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Corporate Ownership in France The Importance of History

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The French model of corporate ownership and control is quite distinct from the Anglo-American model. It has been described as an insider model because it contains a high degree of concentration of ownership, while the wider dispersion of ownership characterized by the U.K. and U.S. models has been termed an outsider model. Why are there such widely differing models between France, and, indeed, many Continental European countries, on the one hand, and the United States and the United Kingdom, on the other? La Porta, López-de-Silanes, and Shleifer (1998) have advanced the view that ownership in capital markets is concentrated where there is an absence of strong investor protection embodied in the legal system and regulatory arrangements. La Porta and coauthors highlight the role of contemporary institutions but downplay, aside from legal developments, the role of historical factors in shaping the structure of capital markets. More recently La Porta et al. (2000) asserted that “Common law countries have the strongest protection of outside investors—both shareholders and creditors—whereas French civil law countries have the weakest protection” (p. 8). Their explanation appears to be that the legal system and regulatory controls determine the structure of corporate ownership. The civil law system is perceived to be linked to a system of weaker control and protection for investors; ergo, it is natural to find a high degree of concentration of ownership in countries such as France because of investors’ trepidation about investing in a relatively unprotected investment environment. In a post-Enron, Tyco, and WorldCom world, French jurists and finan-

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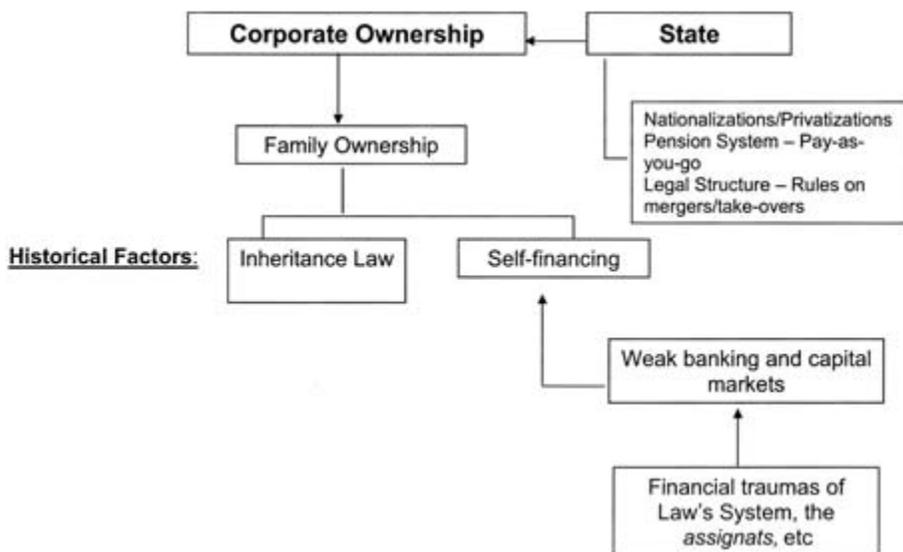


Fig. 3.1 Factors influencing France's corporate ownership structure

ciers might be permitted a wry smile at the implication that the common-law system is linked to a strong system of corporate control.¹

This paper emphasizes the importance of history in the shaping of corporate ownership structures. The theme of this paper is that historical elements can produce profound shocks and deep afterwaves, the effects of which move through an economy for many generations, fashioning the collective psyche of people in such a way as to present barriers to innovation and change. The financing of a corporation may arise in three ways: bank borrowing, borrowing from the capital market, or self-financing through the use of retained profits. Borrowing from the banking sector and the capital markets dilutes the ownership of a corporation. Self-financing, on the other hand, strengthens the concentration of ownership. In France over the last three hundred years historical factors have produced a weak capital and banking structure. Because of these weaknesses there has been, until relatively recently, a significant reliance on self-financing. Self-financing in turn implies that ownership remains concentrated in the hands of individuals and families.

Figure 3.1 outlines some of the most significant historical factors that

1. By the end of December 2000 Enron had a market capitalization of over \$60 billion and had been ranked by *Fortune* magazine as the most innovative large company in the United States. Its bankruptcy raises the issue of corporate governance in the United States. Healy and Palepu (2003) made the following observations: "Despite what they call an elaborate corporate governance network, Enron was able to attract large sums of capital to fund a questionable business model, conceal its true performance through a series of accounting and financial manoeuvres and hype its stock to unsustainable levels."

have influenced the structure of corporate ownership in France. The presentation starts with two major financial traumas in the eighteenth century. These were, first, the rise and collapse of John Law's Mississippi System and, second, the hyperinflationary experience generated by the *assignats* during the French Revolution. It is contended that these financial traumas, reinforced in the nineteenth century through the collapses of the *Crédit Mobilier* and the *Union Générale*, produced a weak banking and capital market structure in France. Deprived of access to banks and capital markets, entrepreneurs developed the tradition of reliance on self-financing. This self-financing led to high degrees of concentration of ownership in France. Figure 3.1 suggests that this self-financing tradition was reinforced by a further historical factor, namely the changes in the inheritance law introduced at the start of the nineteenth century by Napoleon. Primogeniture had been perceived by the revolutionaries as a system that had aided and abetted the survival and strength of the aristocracy. The new postrevolutionary regime, embodied in the Napoleonic code, destroyed the system of primogeniture and replaced it with one based on an equal allocation of property rights among all the children in the family. Younger children could no longer be disinherited. The property of the parents was deemed, in large part, to be the property of the children after the death of the former. Paradoxically, this element involves a legal dimension, but not the type of legal dimension that La Porta, López-de-Silanes, and Shleifer (1998) and La Porta et al. (2000) envisaged. In the French civil law it is practically impossible to disinherit one's offspring. Faced with the potential "idiot heir" problem, families have successfully used the *grandes écoles* system to provide educated new leaders of the next generation. Adept recourse to trusts (*les indivisions*) and insurance has enabled family wealth to be transferred from generation to generation, minimizing in the process the burden of inheritance taxes. Add to this legal change favoring the rights of all the children, a type of cultural *mentalité* that each generation is just the temporary custodian of the family's property (*patrimoine*) faced with the objective of passing it on in even better shape to the next generation, and one finds a different set of factors that helped shape the development of France's corporate ownership structure.

Figure 3.1 also incorporates a section dealing with state involvement in the economy. The state has always been a major player in the French economy since the days of Jean Baptiste Colbert (1619–83), who, during his period as controller general of finances, provided a template for sizable intervention by the state in the economy. Further manifestations in the form of nineteenth-century Saint-Simonianism and, later, socialism meant that France experienced bouts of nationalizations and privatizations that greatly influenced the balance between state and private-sector ownership of French companies. Finally, the state's approach to pension funding is believed to be an important recent contributory factor to the ownership

mix in that the pay-as-you-go system in France has led to relatively small pension fund/insurance involvement in the equity market.

These factors emphasizing the historical factors that created the tradition of reliance on self-financing, the legal and cultural mix inherent in property ownership, and the state's involvement in the market are presented as helping to explain, at least in part, the current structure of family corporate ownership in France.

This paper starts with an overview of the current situation relating to corporate ownership in France. From there it moves back to the past to show how the failures of the banking system in 1720 and the *assignats* experiment in the 1790s, along with the collapse of the stock market in 1720, had deep effects on the emergence of an efficient banking and capital market structure in France. It will be contended that reliance on the self-financing of corporations was a natural outcome of the difficulties of both the banking system and the capital market. The change in the inheritance laws at the turn of the nineteenth century will be shown to have been a further contributory factor in the embedding of the family in French corporate life. The pension system in France will be presented to explain the sluggish growth of institutional investment in French companies relative to their counterparts in the United States and United Kingdom in the second half of the twentieth century.

Finally, three examples of the growth of family-controlled companies—car manufacturers Peugeot, cosmetic producer L'Oréal, and tire manufacturers Michelin—are presented to provide some support for the underlying themes of the paper. These companies also serve to counter Easterbrook's (1997) view that “a high concentration of ownership is associated with lesser efficiency.”

3.1 The Current Corporate Ownership Structure in France

The ownership of companies in France has frequently been a very hot political issue. In the 1930s the prime minister, Edouard Daladier, vehemently criticized the two hundred “grandes familles” who, he contended, controlled all aspects of French business life as well as the Banque de France, the stock exchange, and the press. Daladier's two hundred big families have been shown to be a myth (Anderson 1965). Nevertheless, a wider range of families does exercise a highly significant part in the ownership of French companies.

Three salient features of France's current corporate ownership structure are concentration of ownership, extensive family ownership, and the role of holding companies. Bloch and Kremp (2001) in their recent study of French companies have shown that “concentration of direct ownership and voting power is very high in France.” They found that “Around 40 percent of unlisted firms have, as first shareholder, individuals owning directly

more than 50 percent of the capital. For the Cotation Assistée en Continu CAC 40 firms, individuals are not the largest blockholder, but when they effectively are present as blockholders, they hold around 30 percent of the voting rights and have the control in fact” (p. 123). A recent French study by Allouche and Amann (1995) showed that, in 1992, 28.3 percent of the top 1,000 industrial companies were controlled by families (foreigners 23.5 percent and state 28.2 percent). Furthermore, when excluding the state- and foreign-owned companies from the analysis, families controlled 59 percent of the top 500 industrial companies, an increase of 10 percent on the 1982 statistics. Blondel, Rowell, and Van der Heyden (2002) investigated the ownership structure of France’s 250 largest publicly traded companies for both 1993 and 1998. They show that 57 percent of the listed Société de Bourse Française SBF 250 companies were patrimonial firms—that is, companies where individuals or families had an ownership stake exceeding 10 percent. Furthermore, confirming Allouche and Amann’s results they noted that, rather than being on the wane, patrimonial firms grew from 48 percent to 57 percent of the SBF 250 over the period 1993–98. Taking all firms listed on the French stock exchanges between 1994 and 2000, Sraer and Thesmar (2004) observed that approximately a third of the firms were widely held, another third were founder controlled, and the remaining third were heir-controlled family firms. Their results show that both founder-controlled and heir-controlled family firms largely outperformed widely held corporations. In December 2002 the business magazine *Le Nouvel Economiste* estimated that the five hundred richest families in France had a fortune of 106 billion euro. Within this group the fifty richest families had assets of 72 billion euro, and the ten richest had assets of 43 billion euro.

Additionally, as distinct from the United States, where there has been a predominantly multidivisional corporate structure, there are many holding-company structures controlling large industrial groups in France. Lévy-Leboyer (1980) explained the development of these holding companies as arising from banking and capital market limitations: “financial constraints, particularly the inability of the banks and the capital markets to cope with businesses’ new requirements, finally brought into being large industrial groups tied together by financial holding companies” (1980, p. 629).

3.2 History and Corporate Ownership: An Overview

History is revelatory in identifying many of the key factors that have produced the current corporate ownership structure in France. Analyzing this historical evolution and development is a complex task. Those looking for some type of linear progression with newer institutions building on and evolving from older institutions may be disappointed, for the last three

hundred years embrace a wide range of diverging tendencies. There are many discontinuities. In this respect the history of corporate finance in France is quite distinct from that of the United Kingdom. In the latter country, political revolution, involving warring factions, had ended by the end of the seventeenth century, and a significant part of the financial revolution had taken place by the third decade of the eighteenth century. In Britain one can see a type of linear progress as institutions built on institutions. Through the eighteenth and nineteenth centuries British banks and insurance companies became increasingly adept at channelling savings to investors. The stock exchange efficiently raised finance to fund the borrowing requirements of the Exchequer and to provide capital to the trading companies that were extending Britain's imperial and colonial power. The political system hovered around the center, rarely oscillating excessively to the left. Additionally, and importantly, Britain was not invaded.

France was to have a more tumultuous three-hundred-year history. During the eighteenth century it was involved in a number of long and expensive wars (the War of the Spanish Succession, 1701–14; the War with Spain, 1718–20; the War of the Polish Succession, 1733–38; the War of the Austrian Succession, 1740–48; the Seven Years' War, 1756–63; the War for American Independence, 1778–83; the wars that emerged from the end of the Revolution in 1792 to the start of the Napoleonic Wars). It possessed a monarchy until the revolution of 1789, followed by a revolutionary government until the arrival of Napoleon. From there political life experienced the tumult of the restorations of the monarchy and of the Napoleonic dynasty. Add to these the siege of Paris by the Germans in 1870 and the commune in Paris when twenty to thirty thousand citizens were killed in a mini-civil war in 1871. The German invasion of 1870 was the prelude to two further invasions during the two World Wars of the twentieth century. These political developments frequently meant that industrial developments had to play second fiddle to the political orchestrations of wars, civil wars, and invasions. And yet, notwithstanding these developments on the home soil, France became one of the largest colonial powers of the last three centuries, ruling sizable tracts of land in Africa, North and South America, and Asia.

Because France was frequently at war, both internally and externally, the political instability of the country was accompanied by financial instability. Wars and revolutions require financing. This financing in turn created significant state borrowing and debt. Perforce the banking system and the capital market were heavily tapped to provide finance for these wars. As a corollary to this, the state's heavy recourse to borrowing left substantially less available for the banks and the capital markets to provide to the private sector. The next two sections show the development of (a) the banking sector and (b) the capital market against this background of long periods of warfare.

3.3 The Evolution of the French Banking System

This section highlights three elements in the early development of banking that cast a long shadow over France's financial history: John Law's Mississippi system, the surrogate banking system provided by the French *notaires*, and the *assignats* experience during the French Revolution. It will then show the knock-on effects that these developments had for the banking system in the nineteenth and twentieth centuries.

Renaissance Italy, seventeenth-century Holland and Sweden, and, belatedly, England, with the establishment of the Bank of England in 1694, grew through the establishment and development of their respective banking systems. While the English banking system evolved and helped to finance the war against Louis XIV, the French banking system remained underdeveloped to the point that Louis XIV had to rely on the protestant Genevan based bankers—many of whom he had persecuted and forced out of France through the revocation of the Edict of Nantes—to finance a large part of his budgetary deficit.

The death of Louis XIV essentially left France bankrupt, creating an environment in which the Scottish-born John Law (1671–1729) could present a new financial architecture aimed at (a) relieving the shortage of money through the establishment of a note-issuing bank and (b) reducing the state's indebtedness through the creation of a trading company that would have as one of its objectives the conversion of government securities into equity of the company. Both of these developments were to have a profound effect on banking and the capital markets in France. In the immediate short term, Law's System would make France the most innovative country with respect to corporate financing and banking in Europe. In the long term it would leave a deep hostility and mistrust toward banks and financial innovation.

The General Bank was established by Law in May 1716 (see Murphy 1997). It was modeled on the Bank of England in that it obtained its banking privileges from the state in return for taking up part of the national debt—part of the outstanding amount of short-term *billets d'état*. The early success of the General Bank enabled Law to embark on the second aspect of his macroeconomic strategy, namely the management of the national debt. To do so he needed to create a trading company modeled on the lines of the British trading companies such as the East India Company and the South Sea Company. In August 1717 he established the Company of the West (Compagnie d'Occident), which was given monopoly-trading rights over French Louisiana—an area representing half of the land mass of the United States today (excluding Alaska). It acquired these trading rights in return for restructuring, and accepting a lower interest rate on, part of the outstanding amount of *billets d'état*. The company benefited in that it acquired rights to exploit the agricultural and mineral potential of

this huge area. The state benefited in that part of its floating short-term debt was converted into long-term debt, which bore a lower rate of interest. Shareholders in the new company, who swapped *billets d'état* in return for the company's shares, had the prospect of large capital gains if the wealth of Louisiana was properly exploited. The nominal value of each share, which came to be known as *mères*, issued by the Company of the West was 500 livres, but, as they were purchased with *billets d'état*, then standing at a discount of over 70 percent, it meant that the initial shareholders purchased their shares at a price of around 150 to 170 livres. It took nearly two years for the shares to reach their nominal issue price of 500 livres.

Initially there was little interest in the company, and Law had difficulty in selling its shares. A year after its establishment Law started to use the Company of the West to mount a series of spectacular takeovers and mergers. At the same time he developed the General Bank by ensuring that it was used as the government's bank for the receipt and disbursement of state funds.

In August 1718 the Company of the West acquired the lease of the tobacco farm, while in December it took over the Company of Senegal. In the same month the General Bank's operations were reorganized and it was renamed the Royal Bank. In May 1719 Law merged the enlarged Company of the West with the Company of the East Indies and China to form the Company of the Indies. Further acquisitions in the form of the Company of Africa and the lease of the Mint were made in June and July of that year. These acquisitions and mergers required financing. Law arranged this through the issue of two tranches of shares known as the *filles* and *petites filles*. It has already been shown that the *mères*, issued in 1717 on the establishment of the Company of the West, were subscribed for in *billets d'état*, which were standing at a very sizable discount, effectively costing the first shareholders only 150 livres. The second issue of shares, the *filles*, were issued in June 1719 at 550 livres. The share price jumped in July, enabling Law to issue a further batch of shares, the *petites filles*, this time at 1,000 livres each.

By the end of July 1719 Law's company had issued 300,000 shares with a nominal value of 150 million livres. As the share price had jumped from 150 livres in 1717 to over 1,000 in July 1719, the stage was set for further leverage of Europe's first major stock market boom. This boom was linked to Law's wish to take over France's national debt by swapping shares for government securities. The sheer magnitude of this operation proved to be breathtaking.

On August 26, 1719 the regent presented Law's proposal for the Mississippi Company, as it was popularly known, to take over the tax farms and the remainder of the national debt. Law's plan was to lend the king 1.2 billion livres at an interest rate of 3 percent so as to repay the national debt.

This money would be used to repay the long-term state debts, the annuities (*rentes*), the remaining short-term floating debt (*billets d'état*), the cost of offices (*charges*) that had been or would be suppressed, and the shares of the tax farms.

Under the plan holders of government securities were forced to give up government securities, bearing a 5 percent rate of interest, while at the same time they were offered the possibility of acquiring shares of the company yielding far less in terms of dividend but possessing the prospect of sizable capital gains. With the share price jumping from 2,250 on August 1 to 2,940 on August 14, to 5,000 and over in mid-September, capital gains rather than dividends occupied the minds of most transactors. By these measures Law proposed "the radical cure" for the French economy. He aimed to transform the company from a trading company to a trading-cum-financial conglomerate, controlling the state's finances, most notably tax collection and debt management.

The sharp price rose sharply during August. On August 1, 1719, the original shares, the *mères*, which, as has been shown, could have been bought for around 150 livres in 1717, stood at 2,750 livres. By August 30 they had risen to 4,100, and by September 4 they were at 5,000 livres, with the *filles* and *petites filles* rising *pari-passu*. The debt holders, recognizing the prospect of a capital gain, were quite happy to transfer their debt into shares rather than bonds. They needed the prospect of an expected capital gain to compensate for the interest reduction on their securities from 4 percent to 3 percent. Their difficulty in fact became one of converting quickly enough into the shares of the company, as the price of the shares rose very sharply during September.

Within a three-week period in September-October the company issued 324,000 shares, of which 300,000 were sold to the public at 5,000 livres a share, amounting in all to 1.5 billion livres. The company had now started to operate in a manner different from that characterizing its operations between August 1717 and August 1719, when it raised around 106 million through the first three share issues.

The shares reached a 1719 high of 10,000 on December 2. At this point the market valuation of the Mississippi Company was 6.24 billion livres. Concomitant with these developments the banknote issue of the Royal Bank had been increased from 160 million livres in June to 1 billion livres by the end of 1719 as money was lent to existing shareholders to purchase further shares. France was awash with liquidity, particularly after the company guaranteed a floor price of 9,000 livres a share in early 1720 through the establishment of a buying and selling agency known as the "*bureau d'achat et de vente*." Effectively, the workings of this agency monetized shares.

In February 1720 the Royal Bank and the Company of the Indies were formally merged together. At this juncture, Law, who had been appointed

controller general of finances in January 1720, wrote: “One sees here a sequence of ideas which are interlinked and which reveal more and more the principle on which they are based” (Law 1934, iii, 98–99). For a while Law’s System, in all its unifying beauty, seemed to work. Economic activity boomed, the national debt appeared to be under control, money was plentiful, and the interest rate had been driven down to 2 percent.

Law had created a financial system the long-term viability of which was crucially dependent on the growth of the real economy. There had to be some equilibrium relationship between the financial system and the real economy. For a while a temporary equilibrium existed, as transactors seemed content to remain within the financial circuit trading money for shares, and shares for money. However, once money started spilling too quickly from the financial circuit into the real economy problems arose. The real economy proved to be incapable of generating a sufficient growth in commodities to match the monetary expansion so that the excess money created inflation and balance-of-payments problems. Law had always believed that the growth in the real economy, spurred on by monetary expansion, would be sufficient to mop up the newly created money. Indeed, in *Money and Trade* (1705) he went further and argued that monetary expansion would lead to a balance-of-payments surplus. For a period Law tried to lock transactors into the financial circuit by a series of measures ranging from prohibitions on the holding of more than 500 livres of specie or bullion, to the demonetization of gold and a phased monthly demonetization of silver. Temporarily these measures worked. But there was still too much liquidity in the Law System. On May 21, 1720, an *arrêt* was published stipulating that shares were to be reduced by four-ninths (from 9,000 to 5,000) and banknotes by half (e.g., banknotes worth 10,000 livres to be reduced to 5,000 livres) between May and December.

This was an attempt to reduce the liquidity of the system, thereby bringing the financial circuit back into line with the real economy. Despite the revocation of this May 21 *arrêt* a couple of days later—due to public pressure—the effect on confidence was so great that the system never recovered from it. The price of shares and banknotes fell continuously during the summer (ironically, at this point the shares in the South Sea were rising rapidly) and the autumn of 1720. Law was forced to flee the country, with the aid of the regent, in December.

Law had shown that he was able to conceptualize and establish, if only for a short period, a modern nonmetallic world at the start of the eighteenth century. He had shown, albeit for a brief three-year period, the massive potential of the capital market and the way in which positive wealth effects from this market could drive the economy to greater growth. It would take economists and financial leaders another couple of centuries to produce for the global economy what Law had briefly achieved in France during 1719–20. Du Tot (1935) realized the full extent of this achievement:

In this state, this construction was admired by everyone in France and was the envy of our neighbours who were really alarmed by it. Its beauty even surpassed all the hopes that had been placed in it since it made people despise and refuse gold and silver. It was a type of miracle which posterity will not believe. However, it is clear that there was a period, of many months, when no one wanted them [gold and silver]. (vol. I, p. 106)

The failure of Law's System produced a very strong reaction against banks, credit, and financial innovation. It also heralded a *retour en arrière* for the French financial system to the old one dominated by religious directives controlling the methods of borrowing and lending and the state constituting the main borrower of funds through the creation of *rentes* (annuities). In this strange financial no-man's-land where interest could not be explicitly charged, contracts had to be drawn up separating the ownership of savings from the streams of revenue it generated. The *notaires* (notaries) were at the center of this system. Indeed, their role was so central, in the absence of traditional-style bankers, that they became surrogate bankers.

3.4 The *Notaires* as Bankers

The credit market in eighteenth-century post-Lawian France cannot be interpreted as one in which there was a free flow of funds between surplus and deficit units with the rate of interest acting as an equilibrating factor in the allocation of funds.

The usury laws, allied with the failure of Law's Royal Bank, created an environment in which the standard evolution of banking from goldsmiths to credit-creating deposit banks did not take place in France in the eighteenth century. Between 1720 and the Revolution, aside from bankers who discounted bills of exchange—an important medium of exchange for merchants much neglected by historians—and one or two scattered sightings of banks such as the short-lived Caisse d'Escompte, eighteenth-century France existed without a formalized banking structure. While the Genevan-based Protestant bankers became major lenders to the government and big merchant companies, the question arises as to how the more mundane business of banking was carried out in the absence of clearly constituted banks in France during this century.

Recently Hoffman, Postel-Vinay, and Rosenthal (2001) have advanced the thesis that the French notarial system—in particular, the Parisian *notaires*—provided a sophisticated surrogate banking system. Because of the usury laws they were the intermediaries for every transaction embodying an implied rate of interest, as they were the only agents who could notarize financial instruments in the form of *obligations*, *rentes constituées*, and *rentes viagères*. The analysis of Hoffman et al. shows that the *notaires* acted as bankers by intermediating as agents between savers and borrowers.

However, notwithstanding the pervasiveness of their intermediating activities, the *notaires* were for the most part only demi-bankers acting as a conduit for savers with surplus funds to borrowers, most notably the state. The *notaires* were usually not principals in these transactions, nor did they act as bankers in the sense of lending credit to some multiple of the funds deposited with them. Furthermore, most of the lending activity that they arranged was of a long-term nature. Their banking role was narrowed down further in that most of the lending that they intermediated was to the government on a long-term basis through the acquisition of *rentes* or loans for the purchase of lands or property. Hoffman and his coauthors admit in a footnote that the development of long-term credit in both Britain and France was initially more beneficial for the public debt and the housing market than for industry and trade (p. 361). Whatever it says about the validity of their reflection on the British situation, it is revealing in that it shows that French lending activity was concentrated in two sectors, the state and real estate. The *rentier* mentality—a natural successor to the earlier financier mentality—has deep roots in French history.

The thesis of Hoffman, Postel-Vinay, and Rosenthal (2001) is that the *notaires* provided a type of golden age in banking, acting as highly efficient intermediaries between savers and borrowers. Their information base—they were able to pool and share information up to the early part of the nineteenth century—provided detailed knowledge on the assets of borrowers and whether they were encumbered or not. This information enabled them to provide high-quality borrowers for savers with surplus funds. The utilization of this information provided a stable background for lenders in which there was a low risk of default. This stability in turn generated confidence in the system and increased the number of lenders prepared to act through the notarial system.

An alternative interpretation is to view this surrogate banking system as costly, highly conservative, and inefficient because of the additional complication that the usury laws prevented the rate of interest from allocating credit between savers and borrowers. The *notaires* operated a highly effective cartel. In 1659 there were 113 *notaires* in Paris. Despite the growth of Paris, the number of *notaires* remained the same until it rose to 122 in 1859! The system was costly in that transactors were subject to notarial fees and excluded from the market if they did not have appropriate asset backing. The usury laws, which set a ceiling rate of interest of 5 percent, effectively ensured that the *notaires* faced with excess demand for credit could filter out borrowers by the value of their asset collateral rather than the quality of the intended investment project. The system was conservative in that the vast bulk of lending was to the government and property sectors. Incipient industrialists would have found it practically impossible to borrow through the *notaires*. Above all, it must be pointed out that the notarial system was not a banking system in the sense of providing a flexible structure for the

expansion of credit. All the *notaires* did was to increase the velocity of circulation of money by making it easier for some borrowers to access savers. However, they were not principals in the financial transactions and were in no way capable of lending money against reserves deposited with them.

3.5 The *Assignats* Experiment

The revolutionaries were quick to recognize the straitjacket of the *ancien régime's* financial system. In October 1789 they repealed the legislation that criminalized the stipulation of a rate of interest on a contract. In July 1796 they abolished the ceiling rate of interest. Between these two dates they set up a paper money system. The revolutionaries, copying in many respects Law's earlier theoretical plans for a land bank in Scotland, financed the early stages of the Revolution through the issue of the *assignats*, a paper money initially assigned or collateralized by confiscated ecclesiastical property. When first issued through a decree of December 19, 1789, the *assignats* bore a rate of interest of 5 percent. The interest payments were quickly stopped, and the *assignats* were transformed into fiat money in 1790. The creation of the *assignats* produced heated debate in the French Assembly, with partisans of the Law System maintaining that they were not inflationary financial instruments because they were fully backed by the confiscated ecclesiastical property. Other parliamentarians tellingly reminded their listeners of Law and his system. Though seventy years had elapsed between the end of Law's System and the Revolution, the memories of Law's attempted financial revolution were still fresh in the minds of those sitting in the Assembly. Indeed, John Law was the most cited economist in the debates that took place in the Assembly on the *assignats*. In September 1790, the Abbé Maury held up a fistful of banknotes in the Assembly, remarking:

Alas! At this moment I hold in my trembling hands many of Law's banknotes, these fictive pledges of an immense and illusory capital, which I drew from a huge depot where they have been held for the instruction of posterity. With sorrow I look at these paper instruments of so many crimes, I see them still covered with the tears and blood of our fathers and I offer them today to the representatives of the French nation as beacons placed on the reefs so as to perpetuate the memory of this massive shipwreck. (Archives Parlementaires, vol. 19, September 28, 1790, p. 300)

Maury's melodramatic warning words were not accepted. The *assignats* were much needed to finance the early stages of the Revolution, with Harris (1930) contending that they kept fourteen armies in the field (p. 53). They were first issued on April 1, 1790, for a total of 400 million. By September 1792 they had risen to 2.7 billion, and a year later they were over 5 billion. By March 1795 they had reached 8 billion, rising to 20 billion in the

same year. When they were eventually taken out of circulation in 1796, 45.6 billion had been issued, of which 32.8 billion were still in circulation (Lafaurie 1981, p. 169). The overissue of *assignats* led to massive hyperinflation. Taking a price index of 100 in January 1791, White (1989) showed that it rose to 30,411 by March 1796! Kindleberger (1984) concluded that the *assignats* “embedded paranoia about paper money and banks more deeply in the French subconscious, and helped establish Napoleon successively as consul and emperor” (p. 99).

It was not until 1800 that a quasi-central bank, the Banque de France, was established, and even here the primary reason for its establishment was to lend money to Napoleon’s government. Additionally, jealous of its monopoly issuing powers, the Banque de France spent its first fifty years trying to block the creation of other banks. The massive difference in progress between the British and French banking systems may be seen by reading Henry Thornton’s *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain* (1802) on the role of the paper credit system in Britain. Thornton, a professional banker, attacked Adam Smith for his lack of understanding of the extent to which banknotes and bank credit had become central to the financing of the British economy. He showed the sophisticated layers of different types of paper credit that had been introduced in Britain to finance economic activity and the central role of the Bank of England in the provision of credit. The London banks depended on the Bank of England, and the country banks in turn depended on the London banks. Furthermore, Thornton showed the ways in which the Bank of England could improve its function as a lender of last resort to the banking system. Thornton’s analysis demonstrated that Great Britain had a far more sophisticated banking system than that of France, with the Bank of England acting as a quasi-Central Bank, all this at the very time that the Banque de France had just been established!

The hyperinflationary experience of the *assignats*, reinforcing the earlier collapse of Law’s System, strengthened a strong antibanking and anti-financial innovation view in France. It intensified the French public’s *bas de laine* mentality—that is, the hoarding of gold and silver in woollen socks underneath the mattress. Not only did the French hoard gold and silver, but they also used specie as the main medium of exchange for most of the nineteenth century. This strong preference for specie meant that it constituted 95 percent of the money supply in 1803, 82 percent in 1845, and 68 percent in 1870. By 1885 it still amounted to over 52 percent of the money supply (Cameron et al. 1967, p. 116). Flandreau (2004) has recently shown that, notwithstanding the growth of banking in the northeastern half of France in the 1850s, specie holding greatly increased across the country in that decade due to a combination of factors—the growth in farm incomes, the absence of a banking network in country areas, and the inflow of new supplies of gold from the Californian Gold Rush. The French love of gold

continued through to recent times, as evidenced by the reporting of the daily price of small gold bars (*les lingots*) and gold coin (*le Napoleon*) alongside news of stock price movements on radio and television.

The vesting of significant monopoly powers in the Banque de France, along with the extensive use of specie as a circulating medium, meant that the banking system remained underdeveloped for the first half of the nineteenth century. This view runs counter to that developed by Lévy-Leboyer in *Les Banques européennes et l'industrialisation internationale dans la première moitié du XIX siècle* (1964). In this work Lévy-Leboyer concluded that, contrary to conventional opinion, the banking system was highly effective and that by 1843 “the financial market gave the impression of having become the living part of the economy” (p. 699). However, a couple of pages later, Lévy-Leboyer equivocated with respect to this strong conclusion, admitting that, aside from Paris, it was financial centers outside France, based in Geneva and Basle, that provided banking facilities for the merchants of Lyons and Mulhouse. Lévy-Leboyer equivocated further by admitting that

It should not be forgotten that, in many regions, credit was unheard of: in the countryside, the usage of banknotes continued to be unknown; in the manufacturing towns bills of exchange were continually used for ordinary transactions, and in most cases, even in Alsace, those wishing to borrow money were obliged to go to the *notaires* (there were nearly 10,000 in France in 1840) or to less recommended business agents. (p. 705)

This latter description, showing the continued use of *notaires*, does not suggest that there was a highly effective banking system in France at the time.

There were still considerable constraints preventing the emergence of a proper credit-based banking system. How could a system based on a paper medium of exchange emerge when, up to 1847, the smallest denomination note of the Banque de France was 500 francs? This, as Cameron et al. (1967, p. 117) have pointed out, was greater than the annual per capita income in France at the time. How could a credit-creating banking system thrive when the ratio of currency (i.e., gold and silver coins) to deposits was so high? Furthermore, the Banque de France systematically blocked the emergence of other banks in order to maintain its monopoly banking powers. It was not until 1848 that legislation was introduced to charter joint-stock banks. The change in legislation enabled the Pereire brothers to establish the *Crédit Mobilier* in 1852, and in that same year the *Crédit Foncier*, which in turn established the *Crédit Agricole* and the *Comptoir de l'Agriculture* as subsidiaries, started business. In 1859 the *Crédit Industriel et Commercial* was created, while in 1863–64 the *Crédit Lyonnais* and the *Société Générale* were established. Notwithstanding the creation of these banks, checks were not legally recognized until 1865, and the public still

had a strong bias in favour of specie. Cameron et al. concluded on the French banking system up to 1870:

Comparisons with English and Scottish data reveal that the complaints of French businessmen were justified: bank facilities were too few, and bank resources pitifully inadequate. At the end of its “take-off” period the French economy had approximately the same bank density as Scotland had had in the middle of the eighteenth century. France had fewer bank assets per inhabitant in the mid-nineteenth century than England or Scotland had had in 1770 and in 1870 had not reached the position that they had held before the beginning of the nineteenth century. (1967, p. 110)

Furthermore, it continued like this with specie still constituting the preferred form of money up to World War I. By 1913, despite the expansion of bank deposits from 17.2 percent in 1880 to 44.3 percent of M1, defined as coin, banknotes, and bank deposits, they still constituted only a small part of the overall money supply. In the United States and United Kingdom, bank deposits represented about 88 percent of M1 at this point in time. This conservatism with respect to deposit creation had its counterpart in the area of credit expansion.

Gueslin (1992) observed that between the 1880s and 1930s companies had to rely on self-financing rather than bank credit: “banking credit remained more or less limited and the financing of the economy came about through the accumulation of savings: primarily as companies directly used parts of their cash flow, but also by the transfer of domestic savings via the financial market” (p. 63). This meant that the banking sector, despite its expansion in the middle part of the nineteenth century, continued to play a predominantly conservative role in the extension of credit to the industrial sector.

Between the two World Wars the relative imbalance between the development of banks in France and in Great Britain and the United States was very great. One indicator of this was the size of bank deposits per head of the population. Gueslin (1992) noted that in 1937 per capita bank deposits amounted to 1,700 francs in France as against 12,000 francs per inhabitant in the United States and 10,100 francs in the United Kingdom.

The apparent backwardness of France can be explained by the lesser importance there of bank deposits, the existence of channels for financial savings, the competition of the savings banks . . . and by the probable existence of hoarding, reflecting the still essentially rural nature of the country. (p. 87)

In Gueslin’s view, “It was only after 1966, and not without difficulty, that the commercial banks of France were really able to flourish” (p. 87). The road from John Law’s Royal Bank in 1720 to an efficient commercial banking system in France in 1966 had been a long one.

3.6 Capital Market Developments

As has been shown, overborrowing by Louis XIV left France effectively bankrupt and created the conditions for John Law to embark on the most dramatic macroeconomic and corporate financing experiments of the eighteenth century. The apparent success of his Mississippi System showed the potential for an economy to operate without metallic money and to innovate with respect to restructuring the national debt. Fears that Law had discovered the Philosopher's Stone led the British to follow suit and use the South Sea Company to restructure the public debt. The strong antibanking mentality that arose from the collapse of the Royal Bank in 1720 was accompanied by a strong official reaction to joint stock companies. Again, the events of 1720 were central to this reaction. Ironically, in a bid to corner the market for loanable funds, the South Sea Company pressurized the British government to introduce the Bubble Act of 1720. The Act nullified bubble companies that had been established without joint stock charters from Parliament. It backfired in the face of the South Sea Company, for, in precipitating a collapse of the smaller bubble companies, it forced holders of such fallen stock to sell South Sea in order to pay for these losses. These sales in turn caused the price of the South Sea Company to collapse. The far greater consequence of the Bubble Act was that it effectively prevented most British companies from obtaining joint-stock charters for more than a century. This remained the situation in Britain until the repeal of the Bubble Act in 1825 and the introduction of the Companies Act—popularly known as the Limited Liability Acts—in 1862.

It was a similar, if not longer, story in France. From 1721 onward, due to the collapse of Law's Mississippi Company, it was particularly difficult for companies to obtain full limited-liability status. Investors wishing to form joint stock companies could only do so by acquiring permission from the government and undergoing a cumbersome process of establishing their charters through complicated legal procedures. Through the eighteenth and the first half of the nineteenth century French jurisprudence confined all but a restricted number of companies, in areas such as insurance and transportation, to two legal structures:

1. Simple partnerships (*sociétés en nom collectif*)
2. Limited partnerships (*sociétés en commandite*)

In the simple partnerships all partners were equally liable for the firm's debts. In the case of the limited partnerships the "sleeping partner" (the *commandite*) who subscribed the capital risked only the amount that he subscribed, whereas the active partner or partners assumed unlimited liability. For example, the Irish-born economist Richard Cantillon, who made a fortune out of the Mississippi System, ensured that he was the

sleeping partner in his bank in 1718–20 so that his liability was limited to the capital that he subscribed (Murphy 1986).

The simple and limited partnerships were unsatisfactory corporate structures for the development of large-sized companies. Many owners and managers did not want to face the problem of unlimited liability. Additionally, there were very high transaction costs for partners wishing to withdraw their capital. Say and Chailley summarized the problems with this system:

This was really a deplorable system because of the slowness that it entailed in the establishment of companies, because of its arbitrariness, and because, in the case of bankruptcy, shareholders blamed the government, and, believed themselves entitled to demand it to compensate them for their losses. (1891, vol. II, p. 887)

Lévy-Leboyer (1964) noted that the Council of State, to which companies had to submit their plans for going public, instead of helping the formation of share issuing companies “continually looked for ways of increasing its own powers without regard for the companies that it discredited nor for the economy the expansion of which it braked” (p. 702).

Cameron et al. contended that “the depression of 1857 revealed the undesirability of excessive reliance on the *commandite* form of organization for large-scale industry and commerce” (1967, p. 109). The Council of State started to liberalize its approach to company incorporation. The change in the British legislation in 1862, along with the incipient financing needs of the newly created railroads, further increased the pressure to change that started in 1863 and continued through the introduction of the Limited Liability Acts (*Loi sur les sociétés*) on July 24, 1867. This act ensured that companies could be established freely under a limited-liability charter without having to seek the formal and costly authorization of the Council of State. The new act encouraged the growth of limited-liability companies, but the ability of these companies to tap the capital market was constrained. Aside from the railway companies, domestic French companies had difficulties in initially attracting French investors. Lévy-Leboyer (1980) has focused attention on the relative immaturity of capital markets in France as against those of the United States and United Kingdom in the latter part of the nineteenth century and the first decades of the twentieth century. This lack of maturity prevented mergers from developing to produce growth in the industrial sector. He observed:

Before 1913 and during World War I, the volume of security issues and the number of mergers remained rather low—probably because of a widespread prejudice against industrial shares and the lack of experience in marketing these securities on the part of banks and brokerage houses, which had previously dealt primarily in railroad bonds, public utilities and foreign securities. (p. 600)

In pre-World War I France there was a tendency on the part of French people to invest in government bonds or foreign securities rather than in equities. A German remarked at the time, "If they do not succeed in changing the attitudes of the higher classes of the population, then nothing will stop France from becoming a nation of *rentiers*. The organization of her banking system is well designed to produce such an outcome" (Gueslin 1992, p. 72). Pollard (1985) has shown that in 1870 over a third of French domestic savings were invested abroad, and by 1910 this figure had risen to over 50 percent. The oral tradition in France provides many stories of ancestors who lost fortunes in railway shares and loans to Russia and other eastern European countries. Trunks full of these useless shares and bonds are to be found in family attics and in junk shops.

Bonin (1988), writing of the Belle Epoque period from 1895 to 1914, noted that the majority of companies "remained hostile to external capital, to increases of capital, to borrowing and to the banks. Self-financing dominated (two thirds in 1913) due to profits, the quick amortization of capital expenditure, financial reserves and a treasury the abundance of which was revealed by the expansion of bank deposits" (p. 40). Using Teneul and Lévy-Leboyer's estimates, Gueslin (1992) concluded that "even if there were some exceptions, most investment on the eve of the First World War did come from undistributed profits" (p. 81). So self-financing was the norm for French companies. Notwithstanding Gueslin's conclusion, Rajan and Zingales (2001) have recently presented statistics indicating that, on the eve of World War I, France had a relatively high stock market capitalization-GDP ratio of .78, double that of the United States (.39) and not too far from that of the United Kingdom (1.09). However, this statistic appears to be very much an outlier, as the stock market-GDP capitalization statistics for the rest of the twentieth century produced by Rajan and Zingales (p. 61) show (see table 3.1).

So, while it appears that the French briefly flirted with the stock market in the first decade of the twentieth century, this flirtation, unlike the love affair in the United States and the United Kingdom, did not persist through the twentieth century. The statistics for 1999, most probably re-

Table 3.1 French stock market capitalization/gross domestic product (GDP)

Year	Ratio of French stock market capitalization to GDP
1939	0.19
1950	0.08
1960	0.28
1970	0.16
1980	0.09
1990	0.24
1999	1.17

flecting the privatizations of major French companies in the 1980s and the rise in their market value in the 1990s, show some revival of interest.

3.7 Conclusion on Historical Elements Influencing Corporate Ownership

By this stage some of the main themes of this paper have started to emerge. For a great part of its three-hundred-year history since the rise and fall of John Law's Mississippi System, France has been underbanked and has had a weak capital market. Unlike Great Britain, where the Bank of England was not brought down by the fall of the South Sea Company, the stock market crash of 1720 involved the complete destruction of the Royal Bank's banknotes and confidence in the banking system. The collapse of the fiat money system created considerable hostility to banks, credit, and financial innovation. This antibanking mentality was later exemplified in Turgot's magnum opus, *Réflexions sur la formation et la distribution de la richesse* (*Reflections on the Formation and the Distribution of Wealth*), first published in 1769–70. In the *Réflexions* Turgot introduced the concept of capital into economics for the first time and showed the link between savings and investment in the generation of economic growth. The work was to have a profound influence on the theory of capital formation in the nineteenth century. Yet, for all its brilliance, Turgot missed out because his analysis on the process of capital formation was confined to the time warp of eighteenth-century France, an economy in which banks did not exist and in which the capital market was the exclusive preserve of the government. Turgot maintained that savings financed investment and that savings were generated by abstention from consumption expenditure. He saw no role for the banking system in this process of capital formation. There is no mention of the words *bank* or *credit* in the *Réflexions*! Thus, we are left with the paradox that one of the outstanding economic works on capital formation has only a very elementary link with modern works on corporate finance because it is based exclusively on an internal financing model.

Turgot's strong antipathy toward banks, which started when, as a young seminarian at the Sorbonne, he pilloried John Law and his system (Turgot [1749] 1913), was symptomatic of eighteenth-century French attitudes toward money, banks, credit, and financial innovation. Add to this antipathy the hyperinflationary experience created by the *assignats*, and the French public's desire to use specie rather than money created by banks becomes clearer. The heavy reliance on specie as a medium of exchange made it difficult for banks to emerge. In turn, their ability to expand credit was limited by their difficulties in building up sufficient reserves of specie to create deposits. This view ties in with that of Kindleberger (1984), who maintained that "France lagged behind Britain in financial institutions and experience by a hundred years or so" (p. 113). This is not to say that there were no banks operating in France in the first half of the nineteenth cen-

tury but that their influence was relatively weak. Even the “*haute banque*” that started to pioneer the art of merchant banking in the early part of the nineteenth century was so “*haute*” that it did not cater to most of the emerging industrial sectors. It concentrated on investments in the railways, real estate, public works (roads, bridges, canals), and insurance. The *Crédit Mobilier*, a bank established by the Pereire brothers in 1852, was an attempt to find more broadly based support from stock market investors. It competed with the *haute banque* by investing in public works and railways not only in France but across the European continent. Its collapse in 1867 along with the later collapse of the *Union Générale*, which lasted a mere four years from 1878 to 1882, reinforced French attitudes on the riskiness of banks.

Meanwhile the stock market, aside from financing the government, had difficulties in generating equity issues because of the legal restraints that prevented the creation of limited-liability companies up to 1867. Even after this, companies did not use the capital market intensively. A great deal of the later nineteenth-century French investment in the stock market was in railway stocks and foreign investments.

A second historical element that is important in the French case relates to the role of inheritance law. Napoleon, when he introduced the civil code, moved the inheritance system from one based on primogeniture to a new system based on equal rights for all the children in a family. This change is important to note in that, whereas in the United States and the United Kingdom a testator can leave his or her estate to a charitable foundation, this is not possible in France. The children are stakeholders in the parents’ estate. So, almost by definition, the family, due to the inheritance laws, becomes a major player in the ownership of French corporations. The only way to keep the family out of the corporation is to sell the company prior to death and spend the proceeds. As the French have lived through three German invasions in the last 140 years, few of them are inclined to spend all of their wealth on current consumption because of the fear that they may face the days of the “*vaches maigres*” prior to death. Furthermore, in order to prevent the state from appropriating the family estate through death duties, parents frequently transfer assets from the older to the younger generation via trusts (*les indivisions*) that give the parents the usufructs of the assets while bestowing on the children the nominal ownership of these assets. Thus, at the death of the patriarch or matriarch, there is only a small part of the estate that may be subject to death duties. Additionally, a change in the inheritance laws in 1905 stipulated that estate duties would be payable on only the net rather than the gross estate. This sent out a clear signal to the owners of wealth to shift from equity financing to loan financing because the latter could be used to offset their gross wealth position whereas the former method would add to overall tax liabilities for their offspring. The French are also very adept at using insur-

ance policies on the lives of the older generation to provide tax-free money to cover any death duties that may arise on the estate at inheritance. Combine these elements with a different cultural approach, which sees property as part of the *patrimoine* and holds that the perceived obligation of property holders is to pass on the *patrimoine* in a better state to future generations, and the reason why there is a high degree of concentration of ownership of corporations by families in the French model may be understood. Against such a background, it is not surprising to find family ownership, often concealed through a wide network of holding companies, exercising such a significant role in France's corporate ownership structure.

Finding companies that span the three hundred years that we are investigating and that might fit this particular historical template is a difficult task. It is the nature of companies to rise or fall, to be taken over or merged. Few remain in the same direct ownership over a prolonged period of time. One company that remained in the same family ownership for the period investigated was the printing and publishing company Didot, which later became Firmin-Didot. Founded in 1698, it remained in business for three hundred years. It was a major book publisher, it was the company that printed the *assignats* during the Revolution, and it was a publishing house always at the fore in the area of printing technology—it was the first to introduce, for example, the Stanhope press in France in 1818 (Jammes 1998). Throughout its long history the predominant form of financing for Didot was through the use of retained profits. Even when it issued shares it was only to family members for the purpose of facilitating the transfer of ownership from one generation to another. Blondel and Van der Heyden (1999) examined another family with a long history of corporate ownership, the Wendel family, which was involved in iron and steel production, a business founded in 1704.

Three companies with a strong family involvement and a corporate history spanning a hundred years or more have been selected to show the importance of self-financing in the evolution of their corporate histories. Each of these companies started with simple products: a rubber ball, a hair dye, and a pepper mill. From these simple origins they developed into global companies in which descendants of the founders still have very sizable holdings and representation in the management and direction of the companies. The companies are Michelin, L'Oréal, and Peugeot (PSA Peugeot Citroen). A sample of three does not prove the thesis of this paper. However, it is believed that these three companies are illustrative of a trend in French corporate life where family ownership is still so strongly embedded. They are also three of the most powerful and profitable French companies, employing a total of 370 thousand workers.

Because they have been family-owned and -controlled companies it is difficult to penetrate into the decision making of these companies. Families are discreet and, in many cases, reluctant to open their archives to the

public. An alternative method is to side-tunnel into the activities of these companies by examining the archives maintained on them by one of their bankers, the *Crédit Lyonnais*. These archives show the assessments of this bank's financial analysts toward these companies over a long period of time. They constitute an invaluable, and much underutilized, source into decision making across all sectors of corporate France over the last 150 years. Loubet (1999) has edited a range of archival extracts specifically related to the links between the automobile industry and the bank.

3.8 Michelin

Michelin is Europe's biggest manufacturer of tires. It employs around 128,000 workers, who produced sales of 15.7 billion euro in 2002. The history of Michelin can be traced back to 1829, when a young Scotswoman, Elizabeth Pugh Barker, a niece of the Scottish scientist Charles Macintosh, married Edouard Daubrée. The new Madame Daubrée used the vulcanized rubber solution discovered by her uncle to make playing balls for her children. The use of rubber in this way attracted the attention of two of her husband's cousins, Aristide Barbier and Nicolas Edouard Daubrée. In 1832 they established a small factory using vulcanized rubber products for the manufacture of seals, belts, valves, and pipes that could be used in agricultural machinery. In 1889 André and Edouard Michelin took over their grandfather's (Aristide Barbier) agricultural equipment business. Edouard Michelin diversified the business into the manufacture of tires and managed the company for the next fifty years. He was assisted by his brother, André, a marketing genius, who promoted the company in its early days via schemes such as the sponsorship of motorcar races where the entrants were obliged to use Michelin tires; the identification of these tires with Monsieur Bibendum, a caricature of a rotund man made of tires; and the creation of the *Michelin Guide Rouge*, a publication that later developed into a gastronomic guide with its use of the star rating system for restaurants. The combination of Edouard's managerial and engineering skills along with André's marketing flair enabled Michelin to develop from a small-scale artisan enterprise to an international tire manufacturer. By the time of Edouard's death in 1940 he had built Michelin into a company employing 25,000 employees. Today the Michelin family is estimated to own 25 percent of the company, and its wealth in 2002 was estimated at 1.1 billion euro.

How has the Michelin family kept such a sizable amount of the ownership of the company? The first point to note about Michelin is its rather unusual corporate status in that it is still a partnership (*commandite*) but with the capacity to issue shares. Because of its partnership status the Michelin family members who are involved in this partnership are liable for the company's debts in the case of a bankruptcy. On the other hand, the partner-

ship gives the family control over the company. The family has been able to maintain this position through reliance on self-financing. From its very inception self-financing appears to have been the *mot d'ordre* of the Michelin family. When Edouard assumed control of the company in 1886, he turned to the family rather than to the banks in order to provide the much-needed finance for new capital expenditure. He went to his aunt, Emilie Mage, and asked her if she could lend the company a sizable sum of money, the equivalent of 1.3 million euro. She asked Edouard to wait for a day. Then, having clarified with some nuns, the Petites Soeurs des Pauvres, that they would offer her a room in their convent if she became destitute due to the nonpayment of her loan, she lent Edouard Michelin the money, which helped turn the company around (Lottman 1998). Family ties can run deep at moments of crisis!

The nature of Michelin's business was transformed as it moved into the manufacture of tires for automobiles. Keeping up production with the growth of the automobile market meant that the company had considerable financing requirements. The family met these financing requirements by ploughing back retained profits into capital expenditure. When these profits were insufficient to meet their capital requirements they resorted to long-term bond issues. This in turn caused problems for their bankers because of their limited access to information on the company's balance sheet. In 1930 when Michelin was seeking a loan of 200 million francs the analysts of the Crédit Lyonnais attempted to uncover the financial situation of the company so as to determine whether the bank would provide some of the capital required. It is obvious from reading the analyst's report of May 1930 that it was difficult determining the profitability of the company, which, because of its partnership status, was not obliged to publish any public accounts. The analyst did provide the figures in table 3.2 for the period 1925–28.

Assuming that the banking analyst had access to part of the company's accounts—although he did state that he did not know how this “*règlement de l'exercice*” had been compiled—the statistics in table 3.2 show that Michelin appeared to have had a policy of retaining a very significant amount of its profits. The retention rate amounted to 50 percent of its profits in the years 1925, 1927, and 1929. In 1926, on the back of very signifi-

Table 3.2 **Michelin's distributed profits and retained reserves, 1925–28**

End year	Profits distributed	Amounts put aside in reserves (in millions of francs)
1925	29	29
1926	31	126
1927	58	58
1928	60	60

cant growth, it retained 126 million francs of its profits, over four times the amount it retained in 1925. The analyst concluded that “the development of the business has been made almost exclusively by recourse to retained profits and the management appears to be very prudent” (Archives du Crédit Lyonnais 4908/3, May 1930, p. 7).

By this stage Michelin, still a family business (“*une affaire de famille*”), had become the dominant manufacturer of tires in France—its main factory at Clermont-Ferrand was producing 4 to 5 million tires annually—and it was exporting more tires than its competitors in the United States.

In 1930 it was successful in borrowing 300 million francs at 4.5 percent repayable from 1931 to 1960. In 1946, with its main factory at Clermont-Ferrand badly damaged by Allied bombing, Michelin went back to the banks with a request to borrow 500 million francs. The banking analysts threw their hands in the air in trying to make sense of the accounts provided. The “*réglement de l'exercice*” that had shown results of as high as 126 million francs in 1927 had dropped to 6 million in 1934 and then risen to a high of 40 million in 1939! Because of the lack of knowledge on the distributions of profits to the shareholders and the management the balance sheet was impossible to decipher properly.

The extent of Michelin’s recourse to self-financing may be seen from a further report by the Crédit Lyonnais in 1959 when Michelin was contemplating an issue of bonds to help finance its long-term investment. The investment program envisaged expenditure between 1958 and 1963 of 55.4 billion old francs. Of this sum 75 percent was to be met by self-financing.

Again, in 1972, when Michelin decided to expand its North American plants to produce radial tires, \$250 million of the \$400 million investment came from their reserves, while the other \$150 million came from a group of New York-based banks (Lottman 1998, p. 403).

The second key factor in maintaining the Michelin family’s control over the company was the use of dual-class shares. Control of the company was kept in the family through the use of the partnership’s shares and strict rules as to who could hold these shares. In 1928 these rules stipulated how shares would be kept in the family:

[Holders’ shares] may be passed on to descendants or their relations up to the fourth degree [of consanguinity] or to someone who is already a shareholder. In all other cases the transfer is subordinate to the agreement of the Inspection Board and its managers, and, in default of this agreement, to the right of preemption that is formally reserved to the other shareholders. (Archives du Crédit Lyonnais 4908/3, May 1930)

With respect to the ordinary shares of the company the articles of association stipulate that shares held for more than four years by residents of a country within the European Union have double voting rights.

3.8 L'Oréal

L'Oréal, one of the leading fashion and cosmetics manufacturers in the world, was listed by the *Wall Street Journal* as the seventy-first largest global public company ranked by market value (\$47 billion) at the end of August 2003. In 2002, with a labor force of nearly 50,000, it had sales of \$15 billion. The origins of L'Oréal can be traced back to 1909, when a simple partnership trading as Schueller and Spéry was established to sell a newly created synthetic product for dyeing hair. Eugène Schueller, a chemist by training, manufactured the hair dye in his home and sold it under the brand name Auréole. The name of the company summed up its activities, the French Company for the Harmless Dyeing of Hair (La Société Française de Teintures Inoffensives pour Cheveux). Starting with a capital of 135,000 francs it was transformed into a limited-liability company (*société anonyme*) in 1939 by a merger with Foncière Driant under the name Société l'Oréal. The new company had a capital of 7 million francs. In 1950 it merged with Monsavon, a company that it would later sell to Procter and Gamble. In 1953 its turnover was 60 million francs with net profits of 1.85 million. Over the next fifty years it grew at a very fast pace so that by 2002 it had net profits of 1.2 billion euros. This performance has made it one of the outstanding shares on the French stock exchange.

With such a sizable growth it might be natural to expect a wide diffusion of ownership of the shares of the company. This is not the case, with closely held shares accounting for 352 million of the 655 million shares outstanding. Its founder, Eugène Schueller, and more recently his daughter, Ms. Liliane Bettencourt, since the death of her father in 1957, have been the major shareholders. In 1967 analysts at the Crédit Lyonnais estimated that Madame Bettencourt owned over 50 percent of the capital of the company (Archives du Crédit Lyonnais Etude 9011/4, February 9, 1967) at a time when its turnover amounted to about 295 million francs and its market capitalization was 528 million francs. In 1974 she sold nearly half of her L'Oréal stock to the Swiss multinational Nestlé, combining with the latter to establish a French holding company, Gesparal, which owns 54 percent of L'Oréal. Madame Bettencourt and her family currently own 51 percent of Gesparal, with Nestlé controlling the other 49 percent. So although Madame Bettencourt's ownership of L'Oréal has been reduced, she still has over 25 percent of a far larger company. Effectively, through the link with Nestlé, Gesparal can ensure that no corporate predator takes over L'Oréal. The French business magazine *Le Nouvel Economiste* valued Madame Bettencourt's fortune at 13.7 billion euro in 2002, making her the richest person in France.

It was not always smooth sailing for L'Oréal. In the early 1950s it was regarded as a poor credit risk for long-term lending, and the difficulty the company had borrowing from the banking system at this stage in its devel-

opment may be observed from the caution with which its bankers lent it money in 1951 shortly after its takeover of Monsavon. At that time the conclusion of the Crédit Lyonnais analyst was that

A slowing down of its sales could quickly place the Company in difficulties: this slowdown has already manifested itself for some of the Oréal lines (permanent waves, hair dyes, Ambre Solaire, shampoos, etc.). The Company has announced some cutback measures: reductions in seasonal employments, and a cutback of 20% on the publicity budget but overhead costs have not been noticeably reduced, the Company contending that the two merged businesses cannot use the same sales representatives and that reductions in the advertising budget will take time. (CL, 5 July 1951)

The analyst was obviously intrigued as to how a company could boil and filter “tallow (60%), palm oil (20%), the residual elements of pork butcher’s meat (10%) and horse grease (10%)” into soap and sell it as a quality product. He expressed misgivings as to the amount spent on advertising—a *sine qua non* of the cosmetics business—commenting on its “flashy publicity” (“*une publicité tapageuse*”). He recommended that the bank should be prudent and lend to L’Oréal on only a short-term rather than a long-term basis.

Faced with conservative bankers who found it difficult to detect the growth of a business in this dubiously perceived area of ladies’ fashion (“*la mode féminine*”), the Schueller/Bettencourt family concentrated to a significant extent on self-financing to meet its capital expenditure requirements. In May 1971 another analyst emphasized the extent of this self-financing and the company’s low level of indebtedness:

For the period 1971–74 the group l’Oréal has an important investment programme amounting to a total of nearly 330 million francs. Its financing will be easily assured by the recent borrowing of 75 million francs and by self-financing (depreciation + retained profits 1970: about 81 million francs). No numerical increase in capital is expected, particularly because the level of indebtedness is only about 30 per cent of the group’s permanent capital. (CL Etude 9011/8, 26 May 1971).

The reliance on self-financing provided L’Oréal with a strong balance sheet that enabled it to borrow long-term from the banking system to finance new acquisitions. By the 1970s ladies’ fashion had become recognized as a very strong growth market, and L’Oréal was well positioned to become the global fashion leader that it has since become.

3.9 Peugeot

Peugeot is the leading French constructor of automobiles. It is the second largest automobile company in Europe. In 2002 it employed over

190,000 workers and produced sales of 54.4 billion euro. Peugeot, as a family-controlled company, has had a long and fascinating history. The origin of the Peugeot manufacturing dynasty stretches back to the water mill construction business of Jean Pequinot Peugeot in the eighteenth century. An ability to adapt to new trends and technologies has always been the hallmark of this family. In 1815 the brothers Jean-Pierre and Jean Frédéric Peugeot teamed up with Jacques Maillard-Salins to run a steelworks and a saw blade factory in the area of Montbéliard. The establishment of the saw blade factory was helped by loans from Swiss bankers in Basle; see Lévy-Leboyer (1964, p. 349). In 1842, Jean-Frédéric invented the pepper mill, still an essential element of the average kitchen. But this was only one of many ironmongery objects that the company specialized in. Saws, razors, sewing machines, clocks, stays, hoops for crinoline skirts, and so on were produced in the factory. Its ironmongery experience led to its producing the spokes of bicycle wheels, and this in turn led to its becoming the biggest bicycle manufacturer in France. Bicycle production in turn led to automobile production.

In 1896 Armand Peugeot established the Société Anonyme des Automobiles Peugeot despite the misgivings of some members of the family, who refused to allow him to use the Peugeot lion logo for a further fourteen years. The nominal capital of the company was 800,000 francs divided into 800 shares of 1,000 francs each. Armand Peugeot was granted 350 shares as a payment for “his contribution in bringing in the factory at Audincourt, the patents, cars in the process of production, leases, etc.” (Archives du Crédit Lyonnais November 1908). In 1898 the nominal capital was increased to 2,400,000 francs through the creation of another 1,600 shares of 1,000 francs each.

This increase in capital was to help finance the establishment of a new factory at Lille. By 1900 Peugeot was producing the Peugeot Phaeton Type 28 with a speed of 35 kilometers an hour. Over its first ten years the company’s balance sheet showed losses alternating with profits as the technology of the automobile industry underwent sizable transformations, as table 3.3, compiled by a Crédit Lyonnais analyst, shows.

The large losses experienced between 1900 and 1902 were due to expenditure incurred on outdated models and heavy depreciation of the stock of spare parts for these models, as well as losses on the hiring of commercial vehicles. Over the twelve-year period from 1896 to 1907 the company made profits of 3,547,000 francs, of which 2,104,000 francs (59 percent) were distributed as profits and 1,443,000 (41 percent) put into reserves. From this it may be seen that from the very start Peugeot had a policy of reinvesting a considerable part of its profits. Thus was Peugeot, at the turn of the twentieth century, a company that could be considered as a good lending opportunity for the bank. The analysts of the Crédit Lyonnais considered that the industrial and financial situation of the company was “good and

Table 3.3 Peugeot's profits and losses, 1896–1907

Time period	Francs
1896–1897	–53,000
1897–1898	169,000
1898–1899	360,000
1899–1900	532,000
1900–1901	–345,000
1901–1902	–1,001,000
1902–1903	464,000
1903–1904	827,000
1904–1905	315,000
1905–1906	1,164,000
1906–1907	1,585,000

solid.” They then qualified this by noting, “Nevertheless because of the risks inherent in the automobile industry arising from the intense competition both from French and international companies, the company is not guaranteed to produce regular profits in the future” (Archives du Crédit Lyonnais November 1908, p. 33). They were correct in this assessment because survival in the automobile industry at this time was difficult due to technological shocks ranging from changes in engine and chassis types to transformations in assembly line techniques.

The Peugeot family almost lost control of the company in the late 1920s due to financing problems. The Crédit Lyonnais blamed this policy on the arrival of three newcomers to the company between 1923 and 1929: Lucien Rosengart (1923–28) and Ricardo Gualino and Albert Oustric (1928–30). Rosengart was first employed by the Peugeot family to assist in the financing of the company. His financing technique was to set up a separate company and to use it to borrow against the inventories held by Peugeot. He drew bills of exchange against these inventories and discounted them at the Banque de France, an activity that split the management of Peugeot during Rosengart’s five-year employment at Peugeot—see Loubet (1999, p. 179). He even briefly took over as managing director from Robert Peugeot as a result of the latter’s long illness. Rosengart, described as someone who “*passait pour avoir des idées originales en matière de construction automobile*” (gave the appearance of someone who had original ideas for automobile construction), was criticized by the Crédit Lyonnais for changing the company’s policy to one of expanding dividends at the expense of making sufficient provision for depreciation and increasing reserves. The analyst at the Crédit Lyonnais argued that rapid technological progress created the need for continuous retooling of factories, suggesting that annual depreciations of 20 million francs should have been made rather than the 12 to 13 million francs, as practiced between 1925–26 and 1928–29 at a time when dividend payments had been annually increased from 10 to 21

million francs. Rosengart was forced to resign in January 1929. Peugeot, in need of financial assistance, linked up with Gualino and Oustric. This was to be a very short arrangement for the bankruptcy of the latter's bank in 1930 led to considerable losses at Peugeot. The family took back control of the company, appointing three out of the five board directors—Robert Peugeot, Jean-Pierre Peugeot, and Jules Peugeot.

The brief association with financial controllers such as Rosengart and bankers such as Oustric, allied with the temporary move away from a policy of heavy reliance on self-financing, created a near-catastrophic result for the Peugeot family in the early 1930s. This experience appears to have hardened the family to returning to its tried and tested policy of investing through self-financing. Chadeau (1993) describing how Peugeot emerged as the market leader between 1932 and 1940 in France, focused on the self-financing strategy of the company: "Peugeot's leadership decreed that each model launched had to be profitable in its own right, rather than as apart of a range. Whatever the rationale, the strategy made self-financing feasible and left family ownership intact" (p. 195).

Loubet observed that up to 1963 it is clear that Peugeot gave priority to reducing indebtedness or not taking on debt, quite the contrary to the approach of state-owned companies Simca and Renault (Loubet [1995?], p. 81). By the 1970s Peugeot was sufficiently large for it to acquire 90 percent of Citroen's capital, and in 1977 it bought out Chrysler's European operations. Notwithstanding the acquisitions and mergers of Peugeot, and the use of dynamic outsiders such as Jacques Calvet and Jean-Pierre Folz as chief executive officers, the family's holding in Peugeot currently amounts to 27 percent. Even more significantly, the Peugeot family controls over 40 percent of the voting rights. The family's wealth was estimated at 2.67 billion euro in 2002 by *Le Nouvel Economiste*.

3.10 Conclusion

This paper has attempted to show that historical phenomena have had a major impact in the determination of France's corporate ownership structure. Corporate finance is generated from three sources—banks, the capital market, and self-financing. If we consider them as the three channels leading to corporate investment, then history shows that two of these channels, the banks and the capital market, were subject to considerable upheaval, rendering them inoperable as financing channels for a long period in France's corporate history. The major financial shocks arose as a result of the rise and collapse of John Law's Mississippi System and the hyperinflationary experience generated by the *assignats*. These events traumatized the generation that experienced them. Furthermore, the strong oral tradition that emphasized the failures of Law and the *assignats* soured further

generations toward financial innovation. Kindleberger (1989) emphasized the extent that these episodes traumatized the French:

There [France] the trauma of the Mississippi Bubble and the collapse of John Law's System slowed down the development of banking and the expansion of industry. Together with the collapse of the Directorate in the 1790s, it made the French neurotic, or even paranoid, about banking for years. (p. 234)

The counterparts of this reaction against financial innovation were the continued recourse to *notaires* to fulfill a demi-banking role and the development of a strong specie-holding mentality among the French. This in turn made it difficult for banks to develop fully even after the establishment of the big multibranch banks, such as the *Crédit Lyonnais* and the *Société Générale*, in the 1860s. Faced with restricted access to the banks and capital markets, business entrepreneurs had to have recourse to a do-it-yourself approach, namely reliance on self-financing as a method of growing their business.² This restricted access, along with the banks' apparent willingness to invest outside France, may also have been responsible for having generated an antibanking sentiment on the part of French entrepreneurs. This antibanking sentiment was forcibly advanced by Louis Renault, the founder of Renault, when he stated: "Bankers are not philanthropists, they are money merchants and one should as often as possible not have any business with them" (Loubet n.d.). Self-financing in turn enabled these entrepreneurs and their descendants to retain sizable shareholdings in the family-controlled business. Hence, from an historical perspective, it is not surprising to see French families owning such a large proportion of French

2. The question may well be posed: if the thesis of a weak banking and capital market structure is accepted, what happened to the performance of the French economy? Initial economic research by scholars at the Research Center in Entrepreneurial History at Harvard, encapsulated in Landes (1969), suggested that the French economy had been backward relative to the British economy during the eighteenth and nineteenth centuries. Poor French entrepreneurship was put down as a causative factor of the inadequate performance. More recent quantitative research initiated by the Institut de Science Economique Appliquée, under the direction of Jean Marczewski, has challenged this retardationist approach and provided strong evidence that this was not the case; for a review of this literature see Cameron and Freedman (1983). If this latter revisionism is accepted then it may be argued that, because the French economy on average performed satisfactorily relative to its neighbours, the thesis that the banking and capital market structures were weak does not hold up. Two alternative interpretations may arise: (a) the French economy would have produced even greater economic growth if it had been underpinned by a strong financial sector. There is a growing literature showing the way in which the financial sector has assisted total factor productivity; see, for example, Levine (1997) and Beck, Levine, and Loayza (2000). This literature would imply that if France had possessed a more sophisticated financial sector between the eighteenth and twentieth centuries it would have achieved an even higher rate of growth than that ascribed to it by economic historians; (b) the reliance on self-financing enabled entrepreneurs to make long-term investment decisions free from the constraints of a capital market emphasizing short-term results.

corporations. Examples of this reliance on self-financing drawn from the experiences of the Michelin, Bettencourt/Schueller, and Peugeot families have been shown. Furthermore, this style of ownership ties in with the French mentality that asset ownership is an intergenerational phenomenon. The objective of holding wealth is to pass on to the next generation of the family assets that, hopefully, have risen in value.

Although this does not square with the Berle and Means (1932) approach as to the way corporations should be owned and controlled, it does not necessarily mean that the French-owned corporations are less efficient than their American counterparts. Family control can enable companies to take long-term investment decisions without all the emphasis of short-termism that widely diffused stock market ownership may necessitate. While Landes (1949, 1969) was of the view that France was hobbled by family control of companies, there is a strong counterargument to make that many of these family-owned companies provided France with dynamic leadership, promoting rather than retarding French economic activity.

This paper has emphasized the importance of history in the evolution of France's corporate ownership structure. There are of course other more recent elements that help explain the high degree of concentration of corporate ownership by families in France. The absence of funded pension schemes has led to a far lower profile by pension funds and assurance companies in the French stock market. In 1997 pension funds and assurance companies constituted 49 percent of household savings in the United Kingdom and 30 percent in the United States as against 18 percent in France. Recent industrial unrest in France has been exactly about this issue, with trade unions arguing that it is the state that should provide long and generous pensions on a pay-as-you-go basis. The continuation of this approach to pensions implies, given the demographic structure, that the percentage of gross domestic product (GDP) devoted to retirement payments will rise from 12 percent at present to 16 percent by 2040. The consequences of this for taxation are probably unsustainable in the long run. If so, there will be increasing emphasis on funded pension schemes that will produce greater investment by pension funds and assurance companies in the French stock market.

Changes in governments in France produced waves of nationalizations between 1945 and 1982. More recently this process has been reversed. The privatizations of the Chirac government in the 1980s increased the number of French shareholders from 1.7 million in 1982 to 6.2 million in 1987 (Goldstein, 1996, p. 463).

The different corporate ownership structure in France, and, indeed, in many continental European countries, from that of the Anglo-American model raises the issue as to why there has not been a universalist convergence to the latter. Has it been due to the inadequate corporate governance in the civil versus the common-law countries, as La Porta, López-de-

Silanes, and Shleifer (1998) and La Porta et al. (2000) have stressed? This paper has tried to show that there have been strong historical factors at work that help explain France's current corporate ownership structure. One of these factors has been the way financial collapses, such as the Mississippi System, and the *assignats* have fashioned attitudes toward money, banks, credit, and financial innovation—the major props of corporate finance. The Mississippi System—the biggest attempt at corporate restructuring in the eighteenth century—and the *assignats* both aimed to remove the Midas fixation on gold in France and replace specie with banknotes and credit. Ironically, their respective failures actually reinforced the Midas fixation. The result of this was that financial innovation was frowned upon and the banking sector, from 1720 until the 1930s, was only allowed to grow within the constraints of a specie-based monetary system. France's historical experience generated opposition to external finance that in turn led to internal finance and concentrated ownership. Another one of the historical factors highlighted in this paper is the different approach to inheritance. In France, even if one wanted to disinherit the “idiot heir” one could not do so. All one can do is to educate him or her. The French “*grandes écoles*” have been intensively used by the large corporate owning families to ensure that their successors are capable of handling the *patrimoine* in an appropriate manner. The continued participation of the Michelins and Peugeotts in the management of the companies created by their ancestors in the nineteenth century shows the strength of the French family model.

Family control of companies is not necessarily the bad thing that some Anglo-American commentators make it out to be. Family ownership may prevent new blood coming into a company, but sometimes the old blood is able to take a longer-term perspective and to concentrate more resources on research and development than a young corporate raider whose leit-motif may be one of asset stripping at the expense of all that has been historically built up by a company. Evidence to support this view for France has recently emerged in Sraer and Thesmar's paper (2004). Furthermore, for the United States Anderson and Reeb (2003) have shown that family-owned companies in the S&P 500 had a 6.65 percent better return on assets and that their assets were valued 10 percent higher by the stock market in the United States. Keeping it in the family may be good for not just the insiders but also outsider shareholders.

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Comment Daniel Raff

France is the locus classicus of a civil law country, the paradigm case of the civil law codes being the Napoleonic Code itself. A large and growing literature argues that weak investor protections characteristic of such sys-

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tems relative to common-law systems lead to relatively more concentrated ownership structures. This is an example of institutions—at least, certain sorts of institutions—mattering without history necessarily mattering. Antoin Murphy’s paper argues that such an argument gets the behavior of the French economy, in the sweep of its development and at a series of moments in time—wrong.

The paper begins with some comparative quantitative evidence to suggest that the ownership structure of French companies is indeed strikingly concentrated. But the rest of the paper is devoted to laying out a different sort of case. Murphy ultimately believes that path dependency is important in understanding the French history. He argues, in particular, that the confluence of cultural influences (some resting ultimately, it seems, on the nation’s long-dominant Catholicism) and a series of shocklike events put the French private sector onto a course in which concentrated ownership would, at least for a very extended period, have been a natural outcome holding constant the sort of legal institutions on which the recent literature has focused. The shocks are the collapse of John Law’s Bank and Mississippi Company, the episode of the *assignats*, with its attendant hyperinflation, the crises of the *Crédit Mobilier* and the *Union Générale*, and repeated highly disruptive episodes of war (France having been invaded by Germany three times between 1870 and the 1940s). The cultural influences are long-enduring antiusury laws and a concern with family patrimony (the latter exacerbated by the Napoleonic change in the system of inheritance law). The argument is that these together undermined the otherwise normal development of bank and capital market sources of company finance and left firms far more inclined to rely upon retained earnings for investment funds.

Three capsule company histories illustrating the basic characterization of French firm behavior round out the body of the paper. There is a brief discussion at the end of the development of pensions and the relatively limited role this has offered to pension and insurance funds, which might have been a countervailing force, in France.

Evidence from a single country’s (single) history is unlikely to be decisive in such an argument: the reader is inevitably far from the world of large samples and statistical hypothesis testing. It seems to me a reasonable first aspiration level for someone putting such an argument forth that the argument have some internal plausibility and the evidence be supportive, vivid, and thought provoking. I think the paper succeeds in this on all points. The one that will be of most interest to economists, but which they may need to take on faith, will be internal plausibility: might the French decision makers’ values have been as Murphy described them? A long line of secondary literature suggests that this is so; and the claim is consistent with my own limited contact, through archival research and conversations with first-generation descendants, with the French *patronat*. I do indeed find Murphy’s a plausible historical account as far as it goes.

The argument is thought provoking in the best way history can for economists: it leaves one full of questions about how other aspects of firms' operations and markets worked if these matters were as described and how one might know if hypotheses about these matters are true. My comment will focus on the thoughts—mainly though not entirely questions—the paper provoked in me.

Some of these fall under the heading of demand-side lacunae. The first concerns why (and how) founders and controlling families sold shares to outsiders. Was this entirely a matter of shares to long-term and highly trusted senior managers and issues in connection with late twentieth-century mergers? The statistics cited from Bloch and Kremp and from Sraer and Thesmar make one wonder. Presumably many of the shares held by outsiders were indeed originally sold to raise capital. One naturally wonders how such sale transactions were organized and carried out (and thus how concentrated the original incremental shareholdings were, how focused the monitoring incentives would have been, etc.), what sorts of information flows or other assurances potential holders would have had or sought, and how this sort of detail evolved, not just in the affairs of individual companies but in the French economy more broadly, as the economy developed and the scale of large firms grew. This amounts to testing Murphy's characterizations by probing, at least through examples, how the system responded to routine stresses and to secular change in operating environments. Such detail might tend to corroborate or to undermine the larger story.

The second concerns the other demands firms have for money. Day-to-day operations require finance. Well-known early stages of the development of the British banking system were all about institutions for the provision of trade credit. The paper is silent on French parallels. How was this managed, and how did the arrangements evolve over time? What did French business decision makers think about the possibilities? Murphy's comments on the notaries and the *Crédit Lyonnais* records suggest that light might be shed on these questions in both earlier and more recent times. As above, answers might help readers weigh the paper's argument.

Some other thoughts concern supply-side issues. What were, exactly, the institutions of capital supply in the period covered intensively in the paper? What controlled their growth? Answers to this are suggested, but the detail only whets this reader's appetite. It would also be very interesting to know what controlled the sources' investment patterns. Some companies' archives contain the background memos to key decision-making committees, but minutes of the meetings themselves that contain no more information than who was in attendance and what the motions and final votes were. If the *Crédit Lyonnais* records are more extensive, we could perhaps learn something about why the pressures on firms to change their behavior were not stronger.

In the context of the paper's main argument, the company vignettes raise in the economist's mind the question of how one might assess whether the paper's characterization of firm priorities in the period is true. Is it possible to explore this retaining the potential insights of detailed company-specific records but obtaining some of the virtues of a larger sample? One incremental approach might be to seek cross-national firm-level comparisons holding industry and period constant. This could offer the opportunity of comparing responses to common investment opportunities, new technologies, and changes in consumer tastes in the context of differing national institutions and extra-institutional influences on decision making. If there were essentially national differences, this could make them stand out boldly.

This approach suggests a deeper question. Is there some light to be shed by trying to reconstruct actual choice situations? To draw inferences, mechanically, only from situations in which companies had serious discussions with the *Crédit Lyonnais* would be to enact sample selection bias. But perhaps the bank's records, and the underlying surveillance and planning, are more extensive than that. Perhaps the bank's records could themselves give us some insight into who would come to them and when. This would be a step toward unambiguous information about what the French case tells us about the concerns of this volume. I found this paper memorable and stimulating, but (perhaps this is a compliment) I was left at the end of it wanting to know much more.