top five shareholders controlled 75% of the firm's equity.

In fact, the corporation was organized somewhat like a partnership. All shareholders had one vote per share, and the directors did not have a fixed salary until 1937. Profits were divided among the directors and shareholders following a formula that guaranteed 10% of profits to directors plus an extra 20% of any amount after paying a 12% dividend. In 1937, the company gave the partnership Klabin Irmãos & Comp. control of 75% of total equity in exchange for forgiving accumulated debt. The Klabin family continued to expand its empire, and by the 1970s controlled one of the largest business conglomerates of Brazil, making the list of the top 100 business groups every year.[50]

No family was more prominent in business in Brazil during the early part of the twentieth century than the Matarazzo family (see Panel C in the Appendix). In the 1890s, Count Francisco de Matarazzo and his family started a trading business selling staples and imported goods to coffee plantations in the São Paulo interior.[51] Importing know-how and resources from Europe, this Italian family expanded rapidly into the processing of sugar, wheat, and pork lard, and within a few years was running a diversified business that operated everything from textile mills to commercial houses. By 1911, the business was so large that the family created the first conglomerate in

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[50] See "Estatutos da Companhia Fabricadora de Papel (Klabin)," in *Diário Oficial do Estado de São Paulo*, 6/15/1909; and "Cia. Fabricadora de Papel (Klabin)," in *Diário Oficial do Estado de São Paulo*, 5/8/1937. For the list of top business groups, see the magazine *Balanço*, part of the newspaper *Gazeta Mercantil*.

[51] In 1891, the Matarazzo family chartered its first corporation, the Companhia Matarazzo. The main objective of this company was to process and sell pork lard in the states of São Paulo and Rio Grande do Sul. This company required 10 shares for one vote and limited the number of votes to 50. See "Cia. Matarrazo," in *Diario Oficial do Estado de São Paulo*, June 2, 1891.

Brazil, the Indústrias Reunidas Fábricas Matarazzo, opening up the capital to subscription by friends and other family members. The statutes were, by design, somewhat democratic, incorporating, in 1911, for example, the ten shares for one vote and maximum of 50 votes rule. This voting scheme restricted the top three, five, and ten shareholders, who controlled most of the equity, to 10%, 17%, and 34% of total votes, respectively. But the scheme lasted only a few years. By the 1920s, the Matarazzo family had purchased back most of the equity held by non-family members and changed the voting rights, first, pulverizing share ownership by issuing thousands of small-denomination shares (10$ mil reis), then altering the statutes to restrict the right to vote to only those with holdings of 1:000$ (a thousand mil-reis). In 1934, only four or five shareholders held enough shares to vote. From that time on, the family purchased most shares and held them tightly.[52]

The Matarazzo family controlled a variety of businesses including the Banco Italiano del Brasile, the complete shareholder lists of which helps to illuminate its approach to corporate governance (see Panel B of Table 6). The bank originally had a relatively large number of shareholders from the Italian community, though the Matarazzos controlled most of the equity and shares. Then, in 1907, the family used its voting power to dissolve the firm and sell its assets to another bank that it controlled.

This model of concentrated ownership under family control, though not always the dominant model, is stereotypical for Brazil. Many of the family businesses before the 1930s were relatively small enterprises compared to railways and large banks. But by the 1980s, family-controlled conglomerates had become the dominant corporate form. Why the family firm ended up dominating the corporate landscape in Brazil is beyond the objective of this paper. Yet the fact that history shows such variation in

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[52] The changes made to statutes at the extraordinary shareholders meeting of May 29, 1926 are reported in "Decreto n. 17544—de 10 de Novembro de 1926," in *Diario Oficial do Estado de São Paulo,* January 4, 1927; and the shareholder list and voting count of the extraordinary shareholder meeting of October 11, 1933 are reported in "Decreto N. 2—de 25 de Julho de 1934," in *Diario Oficial do Estado de São Paulo*, August 15, 1934.

shareholder protections and corporate finance over time should make us wonder how determinant are colonial institutions in the long run.

Conclusion

This paper shows that many large Brazilian corporations at the turn of the twentieth century induced small investors to buy equity by choosing bylaws that distributed power in a more democratic way among shareholders. In fact, the evidence shows that maximum vote provisions (and to a lesser degree graduated voting scales) were correlated with lower concentration of ownership and voting power.

These results are surprising for at least three reasons. First, the paper shows that the shareholder protections in national laws that seem to have mattered most were those that facilitated the private monitoring of corporate activities by requiring corporations to publish important financial information. Second, the paper shows that it is possible for companies to break with the institutional environment in which they operate. Corporations can attract small investors by adopting, in the absence of national laws that include provisions to protect small investors, democratic bylaws that are better than the protections included in national company laws.. Finally, the evidence presented here suggests that it is unlikely that the institutions relevant to the expansion of equity markets and development of large multidivisional corporations were determined hundreds of years ago, either at the time of colonization or when countries adopted their current legal systems. The considerable variation over time at the country level, and even at the company level, needs to be studied in more detail before we can make grand statements about the persistency of institutions, especially of legal traditions.

Appendix A. Concentration of Ownership and Control in the Sample of Brazilan Corporations
Panel A. Multiple Corporations with Relatively Dispersed Ownership and/or Control

Year	Company	Industry	Capital in Million US$ of 1900	Grad. voting	Max votes	Num. of share-holders	Shares of top 3 sh.	Votes of top 3 sh.	HHI	IPO	Est.
1869	E.F. Paulista	Railway	2.50	1	1	64	0.02	0.03	0.00	0	1869
1872	E.F. Paulista	Railway	2.59	1	1	654	0.10	0.05	0.00	0	1869
1873	E.F. Mogyana	Railway	1.49	1	1	350	0.13	0.06	0.01	0	1872
1883	E.F. Paulista	Railway	2.40	1	1	153	0.13	0.02	0.01	0	1869
1883	E.F. Mogyana	Railway	4.79	1	1	395	0.13	0.04	0.00	0	1872
1889	Tecidos Dona Isabel	Textiles	0.10	0	1	13	0.36	0.36	0.09	1	1889
1889	Banespa	Bank		1	0	150	0.14	0.13	0.02	0	1889
1890	São Paulo Fabril	Manuf.	0.08	0	1	37	0.30	0.30	0.05	1	1890
1890	Banespa	Bank		1	0	135	0.13	0.11	0.02	0	1889
1891	São Paulo Industrial	Multiple	0.03	0	1	51	0.40	0.38	0.07	1	1891
1891	Industrial Rodovalho	Multiple	0.62	0	1	30	0.05	0.15	0.07	1	1891
1892	Antarctica Paulista	Beer	0.71	0	1	57	0.62	0.14	0.03	1	1891
1892	TecidosEsperança	Textiles	0.31	0	0	52	0.26	0.26	0.04	0	1892
1892	E.F. Mogyana	Railway	7.08	1	0	168	0.13	0.10	0.01	0	1872
1898	Petropolitana	Textiles	0.71	0	1	43	0.44	0.27	0.06	0	1898
1898	E.F. Paulista	Railway	0.89	1	1	514	0.10	0.07	0.00	0	1869
1899	Banespa	Bank		1	0	48	0.57	0.49	0.11	0	1889
1899	Viação Férrea Sapucaí	Railway	0.03	0	0	217	0.22			0	1891
1900	Nacional de Tec. de Linho	Textiles	0.38	0	0	41	0.46	0.46	0.11	1	1900
1903	Tecidos Cometa	Textiles	0.64	0	1	46	0.36	0.36	0.09	0	1903
1904	Dos Funccionarios Publicos	Bank	0.48	0	0		0.39	0.39		0	1891
1905	Fiação e Tecidos Santa Maria	Textiles	0.08	0	0	27	0.33	0.34	0.07	1	1905
1906	E.F. do Dourado	Railways	0.77	1	0	36	0.92	0.84	0.37	1	1899
1907	Brasileira de Alpargatas	Shoes	0.21	0	0	41	0.45		0.09	0	1907
1908	E.F. Mogyana	Railway	16.67	1	0	461	0.08	0.06	0.00	0	1872
1910	Banespa	Bank	1.39	1	0	58	0.18	0.15	0.04	0	1889
1911	Usinas Nacionais	Agriculture	0.26	0	0	35	0.50	0.50	0.12	0	1911
1911	Mercantil do Rio de Janeiro	Bank	1.10	0	0		0.14	0.12		0	1911
1912	Petropolis Industrial	Textiles	0.11	0	1	50	0.30	0.30	0.06	0	1912
1912	Paulista de Força e Luz	Utilities	0.44	0	0	63	0.23	0.23	0.04	0	1912

Panel A. Multiple Corporations with Relatively Dispersed Ownership and/or Control (Continues)

Year	Company	Industry	Capital in Million US$ of 1900	Grad. voting	Max votes	Num. of share-holders	Shares of top 3 sh.	Votes of top 3 sh.	HHI	IPO	Est.
1913	Rendas e Tiras bordadas Dr Fronti	Textiles	0.14	0	0	74	0.24	0.24	0.04	0	1913
1913	Antarctica Paulista	Beer	1.97	0	1	80	0.58	0.12	0.03	0	1891
1913	Telefonica do Est. de S. Paulo	Utilities	1.16	0	0	48	0.39	0.40	0.10	1	1884
1918	E.F. Mogyana	Railway	13.60	1	0	433	0.36	0.27	0.06	0	1872
1918	Banespa	Bank		1	0	71	0.34	0.33	0.06	0	1889
1919	Fábrica de Tecidos Esperança S.A.	Textiles	0.20	0	1	52	0.26	0.26	0.04	0	1892
1922	Banco Comercio e Industria de Mi	Banking	0.86	0	0	474	0.09	0.09	0.01	0	1922
1922	E.F. Paulista	Railway	2.86	1	1	268	0.21	0.15	0.02	0	1869
1926	Antarctica Paulista	Beer	0.98	0	1	65	0.80	0.13	0.03	0	1891
1926	Santa Luzia Industrial	Textiles	0.04	0	0	63	0.41	0.41	0.08	0	1926
1926	Banespa	Bank	2.30	0	0	217	0.14	0.14	0.02	0	1889
1928	Petropolitana	Textiles	0.67	0	1	227	0.20	0.12	0.02	0	1898
1929	Banco da Lavoura de Minas Gerai	Banking	0.03	0	0	1043	0.15	0.15	0.02	0	1929
1932	Banespa	Bank		0	0	217	0.20	0.20	0.03	0	1889
1935	E.F. Paulista	Railway	37.76	1	1	845	0.14	0.09	0.01	0	1869
1937	Cimento Portland	Cement	0.71	0	0	81	0.34	0.34	0.06	1	1937
1942	Tecelagem Divinópolis	Textiles		0	0	247	0.25	0.25	0.03	0	1942
1943	Panair do Brasil S.A.	Airline	5.15	0	0	1238	0.61	0.61	0.33	0	1943
1946	Refinaria de Petróleos (D.F.)	Oil Refining	2.39	0	0	75	0.36	0.36	0.08	1	1946
1947	Refrigerantes Guanabara	Soft drinks	0.26	0	0	220	0.34	0.34	0.04	1	1947
1947	E.F. Paulista	Railway	17.39	1	1	267	0.31	0.03	0.05	0	1869
1951	Lanari Engenharia	Services	0.51	0	0	44	0.35	0.35	0.08	1	1945
1957	E.F. Paulista	Railway	4.97	1	1	487	0.17	0.14	0.01	0	1869

[a]The E.F. Paulista and E.F. Mogyana employed a voting scheme whereby 5 shares were required for each vote up to 50 votes, 10 shares for each vote from 51 to 150 votes, and 20 shares for each additional vote thereafter. The Banco do Estado de Sao Paulo (Banespa) had 20 shares per vote up to 50 votes and 40 shares per vote thereafter until the 1920s. Then it changed to 10 shares per vote.

Panel B. Ownership Concentration in Government-Controlled Corporations

Year	Company	Industry	Capital in Million US$ of 1900	Grad. voting	Max votes	Num. of share-holders	Shares of top 3 sh.	Votes of top 3 sh.	HHI	IPO	Est.
1941	Banespa	Bank		0	0	17	0.98	0.98	0.93	0	1889
1941	Cia Siderurgica Nacional	Steel	41.24	0	0	129	0.73	0.73	0.25	0	1941
1944	Cia Nacional de Alcalis	Chemicals	2.76	0	0	630	0.52	1.00	1.00	0	1944
1950	Banespa	Bank		0	0		1.00	1.00	0.97	0	1889

Panel C. Companies with Concentrated Ownership and/or Family Control

Year	Company	Industry	Capital in Million US$ of 1900	Grad. voting	Max votes	Num. of share-holders	Shares of top 3 sh.	Votes of top 3 sh.	HHI	IPO	Est.
Matarazzo family companies											
1905	Banco Italiano del Brasile	Bank	0.65	0	0	195	0.68	0.68	0.21	0	1905
1907	Banco Italiano del Brasile	Bank	0.64	0	0	40	0.74	0.73	0.25	0	1905
1911	Ind. Reunidas Fab. Matarazzo	Multiple	2.31	0	1	74	0.83	0.10	0.03	0	1891
1934	Ind. Reunidas Fab. Matarazzo	Multiple	2.41	0	0	13	0.95	1.00	0.51	0	1891
1937	Ind. Reunidas Fab. Matarazzo	Multiple	3.55	0	0	14	0.53	0.65	0.21	0	1891
Companies owned by other Italian families											
1907	Cia. Puglise	Multiple	0.51	0	0	12	0.80	0.80	0.31	1	1907
1923	Cia. Puglise	Multiple	1.97	0	0	12	0.96	0.96	0.38	1	1907
1909	Cotonificio Rodolfo Crespi	Textiles	0.72	0	0	20	0.92	0.92	0.71	0	1909
Klabin family companies											
1909	Fabricadora de Papel (Klabin)	Manuf.	0.36	0	0	36	0.49	0.49	0.11	0	1909
Other corporations with concentrated ownership and family control											
1890	Industrial de São Paulo	Multiple	0.24	0	0	53	0.60	0.60	0.24	0	1890
1890	Fiação e Tecidos Santa Barbara	Textiles	1.62	0	0	8	0.59	0.60	0.18	1	1890
1891	Cia de Tecelagem Santa Luiza	Textiles	0.11	0	1	8	0.80	0.59	0.43	1	1891
1901	Lloyd Brazileiro	Shipping	6.76	0	0	9	0.75	0.75	0.22	0	1890
1905	Fiação e Tecidos Sacramento	Textiles	0.10	0	1	9	1.00	0.99	0.37	1	1905
1907	Tecelagem Italo-Brasileira	Textiles	0.08	0	0	13	0.82	0.82	0.39	0	1907
1908	Sao Bernardo Fabril	Textiles	0.48	1	0	8	1.00	1.00	0.40	1	1908
1909	Força e Luz de Santa Cruz	Utilities	0.12	0	0	13	0.83	0.83	0.27	0	1909

*The Banco Italiano del Brasile changed its statutes in 1907 to require 10 shares for each vote up to 500 votes and 100 shares for each additional vote thereafter.

Panel C. Companies with Concentrated Ownership and/or Family Control (Continues)

Year	Company	Industry	Capital in Million US$ of 1900	Grad. voting	Max votes	Num. of share-holders	Shares of top 3 sh.	Votes of top 3 sh.	HHI	IPO	Est.
1912	Brasileira de Ar Liquido	Manuf.	0.06	0	0	14	0.73	0.73	0.26	0	1912
1912	E.F. Paracatu	Railroads	2.21	0	0	14	1.00	1.00	0.39	1	1912
1912	Sao Bernardo Fabril	Textiles	0.77	1	0	11	0.94	0.88	0.54	1	1908
1912	Industrial Fluminense	Construction	0.11	0	0	12	0.81	0.82	0.24	1	1912
1912	Quimica Brasileira	Manuf.	0.02	0	0	14	0.55	0.55	0.13	0	1912
1913	Companhia Fabril Vassourense	Textiles	0.05	0	0	94	0.52	0.51	0.12	0	1913
1913	Tecidos Santa Rosa	Textiles	0.12	0	0	34	0.57	0.58	0.20	0	1913
1914	Fabril Santo Antonio	Textiles	0.13	0	1	15	0.65	0.47	0.10	0	1914
1919	Lanificio Petropolis	Textiles	0.19	0	0	10	0.95	0.95	0.58	1	1919
1919	Cia. Fiação e Tecelagem Alegria	Textiles	0.16	0	0	18	0.63	0.63	0.21	0	1919
1922	Lanificio Minerva	Textiles	0.43	0	0	15	0.98	0.98	0.93	0	1922
1923	Energia Eletrica Rio Grandense	Utilities	0.39	0	0	17	0.65	0.65	0.28	1	1923
1924	Carbonifera Prospera	Mining	0.35	0	0	14	0.74	0.74	0.27	1	1924
1931	Cia. Ferro Brasileiro	Manuf.	0.25	0	0	18	0.93	0.93	0.34	1	1931
1937	Renascença Industrial	Textiles	0.61	0	0	78	0.59	0.59	0.16	0	1937
1949	Cia. Lancaster	Textiles	0.30	0	0	15	0.80	0.80	0.34	1	1949

* The São Bernardo Fabril Textile Mill granted its shareholders 1 vote for 5 shares up to 10 votes, after that 10 shares granted one vote until 15 votes were accumulated, then 20 shares gave one vote until 60 votes were accumulated. Finally after 60 votes, 30 shares were needed to get an additional vote.

Sources for the appendix: "Panair do Brasil, S.A.," in *Diário Oficial* , December 27, 1943; "Sociedade Anonyma Fabrica de Tecidos Esperança," in Diario Official, Julho 16, 1919;"Companhia Fiação e Tecelagem Alegria," in *Diário Oficial,* 12/06/1919; "Companhia Luz e Força de Santa Cruz," in *Diário Oficial,* 10/23/1909; "Companhia Paulista de Força e Luz," in *Diário Oficial do Estado de São Paulo* , 16 de novembro de 1912; "Companhia Petropolis Industrial," *Diário Oficial* , 30/11/1912; "Companhia Petropolis Industrial," *Diário Oficial* , 30/11/1912;"Companhia Puglise," in *Diário Oficial do Estado de São Paulo* , 10/17/1907; "Companhia Puglisi," in *Diário Oficial do Estado de São Paulo* , 9/23/1923; "Companhia Renascença Industrial," in *Diário Oficial do Estado de Minas Gerais* , 3/19/1937; "Companhia S. Bernardo Fabril," in *Diário Oficial do Estado de São Paulo* , 2/7/1908; "Companhia S. Bernardo Fabril," in *Diário Oficial do Estado de São Paulo* , 2/7/1915; "Companhia Telephonica do Estado de São Paulo," in *Diário Oficial do Estado de São Paulo* , 1/30/1913; "Cotonificio Rodolpho Crespi," in *Diário Oficial do Estado de São Paulo* , 4/1/1909; "Estatutos da Companhia S. Paulo Industrial," in *Diário Oficial do Estado de São Paulo* , 10/21/1891; "Estatutos da Sociedade Anônyma Lanificios Minerva," in *Diário Oficial* , January 6, 1922; "Estatutos da Sociedade Anônyma Tecelagem Italo-Brazileira," in *Diário Oficial do Estado de São Paulo* , 4/25/1907; "Estrada de Ferro do Dourado," Bolsa de Valores do Rio de Janeiro, Sociedades Anônimas, Transportes, Caixa 2166; "Fiação e Tecelagem Divinopolis S.A., Extraordinária," in *Diário Oficial do Estado de Minas Gerais* ,22/03/1942; "Lanari Engenharia, Industria e Comercio,"in *Diário Oficial do Estado de São Paulo* , 08/12/1951; "Publica Forma. Primero Traslado de Escriptura de Constituição de Sociedade Anônyma (Comp. Brasileira de Ar Liquido)," in *Diário Oficial do Estado de São Paulo* , 9/3/1912; "Santa Luzia Industrial S.A.," in *Diário Oficial do Estado de Minas Gerais* , 2/23/1926; "Sociedade Anonyma Companhia Chimica Brazileira," in i, 8/20/1912; "Tecidos Cometa," in *Diário Oficial* , May 12, 1903; "Usinas Nacionais," in *Diário Oficial* , 6/3/1911; Banco Dos Funcionarios Públicos, *Relatório apresentado pelo presidente do Banco dos Funcionarios Públicos* , Rio de Janeiro: Typographia Leuzinger, 1904; Banco Mercantil do Rio de Janeiro, *Lista dos Accionistas do Banco Mercantil do Rio de Janeiro em 31 de Julho de 1911* , Rio de Janeiro: typ. Leuzinger, 1911; Antarctica, Cia., *Atas da Assambléia de Acionistas da...* , São Paulo, 1891-1927 (São Paulo State Archive); Petropolitana, Companhia, *Relatorio da directoria da Companhia Petropolitana apresentado à Assembléa Geral Ordinaria dos Snrs. Accionistas* , Rio de Janeiro: Typ. Do jornal do Commércio, 1928 and 1929; *Estatutos da Companhia Antarctica Paulista* , 1891–1913, published in Decree 217, May 2, 1891, Decree 3348, July 17 1899, Decree 10,036, February 6, 1913; *Estatutos da Companhia Industrial de São Paulo* , São Paulo: Typographia a Vapor de Jorge Seckler & Comp., 1891 (São Paulo State Archive); *Estatutos da Companhia Industrial Rodovalho* , São Paulo: Companhia Impressora Paulista, 1891 (São Paulo State Archive); *Estatutos da Companhia São Paulo Fabril* , São Paulo: Companhia Impressora Paulista, 1890 (São Paulo State Archive); Fiação e Tecidos Santa Rosa, *Cia. Estatutos* , 07/09/1913 (São Paulo State Archive); Paulista de Estradas de Ferro, *Cia. Presença de Acionistas em Assembléia…* São Paulo, 1869-1957 (São Paulo State Archive); Mogyana (Mojiana) de Estradas de Ferro, *Cia. Relatório da Diretoria em Assembléia Geral...* 1878–1922 (São Paulo State Archive).