8 Joint-Stock, Limited Liability and Incorporation

> The only trades which it seems possible for a joint stock company to carry on successfully, without an exclusive privilege, are those, of which all the operations are capable of being reduced to what is called routine, or to such uniformity of method as admits of little or no variation. Of this kind is, first, the banking trade; secondly, the trade of insurance from fire, and from sea risk and capture in time of war; thirdly, the trade of making and maintaining a navigable cut or canal; and, fourthly, the similar trade of bringing water for the supply of a great city.
>
> Adam Smith, *Wealth of Nations* (1776)

A ENGLISH CLASSICAL ECONOMISTS ON JOINT-STOCKS AND LIMITED LIABILITY

Pre-Classical Views on Equity Capital Organization

'Joint-stock', regulated companies, limited partnerships, business trusts and general partnerships are all ways of organizing equity capital. It is not surprising that the emergence of the joint-stock company was accompanied by scattered analyses arguing the wisdom of using this approach, if only because the granting of a company charter to form a joint-stock company often conferred some special monopoly right. Such scattered analyses can be found at least as early as the 16th century. For example, Hecksher (1955, v.1, p.396) referred to an early English memorandum dated about 1582 that "described very aptly the pros and cons of the regulated and joint stock company". Similar Dutch documents appeared during the debate over the creation of the *VOC*.[1] Adam Smith was involved in the debate over the relative usefulness of the joint-stock form of organization; this topic occupied a section of *Wealth of Nations*. Other significant contributions by classical economists were made by Senior, Tooke, J.S. Mill, McCulloch and Marx.

One of the more heated debates about the relative merits of joint-stock and regulated companies happened in 1681, with Sir John Buckworth and Dudley North submitting for the regulated company and Sir Josiah Child (1630–1699) replying for the joint-stock company. The underlying dispute involved the Turkey Company, a regulated company with a monopoly on trade with the Levant, and the East India Company, a joint-stock company with monopoly privileges in 'East India'. The period leading up to 1681 was particularly harsh on the Turkey Company, which had been watching its own monopoly decay as a result of the East India Company's successes in adjacent and sometimes overlapping areas. The Turkey Company "became especially vexed when piracy in the Mediterranean and tyranny in Turkey reached a peak, so that trade became more risky and costly than usual" (Letwin 1964, p.32).

The end result was that the conflicting claims of the monopolies led to a Privy Council review of the problem; hence the submission from the regulated company and the joint-stock company arguing the merits of their particular form of business organization (Letwin 1964, p.33):

> The Turkey Company submitted a paper, prepared by Sir John Buckworth and Dudley North, pleading that they be preferred to their rival [the East India Company]. They allege in the first place that their business was more beneficial to the nation, because they exported about £500,000 worth of woollen goods and other English products and imported a great deal of raw silk and cotton that was subsequently worked up in England, all of which, exports and imports alike, gave employment to English labourers. The East India Company, on the other hand, injured the nation by exporting vast quantities of gold and silver, depriving English workmen of labour by importing finished calicoes and silk cloth, and sold at low prices the 'deceitful sort' of raw silk that they brought from India, to the 'infallible destruction of the Turkey trade'. Secondly, they said, the East India Company was much too exclusive. Their own, a regulated company, was open to any qualified merchant on payment of a small fee, whereas the East India Company, being organized on joint stock, could be entered only by buying some of a very small number of shares, whose ownership was, in fact, 'confined to the narrow compass of some few persons'. And the third great complaint was that the joint stock was too small to carry on the trade.

Among other requests, the Turkey Company wanted the king to "reconfirm exclusive right to trade in the Red Sea and all dominions of the Grand Signor and to have free access to those areas by the most convenient passages" (Letwin 1964, p.34).

That Child would be involved in detailing the position of the East India Company was understandable. From 1674 on, Child was probably the East India Company's largest shareholder and, in all years but one, was elected as director. In 1681, Child was elected Governor of the Company "and from then on his policy and the Company's policy were one, so that he became a symbol as well as manager of the Company's rapidly increasing power" (Letwin 1964, p.28). The East India Company's position was (pp.34–5):

> As to the first allegation . . . the Privy Council could undoubtedly discover the truth by checking the customs house records, they themselves were

> certain they exported more and better cloth than the Turkey Company, amounting recently to about 19,000 pieces a year, and that the Turkey Company was no less culpable than they themselves in exporting gold and silver. As to the organization of their trade, the experience with all European countries showed that trade with the East Indies was best carried on by joint stock companies. To this, Child's favourite argument on the subject, they added that their Company was by no means so exclusive as the others alleged. If anything, it was more open than the Turkey Company, for while the latter admitted only qualified merchants, such as had served apprenticeships, theirs was open to any Englishmen at all that chose to buy its stock. Furthermore, they denied that its stock was so closely held as alleged; there were, they said, 600 shareholders, and contrary to the assertion that a single shareholder had over 80 votes—that is he owned over £40,000 of shares—no one owned as many as 60, although it would not matter if he did, because the Company's work benefited not only its owners and its employees, but many others.

And so it goes, up to the time of Adam Smith and beyond. Even in Smith's time there was still disagreement over the most appropriate type of business organization for a particular activity, especially those activities operating under royal grant of monopoly privileges. By the middle of the 19th century, the English debate had been settled in favour of the limited liability corporation.

In addition to providing a reasonably coherent statement of the late 17th-century arguments, the 1681 debate is interesting because Sir Josiah Child was a contributor. Child is another of the truly remarkable individuals populating the history of equity capital. Child has some modern status as a noteworthy pre-Smithian economist.[2] "Child came to be the most widely read of seventeenth-century English economic writers" (Letwin 1964, p.45), his writings on the legal maximum interest rates being of particular importance. Yet, in his day, Child was recognized as one of the great English financiers; according to Defoe: "that Original of Stock-Jobbing, Sir Josiah Child". His status as governor of the East India Company was matched by his stock-trading acumen.

In *The Villany of Stock-Jobbers Detected*, one of Child's contemporaries, Daniel Defoe (1701), illustrated the deep-seated cynicism that could be attached to the grand stockjobber of his time:[3]

> It would be endless to give an Account of the Subtilties of that Capital [Cheat], when he had a Design to Bite the whole Exchange. As he was the leading Hand to the Market, so he kept it in his Power to set the Price to all the Dealers. Every man's Eye when he came to the Market was upon the Brokers who acted for Sir Josiah: Does Sir Josiah Sell or Buy? If Sir Josiah had a Mind to buy, the first thing he did was to Commission his Brokers to look sour, shake their Heads, suggest bad News from India and at the Bottom, it follow'd, I have Commission from Sir Josiah to sell

> out whatever I can, perhaps they would actually sell Ten, perhaps, Twenty Thousand Pound; immediately the Exchange (for they were not then come to the Alley) was full of Sellers; no Body could buy a Shilling, 'till perhaps the Stock would fall Six, Seven, Eight, Ten per Cent, sometimes more. Then the Cunning Jobber had another Sett of Men employed on purpose to buy but with Privacy and Caution, all the Stock they could lay their Hands on 'till by selling Ten Thousand Pound at Four or Five per Cent Cost he would buy a Hundred Thousand Pound Stock at Ten or Twelve per Cent under the Price.

Child was one of several 17th-century English writers who promoted Dutch society as a model for England. Evidently, Child also came to master the Dutch financial market techniques, described so accurately by de la Vega.

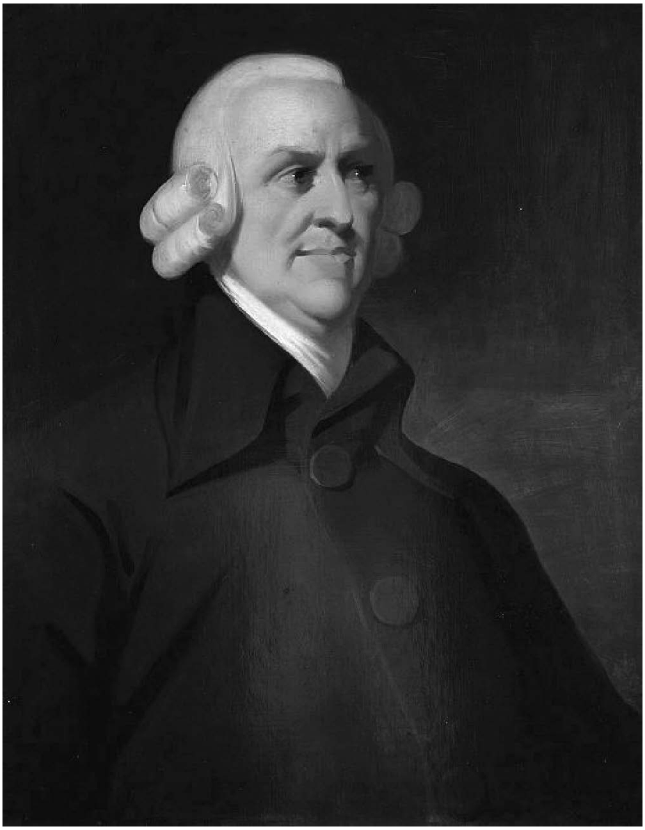

Figure 8.1 Adam Smith (1723–1790), Scottish philosopher by unknown artist, Scottish National Gallery, Edinburgh

Adam Smith and Joint-Stock Companies

The analysis provided by Adam Smith in *Wealth of Nations* (Bk.V, Ch.1, Pt.III, Art. 1) comparing joint-stock companies with available alternatives is a benchmark, a reasonable reflection of the progress that the debate on joint stocks and other forms of equity capital organization had reached by the second half of the 18th century.[4] Smith's views were, by no means, received opinion. Continuing the tradition of Sir Josiah Child, various influential authors also writing at the time, such as Mortimer, were decidedly in favour of joint-stock ventures (Mortimer 1774, p.143):

> Our East India, and Bank companies, have brought the commerce and mercantile credit of Great Britain to such a degree of perfection, as no age or country can equal; and to suppose that this national success could have been accomplished by private merchants, or even by companies not trading on a joint stock, is an absurdity that does not deserve serious consideration.

On the other hand, periodic English debates in the House of Commons, such as those in 1767 and 1768, would elicit eloquent speeches against the chartered companies. These speeches invariably retraced the arguments made in the 1681 debates.

As far as joint-stocks are concerned, in *Wealth of Nations* Smith was concerned more with how the structure of company ownership impacted company performance than with how the traded market value of the company was determined. On the issue of pricing joint-stocks, Smith (1776, p.254, Blaug edition) was somewhat vacuous, only identifying the difficulties inherent in the valuation of shares in joint-stock companies: "The value of a share in a joint stock is always the price which it will bring in the market; and this may be either greater or less, in any proportion, than the sum which its owner stands credited for in the stock of the company".[5] Smith took much more care with the issue of equity capital organization. Smith went on to provide a significant analysis of joint-stock companies as sources of corporate finance. Some care is required to recognize whether Smith was discussing joint-stock companies with or without "exclusive privilege".

Smith (1776) began his discussion by contrasting the joint-stock company with a partnership, recognizing the features of transferability and limited liability. Transferability brings with it the risk that, at sale, the value received will not equal "his share of the common stock". In this case, 'common stock' refers to retained earnings—which could be composed of goods in inventory, cash-in-hand, improvements to property—plus paid-in capital. This is in contrast to partnerships, in which shares are not usually transferable and 'upon proper warning' a partner may withdraw and receive his appropriate share of the proceeds from the winding up of the partnership. In addition to the market price risk associated with transferability, Smith identified the ability to transfer joint-stock shares to another person "without consent" of the other members of the company.

In keeping with the common-law tradition that descended from the Roman law of partnerships (where share transfer was not possible), Smith (p.254) stated the limitations on transferability of shares in copartnerships:

> In a private copartnery, no partner, without the consent of the company, can transfer his share to another person, or introduce a new member into the company. Each member, however, may, upon proper warning, withdraw from the copartnery, and demand payment from them of his share of the common stock.

He contrasted this with transferability in the joint-stock company:

> In a joint stock company, on the contrary, no member can demand payment of his share from the company, but each member can, without their consent, transfer his share to another person, and thereby introduce a new member.

While capturing well-known general features surrounding transferability, Smith (p.254) took a narrow view on limited liability:

> In a private copartnery, each partner is bound for the debts contracted by the company to the whole extent of his fortune. In a joint stock company, on the contrary, each partner is bound only to the extent of his share.

The possibility of joint-stock companies with unlimited and other forms of liability extending beyond the initial capital subscription went unrecognized. This reflects the historical context within which Smith was writing. In addition, Smith was often concerned with 'joint stock companies' that were "established either by royal charter or by act of parliament". This lack of attention to joint-stock companies without "exclusive privilege" is understandable given that *Wealth of Nations* was written well after the Bubble Act, at a time when 'joint-stock companies' were confined to the chartered companies, and just prior to the canal construction period, when the issue of liability for shareholders re-emerged. As a consequence, Smith often failed to capture essential elements of equity capital organization that impacted later historical developments.

As an illustration, consider the implications of combining separation of ownership and control with limited liability in the joint-stock company. For Smith (p.255), the separation of ownership and control in a joint-stock company, reflected in management by a "court of directors", has the following consequence: "the greater part of . . . proprietors seldom . . . understand any thing of the business of the company", receiving "contentedly such half yearly or yearly dividend, as the directors think proper to make to them". In combination with limited liability:

> This total exemption from trouble and from risk, beyond a limited sum, encourages many people to become adventurers in joint stock companies, who would, upon no account, hazard their fortunes in any private

> copartnery. Such companies, therefore, commonly draw to themselves much greater stocks than any private copartnery can boast of.

While recognizing the potential for joint-stock companies to facilitate speculation, Smith failed to fully recognize the impact of limited liability on enhanced share transferability, which became apparent after the collapse of the Glasgow Bank a century later. In turn, instead of developing the theme of speculative excess, Smith preferred to focus on the implications of separating management and control for performance of the joint-stock company.

Adam Smith on Limited Liability

Having recognized essential features of transferability and limited liability, Smith constructed an indictment of the usefulness of the joint-stock form of organization for all but a few economic activities. The crux of his argument depended on the modern notion of **agency costs** (p.233) associated with the separation of ownership and control:[6]

> The directors of [joint stock] companies . . . being the managers rather of other people's money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance which the partners in a private copartnery frequently watch over their own . . . Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company.

Smith's views on [joint-stock] companies were conditioned by the performance of those companies up to his time (i.e., pre–Industrial Revolution). This included the dealings of the South Sea Company that contributed to the South Sea bubble (pp.235–6):

> The South Sea Company never had any forts or garrisons to maintain . . . But they had an immense capital divided among an immense number of proprietors. It was naturally to be expected, therefore, that folly, negligence, and profusion should prevail in the whole management of their affairs. The knavery and extravagance of their stock-jobbing projects are sufficiently known, and the explication of them would be foreign to the present subject. Their mercantile projects were not much better conducted.

It is unfortunate that Smith did not attempt a detailed discussion of his views on the "stock-jobbing projects' of the South Sea Company." Despite numerous, seemingly exhaustive studies, the causes of the South Sea bubble are still a subject of debate (e.g., Neal 2012; Kleer 2015).

Smith was decidedly negative on the capacity of the joint-stock form of ownership to operate successfully in most branches of trade. In the economically important area of foreign trade, Smith (1776, p.255) observed:

> Joint stock companies for foreign trade have seldom been able to maintain the competition against private adventurers. They have, accordingly, very

> seldom succeeded without an exclusive privilege; and frequently have not succeeded with one. Without an exclusive privilege they have commonly mismanaged the trade. With an exclusive privilege they have both mismanaged and confined it.

Similarly, Smith connected joint-stock organization with the wider struggle against trade monopolies associated with mercantilism: "Without a monopoly . . . a joint stock company, it would appear from experience, cannot long carry on any branch of foreign trade" (1776, p.265). However, Smith was willing to admit that a granting a "temporary monopoly" to a joint-stock company could be advisable (p.265):

> When a company of merchants undertake, at their own risk and expense, to establish a new trade with some remote and barbarous nation, it may not be unreasonable to incorporate them into a joint stock company, and to grant them in case of their success, a monopoly of trade for a certain number of years. It is the easiest and most natural way in which the state can recompense them for hazarding a dangerous and expensive experiment, of which the public is afterwards to reap the benefit.

Smith suggested that at the end of the temporary period of monopoly "the forts and garrisons, if it was found necessary to establish any, . . . be taken into the hands of the government, their value paid to the company, and the trade laid open to all the subjects of the state" (p.265).

The recommendation for time limits on 'exclusive privilege' granted by the Crown or legislature was consistent with practices that had been used in the past, though not all charters had time limitations. It is not clear precisely why equity capitalists would be attracted to such temporary monopolies, especially when the 'value paid to the company' for significant improvements was uncertain. Such recommendations seem at odds with Smith's general rejection of monopolies.

After a quite detailed examination of the operating performance for most of the major English joint-stock companies, Smith concluded with the quote that begins this chapter (1776, p.266):

> The only trades which it seems possible for a joint stock company to carry on successfully, without an exclusive privilege, are those, of which all the operations are capable of being reduced to what is called routine, or to such uniformity of method as admits of little or no variation. Of this kind is, first, the banking trade; secondly, the trade of insurance from fire, and from sea risk and capture in time of war; thirdly, the trade of making and maintaining a navigable cut or canal; and, fourthly, the similar trade of bringing water for the supply of a great city.

It is essential to recognize that Smith was referring to joint-stock companies "without an exclusive privilege". In light of the central role that the publicly traded limited liability corporation has in almost all fields of the modern economy, on the issue of joint-stock companies Smith would appear to have been more of an apologist for what was current English legal practice, rather than a visionary. The types of companies identified are those for which "the management of it becomes quite simple and easy", once the initial construction phase is completed, such as with a "navigable canal" or "a great pipe for bringing water to supply a great city".

Adam Smith on Stockjobbing

Being the author of *Wealth of Nations*, Adam Smith is properly considered the father of classical political economy. Yet, beyond the discussion surrounding the joint-stocks, there is relatively little in *Wealth of Nations* of direct relevance to equity capital trading and valuation. To those familiar with the *Lectures*, this is somewhat surprising.

Cannan (1937, p.xxviii) considered the 'Police, Revenue and Arms' portion of the *Lectures* to be an "early draft" of *Wealth of Nations*. Two of three subjects treated in the police, revenue and arms lectures that were "altogether omitted" in *Wealth of Nations* are of interest. These two subjects are stockjobbing and the Mississippi scheme. The discussion of these topics in the *Lectures* is relatively substantial. Section II.13, 'Of the Scheme of Mr. Law', received an eight-page treatment, while Sections III.3 and III.4, 'Of Stocks' and 'Of Stockjobbing', received a total of six pages. By comparison, Section II.8, 'Of Money as the Measure of Value and Medium of Exchange', warranted eight pages. This significant change of course by Smith, away from waters most relevant to equity capital valuation and trading, leaves an unanswered question: Why did Smith choose to omit from *Wealth of Nations* the bulk of the subject matter of these sections of the *Lectures*?

The only writer to consider a potential answer to this question was Cannan (p.xxxviii) who stated: "The description of stock-jobbing was probably left out because it was better suited to the youthful hearers of the lectures than to the maturer readers of the book. The Mississippi scheme was omitted, Smith himself says, because it had been adequately discussed by Du Verney." In other words, Smith recognized that his insights on stockjobbing could offer little over what his readers probably already knew. Compared to what Smith had to offer on other subjects, such as international trade or value and distribution, his views on the inner workings of 18th-century equity capital markets were cursory at best and misguided at worst. As recognized by Cannan, Smith (1776, p.302) acknowledged that his potential contribution was limited by referring discussion and analysis of Law's scheme, "the most extravagant project of both banking and stock-jobbing that, perhaps, the world ever saw", to Mr. Du Verney.

What did Smith have to say in the *Lectures* of relevance to the Mississippi scheme and stockjobbing? Unfortunately, it is difficult to obtain much insight from the *Lectures*. This is partly due to the nature of the *Lectures*. Being recorded by a diligent student and further transcribed by "a person who often did not understand what he was writing" (Cannan 1937, p.xviii), the *Lectures* may not be a particularly reliable source on Smith's views on a range of subjects. This said, consider Smith's (1763, p.251) description of stockjobbing:

> The practice of stock-jobbing, or the buying of stocks by time has, too, on all occasions, a very considerable influence on the rise and fall of stocks.

> The method in which this practice is carried on is as follows. A man who has not perhaps £1000 in the world, subscribes for £100,000, which is to be delivered at several fixed times, and in certain portions. He therefore hopes to get these several portions sold out to great advantage by the rising of the stocks before they fall due, but as anything he is worth would go if the stocks should fall, he uses all means to make them rise, he spreads reports at Change Alley that victories are gained, that peace is to be concluded, &c. On the other hand, they who want to purchase a stock, and want that it should fall, propagate such reports as will sink the stocks as low as possible, such as that war will continue, that new subscriptions are thought on, &c. It is owing to this that, in time of war, our newspapers are so filled with invasions and schemes that never were thought of.

The stockjobber is being depicted as a highly leveraged gambler, manipulating the market with rumours aimed at facilitating a quick profit. Whether the stockjobber dealt in shares is unclear; the passage is likely referring to the practice of having government loan issues paid through instalments. Such issues would trade heavy-horse, mostly paid, and light-horse, only fractionally paid, depending on the number of instalments that had been paid since the subscription date.

As stated, Smith's views on stockjobbing are pedestrian compared with those of Thomas Mortimer, an actual securities market "merchant". A similar comment applies to Smith's understanding of stockjobbing trading strategies (p.250):

> As there are a great many stock-holders who are merchants, and who keep their stocks in the hands of the government that they may be ready to sell out on any sudden demand, and take the advantage of a good bargain when it casts up, and as these chances occur most frequently in time of war, they have often occasion to sell out, and thus more stock runs to the market, and the new subscriptions sink below par. But further, in time of war, as was observed before, stock cannot be so advantageously employed, and everybody is tempted to subscribe. Even those whose circumstances are but very inconsiderable, subscribe for great sums in hopes that stocks will rise, and that they may sell out before the time of delivery, to great advantage; but when things do not answer their expectations, and they are forced to sell out one way or another to support their credit, they are often obliged to sell below par. In this manner the new subscriptions may fall. Stock-jobbers that are well acquainted with their business, observe particularly when a number of indigent persons are in the subscriptions, and as they are soon obliged to sell out, and consequently stocks fall, it is their proper time to purchase them.

It is difficult to see precisely what is being proposed here. General situations in which stocks, presumably government funds, could fall are identified. Stockjobber profits arise from an ability to recognize "indigent persons", observe when these individuals are selling stock, and profit by buying these securities at a discount. This 'special situation trading' does not seem to be a credible description of a sustainable, actively functioning stock market. Again, the discussion seems to centre on trading of government loan stock, which reflects the limited state of the equity capital market in England during the period of the Bubble Act, when "jobbing in the stock of any company not legally incorporated" could draw severe sanctions, though no convictions were ever obtained (Shannon 1931, pp.268–70; Amsler et al. 1981, p.776).

Classical Political Economists after Smith

The legal transition to permit general availability of limited liability corporations to organize equity capital took place in England between 1844 and 1856. The importance of certain classical political economists in critical policy debates during the first part of the 19th century, such as the suspension of convertibility during the Napoleonic wars (Thornton and Torrens) or the repeal of the Corn Laws (Tooke and Malthus), implies that the British classical political economists had similar influence on the debates surrounding limited liability and incorporation. This was not the case. Some classical economists, such as David Ricardo and Thomas Malthus, had little to say on the issues or simply replicated the views contained in *Wealth of Nations*. Those classical economists after Smith who did express views on legal developments that ultimately resulted in the general availability of incorporation with limited liability were not in agreement. In addition, while important classical economists, such as Nassau Senior and Thomas Tooke, took part in the early deliberations leading to passage of key enabling legislation, other important contributors such as John Stuart Mill (1806–1873) and John Ramsey McCulloch (1789–1864) were reacting to changes that had taken place.

Amsler et al. (1981, p.781) observed: "An examination of the writings of British economists for the half century following Smith discloses no serious attention to questions of either joint-stock management or limited liability arrangements. Any passing comments concerning these issues were entirely Smithian." The first significant contributions are attributed to submissions for the "Report on the Law of Partnership" (1837) prepared by H. Bellenden Ker. The report preceded passage of the Chartered Companies Act (1837). As demonstrated by Fetter (1975) and Hunt (1936), the claim of 'no serious attention' is not entirely correct. The claim is possibly due to an implicit bias by contemporary historians of economic thought to identifying 'British economists' with important 'classical political economists' who had membership in the Political Economy Club, founded by James Mill in 1821 (e.g., Henderson 1986). Among the founding club members are Ricardo, Tooke, Malthus and Col. Robert Torrens. Senior joined shortly after; McCulloch joined in 1829; and John Stuart Mill joined in 1836. Focusing on the period between Ricardo and J. S. Mill, Fetter (1975) demonstrated only a weak connection between these important club members and the holding of a seat in Parliament. Other than Robert Torrens, elected three times in separate boroughs, only J.S. Mill and Ricardo were able to secure a seat for one term.

Classical political economists recognized as important in modern times were relatively late to the public debate over incorporation and limited liability for joint-stock companies, though the Political Economy Club did debate the issue of limited liability on six occasions between 1825 and 1856 (Henderson 1986, p.112). The views expounded were not substantively different than positions that emerged in the period before the Ker report. While Amsler et al. only started the time line with contributions in the Ker report by Tooke—a founding member and prime mover in the creation of the club—and Senior—a club member from 1823 to 1849 and 1853 to 1864—it was earlier decisions by the courts and those involved at senior levels of government that were responsible for developing positions to deal with the emergence of the unincorporated joint-stock company in the first quarter of the 19th century. For example, William Huskisson (1770–1830) was an important early 19th-century British 'economist'—not a member of the club – who actively participated in the debates leading to the repeal of the Bubble Act (e.g., Fetter 1975). At the time the club was founded, Huskisson was in cabinet and, until his untimely death in 1830, he was likely occupied with more essential political duties than the social events at the club.

Given this, classical political economists—those identified with the Political Economy Club—did participate in the various debates on joint-stock corporations and limited liability that took place following the Ker report. These debates were different in character from earlier debates surrounding the increase of unincorporated joint-stock companies and the subsequent Bubble Act repeal. As Hunt (1935, p.1, 2–3) recognized, the earlier debates had a decidedly different social context: "freedom of incorporation was achieved only after a protracted and bitter struggle against deeply rooted prejudice, wide-spread misconception, and even fear". More precisely:

> the history of the business corporation or joint-stock company in England during the one hundred and fifty years following the statute of 1719 is the story of an economic necessity forcing its way slowly and painfully to legal recognition in the face of strong commercial prejudice in favor of "individual" enterprise and in spite of determined attempts of both the legislature and the courts to deny it.

By 1800, over 100 private members' bills had passed Parliament—mostly related to the construction and operation of canals—granting corporate status to joint-stock companies. The resulting erosion in social attitudes and political opposition led to the 1824–1826 boom in the promotion of unincorporated joint-stock companies that precipitated the repeal of the Bubble Act.

As such, the point at which classical political economists associated with the Political Economy Club entered the debate over incorporation and limited liability was relatively late. The Ker report was "appointed to consider the Law of Partnership, and the Expediency of facilitating the Limitation of Liability with a view to encourage useful Enterprise and the additional Employment of Labour" (Report, p.iii). In other words, the initial contributions by Tooke and Senior were considering the possibility of introducing into English law the limited liability partnership, along the lines of the *en commandite* partnerships available in France, for small 'family' partnerships. Adopting the conventional view that limited liability was a special privilege outside the common law of partnership, Tooke argued against adoption because justice would dictate that such privileges also be extended to large partnerships. In addition, widespread availability of limited liability would divert capital away from areas where the granting of limited liability had been identified with a public purpose. Senior argued in favour of adoption, maintaining that (in opposition to the Smithian view that limited liability would discourage proper oversight of the business) the gains from the increased supply of equity capital would more than compensate for any deterioration in oversight.

In addition to important Political Economy Club members expressing divergent views on incorporation and limited liability, there is little evidence that members of the club had substantive influence on policy implementation. In particular, though McCulloch was even more strident than Smith in "consistent advocacy of the anti-corporate, full liability position" (Amsler et al. 1981, p.788), such views were incidental to the larger body of work produced by McCulloch. While the fifth and final edition of McCulloch's *Principles of Political Economy* in 1864 did contain some discussion of incorporation and limited liability, the Smithian narrative derived from the "narrow, lazy and oppressive" character of monopoly still remained. The second edition of McCulloch's *Principles* in 1843, appearing at a critical junction of public debate on incorporation of joint-stock companies, gave the relevant issues only little attention, in the section on 'Interference of Government'. In contrast, this section devotes substantial attention to the implications of the bankruptcy laws that imposed severe penalties on personal bankruptcies but exempted commercial bankruptcy of traders and merchants.

McCulloch maintained a position on incorporation and limited liability that can be found in scattered in works stretching from 1825 to 1864, a position that was not reflected in legislative developments. In contrast, the position of J.S. Mill's *Principles of Political Economy* in 1848 was more in keeping with the direction of legislative developments. The usefulness of incorporation to attract (equity) capital where the funds required exceeded "the means of the richest individual or private partnership" was recognized. The Smithian view on agency costs was retained, though tempered with the possibility of offset through incentive contracting with managers and requiring frequent distribution of financial reports. In addition, the larger firms facilitated by incorporation would allow firms in certain sectors to reap the gains of increasing the scale of production. The resulting increase in profitability would further allow the hiring of "managers of superior intelligence". Mill maintained that the final arbiter of whether to use a joint-stock corporation or private partnership would be the marketplace.

The modern perception of classical political economists proposes a time line that commences with Adam Smith and continues with those dedicated to perpetuating and developing 'economic' ideas initially set down in *Wealth of Nations*. The political aspects have been largely overlooked and, more or less, forgotten. The lack of impact by members of the Political Economy Club on the legislative agenda for incorporation and limited liability is partly due to timing—the club was somewhat late to the debates and lacked individuals with significant political power—and partly due to the political position of important club members. J.S. Mill, Senior and other lesser club members were actively engaged as social reformers seeking improvement for the working classes. The struggles of the poor and working classes against the political monopoly of the aristocracy and propertied classes in England have a long history. Despite a lack of political success, the influence of Chartism on the social fabric from 1838 to 1858 was profound. As social reformers, J.S. Mill and Senior were the 'wrong stripe' to influence legislation impacting the propertied classes. It was to the Select Committee on Investments of the Middle and Working Classes (1850), chaired by the poverty reform campaigner Robert Slaney, that J.S. Mill gave parliamentary evidence on limited liability, not the influential Mercantile Laws Commission (1854).

B ENGLISH LIMITED LIABILITY CORPORATIONS

Three Elements of Change to English Law

The progress of English law on limited liability corporations has been referenced somewhat haphazardly to this point. Key events have been identified, such as the passage of the Bubble Act in 1719–1720, the Act of Repeal (of the Bubble Act) in 1825, the Chartered Companies Act (1837), the Joint-Stock Companies Act in 1844, the Report of the Mercantile Laws Commission in 1854, the Limited Liability Act of 1855 and the Companies Act of 1856 (and 1862). The acts of 1844 and 1855–1856 may seem to have been watershed legislation that changed the landscape of equity capital organization. However, a detailed examination of the time line reveals that the acts of 1844 and 1855–1856 were the result of a half-century of attempts, legislative and otherwise, seeking to deal with the increasing demands for equity capital in the commercial ventures that were propelled by the Industrial Revolution. These legislative changes required a change in social perception of (joint-stock) 'companies' from "a reference to the people of which they were thought to be composed" to separate entities representing "an object cleansed of people" (Ireland 1996, p.46).

The commercial implications of the changes to English law had three distinct elements: (1) the introduction of 'incorporation by registration' of joint-stock companies in 1844; (2) the subsequent granting of limited liability to such incorporated joint-stock companies in 1855/1866; and (3) the gradual evolution of the tradeable 'autonomous share' that fuelled the 'socialization of equity capital' and the growth of exchange trading of shares in the second half of the 19th century. Though systemically connected, resulting in the emergence of the modern limited liability corporation by the end of the 19th century, factors contributing to the three elements differed. Incorporation was closely associated with the need to provide managerial and legal structure for commercial ventures that required combining equity capital from many individuals. In many cases, such 'companies' had a degree of separation between 'partners' and those responsible for the management of the venture. However, separation of active and passive investors can also be found in much earlier equity capital arrangements, such as the *commenda*.

Though often connected, properties associated with corporate status are distinct from the limited liability property. Even after the legislative changes of 1844 and 1855/1856, some companies still chose to be incorporated with unlimited liability. Circa 1874, unlimited liability banks dominated the British banking business. Using primary data, Acheson and Turner (2008, p.237) estimated that about 80% of bank deposits in England and over 63% of Scottish deposits were in a group of 69 English, 8 Scottish and 7 Irish unlimited liability banks. As the failure of the City of Glasgow Bank in 1878 demonstrated, an insolvent unlimited liability corporation was required to make calls on shareholders for additional paid-in capital to cover the deficit of liabilities exceeding assets. The unlimited liability of many British banks at this time was partly due to the charters granted to the five 'public' banks, such as the Bank of England (established in 1694) and the Bank of Scotland (established in 1695), which prevented the establishment of competing joint-stock banks until enabling legislation in the mid-1820s. "The joint-stock banking legislation, following the common-law tradition, required these banks to have joint and several unlimited liability" (Acheson and Turner 2008). Most of these unlimited liability banks did not convert to limited liability after 1856. Shareholders generally perceived that conversion would reduce profit, because depositors and note-holders viewed unlimited liability as providing better security and would deter risk-taking by bank managers.

At the time of its failure, the Glasgow Bank had the third-largest branch network in Britain, with liabilities about triple the paid-in capital plus reserves. The manager and one director were charged with fraud and sentenced to 18 months in prison for falsifying balance sheets, with three other directors jailed for eight months for fraudulently publishing balance sheets known to be false. Checkland (1975, p.471) reported that, although the deficit was covered by shareholders, only 254 of 1,819 shareholders were solvent after the two calls for additional capital needed to cover the deficit. The collapse had an indelible impact on wealthy shareholders in various sectors, not just banking, and it led to the passage of the 1879 Companies Act to deal with the *en masse* conversion from unlimited to limited liability corporations that was permitted under previous legislation. By 1884, only nine small unlimited liability banks remained in England. No relief was provided for the small shareholders who had been stripped of meager assets, though the favorable treatment of 'commercial losses' in English bankruptcy did prevent the sanctions associated with bankruptcy on personal loans.

The experience of Glasgow Bank reveals, as Loftus (2002, p.94) recognized: "The full significance of limited liability reform cannot be understood if its financial and legal implications are abstracted from the political environment in which debates took place." Through much of the 19th century, the 'old corruption' of the wealthy and the propertied classes that controlled the legislative agenda denied universal manhood suffrage to the working classes, despite the efforts of the Chartists, Christian socialists and other reformers. The evidence presented to the Mercantile Law Commission (1854) led the commissioners to conclude there was "great contrariety of opinion" on the matter of limited liability reform. Combined with the long-standing negative position of Adam Smith regarding the contribution of chartered joint-stock companies, there was a fear expressed to the commission of 'fraud and speculation' and of changing the status quo when there was "abundant evidence of satisfactory progress and national prosperity".

In contrast to those seeking to maintain the status quo, many social reformers were strongly in favour of limited liability (Loftus 2002, p.108):

> whatever their success or failure, the Chartist campaigns and the ten hours movement articulated a critique of political economy based on the structural inequalities of contracting parties in the market. Notions of shared interests through investments had the potential to obscure class differences while promoting the expansion of capital and investment as beneficial to the community.

For social reformers, limited liability typically was seen as "democratization", a step toward a world where class differences were not so biting. Yet, as noted previously, contributions of social reformers such as J.S. Mill to the debate over incorporation and limited liability were typically made to the committees concerned with 'social reform', such as the Parliamentary Select Committee on the Savings of the Middle and Working Classes chaired by the champion of the working poor Robert A. Slaney (1792–1862), and not the Mercantile Laws Commission.

Similar to both incorporation and limited liability, the development of the autonomous share also required a change in the social fabric of Victorian England. In particular, moral attitudes towards speculation and gambling had to change (e.g., Itzkowitz 2002; Acheson et al. 2012). The phenomenal growth in both the number and capitalization of tradeable shares issued by incorporated limited liability companies created equity capital trading venues, such as the London, Paris and New York stock exchanges, with large pools of speculative liquidity to sustain active trading and, presumably, more accurate pricing. The 'democratization' associated with the introduction of limited liability is reflected in the British middle classes purchasing equity capital shares instead of government debt. A 'nation of shareholders' was formed. "By the end of the century, roughly two-fifths of the national wealth was invested in company shares, and large numbers of upper- and middle-class people lived off dividends and interest rates from shares and other securities" (Itzkowitz 2002, p.121).

From Canals to Utilities and Insurance

The transition in markets for equity capital shares during the 19th century was dramatic. In addition to outlawing the formation of companies without a royal charter or act of Parliament, the Bubble Act (1720) also made transactions in the shares of such 'illegal' companies null and void. This effectively stopped the trade in shares of joint-stock companies formed without a royal charter or act of Parliament. This more or less confined the lion's share of equity capital share trading to the moneyed companies, effectively the Bank of England, the British East India and South Sea Companies and the two insurance companies. Against this backdrop, the growth in the public debt—from £5 million in 1698 to £71 million in 1749 to £497 million by 1800—created a market for investment of private funds dominated by trading in gilt-edged securities (Thomas

1973, p.4). Though many acts of Parliament authorized joint-stock issues to fund canal companies in the last quarter of the 18th century, for various reasons these shares did not contribute significantly to the share trading that was centered in London.

An important event occurred on 3 March 1801, when the 'London Stock Exchange' "formally came into existence that not only provided a market for securities but also incorporated regulations on how business was to be conducted" (Michie 1999, p.35). There was much more to this move than a simple transition of trading locations. "By this act the trading of securities in London had moved, decisively, from an open to a closed market as the only way of ensuring that all those who participated both obeyed the rules and paid for the necessary administration. With 363 members by February 1802 the move did appear to be a successful one" (p.35). When the stock exchange moved to a new building in 1802, "the main business of the market centered around gilt edged. Such industrial shares as existed, for example, canals, waterworks and docks were not even listed in the daily list until 1811" (Thomas 1973, p.4–5). It was not until the substantial issues of railway shares starting in the 1830s that there was significant trading in English shares beyond the moneyed companies.

In the last quarter of the 18th century, there was rapid growth in the size and scope of commercial ventures in manufacturing, insurance, transportation, lighting, water works, mining and brewing. Such ventures required equity capital that was initially largely funded using partnerships. This period of growth in demand for 'joint-stock' equity capital commenced with the building of canals. While partnerships and proprietorships were the common method of organizing many ventures, the commercial and industrial expansion of the period fuelled the need, in certain instances, to combine equity capital from many investors to build canal infrastructure, docks and waterworks. Following the Bubble Act, the earliest type of ventures to seek parliamentary approval to form joint-stock companies with tradeable shares were those involved in the construction of canals. Oddly enough, the financial and economic success of an eleven-mile canal from Worsley to Manchester, financed primarily by the Duke of Bridgewater and not by joint-stock capital, fuelled the creation of joint-stock companies for large canal projects.

Arnold and McCartney (2008, p.1188) provided details of early canal construction in England:[7]

> The canal age proper began in 1755 when Liverpool Corporation obtained an Act to improve Sankey Brook, a tributary of the Mersey, make it navigable, and so enable coal from the St Helens area to be carried by water to Liverpool. This prompted the promotion of the Bridgewater canal, from Manchester to the Duke of Bridgewater's collieries at Worsley, seven miles away. Although essentially a private venture, the project involved building an aqueduct to carry the canal over the valley of the Irwell at Barton and an enabling Act of Parliament. The canal opened in July 1761 and immediately halved the cost of coal in Manchester.

As equity capital ventures, canals had a number of distinctive features. In particular, the benefits of a canal accrued locally and mostly to those involved in the production, distribution, sale and consumption of the commodities being transported. As a consequence, suppliers of equity capital were predominately local. It is not surprising that the Duke of Bridgewater was also the owner of the collieries that benefited from construction of the canal. Larger ventures required more share capital; hence the need for a charter. Thomas (1973, p.5–6) described the typical method of raising funds for canal construction during this period as follows:

> Successful promotion of a canal company frequently involved a considerable amount of local support. A promoter without adequate capital enlisted the interest of prominent local citizens, and with their backing set up an investigation fund. Subscriptions to such a fund sometimes only meant that it entitled the contributor to some shares, while in other cases the subscription constituted part of the deposit. Following a favourable decision an act of incorporation was obtained which set out the share capital and its division into a specified number of shares. The deposit on shares was fixed and subscription books were then opened. Frequently subscriptions were collected in the main centres along the route of the proposed canals. In most cases the lists were filled quickly, particularly during the speculative mania of 1792.

The sale of shares by subscription did not initially create difficulties associated with share speculation, though this likely was a contributing factor in the 1791–1792 speculative boom and bust in canal shares.

Canal companies required a permanent equity capital stock and were chartered, permitting the legal transferability of shares. While this would seem to be sufficient to permit active trading in canal shares, similar to the moneyed companies, this was not the case. 'In many instances, provisions in the statutes of the charter prohibited an individual from holding more than a certain number of shares'. The combination of small holdings and a desire for local control meant that 'the disposal of canal shares through the London market' generated only sporadic trade. Though records of canal shares during the 18th century are "very thin", Arnold and McCartney (2011, p.215) provided some evidence:

> Evidence on the scale of canal operations and on their economic success or failure is thus very thin and largely confined to data on construction costs and on the dividends that were paid by some canal companies. Construction costs could be quite variable, ranging from £3,213 per mile on the Trent and Mersey Canal and £3,374 on the Oxford Canal to £16,666 on the Kennett and Avon Canal, but dividends were often very high; the 10 most successful canals in 1825, for example, paid an average dividend of 27.6 per cent and the Sankey Brook Navigation in south Lancashire paid 33.3 per cent dividends for 80 years from its opening in 1757.

The combination of profitable early canal ventures and the use of subscription sales led (in 1791 to 1793) to the introduction of "schemes of all kinds" in which promoters "were anxious to cause the prices of the shares of their projected canals even before the work of construction had begun, to rise to an unduly high figure; and they would unload their stocks upon unsuspecting purchasers so as to net a great profit" (Jackman 1916, pp.394–5). However, as Thomas (1973, p.6) observed, such observations need to be tempered: "There is very little evidence of the extent of the canal share market during the years 1791–93. It is generally agreed that speculation in shares was excessive and that as a result many fraudulent promotions appeared on the market".

Absent sufficient quantitative evidence, qualitative evidence indicates that canal share speculation in 1791 and 1792 appeared in traditional share-trading venues in London—the coffeehouses and the old Stock Exchange—as well as the provinces, where auctions of canal shares impelled the establishment of the provincial stock exchanges. However, this early trade in canal shares "did not provide a sufficient volume of share turnover to sustain provincial stockbroking activity. With the ending of the 1792 mania canal share dealing centered on London and up until 1831 there was a considerable volume of trading, but afterwards stock market interest switched to the growing railway market" (Thomas 1973, p.7). Yet, before the emergence of railway share trading, the English share market experienced several periods of company promotion involving the sale of shares in various companies, including gas works, insurance, brewing, distilling and water works. A number of such ventures resorted to the use of 'trust deeds' as a legal maneuver to attain limited liability for shareholders without gaining a parliamentary charter.

The Repeal of the Bubble Act (1825)

The repeal of the Bubble Act (1825) marks an important change of direction in the organization of equity capital in England. The Industrial Revolution in Britain led to increasing demands for equity capital in a wide range of industries where "individual capital could not be supposed to be adequate for the completion of the object for which the Company was formed" (English 1827, p.31). The experience of the canal companies in obtaining parliamentary charters led other types of companies to seek this route to avoid the sanctions of the Bubble Act. Certain types of companies were more likely to obtain approval than others. English (1827) provided evidence of 624 companies with a capitalization of £372 million that had issued prospectuses just prior to the Bubble Act repeal, with 127 of these companies in operation in 1827. Nominal subscribed capital of the 127 surviving companies was just more than £102 million, of which £15 million was paid on 764,534 shares, leaving about £87 million of unpaid capital associated with outstanding shares, mostly from insurance and banking companies, where ability to make calls on capital provided security to policy holders and depositors.

Inability or excessively long delays to obtain a parliamentary charter led companies in certain sectors to seek other methods to combine sufficient equity capital. As Hunt (1935, p.3) observed, this led to ongoing attempts to circumvent the Bubble Act:

> Several eruptions of company promotion and speculation in defiance of the law, and the opening-up of new industries with which it was impossible for the individual capitalist to cope, were forces which operated finally to break

Table 8.1 Number and nominal capitalization of English companies issuing prospectuses just prior to the Repeal of the Bubble Act (1825)

74	Mining companies	£ 38,370,000
29	Gas	12,077,000
20	Insurance	35,820,000
29	Investment	52,600,000
54	Canal and railroad	44,051,000
67	Steam (navigation)	8,555,500
11	Trading	10,450,000
26	Building	13,781,000
24	Provision	8,360,000
292	Miscellaneous	*148,108,600*
624		£372,173,100

Source: Hunt (1935, p.25)

Table 8.2 Number, paid-in capitalization and market value of selected companies operating in 1827

Companies		**Capitalization**	**Amount Paid**	**Value**
44	Mining	£ 27,766,000	£ 5,455,100	£2,927,350
20	Gas	9,061,000	2,162,000	1,504,625
14	Insurance	28,120,000	2,247,000	1,606,000
49	Miscellaneous	38,824,600	5,321,850	3,265,975
127		£102,781,600	£15,185,950	£9,303,950

Source: Hunt (1935, p.25)

> down opposition and to cause Parliament, retracing its steps, gradually to erect the legal framework of the new form of business organization.

This change of legal framework in England, which was not completed until past the middle of the 19th century, involved a change in social conscience to effect the change in legislation. As Taylor (2006) detailed, there was “a persistent and pervasive fear of and hostility to joint-stock enterprise which was by no means the preserve of a reactionary or self-interested few”. Arguments against conferring corporate charters were varied and strongly held. For example (p.13):

> In 1800, when Parliament debated the incorporation of the London Company for the Manufacture of Flour, Meal and Bread Tierney vigorously opposed the measure on the ground that “those incorporated could lose only their share of £25 each while their competitors might lose all,” speculation would arise, the shares would find their way into a few hands, and thus enable the company to set a monopoly price upon their commodity.

Not only was legal and mercantile opinion hostile to legislative limitation of liability on competitive grounds, there was serious social concern with determining responsibility of shareholders in an unincorporated joint-stock company in the event of financial embarrassment by the company.

The movement of bills for corporate charter through the legislative process was slow, sporadic and unpredictable. In this, there was a strong element of 'old corruption' which stemmed from "the main cause of social oppression" identified by British radicals: "the political monopoly of the propertied elite" (Harling 1995, p.127). The legislative changes surrounding equity capital organization that took place in England in the first half of the 19th century were inspired by radical elements in British society. A continuing tradition of social resistance stretching back to the Levelers propelled radical groups such as the Luddites and the Chartists to exert tremendous pressure on the ruling classes for social and political change. In this struggle, the radicals had common ground with smaller merchants and investors seeking to combine equity capital to support commercial ventures that required more capital than a small grouping could provide. As Philopatris proclaimed in 1807: "Are we now, in this age of civil liberty, to be deprived of commercial freedom? Are the people of small capitals to be restrained from making them productive by uniting to trade as a body?" In addition to denying legislative access to corporate charters for those not connected to the propertied elite, old corruption prevented encroachment on traditional monopolies, such as those granted to the two chartered insurance companies.

Against this backdrop, there was a brief boom in company promotions in 1807 and 1808 involving about 40 companies. Hunt (1935, p.4) listed the types of companies involved:

> 5 insurance companies, 7 brewing companies, 4 distillery companies, 5 companies to import and sell wine, 2 companies to manufacture and sell vinegar, 3 commission agencies, 3 coal companies, 1 medicine and drug company, 1 land company, 1 company to finance canal construction, 2 banking companies, 1 lighting and heating company, 2 copper companies, 1 paper manufacturing company, and 1 woolen company.

Not all of these companies were viable concerns, some being no more than promotions, while a small few were at different stages of the legislative approval process. Some were organized by obtaining limited liability using 'trust deeds' to circumvent provisions of the Bubble Act. In November 1807, old corruption acted against these companies, with the attorney general seeking "a criminal information against two of those recently formed as schemes which violated the 'provisions and plain policy' of the Act of 1719." The response to the legal argument in defence of the companies that no prosecutions had taken place under the Bubble Act since its passage was: "The only probable reason why this branch of the Statute had not been acted upon for so long was because it had corrected an evil it was intended to suppress, till now of late when it had shown itself again, it was necessary to put this wholesome law into force" (p.7).

Such action by the attorney general had the desired impact (Hunt 1935, p.7): "Alarm spread among investors and company promoters. New ventures folded up." This impact was reinforced by the decision in the Court of King's Bench:

> in view of the lapse of eighty-seven years since any authenticated proceeding on the Act, and of the fact that other means of prosecution were open to the attorney-general. Lord Ellenborough, the presiding justice, pointed out, nevertheless, that no person could in the future pretend that the statute was obsolete. Furthermore, he condemned the feature of alleged limited liability as "mischievous delusion calculated to ensnare the unwary public." The subscribers themselves might stipulate with one another for such contracted responsibility, but to the rest of the world each partner was fully liable. Finally, he urged, "as a matter of prudence to the parties concerned, that they should for-bear to carry into execution this mischievous project, or any other speculative project founded on joint-stock or transferable shares."

Despite the considerable passage of time without enforcement of the provisions of the Bubble Act, the court denied that the act was obsolete and strongly reaffirmed its relevance. At this crucial juncture, the progression toward greater permissibility in the granting of corporate status, limited liability and share transferability was overtaken by political and military events associated with the Napoleonic wars. In addition to transforming the political and military landscape of Europe and its colonies, British participation in the Napoleonic wars contributed to old corruption reaching a peak, providing sinecures, reversions, emoluments, government contracts, pensions and the like to the benefit of the propertied elite at the expense of the rest of British society. Such actions provided ample ammunition for William Cobbett (1763–1835), John Cartwright (1740–1824) and others to call for radical parliamentary reform.

As Neal (1998) observed, the repeal of the Bubble Act (1825) was part of a set of reforms in Britain that followed the end of the Napoleonic wars and the resumption of the gold standard. "The government's piecemeal reforms, introduced during the crisis of 1825 and its immediate aftermath, provided smoother patterns of tax collections and interest disbursements, established Bank of England branches throughout England, stimulated country bank competition with joint-stock companies outside of London, and eliminated the Bubble Act of 1720. Even the bankruptcy laws began to be rewritten in 1831" (p.54). Prior to the repeal, trading on the 'stock exchange' was dominated by activity in the stock of British government debt, which had ballooned during the Napoleonic wars. However, the end of war expenditures reduced the supply of new British government debt. This change was accompanied by an unexpected increase in the amount of foreign issues, both government debt and company shares, and an upsurge in domestic share issues seeking legislative approval.

The collapse of Spanish power in the Americas following Napoleon's defeat impelled the floatation on the London stock exchange of foreign debt and share issues from Latin American countries. This revived the sentiments that had led

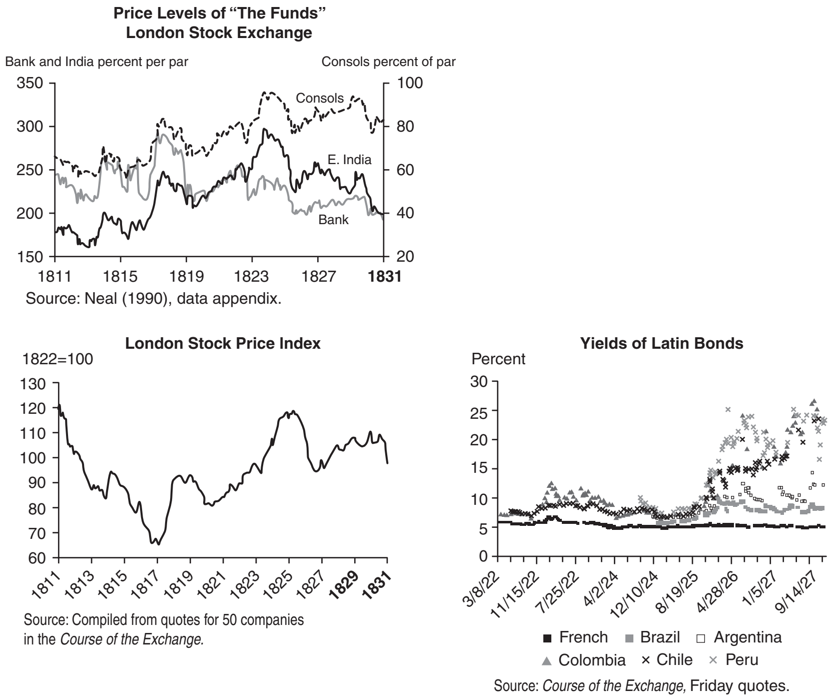

Figure 8.2 Selected Data for the London Securities Market, 1811–1831
Source: Neal (1998)

to the boom in joint-stock promotions in 1807 and 1808. Neal (p.64) described the situation as follows:

> As the London stock market had proved attractive for the new issues of debt by the restored European governments and the revolutionary Latin American governments, by 1824 a much wider variety of newly formed joint-stock corporations offered their shares to London investors. In the words of a contemporary observer, "bubble schemes came out in shoals like herring from the Polar Seas." The success of three companies floated to exploit the mineral resources of Mexico—the *Real del Monte* Association, the United Mexican Company, and the Anglo-American Company led to flotations of domestic projects in early 1824. In February 1824, the Barings and Rothschilds cooperated to found the Alliance British and Foreign Life & Fire Insurance Company. It enjoyed an immediate, enormous success. In March there were 30 bills before Parliament to establish some kind of joint-stock enterprise, whether a private undertaking for issuing insurance or opening a mine, or a public utility such as gas or waterworks, or a canal, dock, or bridge. In April there were 250 such bills.

In the face of the avalanche of issues, many with legitimate public purpose funded by credible merchants, the provisions of the Bubble Act prohibiting the formation of joint-stock companies with tradeable shares were repealed. However, this repeal did not grant the right to incorporation with limited liability, creating a difficult legal situation. "Under common law, limited liability was an inseparable incident of incorporation. Henceforth the crown was empowered to prescribe to any extent the degree of shareholders' responsibility. Even so, the grant of charters continued to be very jealously guarded" (Hunt 1935, pp.22–23).

The Boom and Bust in Railway Shares

Into the murky legal environment for joint-stock companies that followed the repeal of the Bubble Act came the steam railway and the need for substantial amounts of equity capital to, ultimately, build a national railway network (Pollins 1954). It is coincidence that the first public railway line to make use of steam railway technology opened in 1825, the same year as the repeal of the Bubble Act. The Stockton and Darlington Railway was authorized by an act of Parliament in 1820 as a public line with an eye to employing steam engine technology that George Stephenson (1781–1848) and others had been developing on private lines for hauling coal. In addition to engine design, steam engine technology required advances in metallurgy to improve the quality of the rails. The opening of the Stockton and Darlington line gave impetus to a number of the joint-stock promotions that surfaced in 1824 and 1825, both for railways and for mines, aiming to benefit from the reduced transportation costs the railways were expected to bring (Reed 1975, p.4):

> By 1825 schemes for trunk lines from London to Manchester, London to Liverpool via Birmingham, London to Bristol and South Wales, and Bristol to Yorkshire were being canvassed in the joint-stock boom of that year, which was chiefly notorious for the many unsuccessful mining ventures which were undertaken. Most of these railway schemes were clearly premature, for there was neither the engineering nor the managerial skill to undertake such projects, and few of them survived the crisis of December 1825.

Similar to canals, railways required the ability to obtain right of way, which made it necessary to obtain a legislative charter; as a consequence, "the essential requirements for railway Bills were taken over from canal legislation" (p.76).

Though unincorporated joint-stock organization was available following the repeal of the Bubble Act, for various reasons public railways required the company to petition Parliament for an act of authorization. The legislative process was subject to standing orders in the House of Commons and the House of Lords. Minor alterations in these standing orders were made following the initial 1834–1837 'mania' in railway shares, the most significant change being an increase from 5% to 10% in the deposit required to introduce a railway bill. Reed (p.80) summarized the key role played by equity capital in this process:

> formal parliamentary requirements and the necessity to survey a line and prepare a case for parliamentary examination meant that a company had to have some sort of corporate existence and to raise substantial amounts of money well in advance of obtaining an Act of Incorporation. The formation of a company and the issue of securities were consequently necessary at an early stage in the promotion of a new railway.

In addition to the deposit, a key feature of the 'formal parliamentary requirements' involved the presentation of a subscription contract and list of applicants: "it was in a company's interest to ensure as far as possible that its shares went to substantial applicants, who could be relied on to pay up instalments . . . It was realized at any early stage that it was sound parliamentary tactics to have a subscription contract which reflected local support" (p.84).

Table 8.3 Railway Shares Issues and Other Public companies known on the London market, c. 1843

Bank of England	£10,914,750		
Bank of Ireland	£ 2,630,769		
Joint-stock banks, England and Wales			
	£15,000,000	(about)	
London joint-stock banks	£ 6,433,500		
Irish " " "	£ 1,850,850		
Scotch " " "	£ 9,619,825		
Subtotal	£46,449,694		
East India Company			£ 6,000,000
South Sea Company			£ 3,662,734
Turnpike trusts			£ 8,774,927
70 Railways			£57,447,903
24 Foreign Mining Companies			£ 6,464,833
81 British Mining Companies			£ 4,500,000
102 Assurance Companies			£26,000,000
59 Canals—main lines	£14,362,445		
branches and feeders	£ 3,500,000	(about)	
Subtotal	£17,862,445		
8 Dock Companies			£12,077,237
27 Gas Light Companies			£ 4,326,870
11 Water Companies			£ 2,536,122
5 Bridge Companies			£ 2,123,874

4	Literary institutions		£ 1,003,125
72	shipping companies		
24	land companies		
5	asphalt companies		
10	cemetery companies	about	£25,000,000
15	loan companies		
7	salt companies		
83	miscellaneous companies		

Source: Reed (1975, p.2)

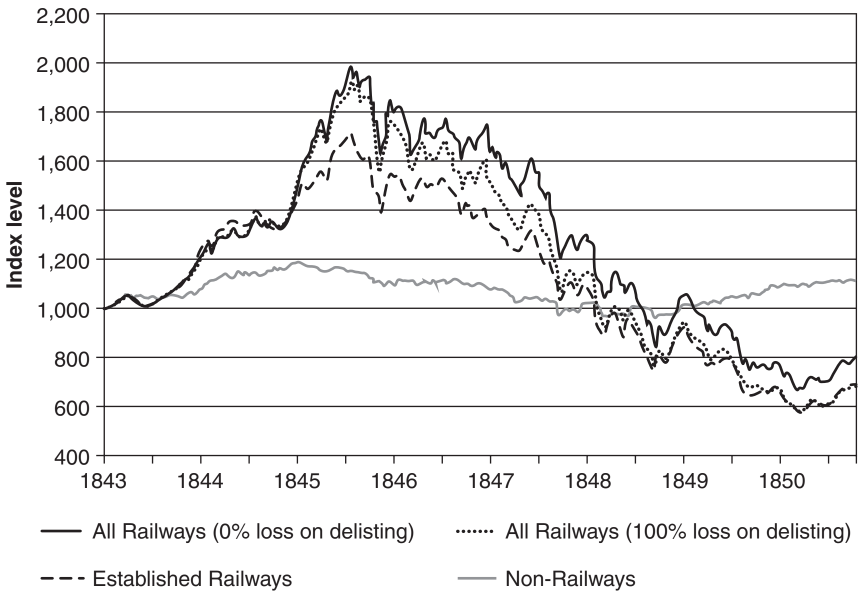

Figure 8.3 London Market Indices for Railway and Non-Railway Shares, 1843–1851

Source: Campbell (2013)
Notes: Railway share indices calculated from weekly share price tables in the *Railway Times* (1843–1850). Non-Railway share index calculated from weekly share price tables in *Course of the Exchange* (1843–1850). The All-Railway index includes all railway securities. The Established Railway index includes only those railways which were constructed before 1843. The Non-Railway index includes the 22 largest non-railways by market capitalisation.

The repeal of the Bubble Act alleviated the demands of certain types of companies to combine equity capital from many investors. However, as Taylor (2006, p.134) observed: "Despite legislation in 1825, 1834 and 1837, companies were in a similar legal position in 1840 as they were in 1800, due largely to the common law interpretation of unincorporated companies, and to the government's desire to maintain its discretion over granting privileges of incorporation." Requiring a charter from Parliament, railway projects were captive to the machinations of old corruption. “There was enormous potential for corruption in the procedure by means of which acts of incorporation were sought. Promoters of joint-stock schemes were quite willing to bribe MPs with shares or directorships in order to secure a favourable hearing for their companies.” Following practices used in the raising of equity capital for canal construction, this parliamentary delay provided promoters with a window to raise deposits for subscriptions based on an estimated nominal capital contained in the application for a private members bill. Recognizing that only a small amount of initial capital was required to participate in a promotional venture, the ground was laid for the excess speculation and fraudulent promotions in 1834–1837 and 1843–1847.

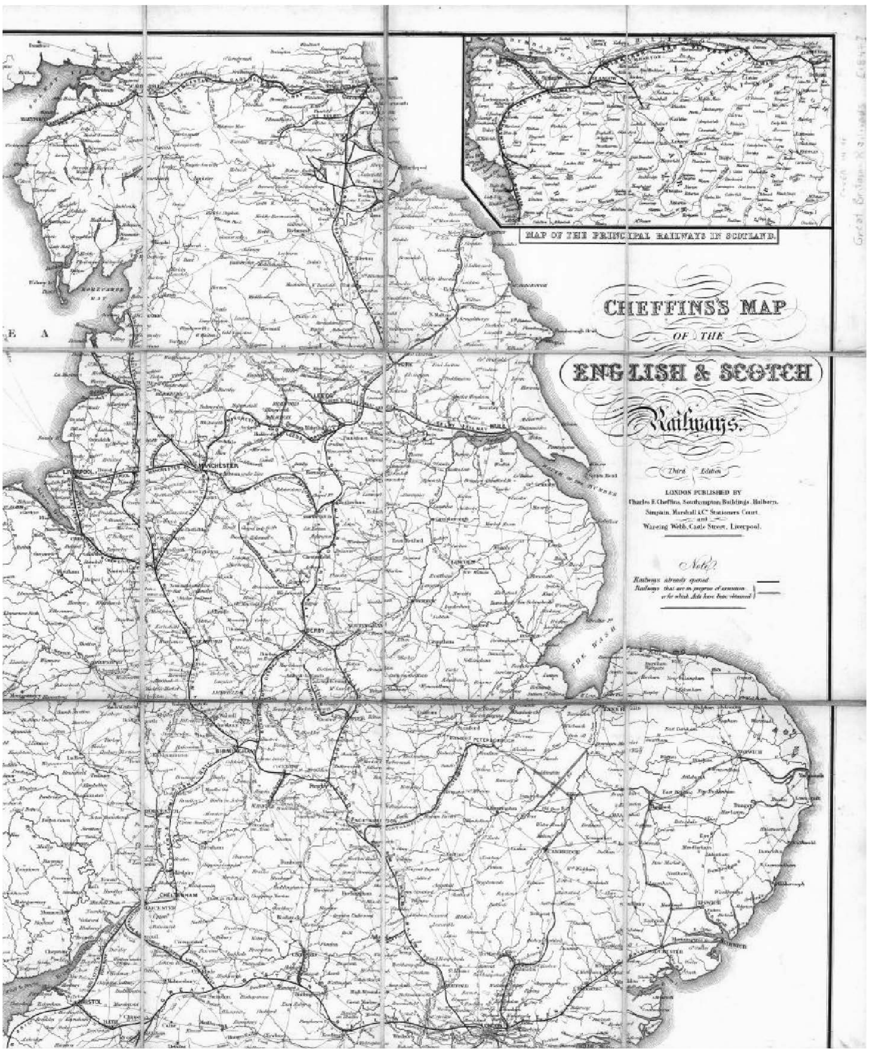

Figure 8.4 Cheffin’s Map of the English and Scottish Railways, 1844

Excessive speculation in railway shares was an outcome of the process for obtaining approval for incorporation from Parliament combined with a supply of leveraged equity capital claims in the form of ‘scrips’ and the like. This provided ample fodder for rampant speculative trading (Alborn 1998, p.189):

> To win Parliamentary approval, [railways] needed to present a subscription list of people who had pledged to buy shares, and various standing orders required [subscribers] to sign contracts for between half and five-sixth’s of [railway] capital as a precondition for approval by both Houses. Such requirements created a huge national market in salable securities, whether in the form of “scrip” certificates, letters of allotment, or bankers’ receipts, which might thrive for the months or even years it might take for a private bill to pass.

To obtain parliamentary approval, a 5% deposit of nominal capital was required from subscribers, an amount that was raised to 10% following the 1834–1837 wave of promotions. The deposit was raised and paid following a process in which applicants initially applied for shares from the company and a letter of allotment was issued indicating the number of shares that would be issued. When the deposit was paid, either a scrip certificate or a bankers’ receipt, exchangeable for scrip, was issued. “The scrip certificate gave the holder a title to the appropriate number of shares when the company was incorporated, and was an acknowledgement that the holder had signed the deeds binding him to pay instalments as demanded” (Reed 1975, p.83).

To appreciate the character of speculative trading during the railway manias, it is essential to recognize that there could be a significant amount of time between the initial promotion and the issuing of the letters of allotment and the signing of the subscription contract required to obtain an issue of scrip. “Though a company might try to ensure that only those to whom an original allotment had been made were permitted to sign the subscription contract, in practice this was difficult to enforce” (p.89). In theory, a scrip certificate was “the acknowledgement that the holder had signed the subscription contract”. However, scrip certificates were issued in bearer form, effectively eliminating the need for the signatory to the subscription contract being the individual to ultimately purchase shares in the event that the project received approval. The use of ‘nominees’ as signatories further clouded the liability issue. A bankers’ receipt was evidence that a deposit had been paid against an allotment of shares but the scrip certificate had not yet been issued. This would be an excellent trading vehicle for a speculator willing to “simply throw away the scrip if the company failed”. If the venture successfully obtained an act, the price of scrip could jump to more than double the par value.

Seeking a foundation for the ‘swindle’ hypothesis, Bryer (1991, p.463) claimed that once parliamentary approval had been obtained, “initial subscribers were liable for calls even if they had sold their shares, if the ultimate purchaser was unable to meet them”. This uncalled liability deterred wealthy London investors from investing in early railway ventures, leaving merchants and country gentlemen from Lancashire, Manchester and, especially, Liverpool as essential sources of railway share capital. While the claim of liability for calls was theoretically correct, the rudimentary development of the English railway system during the 1830s suggests that the earlier 1834–1837 speculation was associated with bets on the successful granting of parliamentary approval. During the decade, the railway mileage opened rose from less than 100 miles to almost 1,000 miles. Little was known about the eventual return on equity capital invested. The number of petitions, acts and capital authorized from 1834 to 1837 represented a dramatic increase in the supply of equity capital claims—a large portion of this supply was not associated with shares, only with claims to pay a first call on shares in the event the project was approved. Further supply was associated with partially paid shares.

As a consequence, trading of 'scrip' or partially paid shares was speculative compared to fully paid shares. The trading of 'scrip' also had other liability considerations (Alborn 1998, p.189):

> [S]crip was not limited in liability the way shares in incorporated railways were, which tended to keep permanent investors out of the market. Hence, during the long period between projection and incorporation, railway investors were traders, pure and simple: they either held their scrip in anticipation of future stable returns, or they sold at a profit (if they were lucky) when the market price changes. Until incorporation, they had no explicitly political role to play within the company; although scripholders did form loose associations to protect their legal rights.

Given that undercapitalized speculative traders were attracted to 'scrip' and partially paid shares, the 1834–1837 and 1843–1847 events differed substantively in the stage that railway development had reached and the types of ventures being promoted. Though the Stockton and Darlington Railway has claims to being the first steam railway, it was the opening of the Liverpool and Manchester line in 1830 that represented the first major step in the evolution of the British rail system. It was the Liverpool and Manchester line, together with the London and Birmingham line, which overcame cost overruns to make "unexpectedly large profits" which underpinned the increase in the railway share price index from 60.2 in June 1835 to 129.4 in May 1836 (Bryer 1991, p.444, 447).

A CONTEMPORARY DESCRIPTION OF THE ENGLISH RAILWAY PANIC OF 1845

Begbie (1848, pp.72–3) described the mania of 1845 as follows:

What is called "The Railway mania" has given notoriety to the year 1845. The funds had been high for some time before. The interest was low. Money was plenty. The desire to speculate was awakened. It chiefly directed itself to schemes for the extension of internal communication by means of railways at home and abroad. Speculation spread with inconceivable rapidity and force. All classes were smitten with the phrenzy, but more particularly persons in the middle rank of life, with comparatively small amount of capital, for which they were naturally anxious to obtain a higher rate of

> interest than is allowed on investments in the Funds. Seduced by the names of parties of known standing, wealth, and ability, advertised as the Directors of these projects, the smaller capitalists, who hold among them the bulk of the available property of the country, eagerly took shares, and paid the required deposit. This class of persons, there is every reason to believe, generally entered into these speculations, at first, with the *bona fide* intention of investing their means in what promised to yield them good returns. They saw that established Railway Companies were paying dividends to shareholders, averaging double the rate of interest accruing from money in the Funds. They embarked their money in the railway speculations, expecting like results; and not calculating on the difference in circumstances and of time. The bulk of the speculators early in 1845, appear to have been thus actuated. But there were very many persons who had gone into these speculations, simply with the intention of making money by buying and selling Scrip. The extent to which they carried such transactions, at once discreditable and dishonest, led to the usual conclusion—a Panic, which has been succeeded by the great commercial crisis of 1847–8. There exist no means of ascertaining and distinguishing the classes who, in 1825 and 1835, found money for the deposits then required and paid on account of the schemes of those respective periods. But we do possess a guide, in this respect, for the year 1845, and its Railway speculations . . . On careful examination . . . it is discovered, that more than two-thirds of the amount so paid were disbursed, not by millionaires, but by persons in the middle ranks of life—with incomes averaging from 150*l.* to 2000*l.* a year. That is to say, these monies have been paid by professional men, naval and military men, small manufacturers, shopkeepers, clerks, tradesmen, engineers, schoolmasters, clergymen, annuitants, pensioners, placement, or by their widows, daughters, or sisters. *These,* and not the great commercial men, risked money in such speculations.

From less than 100 miles of opened track in 1830, the British railway system had over 2,000 miles of opened track by 1843. This meant that, in addition to scrip and partially paid shares, the mania of 1843–1847 also had a substantial amount of fully paid shares, providing for a substantively different character to the railway mania of those years.

Swindle or Rational Pricing?

Following Bryer (1991), the so-called railway manias, especially the events of 1843–1847, have received considerable recent scholarly attention (e.g., Campbell 2012, 2013; Campbell and Turner 2012; McCartney and Arnold 2003; Odlyzko 2011). As with the variety of scholarly opinion expressed on other 'manias', academic impressions of the 1843–1847 mania vary from 'swindle' (Bryer) to 'rational pricing' (Campbell and Turner). Unfortunately, the search for historical comparability across manias is hindered by differences in context. For example, unlike the South Sea bubble, the object of speculation did not involve a grant of monopoly for seaborne trade to the 'South Seas'. There was also no exchange of initial equity capital raised for government debt. Capital raised was used toward the construction of a railway line, which may provide local and regional economic externalities beyond the gains to capital invested in the railway project proper. Given this, an important backdrop to the 1843–1847 mania is the claim in Marx (*Capital* III) that: "The period of prosperity in England from 1844 to 1847 was . . . connected with the first great railway swindle". Bryer (1991, p.441) observed: "Marx's view appears to be a classical illustration of Braudel's conception of capitalism as 'an active social hierarchy . . . constructed on top of exchange . . . which they manipulate to their advantage'."

As noted, the method of obtaining equity financing for railways involved three stages: (1) the initial promotion period required to obtain funds needed to seek parliamentary approval; (2) the subscription period where an initial deposit on the equity capital contribution is raised, determined as some fraction of the nominal share capital set out in the petition for the act of incorporation; and (3) the period of railway build out where subsequent calls are made on shareholders toward raising the full amount of nominal capital. As a consequence, three different types of railway 'securities' were available between the repeal of the Bubble Act in 1825 and the railway mania of 1843–1847: (1) securities associated with railway promotions, prior to a parliamentary act; (2) shares for railways with corporate charter under construction and subject to additional calls on capital; and (3) established railways with 'fully paid' shares.[8] While the 1834–1837 speculative mania was primarily associated with numerous promotions inspired by the increasing prospects of railways under construction, the 1843–1847 mania witnessed substantially greater knowledge about the engineering difficulties and construction costs together with a larger supply of fully paid shares and a record of the dividends that had been paid by established lines; "the vast majority of the schemes brought forward in 1844 and 1845 were from existing large companies who appealed to their initial shareholders for more funds" (p.462).

Alborn (1998, pp.189–91) demonstrated the complexities of the historical context involved in the railway manias. In particular, there was an undercurrent of the changing character of financial speculation following the Napoleonic wars. The diminishing flow of new government debt issues found English stockjobbers increasingly doing business in shares:

> By the 1820s, company shareholders were starting to take the place of fundholders . . . By then the state had frozen the debt at around £800 million and fundholding had taken on its modern meaning of "security" as opposed to speculation. There was . . . a direct connection between the disappearance of the creditor-speculator and the rise of the shareholder-speculator, in that the company craze in the first half of the 1820s was due in part to the leveling off of the debt and the consequent dispersion of new investors into different stocks.

As Mortimer and others had recognized, while government debt was relatively homogeneous and fluctuation in prices depended on interest rates and political events, the situation was much different in shares. The trading of debt 'light horse', a preferred instrument for stockjobber speculation, diminished with the absence of new issues. The degree of heterogeneity in shares, combined with the ability to trade shares or equity claims that were not fully paid or simply promotional, provided attractive alternatives to speculative trading of government securities. In addition, "speculation in early-Victorian railways was also qualitatively different, both in volume and political meaning, than trading in other shares at the time. Much of this difference resulted from the railways unique political circumstances" (Alborn 1998). While canals had primarily local economic impact, the geographical reach of the railway was substantially greater: there was "a unique trend among investors to conceive of railways as national and not merely regional undertakings" (p.175).

Bryer (1991, p.443) referred to the Marx-inspired swindle hypothesis associated with the 1843–1847 mania as "a deliberate design by an 'active hierarchy' to: (a) fuel the 'mania' thereby enticing investment in railway shares by unsuspecting middle-class and provincial entrepreneurs; and (b) subsequently squeeze out these investors and deflect critical interest in the new owners, the wealthy London capitalists". As Reed (1975, ch. 4–7) detailed, the bulk of equity capital for the initial period of railway finance originated from "provincial merchants and entrepreneurs (particularly those from Manchester and Liverpool) and the 'middle classes', and not from the very wealthy 'London capitalists' who studiously avoided investing in railways during the initial construction phase" (Bryer 1991, p.441). The 'Commercial Crisis' of 1847 coincided with substantial calls for equity capital from the numerous railway ventures that had been encouraged by the run-up in the price of railway shares starting in 1843. The restriction of credit created by the crisis prevented many shareholders from meeting the calls: "Being unable to meet the calls, many initial investors were forced to sell their shares at heavy losses. The evidence available suggests that the purchasers were the London wealthy" (p.441).

Whether the swindle hypothesis is correct or not, Bryer (p.447) made a fundamental observation about the relevance of accounting practice to the valuation of railway shares. Part of the process of parliamentary approval involved the creation of statutes of incorporation that "invariably included . . . the limitation to only declare 'Dividends out of the clear profits of the said Undertaking', so that 'the Capital of the said Company shall [not] . . . in any degree be reduced or impaired' ". Such statements imply that some double-entry based accounting method was used to determine 'profit' and whether 'capital was reduced or impaired'. As Campbell and Turner (2011) detailed, as late as the 1880s, shareholders relied primarily on dividends and the quality of "incentivized boards . . . as an effective market substitute for legal protection" (p.594). Company directors for established lines were more than aware that dividend policy was fundamental to the valuation of shares. Given the weak state of shareholder legal protection in the 1840s, it is not surprising that many established railways found ways to manipulate dividend policy to give the appearance of greater profitability than actual operations warranted.

Dividend policy manipulation by incorporated railway companies was relatively insignificant during the 1834–1837 mania, as only a handful of lines were established enough to pay a predictable dividend. The situation in 1843 was much different. The necessity of manipulating dividends was exacerbated by the commercial crisis of 1847. When confronted with the inability of calls to raise sufficient capital from shareholders, numerous company directors elected to pay dividends from capital. In modern times, such actions would be characterized as a form of Ponzi scheme. However, prior to 1844, substantive legal protection for shareholders was more or less the common-law prohibition on fraud. In the case of unincorporated joint-stock companies, including those railway companies trading securities prior to the receipt of an act of incorporation, "recovery of property from the directors of fraudulent or bankrupt companies in the courts was difficult, for they could exploit the common law illegality of their companies in order to escape punishment: shareholders could not recover from directors if the concerns in question were ruled illegal" (Taylor 2006, p.138). Failure to allow for depreciation provided an accounting basis for reporting an inaccurate 'profit' number from which dividends could be paid.

Though railways were an important component of the share market in the 1840s, numerous other types of companies also sought share capital. Many of these companies were caught in the legal limbo of unincorporated joint-stock companies. The Joint-Stock Companies Act (1844) was well timed, having been the result of legislative action surrounding "a series of insurance frauds which emerged in the late 1830s and early 1840s" (p.137). This Act was introduced to address (p.137):

> the various 'modes of deception' adopted by companies, which suggested the danger companies posed to the public as investors in and customers of these concerns. These included the use of fictitious names; the use of

Table 8.4 Private bills presented 1840–1844: Selected private bills presented before Parliament, 1840–1844, and percentage successful

Sector of economy	**Bills presented**	**Acts passed**	**Percentage successful**
Canals/navigations/ferries	35	28	80
Railways	188	137	73
Markets/bridges/cemeteries	49	34	69
Gas/waterworks	63	41	65
'Other' companies	77	49	64
Harbours/piers/docks/fisheriesiers/docks/fisheries	115	64	56
Total	527	353	67

Source: Companion to the Almanac; or Year-Book of General Information, *1841–1845.*

> respectable names without permission; the issue of misleading prospectuses in the newspapers; the prevention of shareholders' meetings; the falsification of share transfer books; the creation of fictitious votes to outvote the real shareholders; the creation of false accounts to deceive shareholders; the declaration of dividends out of capital; and the employment of respectable agents to cloak the want of respectability of the company.

Under the legislative leadership of William Gladstone (1809–1898), it was determined that "such frauds were facilitated by the unincorporated status of the companies involved." The Joint-Stock Companies Act made it easier and less risky to form early-stage companies. While the absence of limited liability dampened the benefits of the act considerably, the strong provisions about 'keeping of books, Auditing of Accounts, publication of Reports, &c' (Wordsworth 1845, p.40) provided important impetus to the development of the accounting profession in England.

Few scholarly sources explore the connection between the Irish potato famine, which hit with a vengeance in 1845, and the collapse of the market for railway shares. By the 19th century, the colonization of Ireland by the English resulted in an agrarian landlord-tenant system of landed estates operated by agents of absentee landlords. The indigenous Irish tenant population was located primarily on marginal farmland, reserving the best agricultural land for grazing animals with products marketed primarily to the English consumer. These estates provided a significant income for the well-to-do and wealthy in England, providing a source of funds for investment in railway shares. Propelled by bumper harvests in the early 1840s, the demand for bulk transport of goods by railway provided established railways with sufficient profit to declare dividends that looked attractive relative to 'the government funds'. Not only did the Irish potato famine expose the cruelty of the English colonization of Ireland, the collapse of the Irish potato crop deprived English landlords of income from grazing animals, as potatoes were also essential fodder. Combined with a poor English harvest, the precipitous drop in profitability of bulk goods transport undermined railway companies' ability to pay dividends, leading to the subterfuge of paying dividends out of capital in order to attract equity capital to satisfy calls.

Interpretation of the 1843–1847 railway mania requires some distinctions to be recognized. In particular, there is the issue of dating. The collapse of railway share prices lasted at least until 1849, arguing for a longer dating. As a consequence, some sources use a longer period—for example, Campbell (2013) used 1843–1850. Other sources identify the mania with a single year, 1845, when prices for railway shares reached a peak (e.g., Bryer 1991). In contrast, Reed (1975), an authoritative source, refers to "the spectacular railway booms of the 1830s and 1840s" without picking specific dates. Any dating of the English railway manias raises questions about the evidence concerning excessive speculation. As Reed (p.97) observed: "Much of the speculative activity which complicates the picture of railway promotion during this period took place in securities which were transferred without record, and it is necessary to rely on secondary evidence to judge the extent of such speculation". Evidence from comparing subscription lists, share lists and the like provided by Reed (1975) and Campbell and Turner (2012) is helpful only for identifying "the degree to which subscribers retained their interest at a later stage" as well as the occupation and location of the shareholder. No substantial evidence about the trade in the most speculative equity capital claims has survived.

Against this backdrop, a number of estimates of railway share performance are available. For example, Arnold and McCartney (2011, p.215) provided estimates for the average dividend record:

> on 15 of the leading (and more profitable) railway companies at only 5 per cent in the period 1840–55, and even the most successful companies hardly

Table 8.5 Average annual capital appreciation and dividend yield by sector, 1825–1870

	Dividend yield (%)	Capital appreciation (%)	Total return (%)
Overall market			
Weighted by market cap.	4.77	4.51	9.28
Unweighted	5.02	5.14	10.16
Banks			
Weighted by market cap.	5.26	5.49	10.75
Unweighted	5.05	8.07	13.12
Bridges (1825–61)			
Weighted by market cap.	4.43	0.03	4.46
Unweighted	2.40	–0.16	2.24
British mines			
Weighted by market cap.	4.09	6.62	10.71
Unweighted	3.92	2.31	6.22
Canals			
Weighted by market cap.	5.21	–0.62	4.59
Unweighted	5.46	–1.07	4.39
Colonial and foreign mines			
Weighted by market cap.	5.49	17.91	23.40
Unweighted	4.83	13.46	18.29
Docks			
Weighted by market cap.	4.89	0.53	5.42
Unweighted	4.94	3.67	8.62
Gas, light, and coke			
Weighted by market cap.	5.95	4.31	10.26
Unweighted	5.84	3.48	9.32

	Dividend yield (%)	Capital appreciation (%)	Total return (%)
Insurance			
Weighted by market cap.	3.90	3.30	7.20
Unweighted	4.20	2.96	7.16
Miscellaneous			
Weighted by market cap.	5.04	7.46	12.50
Unweighted	4.70	3.52	8.22
Railways			
Weighted by market cap.	3.69	10.19	13.88
Unweighted	4.19	10.56	14.75
Roads (1825–35)			
Weighted by market cap.	4.23	–3.77	0.46
Unweighted	4.68	–2.65	2.03
Telegraph (1852–70)			
Weighted by market cap.	7.55	13.85	21.40
Unweighted	7.21	10.80	18.01
Waterworks			
Weighted by market cap.	4.34	2.39	6.73
Unweighted	4.46	2.39	6.85

Source: Hickson et al. (2011, p.1229)

> ever paid more than 10 per cent. Returns to equity capital were somewhat higher, but only by 0.5 per cent or so, and the average of a somewhat broader sample of companies across the period 1830–55 was only 4.2 per cent, comparable to the yield on government consols, which ranged from 3.0 to 5.9 per cent in the century to 1855.

These results can be compared to "the 10 most successful canals in 1825 [which] paid an average dividend of 27.6 per cent and the Sankey Brook Navigation in south Lancashire paid 33.3 per cent dividends for 80 years from its opening in 1757". However, following the emergence of competition from the railway for bulk transport, canal share performance deteriorated. Using dividends paid as a measure of share performance is not indicative of overall return. For the 1825–1870 time period, Hickson et al. (2011) found that telegraph companies, foreign and colonial mines and railways experienced the highest relative rates of return. While dividends paid were similar to and competitive with government funds, the bulk of the difference in returns was due to the capital gain or loss. Hickson et al. also reported that relatively high rates of return in banking and insurance appear to be in some measure explained by the presence of extended liability and uncalled capital.

C AMERICAN COMPANIES AND THE FRENCH *SOCIÉTÉ EN COMMANDITE*

The Rise of American Corporations

Being British colonies prior to 1776, it is not surprising that the founding states of the American republic inherited equity capital organization and valuation methods with distinct similarities to those employed in England. However, from the starting point provided by the Declaration of Independence, the development of incorporation and limited liability in America deviated substantively from the English path. This departure was strongly influenced by a number of American characteristics. In particular, the American republic was a collection of states, each with inalienable rights under the Constitution. While Congress did have the right to grant a federal charter, "its practical force would have been *nil* in a state which refused to recognize it, and effective excuses for such refusal would have been easy to find" (Davis 1917, p.12). Resistance to granting incorporation powers to the federal government meant state legislatures had the primary authority to charter corporations. As a consequence, from the founding of the republic until somewhat after the passage of the New Jersey general incorporation law in 1875, the states used a myriad of legal approaches to granting of corporate status and limited liability.

At the time of the American Revolution, the few "pioneer business corporations" had significance that "even for their time, was but slight and local . . . predecessors rather than prototypes of the present-day business corporation. Only the local public service corporation is well represented" (p.5). Revolutionary America was not yet in need of large combinations of capital to fund canal and railway infrastructure, banks, highways and other such ventures. "Small-scale enterprise was still the order of the day." In addition, the operation of the Bubble Act had been extended to America in 1741, restricting the formation of joint-stock companies without legislative charter. After the revolution, "the situation was materially altered". Assertion of the natural equality of rights and privileges conflicted with the "English tradition that corporate powers were to be granted in rare instances" (p.7). Though constitutions in most states soon recognized the right to general incorporation for ecclesiastical, educational and literary organizations, corporations formed for commercial ventures still required a special legislative corporate charter.[9]

Consistent with the American struggle for religious and political freedoms, granting of corporate status to non-commercial entities varied across states and time. However, the overall result was considerably more acts in America than England: "Prior to 1801 over three hundred charters were granted for business corporations, ninety percent of them after 1789" (p.8). Some states, such as Massachusetts, used the privilege of granting corporate status liberally (Handlin and Handlin 1945, p.4–5):

> by contrast to English and Continental experience, the less advanced economy of the United States produced almost 350 business corporations between 1783 and 1809. By 1799, if not earlier, Massachusetts even had

Table 8.6 Summary of 18th-Century Charters to Business Corporations in the US, Grouped by Period, Sources of Charter, and General Type

Sources of charters	Colonial	1781–1785	1786–1790	1791–1795	1796–1800	Total charters	Per cent
US................	....	1	....	1	....	2	0.6
New England.......	6	4	4	69	117*	200*	59.7
Middle states.......	1	2	4	22	38	67	20.0
Southern states.....	....	4	14	22	25	65	19.4
Western states......	....	....	....	....	1	1	0.3
Total charters.......	7	11	22	114	181*	335	100
Per cent............	*2.1*	3.3	6.6	34.0	54.0	100.0	....
General type.......	**Colonial**	**1781–85**	**1786–90**	**1791–95**	**1796–1800**	**Total charters**	**Per cent**
Financial...........	1	5	5	29	27	67	20.0
Highway...........	....	5	14	78	122	219	65.4
Local public service....	5	....	....	4	27*	36*	10.7
Business (proper)....	1	1	3	3	5	13	3.9
Total charters.......	7	11	22	114	181*	335	100.0
Sources of charters	**Financial**	**Highway**	**Local public service**	**Business (proper)**	**Total charters**	**Ancillary, additional, or joint charters**	**Total corporations**
US................	2	....	....	....	2	....	2
New England.......	33	130	30*	8	200*	8	192
Middle states.......	16	42	4	5	67	7	60
Southern states.....	16	47	2	....	65	3	62
Western states......	....	1	....	....	1	....	1

(*Continued*)

Table 8.6 (Continued)

Total charters	67	219	36*	13	335	18	317
Ancillary, additional, or joint charters . . .	5	13	. . . .	. . . .	18	. . . .	. . . .
Total corporations . . .	62	206	36*	13	317	. . . .	. . . .

Source: Davis (1917, p.24)

* Charters to water supply companies issued under the Massachusetts general incorporation act of Feb. 21, 1799 (*CLaws*, ed. 1801, II, 843–847), cannot be found and are not included.

Table 8.7 18th-Century Charters to Business Corporations, Classified by States and Purposes

Sources of charters	**Financial**		**Highway**			**Local Public Service**		**Business (proper)**		**Totals**
	Banking	**Insurance**	**Inland navigation**	**Toll-bridge**	**Turnpike**	**Water supply**	**Dock**	**Manufac-turing**	**Miscella-neous**	
United States	2	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2
Maine	1	1	7	12	. . .	1	1	. . .	. . .	23
New Hampshire	1	1	5	19	4	1	1	. . .	. . .	32
Vermont	. . .	. . .	5	5	9	1	. . .	. . .	. . .	20
Massachusetts	7	5	5	14	9	15	1	4	. . .	60
Rhode Island	4	6	1	3	3	3	. . .	. . .	. . .	20
Connecticut	5	2	2	3	23	5	1	1	3	45

New York	4	3	3	1	13	2	...	2	...	28
New Jersey	...	...	4	5	...	2	...	1	1	13
Pennsylvania	3	4	5	5	5	...	...	...	1	23
Delaware	2	...	1	...	...	...	...	...	...	3
Maryland	3	6	4	4	3	1	...	...	...	21
Virginia	2	3	14	...	3	...	...	...	...	22
North Carolina	...	...	11	...	...	...	...	...	...	11
South Carolina	...	2	6	1	...	1	...	...	...	10
Georgia	...	...	1	...	...	...	...	...	...	1
Kentucky	...	...	...	1	...	...	...	...	...	1
Total charters	34	33	74	73	72	32	4	8	5	335
Ancillary, additional, or joint charters	5	...	8	4	...	...	...	...	...	181
Total corporations	29	33	66	69	72	32	4	8	5	317

Source: Davis (1917, pp. 27)

[1] One bridge and canal company occasions an additional subtraction.

> a general incorporation law. Nor is it enough to point to the relative ease of incorporation in America without answering why it was less difficult to secure charters in the New World. If the weight of common-law inertia was not quite so heavy on one side of the ocean as on the other, and if independence freed colonial merchants from some imperial restraints, it nevertheless would be rash to claim that after 1776 enterprisers in the United States had more influence in government than did their European counterparts.

Significantly, the so-called 1799 Massachusetts general incorporation act was only for ventures organized "for the purpose of conveying fresh water, by subterraneous and other pipes, into any town of place within this Commonwealth" of Massachusetts. Once the project was complete, a settling of accounts was required and the project was leased back to the locality, "it is doubtful if the companies were, strictly speaking, organized for profit" (Davis 1917, p.19). The first steps toward general incorporation, where corporate status was granted without recourse to special charter, were not until the New York Act (1811); albeit, this act appeared in a dual system where corporate status was also conferred by special charter.

Closer inspection of the early American penchant for incorporation poses a number of quandaries. For example, Handlin and Handlin (1945, pp.6–7) observed for the period to 1800:

> The areas of most intense economic development were not the areas where the most corporations appeared. Fully 60 per cent of all charters were in New England while only 15 per cent were in New York and Pennsylvania; New Hampshire alone granted more than either of the two central states. Was the need for this device for accumulating and managing capital more urgent in New Hampshire than in Pennsylvania?

In addition to anomalous practices across states, there were also unusual patterns of incorporation across sectors. "In some of the most important phases of post-Revolutionary economy, in shipping and in trade, in land speculation and in the fisheries, joint-stock companies were prominent; there was only one small, short-lived corporation" (Handlin and Handlin 1945). This differed from the continental European experience, where overseas trade was typically a sector attractive to incorporated companies. In addition, there was no consistent approach used by the various projectors who were prominent in the early years of the Republic: "Duer incorporated his ventures in manufacturing but not in land; John Brown in canals but not in manufacturing; and Mackay, Craigie, Swan, Gorham, and Higginson similarly divided their interests. Yet if the corporate form was so adaptable and so advantageous in the management of capital, it should have been equally irresistible for all types of large-scale enterprise" (Handlin and Handlin 1945).

The timeline and diversity of state actions surrounding incorporation and limited liability, combined with the legal protections provided by the Constitution, provide a helpful backdrop to identify factors that influenced the adoption of specific forms of equity capital organization. Butler (1985, p.138) identified three important stages dating from the Revolution to the passage of the New Jersey general incorporation law of 1875:

> The individual states of the United States did not change their method of incorporation from special charters to general incorporation laws either suddenly or at the same time. These important changes, which took place throughout the nineteenth century, developed in three overlapping stages: first, the era of special charters; second, the dual system under which some companies incorporated under restrictive general incorporation laws while others continued to incorporate through special legislative acts; and third, interstate incorporation competition, which led to the adoption of liberal general incorporation laws.

Special charters were derived from the traditional English method of passing individual corporate charters through the state legislative process. Though there were some targeted instances of 'general' incorporation status granted by selected states previously, the dual system developed after passage of the first general incorporation act of wide coverage in the US—the New York Act of 1811.

The New York Act of 1811

The beginning of the end for the special charter in the US began with the passage of "An Act Relative to Incorporations for Manufacturing Purposes" (the New York Act of 1811) by the New York legislature, e.g. Haar (1941). This act "has long been recognized as a landmark in the history of the law of American business corporations and of public policy with respect to their use" (Howard 1938, p.499). The rules for incorporation under this statute stipulated that five or more persons, in compliance with rules of procedure set out in the statute, could form a corporate body to undertake designated industrial manufacturing ventures. Such corporations were permitted to endure for 20 years from the filing date. The passage of this act marks the beginning of the dual system of incorporation, in which restricted access to general incorporation was given to companies in targeted industries while all other companies still had to secure corporate status through special legislative acts. Significantly, special charters could confer rights not available under general incorporation. In contrast to the common-law practice in England, where legislative granting of corporate status conferred limited liability for shareholders after authorized capital had been fully paid, the New York Act of 1811 continued the practice of denying limited liability.

The Act of 1811 is significant in the history of US corporation law for the granting of general incorporation "permitting automatic self-incorporation if the incorporations followed a certain outlined procedure" (Haar 1941, p.192). The act was initially targeted at the manufacturing industry and was revised significantly in 1828 and 1848. The corporate powers granted under the Act of 1811 did not differ substantively from those conferred to the first manufacturing venture chartered by the New York legislature in 1790: "uninterrupted succession for a stated time; status before the courts with the right to sue and be sued; a common seal alterable at pleasure; the right to buy and sell estate, real or personal; the right to make by-laws and regulations; and, finally, the power to appoint officers and agents" (p.193). Livermore (1935, p.684) correctly recognized that "properly interpreted, this act did not at all usher in the movement of generalized incorporation laws. It was passed simply as a means of encouraging groups with small capital to enter general manufacturing." Prior to 1845, general incorporation laws of "widespread applicability" had been passed in only New York, New Jersey and Connecticut (Butler 1985, p.143).

In contrast to the English experience, American developments in the corporate organization of equity capital varied across states and time. To be sure, there is a close correspondence between the progress and organization of commercial ventures in England and America throughout the first half of the 19th century, the experience of the Baltimore & Ohio Railway being an excellent illustration of the interconnections.[10] However, the American experience was eventually propelled by interstate competition for the employment and tax revenue provided by incorporated companies. As the scope of economic activity in the US increased with the development of canals and the westward expansion of the railways, state economies gradually became integrated into a national economy. The corresponding increased size of commercial ventures, in both physical capital and equity capital, permitted a "flow of corporate privileges, and not just capital, across state lines" (p.143). As a consequence, despite the complexity created by the number of states with separate powers, there are discernible trends in the progress of incorporation across states during the 19th century.

During the initial period of special charters, few corporations were involved in interstate business. Legislatures considering the petition for charter were dealing with companies operating exclusively in that state. Political and social considerations of public versus private interests would be balanced against the 'lobbying, logrolling and bribery' invariably associated with any special interest legislation. Butler (p.139) described the general features of the legislative process surrounding special charters as follows:

> Although interested in using the corporate form to promote industrial independence from England, state governments in the first third of the nineteenth century were conservative in their initial granting of the corporate form to industrial and business organization. The result of these conflicting considerations was an interesting combination of relative generosity in granting special charters and a fairly restrictive policy with respect to their terms. The usual corporate privileges denied by these early charters were perpetual succession and limited liability.

The transition to general incorporation was, to some extent, to alleviate legislative pressure from an increasing number of special charter applications and the deterrent impact of the cost of obtaining a charter on small companies. The 1811 Act limited the capital to $100,000 and the duration of the charter to 20 years.[11] Subsequent legal decisions determined that section 7 of the act, dealing with shareholder liability, continued with a practice of assessing double liability "for all debts of the company at the time of its dissolution" (Howard 1938, p.500).

Limited and Unlimited Liability

Legal and political issues surrounding limited liability in England followed the passage of general registration legislation—the Joint Stock Company Act (1844). The unresolved issues in this act led Robert Slaney, chairman of the Commons Select Committee on the Law of Partnership, to propose a Royal Commission—the Mercantile Laws Commission (1854)—which led to an amendment to the Act of 1844—the Limited Liability Act (1855)—granting limited liability with general registration. Companies could elect to retain unlimited liability, a practice that continued in the banking industry until the collapse of the Glasgow Bank. It is significant that Slaney, "a persistent campaigner for . . . working-class enterprise" (Bryer 1997, p.40) and "a reformer with mild radical views" (Saville 1956, p.419), was on the side arguing for general limited liability. At the time, conventional working-class wisdom saw limited liability as a benefit to the wealthy. As a class, the wealthy saw the move to general registration and limited liability as encroachment on old corruption and the perpetuation of privileged status. In addition, there was the generally held perception that "there was no way of preventing fraud unless, 'the man with the money should be responsible for the character of the business' " (Bryer 1997, p.41).

In the US, the situation was different. In the early years of the republic, "the great majority of projects were launched without charters; they apparently did not regard unlimited liability as a serious business handicap" (Livermore 1935, p.676).[12] Corporations initially appeared in "spheres that were at first thought to involve relatively little risk. They emerged not in land speculation or in trade where failure was likely, but primarily in fields where success seemed almost certain. And the disappointed took for granted the assistance of generous governments which came to their aid with lotteries, grants of land, and increased tolls when profits slackened" (Handlin and Handlin 1945, p.16). The English common-law connection of corporate status and limited liability was less binding in America. The rules governing general corporate registration were initially unclear on the degree of legal liability. The allowable nominal capital and the duration of the charter were restricted. This gave legislatures considerable flexibility in constructing special charters with additional features, such as limited liability for directors and larger approved nominal capital.

Evidence on the number of special corporate charters and general incorporations reveals the complicated character of limited liability. In the New England states from 1863 to 1875, a period for which the best data is available and these states all had general incorporation laws, 4,575 companies were incorporated: 2,390 by special act and 2,185 by general law. About 69% of the total number of incorporations were in the mining and manufacturing sectors. "Thus it appears that the New England states, while showing greater proclivity to use their general incorporation laws than other states . . . maintained a functioning market for special charters" (Butler 1985, p.146). In Wisconsin, where access to general incorporation was constitutionally mandated, between 1848 and 1871 there were 143 corporations formed under the general incorporation law and 1,130 created under special acts. Such evidence illustrates the subtle impact of the different wording and legal interpretation that limited liability provisions could have.

While the judicial interpretation of shareholder liability arising from the initial New York Act of 1811 imposed double liability on shareholders (Howard 1938), the legislative treatment of liability limitation was 'experimental' (Haar 1941, p.206). The designation of the directors as "trustees" implied a legal responsibility beyond that required of shareholders. This 'trustee' language appeared in the Revised Statutes of 1828, which "provided the first true and complete limited liability" to shareholders (Haar 1941, p.196). The distinction between limited liability for shareholders and directors was a primary driver for the use of special charter and general incorporation during the period of dual routes to incorporation (Butler 1985, p.146):

> A major and perhaps the most important difference between the terms of general and special law charters related to the rules affecting the liability of the corporations' directors, who were concerned with their individual exposure to suit. Some of the general incorporation laws in dual-system states contained very strict rules for directors' liability. Almost all special corporate charters, on the other hand, were silent with respect to directors' liability, and the common law did not hold directors personally liable to creditors. Special charters thus enabled directors to avoid personal liability for their mistakes.

In many cases, judicial decisions ultimately were needed to supply answers to the assessment of liability: "none of the changes in law or interpretation had any discernible effect upon the rate of incorporation, a significant indication of the unimportance of limited liability in the minds of incorporators" (Handlin and Handlin 1945, p.17). In an odd twist, even though most states had general registration with limited liability, until 1929 all California corporations had pro rata unlimited liability (Weinstein 2003).

With the passage of the New Jersey general incorporation act of 1875, the era of interstate incorporation competition began in earnest. New Jersey was not the first state to impose an absolute prohibition on special charters for commercial ventures—that distinction falls to Louisiana, which adopted the prohibition in its 1845 constitution. By 1875, approximately half of the 37 states had made special acts of incorporation unconstitutional via the mechanism of constitutional assembly. Several others had a constitutional mandate for general registration while still permitting special charters under exceptional circumstances. Constitutional assemblies could impose absolute prohibitions on special charters, but the implementation of specific rules was left to legislators. Against this legislative backdrop, the growth of interstate commerce began to raise significant legal issues surrounding the legal existence of a 'foreign' corporation, operating outside the state of incorporation. "As late as the 1860s, the status of operating a corporation in a foreign jurisdiction was uncertain" (Butler 1985, p.155).

In 1869, the US Supreme Court made a key decision in *Paul vs. Virginia*. Though seemingly upholding a state's right to regulate commerce within the state, "the effect of the decision was that a state could exclude a foreign corporation from engaging in intrastate commerce . . . but, that a state could not exclude a foreign corporation from doing interstate business" (p.155). Prior to *Paul*, in order to avoid the uncertainties of foreign corporate status, corporations involved in interstate commerce would be obliged to obtain charters in the states in which business was conducted. State legislators would no longer be able to extract rents—such as taxes, license fees and bribes—from each corporation doing business in the state in order to obtain corporate status. New Jersey was the first state to enter this new interstate market for corporate charters by passing "the nation's first modern general incorporation law in 1875" (p.157). There were some legitimate legal reasons for New Jersey obtaining first mover status, including a motivated legislature and the ability to work by legislative constitutional amendment, instead of the more cumbersome constitutional assemblies.

The New Jersey Act of 1875, "when enacted, was the broadest and most enabling general law ever passed. The procedure for incorporating under the law was very simple—clearly the dominant ancestor of modern incorporation procedure" (p.157). A key feature of the act was that corporations could be created without having state residency of the incorporators or having the state being the primary location of the commercial venture. Following the 1875 Act, the granting of special charters was "drastically altered" in those states that still permitted special charters, and especially in New England, where the issue of special charters quickly disappeared. New Jersey became the preferred state for incorporation for the next 40 years. An amendment to the 1875 Act adopted in 1888 that permitted corporations to hold and dispose of the 'shares' (i.e., common stock) of other corporations laid the foundation for the 'trust organization'. The effect of the change was considerable. For example, in 1894 the bulk of the New Jersey state budget "was funded by fees and taxes on firms incorporated in New Jersey but primarily conducting business in New York" (p.162).

Ultimately, the 1888 amendment had unforeseen consequences that resulted in Delaware becoming the favoured state for incorporation. Being the preferred state for incorporation and also permitting trust structures resulted in New Jersey incorporated companies being involved in various anti-competitive commercial practices that, rightly or wrongly, attracted tremendous social resentment resulting in federal legislation such as the Sherman Anti-trust Act and the Clayton Anti-trust Act (1914). Acting within areas of state jurisdiction (p.163),

> Governor Woodrow Wilson of New Jersey engineered passage of the "Seven Sisters Acts"—antitrust measures that severely restricted the permissible corporate activities in New Jersey. Corporations flocked to Delaware, and the phase 'Delaware corporation' passed into the bloodstream of the English language. The "Seven Sisters Acts" were repealed in 1917, but New Jersey had lost its advantage . . . Today Delaware is undeniably the leader in the marketing of corporate privileges.

Delaware's success was not without a keen sense of opportunity by legislators in that state to conform Delaware's incorporation act of 1899 almost verbatim with the New Jersey Act, creating a secure legal environment for corporations to change states. However, legal failings arising from the 'rush to the bottom' in the provision of corporate privileges led the American Bar Association, starting in the 1940s, to draft a 'Model Business Corporation Act' and for others to call for a federal presence to ensure uniform standards of corporate conduct across states.

The French *Société en Commandite Simple*

Though modern equity capital markets are dominated by the limited liability corporation, there is still considerable scope for other legal forms of equity capital organization (e.g., Guinnane et al. 2007). Scattered among the equity claims in modern stock markets are shares in master limited partnerships and units in real estate investment trusts, entities that do not have the same legal structure as limited liability companies. Despite the availability of such alternative legal forms, the limited liability corporation is the organizational form of choice among the largest and most influential modern commercial ventures—measured in economic, financial, political and social terms. The rise of the limited liability corporation in the 19th century had three interrelated facets—incorporation, limited liability and autonomous shares. The limited partnership associated with the French *société en commandite simple* provided limited liability for 'silent partners' but retained partnership liability for those involved in running the commercial venture. Shares of silent partners could be traded, though the extent of this trading varied across time and location. The liability of managing partners would retain the feature of 'hands on' management valued by those opposed to the corporate form of equity capital organization.

The relevance of limited liability to equity capital organization is a subject of debate that survives to modern times. For example, Kessler (2003, p.513) observed:

> As Adolf Berle and Gardiner Means so influentially argued more than a half-century ago, investors seek limited liability in order to minimize investment risk, but precisely because they have minimal risk, they lack incentive to engage in hands-on management of the business. The result, claimed Berle and Means, is a separation of ownership and management.

This begs a fundamental question: Is it limited liability or corporate status that is the root cause of the separation of ownership from control? Halpern et al. (1980) and Halpern (1998) argued convincingly that limited liability makes exchange trading of shares possible. However, this observation does not imply that other, possibly superior, variations of limited liability would also 'make markets possible' (e.g., Easterbrook and Fischel 1985, p.92). Failure to make a distinction between the liability limitations of shareholder, manager and director haunts the Berle and Means claim that limited liability is a root cause for the separation of ownership and control. Interpreting the impact of limited liability is aided by considering the history of equity capital organization in France (and elsewhere in continental Europe); a history with roots in the medieval *commenda* that, again, reveals the influence of political and social norms on the legal organization of equity capital.

The organization of equity capital in France has three significant dates: (1) proclamation of the Royal Ordinance of March 1673 issued by Louis XIV, entitled *Pour le Commerce;* (2) promulgation of the Napoleonic *Code de Commerce* in 1807, which "follows the same general organization and incorporate verbatim much of the Edict of 1873" (Freedeman 1965, p.185); and (3) the granting of free incorporation in 1867. Braudel (1982) recognized that it was not the *societas maris* of maritime Genoa but, rather, the *compagnia* of the inland Italian family firms that provided the basis for the French Ordinance of 1673: "In the end, the large firms of the inland Italian cities were far more important individually than those of the seaports, where firms were numerous but mostly small and short-lived" (p.436). The *compagnia* (*cum panis* = with bread) was typically a family firm composed of father, sons, brothers and other relations where "everything was shared—bread and risks capital and labour". Such a joint liability venture was not well suited to raising capital from outside the family unit. The solution was the *société en commandite*.

The first recorded use of the limited partner arrangement was an *accomandita* from Florence in 1532. While similar to the *societas maris* and likely inspired by this arrangement, the *accomandita* had a permanent capital stock that was not returned at the end of a venture. "The limited partnership firm made its way through Europe, slowly replacing the family firm. It only really prospered to the extent that, by resolving new problems, it corresponded to the growing diversity of trade and to the increasingly frequent practice of long-distance partnership. It was also favoured by partners who wished their holding to be discreet" (p.438). During an era of religious and monarchial conflicts when the profits of colonization required capital from diverse quarters, both geographically and socially, the limited partnership was a useful addition to the other form of commercial *société* recognized by the 1673 Ordinance: the *société générale,* the traditional partnership arrangement, referred to as the *société en nom collectif* in the *Code* of 1807. It is significant that the right to form a joint-stock company with corporate privileges, a *société anonyme*, was reserved by the Crown. This right of the government was clarified in the 1807 *Code,* ostensibly to provide a joint-stock form of organization to attract 'large enterprises'.

Braudel provided an insightful description of the situation in France at the time of the Ordinance of 1673 (p.439):

> Since the 1673 ordinance (which made it compulsory for limited partnership agreements to be signed in front of a lawyer by the interested parties) only referred to 'partnerships between merchants and wholesalers', the current interpretation was that anyone 'not engaged in a mercantile profession' was not obliged to be listed among the partners on the agreement registered with the statutory authorities. In this way, noblemen could be protected from loss of rank and royal officials could avoid revealing that they had commercial interests. This undoubtedly explains the success of the

Table 8.8 French Commercial Sociétés Anonymes and Their Initial Nominal Capital by Type of Enterprise, 1819–1867 (thousands of francs)

	1819–30		1831–39		1840–48		1849–67		Total No.	1819–67
Type of Enterprise	**No.**	**Cap.**	**No.**	**Cap.**	**No.**	**Cap.**	**No.**	**Cap.**	**No.**	**Cap.**
Insurance and Banking	17	143,400	30	71,186	47	73,800	94	758,300	188	1,046,686
Mining and Metallurgy	20	39,637	4	3,881	13	unknown	27	unknown	64	43,518 (1819–39)
Canals and Waterways	10	136,350	6	41,965(for 5)	1	1,500	2	unknown	19	179,815 (1819–48)
Railroads	3	21,000	9	205,250	19	1,156,500	30	671,050*	61	2,053,800*
Other Transportation	13	20,610	16	5,962	10	8,300	18	unknown	57	34,872 (1819–48)
Textiles	5	17,580	2	4,300	3	3,190	6	unknown	16	25,070 (1819–48)
Bridges	10	14,932	27	8,002 (for 21)	18	unknown	5	unknown	60	22,934 (1819–39)
Miscellaneous	29	46,326	23	12,063	28	15,907 (for 18)	54	256,053 (for 28)	134	339,329 (for 98)
Total (where known)	107	439,335	117	352,609	139	1,259,197	236	1,694,383	599	3,746,024

Source: Freedeman (1965, p.201)

** The capitalization for the railroad companies Ouest and the Paris, Lyon et la Mediterranée are excluded from these figures for they were formed by a consolidation of previously authorized roads.*

> *commandite* system in France, where those who were 'in trade' were still not readily admitted to high society, even during the business explosion of the eighteenth century. Paris was not London or Amsterdam.

The limited partnership did not originate with the Ordinance of 1673, which was primarily designed to address merchants' concerns about the lack of proper legal documentation for commercial dealing. "The institution of the *société en commandite*, clearly recognized and in a measure provided for by the Ordinance of 1673, was not, of course, created by it. For it was already an old, even if, on the legal side, a hitherto imperfectly developed form of collective business operation" (Howard 1932, p.246). The *Code* of 1807 was subject to a much different set of circumstances. The severely negative social memory of the Mississippi scheme collapse was compounded by the speculative boom in joint-stock 'company' shares preceding the Revolutionary end of the *ancien régime*. This resulted in a particularly negative attitude toward joint-stock companies, reflected in the *Code de commerce* of 1807, one of five major codes of the Napoleonic period.

It is not surprising that at the same time that the English were chartering canal companies and unincorporated 'joint stock companies' were seeking parliamentary approval (or not, in the case of fraudulent schemes), similar activity was happening in France. "Those joint-stock companies that existed during the seventeenth and eighteenth centuries in France were either chartered by the crown, or simply existed as unincorporated companies of shareholders" (Freedeman 1965, p.185). It was speculation in shares of the royal chartered companies that constituted the bulk of share trading preceding the collapse of the *ancien régime*. This history restrained the use of joint-stock companies in France in the 19th century until passage of the general incorporation law. While shares in *commandite* partnerships (*commandites par actions*) were traded on the Paris bourse prior to general incorporation: "The years following 1867 witnessed a large increase in the number of *anonymes* formed annually, while *commandites par actions* were little used after 1867" (p.198).

The New York Limited Partnership Act (1822)

The first half of the 19th century was not a gradual evolution toward general incorporation with limited liability. Many people strongly believed in the efficacy of partnerships in ensuring that commercial ventures were run in the most profitable fashion for shareholders. It is not surprising that in both England and America there were calls for the introduction of the limited partnership as a method of organizing equity capital that would provide the benefits of shareholder limited liability while retaining the incentives of partnership liability for management of the venture. Livermore (1935, p.685) described an important event in the American timeline, the passage of the Limited Partnership Act (1822) in New York, as follows:

> New York made an indirect attack upon the business value of corporate charters in 1822 by passing the Limited Partnership Act . . . From the practical legislative point of view, the act was favored by many out of

> resentment at the clause in the Constitution of 1821 requiring that all charters must receive assenting votes from two-thirds of both houses. Obviously the opportunity to secure a limitation of future liability in a limited partnership, protecting the large contributors of capital to an enterprise, reduced sharply the incentive to secure a charter. This law of New York was not generally imitated in other states until after 1835.

The influence of the Napoleonic *Code* is reflected in substantial sections of the act being a translation of corresponding sections in the *Code*. By 1886, limited partnerships had been authorized in all but three states and territories.

Hilt and O'Banion (2009) provided a fascinating account of the limited partnership in New York City from 1822 to 1858. This is a period from which we have only scant information and, even though the results are skewed to the types of ventures found in a major financial center, there is valuable insight in the conclusions (p.642):

> Compared with ordinary partnerships, New York's limited partnerships had more capital; operated disproportionately in mercantile sectors, particularly in buying and selling dry goods; and failed at a lower rate, even conditional on the amount of capital they had. These were elite firms, formed by wealthy and successful merchants and given abundant resources to pursue lucrative business opportunities. The investors who provided capital to these firms often knew the general partners from previous connections in the business world, and were only rarely related to them. This was quite different from most ordinary partnerships, where the partners were often from within the same kinship network, and this difference is not simply due to selection. The special partners' own ordinary partnerships were much more likely to be formed on the basis of kinship ties. The limited partnership appears to have facilitated investments in the businesses of talented young merchants who wealthy investors knew through their business dealings. The superior performance of the limited partnerships, even conditional on the amount of capital they held, is an indication that these investments were indeed made with men chosen on the basis of their talent and potential.

Up to 1858, a total of 1,058 limited partnerships were formed in New York City. The use of limited partnerships did not disappear with the movement to general registration with limited liability. By the end of the 19th century, approximately 3,000 limited partnerships had been formed in New York City. It is significant that few of the limited partner ventures described by Hilt and O'Banion would have been substantially advantaged by the ability to trade shares. The relatively intimate character of the ventures would have made active share trading difficult. Most of those ventures desiring this feature could have accessed the New York general registration statutes.

In 1836 and 1837, both New Jersey and Pennsylvania introduced statutes permitting the formation of limited partnerships. There were two primary motivating factors behind this legislative action (Howard 1934, pp.298–9): (1) the desire to stimulate commerce and industry by allowing those with capital to combine with skilled workers lacking capital and, perhaps more importantly, (2) a "second motivating force was a fear of economic domination by business corporations— a fear which produced an inclination to experiment with other forms of joint-stock trading" (pp.298–9). Similar to other state limited liability statutes at this time, the limited liability for special partners came with strings attached. There were detailed registration requirements that had to be followed precisely or limited liability could be revoked. There were restrictions on the payment of dividends from capital, intended to prevent the wealthy partner from exiting the venture prematurely. In New Jersey, the limited partnership statutes underwent revision in a number of years until the passage of the Uniform Limited Partnership Act of 1919, which eliminated the bulk of restriction of limited partnership formation.

Similar to initiatives in America, various attempts were made to introduce limited partnerships in England. However, unlike Americans who desired to experiment with different forms of equity capital organization, the English were propelled along the path of general registration. The limited partnership appeared: in 1818, when an attempt to introduce the *société en commandite* failed in the Commons; in 1825, during the debates in Parliament surrounding Repeal and in the associated pamphlet literature; in 1836 and, to a lesser extent, in the early 1840s, surrounding the lead-up to the Joint-Stock Companies Act (1844). Following this act, "between 1844 and 1849 there was no discussion of *en commandite* in Parliament" and, with some exceptions, "comment outside was meagre" (Saville 1956, p.419). When the debate began again, it originated from an unusual quarter (p.419):

> The initial impetus in the early 1850s to the Parliamentary debates and the public discussion that led to the coming of general limited liability in 1856 came not from the side of the investors, nor from that of the entrepreneurs, nor from those who argued in terms of freedom of contract. The movers were a group of middle-class philanthropists, most of whom accepted the title of Christian Socialist. Their spokesman in Parliament, not formally a Christian Socialist himself, was Robert Aglionby Slaney, a reformer of mild radical views whose philanthropic interest in the working people had long been known.

Even if the advantages of general registration and limited liability were well suited to the desire of the City to trade shares, this was politically incidental when those seeking universal suffrage and other goals of social justice were vocally supporting general liability.

NOTES

1 Consider the title of a 1677 work by Robert Ferguson, '*The East-India Trade a most profitable trade to the Kingdom, and best secured and improved in a company, and a joint stock*'.

2 There is considerable evidence that Child plagiarized much of his work, either consigning the work to be written by someone else, presumably under his direction, or by direct copying. “It is hardly too much to say that the *Brief Observations* is merely a compendium of statements made by a series of authors whom Child followed more or less closely, but never with acknowledgment” (Letwin 1964, p.15).

3 Comparison of this quotation with the associated text from *The Anatomy of Exchange Alley* (p.139) reveals much similarity in the text, but ‘Sir Josiah’ has been changed to Sir F————, and a reference is made to: “The subject then was chiefly the East India stock”. This and other attempts to update the text to 1719 would seem to bring into question the statement of Morgan and Thomas (1962, p.28) that *The Anatomy of Exchange Alley* was probably “by Defoe, published in 1719 but referring to the sixteen-nineties”.

4 Smith was not the first to deal with the problems of the joint-stock form of ownership. For example, the problems of inefficient production associated with ‘stock-jobbing management’ were raised in parliamentary enquiries going back to at least 1696 (Morgan and Thomas, pp.22–3). Smith also referenced a number of earlier works on joint-stock companies, such as Abbe Morellet’s *Examen de la Reponse de M. Necker* (1769) and, especially, Adam Anderson’s *The Historical and Chronological Deduction of the Origin of Commerce* (1764).

5 Page references are to volume II of the Blaug 1963 edition of *Wealth of Nations* (1776).

6 Smith (1776) was not the originator of the notion of agency costs. Similar comments can be found in early writers, such as Houghton.

7 Arnold and McCartney (2008, p.1188) provided further background on the early evolution of the English canals: “The success of the Bridgewater Canal in turn encouraged the promoters of the Manchester Runcorn Canal to provide a better alternative to the existing Mersey and Irwell Navigation and, when it opened in 1767, the existing levies for carriage were halved. The new canals were not only used for freight; the Manchester Runcorn introduced passenger boats in the 1770s, charged rates that varied according to passenger class and but also offered refreshment facilities. Other more ambitious schemes followed, including the Trent and Mersey and the Leeds and Liverpool Canals, as heavy outlays of capital were seen to bring ‘huge savings in manpower and horsepower’ and to dramatically lower (by as much as two-thirds in some cases) the cost of transporting freight, particularly coal”.

8 This description of the three categories of equity claim is not fully descriptive. For example, many established lines did not have ‘fully paid’ shares due to the ongoing construction of extension lines which involved further calls on capital following parliamentary approval of the petition for an extension line. Similarly, some established lines were operational and paying dividends even though the nominal capital was not fully paid, allowing the directors to draw on equity capital at a future date. Evidence on trading prices of shares invariably are derived from sources such as the *Railway Times* or the London stock exchange which only capture activity associated with trading for actual shares after an act had been obtained.

9 In some states, such as Pennsylvania, proponents of anti-charter doctrine resisted incorporation for both public and for-profit entities. Characteristic of early American debates around incorporation, anti-charter activists made little distinction between public and for-profit corporations: “opponents characterized business corporations, like incorporated cities, as aristocratic and so anti-republican because they gave privileges to the few at the cost of the many” (Maier 1993, p.66).

10 This fascinating connection between British and American technological development is described at http://cprr.org/Museum/First_US_Railroads_Gamst.html: "In 1826, Baltimore bankers Philip E. Thomas and George Brown sent Evan Thomas to England. Thomas transmitted back to his brother information on railroads. William Brown, a resident of Liverpool, sent to his Baltimore brother details of the proposed construction of the Liverpool & Manchester [L&M]. These data convinced the two bankers that a railroad could be operated between Baltimore and the Ohio River. On 12 February 1827, Baltimore businessmen held the first meeting to consider building a Baltimore & Ohio (B&O) railroad similar to those in Great Britain. On 22 October 1828 the line's engineers (Jonathan Knight, William G. McNeill, and George Washington Whistler) traveled to England to learn about its railroads. On 22 May 1829, the now-educated participant observers returned to Baltimore. And, from 6 through 14 October 1829, the line's George Brown and Ross Winans observed the Rainhill locomotive trials of the L&M and discussed rail technology with concerned persons. In October 1828, the B&O began construction, and it opened 16 miles of line to Ellicott Mills on 22 May 1830. The first vertical-boilered Grasshopper locomotive, uniquely American, entered service in September 1832. British designs of the Stephenson kind of locomotive soon displaced these home-grown engines. The B&O opened to Harpers Ferry on 1 December 1834. In the first years of operation, the line handled considerable freight and passenger traffic in horse-drawn rail cars. For the double-track line, the earliest rails were of wood or granite, topped by iron straps".

11 Howard (1938, p.500) correctly recognized that Livermore (1935) incorrectly gave the allowable amounts in the Act of 1811 as $50,000 and five years.

12 Livermore (1935) observed: "It is easy to understand that in enterprises largely experimental in character and backed by enthusiasts, attention would be centered on other desired features of group organization—concentration of power in a few hands, perpetuity of existence, and free transferability of shares". Such traditional views conflict with more recent interpretations by Halpern et al. (1980) that connect limited liability with the transferability of shares.