How It All Began: The Rise of Listing Requirements on the London, Berlin, Paris, and New York Stock Exchanges

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The global financial market created in the last quarter of the 20th century, with all its challenges and opportunities for mobilizing capital across national borders, still pales in size and significance relative to the international capital market that arose in the last quarter of the 19th century. During the classical gold standard period, 1880-1913, industrializing nations, led by Great Britain and followed in turn by France, Germany, and the United States, exported capital on a scale that still has not been approached in terms of the exports importance relative to either national capital stock or national product. These immense flows of capital were mainly funneled through organized stock exchanges; and, because of their interposition, portfolio investments were made readily available to millions of investors around the world, regardless of whether or not those investors were citizens of the country where the security was issued or even of the country where it was traded. In addition, recent research has yielded increasing estimates of the amount of foreign direct investment that also took place in this period – investments that accompany the massive waves of migration that were a unique adjunct to the gold standard epoch.² An ardent evangelist of the benefits of overseas investing for the British public, Henry Lowenfeld, writing in 1910, counted 89 principal stock exchanges around the world, with 56 percent in Europe, mainly Western Europe, and the rest largely in areas of European settlement.³ Together, those markets allowed some 20 million investors to trade holdings in over \$160 billion (nominal value) of securities. The French authority on stock exchanges, Alfred Neymark, estimated that British investors held 24 percent, Americans 21 percent, French 18 percent, and Germans 16 percent of the world stock of securities.⁴

In the current expansion of emerging markets and the growing willingness of investors to look abroad for favorable opportunities, many issues concerning appropriate rules and regulations arise – those issues are similar to those that arose as well during the 19th century. Looking at the ways that the leading stock exchanges of the first global financial

market handled such issues should prove instructive for today's practitioners and policymakers. From an academic researcher's point of view, it is especially useful to discover that the four leading stock exchanges in that earlier epoch derived their rules and regulations under quite different legal and political environments. Accounting practices and standards also evolved quite differently across the four countries; and those differences depended largely on the original motivation for the establishment of the individual set of rules. In England, the demand for accounting standards came from bondholders, while, in France, tax reporting was the *raison d'être* for the government's successive decrees. Germany stressed managerial and cost accounting; but only in the United State's were rules designed to yield data that could be used to analyze the various forces that affected net income – an analysis that was critical for evaluating common stocks.⁵

How the stock exchanges arose and developed⁶

Almost as if they intended to create a controlled experiment in the effects of differing property rights, London and New York went about creating their new markets in quite different ways. In London, in 1801, a private corporation with a limited number of shareholders (260) constructed a new building to house trading activity – activity that was mainly focused on issues of government debt. However, by British common law, they were unable to exclude non-shareholders from the marketplace that they had built. So the limited number of Proprietors – the owners of the exchange -- deliberately set out to establish rules that would encourage all the potential traders to effect their trades, as dues paying Members, within the confines of the new exchange. In this way, the Proprietors could maximize their revenues from the exchange. The 260 original Proprietors largely succeeded in achieving this goal; they initially attracted 550 subscribers as Members in the new facility. In New York, in 1792, a much smaller number of brokers – brokers operating a day's journey from the national capital -- agreed to trade the bond issues of the newly created Federal debt only

with each other. They also agreed to maintain minimum commissions that were to be charged to their clients (1/4 of one percent of the specie value of the transaction). The 1792 agreement produced the forerunner of the New York Stock Exchange.

On the continent, by contrast, absolute rulers tried to set up their secondary markets for their government debt by fiat. However, the rules they chose differed markedly from country to country. In Paris, in 1808, Napoleon began by restoring to the Paris Bourse its government-enforced monopoly on trading in the reconstituted public debt in an attempt to bring order out of the revolutionary chaos that had both opened access to the stock exchange to the general public and that had led to the government defaulting on two-thirds of the national debt. He limited the number of *agents de change* to 60 individuals willing to pay a price for the privilege and to post a bond with the government – a bond that was sufficient to cover claims made by disappointed customers. In Berlin, in 1804, the Prussian king created a new corporation that was charged with maintaining an orderly market with publicly posted prices for his debt issues, but with the restriction that anyone desiring to trade could have access to the marketplace, whether they were a member of the exchange or not.

The large number of traders on the London Stock Exchange made it very difficult to reach collusive agreements among the Members, especially as their numbers kept increasing – a result of the Proprietors' continuing drive for membership (and, thus, for profits). Further, from the beginning, the members were divided into two groups: jobbers, who held inventories of the most widely traded securities and traded on their own account as principals; and brokers, who were not supposed to hold inventories of securities but to only act as agents for customers who were not members of the exchange. Their respective sources of earnings, bid-ask spreads versus commissions, made it difficult for the two groups to agree on any change in the rules. By contrast, the smaller number of traders in New York, were able, and did, collude to maintain both minimum commissions for the brokers and a restricted

number of high volume securities for the dealers. However, they had to constantly deal with challenges from other exchanges in New York as well as competition from exchanges in Philadelphia and Boston.

In Paris, the very small number of brokers were strictly forbidden to act as principals, and their actions were supposedly under the strict control of the central government. However, their small numbers and long tenure enabled them to maintain effective influence over a succession of governments – an influence that led, in turn, throughout the nineteenth century, to their personal profit. Between 1815 and 1848, the large numbers of traders acting on the Berlin exchange, the dwindling level of the Prussian government debt, and the restrictions placed by the government on the chartering of new corporations meant that the exchange was less important than the older security markets in Frankfurt and Hamburg. After 1848, however, with the change of the governments' chartering policy and the issuance of new debt by both the Prussian state and the railroads, the business of the Berlin exchange expanded rapidly. Thus, even before the establishment of the Reich in 1871, and thanks in part to the initial placement of public securities and to the development of telegraphic communications links within the Zollverein, Berlin rapidly became the leading German exchange.

The first listing requirements in each exchange were imposed at the time of their formal organization – London in 1801, Berlin in 1804, Paris in 1807, and New York in 1817. The requirement simply enumerated the specific securities and their prices that were to be quoted in the price lists provided by the exchange to the member brokers. Those members, in turn, could distribute the lists to their customers and to the financial press. The range of securities listed, and the information provided about each, varied widely among the exchanges. In our view, the differences in listings reflected, the differences in microstructures of the several exchanges; and those structures, in turn, mirrored the purposes

for which each exchange was founded. Later, as each exchange began to list foreign as well as domestic securities, differences emerged that reflected the different legal and political environments within which the exchanges operated.

Listing of foreign securities

Indeed, the entire issue of how, when, and which foreign securities were to be listed on a given exchange, depended on factors largely out of the control of the individual The Amsterdam Beurs, the first stock exchange capable of supporting a professional class of stockbrokers, owed the rise of its business to the fact that the various provinces and municipalities of the Netherlands tried to make the annuities they issued as attractive as possible to non-residents. When, for purpose of maintaining convoy protection, the seven provinces combined their individual fleets – fleets that were trading with the East Indies -- they welcomed shareholding by foreign merchants in their United East India Company (VOC for Vereenigde Oost-indische Compagnie) -- a company that was formed in 1602. However, the shareholders had no voting power; the affairs of the company were directed by a board of seventeen gentlemen (Heeren XVII); and the seventeen members were appointed by the individual provinces. Each province appointed a specified number of members – a number that reflected the proportion of the capital stock issued by that province. Amsterdam had just under half of what was then the capital stock of the largest corporation in the world. It is, therefore, hardly surprising that, throughout the seventeenth century, trade in VOC shares, along with trade in the life and perpetual annuities that were issued from time to time by the Dutch cities and provinces whenever they were forced to bear their share of the costs of nearly constant warfare, naturally concentrated in that city.

When, in 1688, he became William III, King of England and Wales, Dutch financial practices were imported wholesale into London by the Stadholder of the United Provinces, the Prince of the House of Orange. The Bank of England, chartered in 1694, the New East

India Company, created in 1698, and the South Sea Company (1710) were all joint-stock companies that held long-term government debt; and companies that, on the basis of their debt holdings, issued their shares to citizens and foreigners alike. Foreigners could not hold office in any of the companies; but, if they held enough stock, they could vote for the directors of each company. When, in 1720, the South Sea Bubble converted most of the remaining national debt into shares in the South Sea Company, the Bank of England, and the United East India Company, the Dutch may have held a quarter of the national debt of Britain! As the eighteenth century wore on, Dutch newspapers kept faithful track, not only of Dutch securities, but also of the share prices of the three main English companies as well as the prices of the perpetual annuities that the British government began to issue after 1726.

By the middle of the century, the Dutch began to diversify their portfolios across Europe, investing even in the risky shares of the French *Compagnie des Indes* and taking on bonds sold on behalf of various kings and princes, including the Tsars and Tsarinas of Russia. At the end of the eighteenth century, the process culminated with purchases of bonds issued by both American states and the new Federal government, as well as shares in the First Bank of the United States. ¹⁰ In each case, one or more merchant bankers in Amsterdam would make the loan and then retail shares in their holdings of the loan on the Amsterdam Stock Exchange. Hence, in the 1780s, several houses provided quotations for American securities; and, in order to encourage small investors to purchase shares, maintained a resale market for their holdings. For example, for years after the American Civil War, one banker, who had been responsible for marketing Confederate bonds in Amsterdam, continued to offer to repurchase them from his customers at a fraction of their original face value. In this way, foreign securities could be marketed to local investors – the forerunner of American Depositary Receipts.

The Amsterdam stock market was exceptional; but, it was devastated by the French occupation (1795-1813); and it took decades for it to recover. In fact, it was only in 1878 that it was reorganized; and, by that time, both the London and Paris exchanges had become the world's major markets for foreign securities, still mainly government and railroad bonds. In general, stock markets only entered into trade in foreign securities when the market for the existing domestic securities turned down, and traders looked for new products to entice back their former customers or to attract new customers. For example, when, in 1801, the London Stock Exchange was incorporated, the broker Edward Wetenhall, published a semi-weekly broadsheet, The Course of the Exchange, -- a publication that reported the listed securities and their prices. These securities were almost exclusively either government bonds or the shares in the great chartered companies that held permanent government debt - the Bank of England, the East India Company, and the South Sea Company. The three together comprised "the Funds." However, after the financial crisis of 1810, Wetenhall's price list was greatly expanded to include public utilities, canals, docks, waterworks, and even railways (still horse-powered) connecting mines to ports. His intent was to advertise the full range of securities dealt with by the members of the exchange so that customers suffering losses in the downturn of the market might choose to diversify their holdings, rather than entirely withdrawing their business from the exchange.

When, in 1812, the rules of the exchange were formally codified, Wetenhall was authorized to list prices; and he reported every change in a transaction price over the course of each trading day. His purpose was to provide a public record of the transactions that had occurred, in case of dispute over settlement of any particular "bargain." The operators of the exchange were not primarily interested in assuring their clients that they had obtained the best possible price for their order, although the public printing and distribution of the price list certainly had that effect. Rather, the Committee of General Purposes wanted a clear

record of the original price, so that when accounts between members were settled (first quarterly, then monthly, then fortnightly as the century progressed), it would be clear to each broker and dealer how much was owed on a particular transaction. Accounting standards were not an issue!

The London and Paris exchanges initiated their forays into foreign securities in precise imitation of the earlier Dutch practice. In 1817, Alexander Baring opened a book for London investors wishing to purchase part of the flotation of the French *rentes* that were issued to pay off French reparations and the costs of the British occupation. Rothschilds, cut off from participating in either the 1817 or 1818 loans, and in 1821 accused (unfairly), of sabotaging the possibility of a final loan to pay for the removal of Wellington's troops from French soil, were nevertheless able to manage the initial issue of a stunning series of loans. Over the next two decades, the firm "underwrote" loans to Austria, the Kingdom of Naples, Prussia, Russia, and Brazil. These loans proved immensely profitable to the merchant bankers in London and Paris, and especially to the Rothschilds.¹¹

With the success of the French loans, the London Stock Exchange opened its arms to the two types of foreign securities that they could legally trade under existing British law – namely government bonds and mining shares established on a "cost book" system under the Stannaries Laws. In the 1820s, the breakup of the Spanish Empire in Latin American led to the first Latin American debt crisis, and to the London stock market boom, and bust, of 1825. Likewise, in 1822, The Paris Bourse was allowed to list foreign securities. Its members quickly took advantage of the knowledge, contacts, and wealth of the Spanish-American emigrés who had established themselves in Paris. In both markets, the securities that underwrote both the boom and the bust were the bonds issued by the newly independent Latin American colonies of Spain and the shares in Spain's mines. None of the newly independent countries proved capable of even making interest payments on their issues; and

the mines proved that, without Spanish subsidies, they were no longer profitable or even workable.¹² Thereafter, and especially after the widespread defaults of American states in the 1830s, London stockbrokers were much more cautious about foreign loans, gradually following the lead of Rothschild and Baring in lending only to well-established governments.¹³ Similarly, until the revolution of 1848,The Paris Bourse focused on government loans to members of the Holy Alliance.

Beyond government securities in foreign listings

By the middle of the 19th century, the potential profitability of railroad finance led to the listing of foreign railroads on the various exchanges of Europe. In 1854, for example, shares of the Illinois Central were initially placeed in the Amsterdam stock market, because the promoter found the London market swamped by the need to finance the Crimean War.¹⁴ By 1873, enough British investment had found its way into foreign lands, mainly in the form of government and railroad bonds, to make it profitable to establish the private Council of Foreign Bondholders. The Council monitored the performance of each issuer and provided the institutional mechanism to permit debt holders to make common cause against any defaulters.

During the third quarter of the nineteenth century -- a period that includes the shocks of war finance imposed, first, on Great Britain (the Crimean War of 1854), then on the United States (the Civil War, 1861-65), and finally, on France and Germany (the Franco-Prussian War of 1870) -- all four countries had established freedom of incorporation with limited liability for shareholders (Great Britain in 1855 and 1862; United States in 1860 and 1875, France in 1863 and 1867, Germany in 1870). In all four countries, free incorporation meant an opportunity for industrial firms to grow in order to meet the challenges and opportunities of the expanded market size that the growth of railroad networks had created. In addition, it would be obtuse to overlook the significance of the military conflicts in

motivating the four governments to create powerful firms in military strategic sectors. These new behemoths were centered in railroads, coal, steel, steam ship lines, and heavy machinery.

Despite the common motivation and the closeness of timing in initiating the expansion of the corporate form of business among the four industrial powers, the scale and scope of their incorporations varied widely. Because free incorporation was allowed by Massachusetts as early as 1813, the U.S took an early lead. Under U.S. law, these Massachusetts corporations were allowed to operate in other states. Given the Massachusetts "loop hole"; free incorporation, as opposed to incorporation by specific charter, became widespread in other states only after the Civil War. (Evans) By contrast, France and Germany had maintained strict control over corporate charters until the post mid-century reforms. For both Great Britain and the United States, in terms of obtaining external finance, before mid-century, the legal restrictions on forms of business enterprise were much less constraining than in France and Germany.

Ron Harris (1996) has argued that the corporation was, in fact, very important in providing finance for British business even before the legislation of 1844 – legislation that began the process of establishing the legal basis for creating corporations throughout the economy. From the time of Bubble Act of 1720, corporations were permitted in public utilities that had a specific location and function -- canals, turnpikes, docks, water works, gas works, and ultimately, then railroads. The success of these utilities actually underwrote the increase in the public's confidence in the feasibility of the corporate form, and the repeal of the Bubble Act in 1825 should have allowed them to spread to other sectors. That they did not, reflected the ease of establishing extended co-partnerships and business trusts – organizations in which passive partners could limit their liability to the amount of capital they had invested.

Only when limited liability was extended to corporations in the legislation of 1855 and 1862 did corporations begin to form in significant numbers in the manufacturing and service sectors of Great Britain. But even then, the pace of incorporation did not really pick up until the 1890s. Earlier, ample finance was available to British industrial and commercial firms through co-partnerships and trusts; both could provide limited liability for some equity holders. By 1906, however, Great Britain had 40,995 joint stock companies, many more than the rest of Europe combined, although their average capital of £48,786 was much less than that of corporations in France (£85,375) or those in Germany (£135,349). The United States, however, was already in a league by itself. By 1916, the earliest year for which we have reliable figures for the entire country, there were no fewer than 341,300 corporations. (*Historical Statistics*, p. 914)

The contrast between the Anglo-American and the continental European modes of financing was striking. Within the Anglo-American mode of finance – a mode that emphasized recourse to formal capital markets — the United States had a much larger number of corporations than Great Britain; and within the continental European mode – a mode that relied on investment banks — German corporations were much larger than those in France. Part of the difference can be explained by the larger size of the United States and German economies relative to those of Britain and France. However, part of the explanation lies in the differences in the political structures – Great Britain and France possessed strong central authorities – authorities able to control the numbers and size of their corporations; the United States and Imperial Germany had both federal and fragmented local political authorities – authorities that competed for regulatory rents. In the first half of the nineteenth century, the individual states in America competed enthusiastically in creating special charters for corporations, while the separate political units within the German Zollverein competed in

granting concessions to railroads, ironworks, and coal mines during the "Gründungzeit" -- a period that spanned the years from 1850 to 1873.

Not only did the legal environments produce differences among the four powers in the way that they governed the creation of the new corporations; but also those differences, in part, account for the techniques that each country found best suited to employ in placing their new securities. In Great Britain and the United States, the bankers and attorneys of the new firms had to turn to specialists operating in their respective stock exchanges to take the initial placements. In both countries, regional stock exchanges became increasingly important; for they provided specialists as well as a subsequent secondary market for local securities. Typically, banks were excluded from direct participation in the stock exchanges as traders; thus, it was up to brokerage firms - firms with formal or informal contacts with other exchanges -- to widen the market for their local securities. By contrast, in France and Germany, it was the new credit or investment banks that took on the task of initial placement. In Germany, they could trade on their own account in the stock exchanges; and, in France they could operate indirectly on the Coulisse, a complementary exchange located in the outskirts of the formal exchange (the Parquet). In the Coulisse, the investment banks soon came to dominate trading. The importance of the great banks in handling corporate securities in both France and Germany, as well as the preferences each government gave to its central exchange, meant that regional exchanges quickly dropped out of sight; and only the Paris and Berlin stock exchanges remained important markets for corporate securities. What government favoritism did for Paris and Berlin, the rapid expansion of telegraph networks in the United States and Great Britain did for New York and London. In those latter cities, the central exchanges gradually displaced the provincial exchanges in importance.

While the focus of the Provincial exchanges was largely domestic, they were not completely immune to the lure of foreign investment. London remained by far the most

important center for foreign government issues; but a few small issues of Mexican, Egyptian, Brazilian, and Spanish governments were quoted in Liverpool and Manchester. Those exchanges were relatively much more involved in overseas railway and mining activity. As early as the 1850s, both Leeds and Sheffield listed almost as many foreign mines as did London; and, from 1886 onwards, Leeds again became a center of overseas mining activity. During the 1894-1895-mining boom, nearly fifty foreign mines were listed on that city's "Unofficial Mining Board." Because of the local interest in "Kaffirs" (South African gold stocks), that board was called every day immediately after the official reading of listed securities. Again, towards the end of the century, as American rails became increasingly popular with British investors, the Liverpool and, to a lesser extent the Manchester, exchanges became active centers; Liverpool, because of its position in the American trade, was actually able to actively compete with London. 18

The first explosion of incorporations in each country underwrote both the new railroad companies and their issues of securities; and, in each case, the formal stock exchanges played a major role in creating and sustaining a market for those new securities. Initially, these issues were shares in the capital stock of the railroads; but then, increasingly, as construction and improvement expenses quickly outran initial estimates, they were bonds. Both the shares and the bonds were marketed in ways that mimicked, as closely as possible, the features of the existing public securities that were available to investors in each country. Only later did industrial securities become an important part of the business transacted on the major formal stock exchanges in the four cities. Before industrial securities were admitted to the central exchange, they had to be seasoned in their immediate markets; and seasoning meant the regional exchanges came to be dominated by local bankers -- bankers who knew the business plans and abilities of the new firms.

In France, it was only after regulatory reforms in 1898 – reforms that enlarged the role of the formal relative to the informal markets — that the Paris Bourse turned toward foreign industrial securities. In contrast, in Germany the legal reforms of 1896 – reforms designed to protect outside investors from the speculative collapses that had occurred in 1890 and 1893 — forced the Berlin stock exchange to focus more on domestic and government securities. ²⁰ In both cases, it was the political interests of the government that determined how the two exchanges did or did not respond, to the opportunities for foreign investment. Under civil law regimes, traders in both the Paris and Berlin exchanges had to accede to the will of their political masters.

The exchanges in New York and London, having arisen spontaneously as selfregulating organizations, were able to sustain their independence from regulatory constraint by the state; and both responded in self-interested ways to the opportunities offered the newly created market for the securities issued by private corporations. Self-interest, however, played out in quite different ways in the two countries – ways that again reflected the profound differences in the political environment of a country controlled by a central authority and one structured as a federal system. In the mid 1890s, the NYSE, in order to face the competition arising from the other U. S. stock exchanges – exchanges located both in other states and in New York City -- instituted a series of internal changes that allowed it to become the dominant national stock exchange. Those changes permitted it to list industrial securities that had been "seasoned" on a regional exchange or on the curb market in New York. The only "foreign" securities listed on the New York Stock Exchange before World War I were the municipal bonds of the city of Quebec; at the time, Quebec was regarded as nothing but a satellite banking center of New York City. 21 London also instituted major changes in its micro-structure in the 1890s. Again, the changes were made with the

intent to dominate the provincial exchanges; but they had the unintended effect of emphasizing the LSE's role as the British marketplace for foreign securities.

Implications for regulation

In England, periodic crises led to Parliamentary investigations of the practices of the self-regulating London Stock Exchange. These investigations typically ended with minor pieces of legislation designed to both placate the upper classes and to preserve the existing microstructure of the exchange. Moreover, Parliament's major acts always served to enlarge the possible scope of trading activity for the London Stock Exchange. For example, it repealed the Bubble Act of 1720 in the middle of the crisis year of 1825. Then, the Joint Stock Companies Act of 1844 encouraged the formation of joint stock companies in general, and led, in 1856 to the passage of Lowe's Act that established limited liability for joint stock corporations. True, some acts restricted speculative practices of one kind or another; but these were consistently ignored. The Members of the Exchange were far more responsive to sanctions imposed by the Committee on General Purposes than to the possibility of losing lawsuits brought by outsiders.²² Only jobbers, who always acted as principals in the transactions, were really subject to the laws of governing enforcement of contracts.

In New York, stock market panics also produced investigations; but until the change in national politics – changes partially induced by the Panic of 1907 -- produced the "money trust" investigation, the investigations had been conducted only by the state legislature. The state legislators in Albany were easily, and frequently, bribed into rescinding threatened regulations. As a result, the regulations of the NYSE, were revised only in response to the threat of competition from other exchanges -- the Consolidated and curb markets in New York or the regional exchanges elsewhere in the country. In the last decade of the century, the NYSE was able to institute two rule changes that strengthened the Exchange's imprimatur of quality but that competitive threats had previously prevented the Governing Committee

from implementing. In 1892, after three failed attempts, the Governors finally established a clearing mechanism – a mechanism that, by the end of the century, included almost all listed securities.²³ In 1895, the Governing Committee voted to require that listed companies file annual reports, although it is clear that their word was still not law -- they received no reports in either 1895 or 1896. By 1900, however, annual reports including both audited balance sheets and profit and loss statements became a prerequisite both for initial listing and for retaining that listing. (Sobel, pp. 123 & 177)

In France, the regulatory-role played by government obviously varied with the radical changes of regime during the years 1789 to 1914; but even these changes affected the role of the Coulisse far more than that of the Parquet. The relative stability of the Parquet, in turn, can be attributed to the organizational strength of its governing body, the Compagnie des Agents de Change. During the course of the French Revolution, the Compagnie was outlawed along with all other guilds; but Napoleon reestablished it in 1801. Eighty individuals were given indefinite tenure when they provided adequate security bonds. The internal cohesion of the Compagnie was further strengthened when, in 1816, the Restoration government of Louis XVIII asked the individual agents that still remained (their number had dwindled to 50 at the end of Napoleon's reign) to put up an additional purchase price to retain their offices. At that time, the fee was raised by law from 100,000 francs to 125,000. In return, however, the government made it possible for each agent de change to name his successor. So, while the government continued to control the nomination and the disposition of the title, the current titleholder had a property right that could be sold. Possessing heritable rights to their monopoly of the securities trade, the agents de change were no longer civil servants named for life, but public officers with specific powers delegated to them. The same act of 1816 also strengthened the self-governance of the Compagnie: it restored the Chambre syndical that enjoyed the triple powers of recruitment, discipline, and regulation.

The corporate solidarity that naturally arose within the *Compagnie des Agents de Change* enabled them to exercise effective influence on the successive governments and, thus, to maintain their privileged position within France. The power of the Minister of Finance over the operation of the Bourse was effectively conceded to the *Compagnie*.

In Germany, the explosion of corporations that occurred after the founding of the Reich and the receipt of 5 billions francs in reparations from the defeated French nation led to speculative manias that ended in the *Gründungkrise* of 1873. That crisis was certainly abetted by the new law governing the creation of corporations that had been passed in June 11, 1870. This legislation was the high point of the move to liberalize the marketing of corporate shares; and, to this day, it has sealed the interdependence of banks and industry. Especially noteworthy were the rise of new joint-stock banks. In the first two years of the new German Reich, 107 joint-stock banks were formed – banks with total capital of 740 million marks.²⁴ By the end of 1873, 73 of them were in liquidation.²⁵ The first reaction of the government was to protect the earnings of the remaining corporations by raising customs barriers; but, in 1884, a new law defined the distinctive features of German corporations. Each corporation had to form a governance structure with three distinct parts and functions. The managing board of directors (Vorstand) and a general assembly of stockholders (Generalversammlung) were features common to all four countries, but the oversight board with heavy representation of outsiders representing labor, government, the general public, and banks (*Aufsichtsrat*) was peculiar to Germany.

Like the French reforms of 1898, he stock market crises of the early 1890s led to further major reforms in Germany. Like the French law, the German reform outlawed the informal exchanges the (so-called *Winkelbörsen*) that had sprung up around the formal exchange, and it asserted that only transfers validated on the formal exchange had standing in legal disputes. It went further, however, by, in addition, outlawing uncovered, or short sales,

of securities. As a result, trading in corporate securities tended to move, not merely out of Berlin, but out of Germany and to the more friendly confines of the Amsterdam and London stock exchanges. In retrospect, it seems that the formation of the *Kommission für den Börsenenquete* – a commission that included only token representation from members of the stock exchange and that was heavily weighted with representatives of agricultural interests eager to do anything to raise agricultural prices — was responsible for this outcome. But in terms of French history, given that the concerns of all potential interest groups had long been represented in the composition of the *Aufsichtsraten* – the board charged with overseeing the governance of each corporation the broad composition of the commission was logical even if wrong.

Accounting standards

By the decade before World War I, all four exchanges had listed the shares of major industrial corporations; and each had laid out detailed requirements for new companies to gain listing. Berlin and New York concentrated on domestic corporations, while Paris and London continued to compete as the premier marketplaces for the global financial market that had arisen over the last four decades of the "long" nineteenth century. The appendix presents summaries of the listing rules existing for each exchange. The issue of accounting standards that were to be followed by any newly listed company was not raised by any of the exchanges. Each, however, insisted that its committee charged with the responsibility for granting listing of the shares in a corporation have full access to the legal documents required of the corporation in its country, or state, of origin. Moreover, each exchange also required that advertisements reporting the information provided to the stock exchange be placed in major newspapers, both in the city of the exchange and in the location of the home office of the corporation. Presumably, this requirement was intended to elicit comments by

knowledgeable brokers, bankers, or competitors in the event that the information was incomplete or misleading.

Specific reference to auditing requirements is notably missing from the Constitution of the New York Stock Exchange. The economist of the exchange rationalized this omission by pointing to the powerful effects of publicity and the market power of speculators; but the lack of required audits by all but two states of the then forty-eight was lamented by a leading contemporary accountant, who pointed to French law requiring outside audits as providing superior protection to outside investors.²⁶ German law provided that the *Aufsichtsrat* could insist on an outside audit at any time; but, even the accountant who lauded French law, felt that these audits were perfunctory and self-serving.²⁷

The one piece of accounting data demanded by both New York and London was a statement of how much of the capital stock of the corporation would, in fact, be available for outside investors. If most of the capital stock of a firm was not paid up, free from outstanding liens, and available to potential investors beyond the founding subscribers, there was little point for the members of these exchanges in doing business with it. Further, the New York Stock Exchange wanted, and received, information on the size distribution of holdings of stock, distinguishing the number of holders of share lots of 1-100, 101-200, 201-300, 401-500, 501-1,000 and 1,000 and up, as well as identifying the largest ten shareholders by name.²⁸. In this way, the economist of the NYSE could state that, over the years 1909-1920, shares in the common stock of U. S. Steel moved from a distribution marked by two-thirds in the stock in the hands of speculators (members of the New York Stock Exchange) and one-third held by long-term investors at the beginning of the period to three-fourths held by investors and only one quarter held by "speculators" at the end of the period.²⁹

For listings of shares in foreign corporations, before 1914, only the rules of the Paris and London exchanges are of interest. Both required that a foreign corporation be introduced

to the exchange by a member of the exchange in good standing and that the company show proof that the corporation's shares had been listed on their home country's exchange (although the Paris rules made allowance in case the home country had no stock exchange!). Paris, as would be expected from an organization operating under civil law, also required the consul of the home country of the foreign corporation to swear that it was a legally constituted corporation in the home country. Beyond these promises, both exchanges wanted assurances that enough of the foreign corporation's shares would be available for trade on their floors to make it worthwhile for their members to take on the business.

The most striking evidence from this period of the importance of uniform and transparent accounting standards for international cross-listing of equities lies in the nearly universal acceptance of American railroad bonds and shares for listing in foreign exchanges. It has long been held that the fraudulent practices of early railroad promoters (described in Charles F. Adams' classic, *Chapters of Erie*, and since recounted in every popular history of the New York Stock Exchange) as well as the huge amounts of capital sunk into their construction and continued operation provided the chief impetus for the rise of the professional accounting and auditing profession in the U.S. It was not, however, until after 1895, when 25% of the U. S. railroad network was in the hands of receivers appointed by bankruptcy courts, that accounting standards were really enforced upon railroads. Even then, when, in 1908, the ICC imposed uniform depreciation accounting standards upon American railroads (and after the stock market panic of 1907 had substantially decreased the market values of their securities), the railroads responded with an impressive array of accounting devices designed to restore the announced value of their capital stock after required depreciation allowances had been taken. By lucky chance, long-abandoned freight cars were found; and. in some cases, forgotten or previously overlooked branch lines made their appearance in the annual reports.³⁰ Weakly enforced and subject to opportunistic

experimentation by railroad accountants, the American accounting standards nevertheless helped make U.S. railroad securities one of the premier international investments, even before the creation of the Securities Exchange Commission in 1934. The American experience offers proof of the profound weakness of the rules in other countries.

Then and now

This brief overview of the distinctive characteristics of the world's four leading security exchanges in the nineteenth century demonstrates that, even in the case of the most highly developed and most efficiently functioning markets of the first global economy, their legal and political environments led them to adopt different ways to perform essentially the same operations. If the legal environment was broadly similar, as it was for Great Britain and the United States, the political environment led to a different structure of their capital markets. By the end of the nineteenth century, moreover, the legal environments of the two countries had become distinctive in important ways, even though both had evolved from the same base – 18th century English common law. In Britain, court decisions on the powers of self-governance by trade groups clearly favored the freedom of those groups to make and enforce contracts among themselves. In the United States, the courts and legislatures tended to make contracts unenforceable, or even illegal, if they infringed on the freedom of competitors to enter the trade. Regional exchanges flourished in both countries. In Great Britain they never competed with the central exchange in London for primacy; but in the United States, it took the Civil War to establish the permanent preeminence of the New York exchange over the older exchanges of Philadelphia and Boston and, then, the rising exchanges of Cincinnati and Chicago. Further, differences in the original definition of property rights in the marketplaces meant, that while even in New York City, the New York Stock Exchange had a constant battle to establish and then maintain its primacy as the central marketplace the London Stock Exchange was able to encompass all the business in London

and place the regional exchanges in a complementary, rather than competing, role throughout almost the entire 19th century. In 1912, however, when the Members of the London Stock Exchange established minimum commissions and forbade jobbers to shunt business from other exchanges, the complementary role of the provincial exchanges was threatened, Banks and other financial institutions were expressly forbidden from participating in the British exchanges, although the few originally entering as Proprietors were grandfathered in. On the American exchanges, financial institutions were able to form partnerships with brokerage firms or buy seats directly until the regulatory reforms of the 1930s.

On the continent, where the legal environment provided statutory monopolies for the stock exchanges of Paris and Berlin, the political environments were again sufficiently distinct that the roles played by the central exchanges were different. In Paris, over the century, a small group of agents de change had became very tightly organized as a self-regulating Compagnie; and they were able to call upon the enforcement powers of the state to maintain their monopoly. As a result, the rules of the Paris Bourse remained essentially unchanged from the time of Napoleon until the breakup of its monopoly under pressure from the European Community in the late 1980s. By contrast, in Berlin, where open access was required from the beginning, different interest groups were able to drastically alter both the rules of operation on the exchange and the role that it played in the process of national capital mobilization.

In the current episode of expanding global financial markets – an expansion that started at the end of the Bretton Woods monetary regime in 1971 -- each market has made unique contributions and responded to competitive challenges in characteristic ways. The New York Stock Exchange, while still limiting members, now promotes competitive brokerage commissions. Moreover, the resulting increase in volume has more than made up the loss of revenue from reduced commissions. The Exchange also generates increased

revenue from charges imposed on the companies whose securities are listed and traded and from selling its information services to other exchanges and to non-member firms. In 1973, the London Stock Exchange absorbed all the stock exchanges in the United Kingdom and the Republic of Ireland, and renamed itself the International Stock Exchange. In 1986, it moved dramatically toward the New York model with the so-called "Big Bang" – the fallout from the "Bang" allowed its traders to act in the double capacity of brokers and jobbers; and it eliminated minimum commissions. In 1966, the Paris Bourse allowed its agents de change to reform themselves as joint stock corporations so that they could greatly expand their scale of business. One result of this change was that the, now larger, Paris market was able to absorb the French provincial exchanges. At the same time, the number of firms fell from 83 to 61, nearly the same figure that Napoleon had created in 1808. Furthermore, no foreigners were allowed to hold seats. After World War II, as the regional exchanges, led by Frankfurt, came back to prominence, the Berlin Börse had essentially stopped functioning. This time, however, all the German exchanges limited entry to banks and maintained fixed commissions. As a result, the problem of the post-war decade was not so much dealing with the pressures from the non-financial community (although forward trading was not allowed until very recently), but with the jealousy with which each regional exchange tried and still tries to protect its niche market.³¹

In recent years, the Frankfurt and Paris exchanges have shown themselves to be the most innovative and aggressive in their attempts to expand their markets by increasing the equity holdings of their citizens. As recently as 1991, despite a resurgence of activity after the collapse of the Berlin Wall and the re-unification with East Germany, the capitalization of domestic equities amounted to only 26% of German GDP, compared to 62% for the U.S. and 120% for the U. K. In 1993, ten of the nearly 800 stocks listed in German Exchange accounted for 63% of the trading volume. Only a bit over 5% of the German population

actually held any stocks; a figure that compares to over 16% in France, and 21% in the U.S. and U. K. While the situation has improved considerably over the past decade, much still remains to be done. The lessons of the first global financial market show that it will be largely up to the exchanges themselves to make the necessary changes to reassure outside investors that they should become regular customers; but the common law environment helps, as well as does the fear of competition in an environment where decisions are largely the product of a relatively free market rather than of a government monopoly.

Appendix: Listing Regulations for Major Stock Exchanges

in the First Global Financial Market

London:

(Source: Rules and Regulations of the London Stock Exchange, (London: The Stock Exchange, 1906), Appendix "Official Quotations."

A. Conditions precedent to an application for official quotation. [p. 96]

1. That the Prospectus

Shall have been publicly advertised;

Agrees substantially with the Act of Parliament or Articles of Association; Provides for the issue of not less than one-half of the authorised capital and for the

payment of 10% upon the amount subscribed.

If offering Debentures or Debenture Stock, states fully the terms of redemption. In cases where a Company has sold an issue of Debentures or Debenture Stock which is subsequently offered for public subscription either by the Company or any subsequent purchaser, states the authority for the issue and all conditions of sale.

- 2. That two-thirds of the amount proposed to be issued of any class of Shares or Securities, whether such issue be the whole or a part of the authorised amount, shall have been applied for by and unconditionally allotted to the public, Shares or Securities granted in lieu of money payments not being considered to form a part of such public allotment.
- 3. That the Articles of Association, and the Trust Deed where such is required, contain the provisions specified hereafter.
 - 4. That the Certificate or Bond is in the form approved. [p. 97]

B. Articles of Association

Articles of Association should contain the following provisions:-

- 1. That none of the funds of the Company shall be employed in the purchase of, or in loans upon the security of its own shares:
- 2. That Directors must hold a share qualification;
- 3. That the borrowing powers of the Board are limited;
- 4. That the non-forfeiture of dividends is secured;
- 5. That the common form of transfer shall be used;
- 6. That all Share and Stock Certificates shall be issued under the Common Seal of the Company; 7. That fully paid Shares shall be free from all lien;
- 8. That the interest of a Director in any contract shall be disclosed before execution, and that such Director shall not vote in respect thereof;
- 9. That the Directors shall have power at any time and from time to time to appoint any other qualified person as a Director either to fill a casual vacancy or as an addition to the Board, but so that the total number of Directors shall not at any time exceed the maximum number fixed; but that any Director so appointed shall hold office only until the next following Ordinary General Meeting of the Company, and shall then be eligible for reelection:
- 10. That a printed copy of the report, accompanied by the Balance Sheet and Statement of Accounts, shall, at least seven days previous to the General Meeting, be delivered or sent by post to the registered address of every member, and that two copies of each of these documents shall at the same time be forwarded to the Secretary of the Share and Loan Department, The Stock Exchange, London;
- 11. That the charge for a new Share Certificate issued to replace one that has been worn out, lost, or destroyed shall not exceed one shilling.

C. Trust Deeds

Trust Deeds should contain the following provisions:-

1. Where provision is made that the security shall be repayable at a premium, either at a fixed date or at any time upon notice having been given, the Trust Deed must further provide that should the Company go into voluntary liquidation for the purpose of amalgamation or reconstruction the security shall not be repayable at a lower price. [p. 98]

New York:

(Source: J. Edward Meeker, *The Work of the Stock Exchange*, (New York: The Ronald Press Company, 1922), pp. 577-80.

Every application for an original listing of capital stock shall recite:

- A. Title of corporation
- B. (1) State authorizing incorporation; (2) (a) date, (b) duration, (c) rights.
- C. (1) Business; (2) special rights or privileges granted directors by charter or bylaws.
- D. (1) Whether capital stock is fully paid; (2) non-assessable; and (3) liability attaching to stockholders.
- E. (1) Issues (by classes), dividend rate and par value; (2) total amount of each, authorized and issued; (3) increases and authority therefor, including 9a) action by stockholders, (b) by directors and (c) by public authorities, et.; (4) amount unissued, (a) options or contracts on same, (b) specific reservation for conversion.
- F. If preferred stock; (1) whether cumulative or non-cumulative; (2) preferences, including (a) voting power; (b) dividends; (c) distribution of assets on dissolution or merger; (d) redemption; (e) convertibility.
- G. Voting power of obligations of debt.
- H. (10 Purpose of issue; (20 application of proceeds; (3) amount issued for securities, contracts, property; description and disposition; (4) additional property to be acquired, with particulars, as required by paragraph M.
- I. (1) History of corporation; (2) of predecessor companies, or firms, with location and stock issues; (b) conditions leading to new organization.
- J. Tabulated list of constituent, subsidiary, owned or controlled companies showing (q) date of organization; (b) where incorporated; (c) duration of charter; (d) business and (e) capital stock issues (by classes), par value, amount authorized, issued, owned by parent company.
- K. (10 Mortgage, and (2) other indebtedness, (a) date, (b) maturity, (c) interest rate, (d) redemption by sinking fund or otherwise, (c) amount authorized, and (f) amount issued; (3) similar information regarding mortgage and all indebtedness of constituent, subsidiary, owned, or controlled companies.
- L. Other liabilities, joint and several, (1) guaranties, (2) leases, (3) traffic agreements, (4) trackage agreements, (5) rentals, (6) car trusts, etc., (7) similar description of other easements; (8) terms of each, and provision for payment; (9) similar information as to constituent, subsidiary, owned or controlled companies.
- M. (1) Description, location, nature and acreage of property, (a) owned in fee; (b) controlled; (c) leased; (2) railroads, mileage completed, operated and contemplated; (3) equipment; (4) character of buildings and construction; (5) tabulated list of franchises showing (a) where granted, (b) date, (c)duration, (d) purpose; (6) timber, fuel or mining lands, water rights; (7) similar information as to constituent, subsidiary, owned or controlled companies.
- N. Policy as to depreciation
- O. (1) Character and amount of annual output for preceding five years; (2) estimated output (character and amount) for current year; (3) number of employees.

P. (1) Dividends paid; (2) by predecessor, and constituent, subsidiary, owned or controlled companies.

- Q. Financial statements; (1) earnings for preceding five years, if available; (2) income account of recent date for at least one year, if available; (3) balance sheet of same date; (4) similar accountings for predecessor, constituent, subsidiary, owned or controlled companies; (5) corporations consolidated within one year previous to date of application, income account and balance sheet of all companies merged and balance sheet of applying corporation; (6) if in hands of receiver within one year previous to date of application, (a) income account and balance sheet of receiver at time of discharge, and 9b) balance sheet of company at close of receivership.
- R. Agreements contained on page 5.
- S. Fiscal year.
- T. Names of (1) officers; (2) directors (classified) with addresses; transfer agents and (4) registrars, with addresses.
- U. Location of principal and other offices of corporation.
- V. Place and date of annual meeting.

In addition to the above, applications from corporations which own or operate minds must recite:

- A. Patented and unpatented claims, by numbers.
- B. (1) Geological description of country; (2) location and description of mineral and other lands; (3) ore bodies; (4) average value of ore; (5) character; and (6) methods of treatment.
- C. History of workings, (1) results obtained; (2) production each year.
- D. (1) Ore reserves compared with previous years showing separately as to character and metal content; (2) estimates of engineer as to probable life of mines; (3) probabilities by further exploration.
- E. (1) Provisions for smelting and concentration; (2) cost of (a) mining, (b) milling and smelting, (c) transportation; and (3) proximity of property to railway or other common carrier.
- F. Properties in process of development; income account if available, guaranties for working capital and for completion of development.
- G. Total expendit8ures for preceding five years for acquisition of new property, development, proportion charged to operations each year.
- H. (1) Policy as to depletion; (2) acquisition of new property; (3) new construction and development.
- I. Annual reports for preceding five years, showing number of tons of ore treated, average assay, yield, percentage of extraction, recovery per ton of ore.

In addition to the above, applications from corporations which own or operate oil and gas wells must recite:

- A. (1) Brief history of oil fields; (2) character and gravity of oil.
- B. (1) Total area of oil land (developed and undeveloped), (a) owned, (b) leased, (c) controlled, (d) proven, (e) under exploitation, (f) royalties.
- C. (1) Number of wells (oil or gas) on each property, (a) in operation, (b) drilling,
 - (c) contemplated; (2) average depth of wells drilled (a) shallowest, (b) deepest,
 - (c) probable life; (3) whether oil sands are dipping.

D. (1) Gross daily production–initial and present; (2) annual gross production from each property for past five years, if available; (3) estimated output for current year.

- E. (1) Storage, capacity and location; (2) (a) amount of oil stored, (b) character, (c) value; (3) pipe line, (a) gauge, (b) capacity, (c) mileage.
- F. (1) Refineries, (a) capacity, 9b) acreage, (c) employees (d) products and byproducts.
- G. Properties in process of development, income account if available, guaranties for working capital and for completion of development.
- H. Total expenditures for preceding five years for acquisition of new property, well drilling and dev3elopment, proportion charged to operations each year.
- I. (1) Policy as to depletion; (2) acquisition; and (3) development of new properties.

(Note: For requirements as to voting trust or stock trust certificates, or certificates of deposit, see Page 3.)

Paris

(Source: William Greenwood, *American and Foreign Stock Exchange Practice Stock and Bond Trading*, (New York: Financial Books Company, 1921), pp. 754-60.

Regulations as to Issues of French and Foreign Shares and Bonds in France

(Law of finance of 30th January, 1907, and the Decree of 27th February, 1907)

Clause 3 (Law of 30th January, 1907)

The issue, the exhibition, the placing on sale, and the introduction on the market, in France of all shares, bonds, or securities of any kind whatever, of French or foreign companies, are, so far as concern securities offered to the public after the 1st March, 1907, subjected to the following formalities:

The persons issuing, exhibiting, or placing such securities on sale, and the introducers of them on the market, must, previous to taking any steps towards the advertising, insert a notice containing the following details in the Supplement to the *Journal Officiel*, the form of such notice to be settled by decree. (The Decree of 27th February, 1907, follows this section.)

- (1) The designation of the company, or its trading name.
- (2) A statement as to the legislation (French or foreign) under which the company's operations are carried on.
 - (3) The address of the head office of the company.
 - (4) The object of the undertaking.
 - (5) The period for which it is formed (duration of the corporation).
- (6) The total amount of its capital stock, the amounts of each of the different classes of shares, and the amounts still unpaid on such shares.
- (7) A certified copy of the last balance-sheet, or a statement that no balance-sheet has been prepared.

There must also be stated the amount of any bonds which have been issued by the company, with details of any charges or guarantees given in connection with them.

If a new issue of bonds is to be made, there must be stated the quantity as well as the value of the bonds to be issued, the interest to be paid on them, the date of redemption, and the conditions and the guarantees given to secure the series of bonds to be issued.

Mention must also be made of any profits or advantages granted to vendors, directors, managers, and any other persons, the assets brought into the company by vendors and the method of payment for same, the formalities necessary for the calling of the general meetings, and their place of meeting.

The persons who issue, offer, or place on sale, and the introducers of such securities, must be domiciled in France; they must sign the above-named notice with their names and addresses.

All poster, prospectuses and circulars must reproduce the statements of the notice named, and must contain a mention of the insertion of the said notice in the Supplement of the Journal Officiel, giving a reference to the number of the issue in which the notice has appeared.

The advertisements in newspapers and periodicals must reproduce the same statements, or , at least, an extract of the statements with reference to the said notice, and must indicate the number of the Journal Officiel in which it has been published.

Every foreign company which makes a public issue in France, or offers, places on sale, or introduces shares, bonds, or securities of any kind whatever, must, in addition, publish its

articles of incorporation in full, in the French language, in the Supplement of the Journal official, previous to the placing or offering of the securities.

Breaches of the above regulations are to be declared by the officials of the Registry Department; such breaches may be punished by fines of from 10,000 frs. to 20 000 frs. (\$2,000 to \$4,000).

Clause 463 of the Penal Code is to be applicable to the fines named in the present clause.

DECREES OF THE 27TH FEBRUARY, 1907

Respecting the Offering for Sale, in France, of French and Foreign Shares and Bonds (Including American Stocks and Bonds)

Clause 1. The insertions named in Clause 3 of the Law of finance of the 30th January, 1907, are to be published in the Supplement attached to the Journal Officiel, under the title of the "Bulletin Annexe au Journal Officiel de La Republique Française" (supplement to the Official Journal of the French Republic).

These compulsory notices are to be paid for by the companies.

Clause 2. The charge for the insertions is fixed at 2 frs. (38 1/2 cents) per line "de corps sept," the ordinary line of the Journal Officiel being taken as the basis.

Clause 3. The Supplement will appear weekly, on Mondays. Insertions must be signed by the persons responsible for such notices, and delivered at the latest on the previous Wednesday, at the offices of the Journal Officiel.

Clause 4. The Supplement will be delivered, without extra payment, to the subscribers to the complete edition of the Journal Officiel.

The price of subscription to the Supplement, only, is fixed at 12 frs. (\$2.332) for France, Algeria, and Tunis, and 18 frs. (\$3.47) per annum for the other countries of the postal union. Subscriptions must be for the full year, and will commence from the first issue of each month.

Clause 5. The Supplement will be sold by sheets of 16 pages maximum. The price of each sheet is to be 5 centimes (1 cent) for the issues of each current year, and 50 centimes (10 cents) for those of previous years.

Clause 6. An annual alphabetical index of the Supplement will be published in the annual index of the Journal official; the price of the index will be 6 frs. (\$1.16).

Clause 7. The President of the Council, the Minister of the Interior, and the Minister of Finance are charged with the execution of the present decree, which is to be published in the Journal Officiel and in the list of Laws.

OFFICIAL QUOTATIONS OF FOREIGN GOVERNMENT SECURITIES ON THE PARIS BOURSE

Details and Documents Required

- (1) The demand for admission must be made to the Syndic des Agents de Change de Paris (Secretary of the Paris Stock Exchange).
- (2) Two copies must be delivered of the laws and decrees authorizing the loan issue.
- (3) A declaration must be made, in duplicate, by the consul in France of that foreign government, that the security is quoted officially on its own bourse, if one exists; if not, then a declaration in duplicate that there is no Bourse in that country.
- (4) Specimens in duplicate of the temporary or final bond certificates, with coupons, and the details of the numbers relating to the coupons of each class of certificate issued.
- (5) Statement of the price of issue.
- (6) Statements of the amounts paid up on each security.

- (7) Dates when interest payable.
- (8) Present position as to interest payment.
- (9) Names and addresses of the bankers in Paris who undertake the sale of the securities and the payment of the coupons.

Undertakings Required

- (10) To furnish the Stock Exchange Committee with 200 copies of each list of drawings for the redemption of the securities.
- (11) Translations into French, by sworn translators, of all documents submitted in foreign languages (other than French).

RULES RESPECTING ADMISSION TO OFFICIAL QUOTATIONS OF FOREIGN SHARES AND BONDS ON THE PARIS BOURSE

Formal application for inclusion in the Official List must be made to the Syndic des Agents de Change de Paris.

Details Required

The following documents and information must be supplied in duplicate with the application:

- (1) Certified copies, in duplicate, of (a) all public and private agreements and deeds relating to the formation of the company (charters or articles of incorporation); (b) the by-laws of the company; (c) resolutions or other consent or permission authorizing the issue of such securities in the country in which it is registered; (d) translations into French, by sworn translators, of all documents submitted in other languages.
- (2) Duplicate certificate, by the Consul in France of the country in which the company has been registered, that the deeds and agreements produced are inn due legal form for that foreign country, and that the securities are quoted officially on the Stock Exchange in that country (or a certificate that there is no Stock Exchange in that country.)
- (3) Specimens of the temporary and final forms of certificates issued for the securities, with details of the coupons and of the numbers referring to each class of coupons.
- (4) Proof of the acceptance, by the French Department of Finance, of a French "représentant responsable' (agent) who is to be responsible to the Treasury for the stamp and other duties payable on the company's securities issued in France.
- (5) Statement of the price of issue;
- (6) Amounts paid up on each class of security;
- (7) Dates when dividends or interest are declared and paid;
- (8) Present position of the securities as regards dividends or interest;
- (9) Names and addresses of the Paris bankers who are issuing the certificates, and who will pay coupons and dividends declared on the securities held in France.
- (10) An undertaking by the company to provide for the registration of transfers and the payment of coupons in Paris, as well as for the repayment there of bonds to be redeemed by drawings or otherwise.
- (11) An undertaking to furnish the Paris Stock Exchange Committee with 200 copies of each list of drawings of securities for redemption.
- (12) An undertaking to furnish the Paris Stock Exchange Committee with a copy, in French, of the minutes of each general meeting of stockholders.

Berlin

Source: Greenwood, op. cit., pp. 891-6.

German Stock Exchanges Official Quotation of Shares and Bonds

The conditions for the admission of shares and bonds to official quotation on the German Stock Exchanges are fixed by the law of the 22nd June, 1896. The following are the chief provisions:–

All requests for admission must be addressed to the Committee of the Stock Exchange, which thereupon publishes in the newspapers the prospectus of the company, and details of the nominal values and descriptions of the securities for which the official quotation has been demanded, together with the name of the firm of stockbrokers making the demand.

At least six days must elapse between the date of such publication and the admission to quotation.

A prospectus of the company must be submitted, containing sufficient details to allow of a proper estimation of the value of the securities to be quoted. This applies also to increase of capital and to conversions. The prospectus must state the quantity of shares in circulation, and the quantity temporarily excluded from negotiation and the period of such exclusion.

For securities of German states or municipalities, or of undertakings under German government control, the prospectus is not generally required, as the official quotation cannot be refused.

Persons knowingly making false or misleading statements in any prospectus are jointly responsible, during five years afterwards, for damages to all German purchases of securities bought by reason of the publication of such prospectus.

The making of fraudulent statements in a prospectus or in advertisements, with a view to obtaining subscriptions for the purchase, or causing the sale of securities by the public is punishable by imprisonment and be a fine not exceeding 12,000 marks (\$3,000).

Any agreement to evade or limit the responsibility for such statements is void in law.

Important

A security cannot be admitted to official quotation by any German Stock Exchange if it has been previously submitted to another German Stock Exchange which has refused to quote it for any reason other than that of local interests.

In the case of public issues of shares for subscription, they cannot be officially quoted before allotment (allocation of them to subscribers).

The distribution of price-lists of shares not quoted officially is forbidden.

No official quotation can be granted to the shares or bonds of any business which has been converted into a stock corporation, as a going concern, until after the company has been registered at least one year, or until after its first annual balance sheet and profit and loss account, as a stock corporation, have been published.

Directors

Directors must be appointed by the organization meeting (held to vote the incorporation of the company). They may be dismissed at any time by a general meeting. Managing directors may be appointed either by the articles of incorporation or by the Board of Directors (*die Direktion*); a list of directors and managers must be filed at the Commercial court, and also any changes.

Restrictions by the company on the powers of directors cannot be pleaded against third parties. Directors must not compete with the company, nor undertake personal liabilities for any other company.

If the articles of incorporation provide for directors receiving any portion of the profits as remuneration, this payment may be reduced by a general meeting.

Committee of Inspection (Shareholders' Auditors)

This consists of three members. The first committee is elected by the organization meeting, and it remains in office until after the first annual general meeting. The same members cannot continue in office for more than four years. Any member may be dismissed by a three-fourths majority at any general meeting.

All appointments and changes must be registered at the Commercial Court.

The members of the committee must not be directors, nor employed by the company, but the committee may appoint one of its members to act temporarily for one of the directors prevented from attending to his duties. The duties of the inspectors are to continuously supervise the management of the company in all its details. They may at any time demand special reports on the business, from the directors, and may also examine all books and documents and check the cash balances, the securities of the company, and the stocks of goods on hand.

They must check the annual balance sheets and accounts and make reports on them, and on the management of the company, to the annual general meeting. They must also call general meetings whenever necessary in the interests of the company. The articles of incorporation of the company may impose further duties. The members of the inspection and audit committee are not allowed to delegate their duties.

The legal provisions concerning the supervision by stockholders' auditors are good, but in practice such supervision is generally worthless, many of the lay auditors being incompetent, and others only interested in drawing their fees.

Increase of capital

No increase of capital can be made unless the original share capital is fully subscribed and paid in, except for a very small amount of calls in arrear. Each class of stockholders must vote separately for the increase, by majorities of three-fourths in value of the stockholders present or represented by proxy. Original stockholders have the preference of subscribing for new issues, unless voted otherwise.

Reduction of capital

This may be voted at a general meeting by a majority of three-fourths in amount of the stockholders present or represented. Separate resolutions must be passed by each class of stockholders. The reductions may be for (1) writing off losses of capital; (2) repayment of share capital; or (3) canceling the unpaid portions of the par values of shares.

The reductions of capital must be advertised, and notice given to each creditor, any of whom may thereupon demand guarantees for payment of their debts.

Shares may be repaid from profits, if power to do so is taken by the articles of incorporation; such repaid capital is not liable to be called up again.

Voluntary Liquidation

When either the interim accounts or the final accounts of a company show a loss of half, at least, of the share capital of the company, the directors must immediately call a general meeting of shareholders to consider the position, but the dissolution is not compulsory; the meeting may resolve to continue trading.

A resolution for dissolution may be passed by a three-fourths majority in value of the stockholders present or represented at such a general meeting.

Unless otherwise provided by the articles of incorporation, or voted by the general meeting, the directors of the company act as liquidators (receivers).

The committee of inspection, or stockholders representing one-twentieth of the capital, may apply to the Court for the appointment of other liquidators. A general meeting may at any time dismiss any liquidator not appointed by the Court.

Liquidators are subject to the supervision of the committee of inspection. Balance sheets must be published annually during the liquidation (dissolution proceedings).

A majority of three-fourths or the stockholders may agree to the sale of the whole of the business for shares in another company.

Transfers of Shares

Transfers can be made by endorsement of the shares, and may be in blank, if the par value of the shares is over 1,000 marks (\$250) each. Below that amount, they must be transferred by affidavit made before a judge or notary, and the transfer is also subject to the consent of the board of directors.

Transferors are liable for calls made during the two years following the transfer. Each transferor is liable in turn, moving backwards from the last holder. The transferor paying the calls in default (instalments due on shares) is entitled to a share certificate, from the company, for such shares.

Dividends

Before paying dividends, a reserve must be made of at least 5% of the net profits of each year, until such reserves amount to 10% of the total authorized capital of the corporation.

In the case of different classes of shares on which varied amounts have been paid up, there must be first paid, from the profits, interest at the rate of 4% per annum on the actual amounts paid up, reckoned from the dates of receipt, or such smaller interest as the profits will allow. Any excess profit may be paid as dividends.

Interest during construction (*Bauzinsen*) may be paid by railroads and other companies from the date of their incorporation until the commencement of business.

¹ Maurice Obstfeld and Alan Taylor, "The Great Depression as a Watershed: International Capital Mobility over the Long Run," in Michael Bordo, Claudia Goldin, and Eugene White, eds., *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century*, (Chicago, 1998). Cf. Kevin O'Rourke and Jeffrey G. Williamson, *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy*, (Cambridge, MA and London: MIT Press, 2000).

² Mira Wilkins and Harm Schröter, eds., *The free-standing company in the world economy, 1830-1996*, (New York and Oxford: Oxford University Press, 1998).

³ Henry Lowenfeld, *All About Investment*, 2nd. Ed., London: The Financial Review of Reviews, 1910. Lowenfeld also wrote *The Investment of Trust funds in the Safest and Most Productive Manner*, (London: Effingham Wilson, 1907), in which he demonstrated the risk-return advantages of an internationally diversified portfolio for British investors in the first global capital market.

⁴ M. A. Neymark, *La Statistique Internationale de Valeurs Mobilières*, (La Haye, 1911).

⁵ Jonathan Baskin and Paul Miranti, *A history of corporate finance*, (Cambridge and New York: Cambridge University Press, 1997), pp. 226-7.

⁶ This section draws upon material in Lance Davis and Larry Neal, "Micro Rules and Macro Outcomes: The Impact of the Structure of Organizational Rules on the Efficiency of Security Exchanges, London, New York, and Paris, 1800-1914," *American Economic Review*, (May 1998).

⁷ E. Victor Morgan and W. A. Thomas, *The Stock Exchange*, its history and functions, (London, 1961), p. 143.

⁸ James Tracy, *A financial revolution in the Habsburg Netherlands*, (Berkeley and Los Angeles: University of California Press, 1985).

⁹ See Larry Neal, *The Rise of Financial Capitalism: International Capital Markets in the Age of Reason*, (Cambridge and New York, 1990), ch. 3.

¹⁰ James C. Riley, *International Government Finance and the Amsterdam Capital Market, 1740-1815*, (Cambridge and New York: Cambridge University Press, 1980.)

¹¹ Niall Ferguson, *The House of Rothschild: Money's Prophets, 1798-1848*, (London: Penguin Books, 2000), ch. 4.

¹² Larry Neal, ""The Financial Crisis of 1825 and the Restructuring of the British Financial System," *The Federal Reserve Bank of St. Louis Review*, 80 (May/June 1998), 53-76; Frank Dawson, (1990), *The First Latin American Debt Crisis. The City of London and the 1822-25 Loan Bubble*, New Haven, CT, Yale University Press.

¹³ As late as 1934, British holders of Mississippi bonds issued in 1833 and 1838 brought suit to the U. S. Supreme Court that they should be redeemed! (Monaco vs. Mississippi Collection, University of Southern Mississippi McCain Library, http://www.lib.usm.edu/~archives/m179.htm [accessed September 8, 2001]).

A. J. Veenendaal, Slow train to paradise: how Dutch investment helped American railroads, Stanford,
 CA: Stanford University Press, 1996.

¹⁵ Horn, p. 182 in Norbert Horn & Jürgen Kocka, eds., *Law and the Formation of the Big Enterprises in the 19th and Early 20th Centuries*, (Göttingen: Vandenhoeck & Ruprecht, 1979).

¹⁶ G. Heberton Evans, *Business Incorporations in the United States*, (New York: National Bureau of Economic Research, 1948.)

¹⁷ Ranald C. Michie, "Different in Name Only? The London Stock Exchange and Foreign Bourses, c. 1850-1914," *Business History*, 30 (January 1988), pp. 46-68, p. 52, citing A. D. Webb, *The New Dictionary of Statistics*. London, 1911, p. 145.

¹⁸ William A. Thomas, *The Provincial Exchanges*, (London: Frank Cass, 1973), pp. 188-190.

¹⁹ This was remarked at the time by contemporaries and is emphasized most recently in Baskin and Miranti (1997).

²⁰ The new German law placed severe restrictions on time dealings, restrictions that were especially burdensome for dealings in foreign securities, even after the law was revised in 1908. Time dealings by German banks then moved to the Amsterdam and London markets.

²¹ J. Edward Meeker, *The Work of the Stock Exchange*, (New York: Ronald Press Company, 1922), p. 160.

²² After the end of the Napoleonic Wars, some members of the exchange petitioned to outlaw dealings in options, on grounds that they violated Barnard's Act of 1734, which forbade time dealings unless the seller had physical possession of the security throughout. The majority of the members, led by Jacob Ricardo, defended option dealings, noting that Barnard's Act had been violated constantly by members of the exchange ever since its passage, with no one ever being brought to court. (Minutes of the Committee for General Purposes, 1821, Guildhall Library, MS 14600/9, ff. 176-183).

²³ Robert Sobel, *The Big Board: A History of the New York Stock Market*, (New York: The Free Press, 1965), p. 131 and John Grosvenor Wilson, "The Stock Exchange Clearing House" in Edmund Clarence Stedman, *The New York Stock Exchange: Its History, Its Contribution to National Prosperity, and Its Relation to American Finance at the Outset of the Twentieth Century*, (New York: Greenwood Press, 1969), pp. 423-32.

²⁴ Rainer Gömmel, "Entstehung und Entwicklung der Effektenbörse im 19. Jahrhundert bis 1914," in Hans Pohl, ed., *Deutsche Börsengeschichte*, Frankfurt am Main: Fritz Knapp Verlag, 1992, p. 154.

²⁵ Gömmel, p. 156.

²⁶ J. Edward Meeker, *The Work of the Stock Exchange*, (New York: Ronald Press, 1922), p. 446-51 (economist) and W. J. Greenwood, *American and Foreign Stock Exchange Practice Stock and Bond Trading and the Business Corporation Laws of All Nations*, (New York: Financial Books Company), p. 106 (accountant).

²⁷ Greenwood, p. 893.

²⁸ Meeker, p. 448.

²⁹ Meeker, p. 464.

³⁰ It was this surge of new capital "found" to offset depreciation allowances in 1910 that led one economic historian to mistakenly assert that railroad investment peaked in 1910, rather than 1907 as actually occurred. (Larry Neal, "Investment Behavior by American Railroads: 1897-1914," *Review of Economics and Statistics*, 51 (1969), 126-135.

³¹ See summaries in Economist Publications, *Directory of world stock exchanges*, for Frankfurt, London, New York, and Paris, and Robert Schwartz, *Reshaping the Equity Markets*, (New York: HarperBusiness, 1991), chs. 4 and 5.