Railroad Competition and its Management in the United States and Britain before 1914

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This paper offers a brief excursion into the comparative history of competition in the railroad industries of the United States and Britain. It starts from the observation that when faced with the unprecedented dynamics and costs of duopolistic and oligopolistic competition, railroad leaders in both countries searched for stability. The response in America appears to have moved from informal cooperation to pools and finally, once these had failed, to large-scale consolidations. In Britain the response and outcome were somewhat different. Having sought stability through pools, rates agreements, leases, working agreements, and corporate investment, and having found these wanting in certain respects, railway leaders were unable, for political reasons, to contemplate mergers. In any case market conditions in Britain set a close boundary on the operating economies that were achievable through cooperation. The major factors here were coastal shipping competition, especially for long-haul traffic after 1870 when sea freight rates fell, and a high level of dependency on small traders who offered small, often short-haul consignments. There were, however, a number of similarities. For example, in both countries pooling agreements could not readily contain or accommodate changes in the shares of traffic carried by the partners. And in both countries there were legal and political problems, although their character and impact on the railroads differed significantly.

The U.S.

The efforts of American railroad leaders to stabilize their industry have received considerable and distinguished scholarly attention.[1] The pattern of response appears to have moved through several phases. Before the Civil War the emphasis was upon improvements through organisational change in the performance and productivity of individual railroads. Challenged first by the requirements of safety, then by the volume, speed, and complexity of traffic distributed over a widening area, railroad leaders were forced, from 1850, to

[1] For an excellent synthesis of a rich literature see Alfred D. Chandler, Jr., The Visible Hand: The Managerial Revolution in American Business (Cambridge, Mass., 1977), pp. 122-187.

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evaluate their administrative structures and systems. There was a variety of responses at this time, but, as suggested by Chandler, the best practice can be attributed to the Pennsylvania and the roads that followed it in the adoption of the decentralised, divisional structure and new practices in financial, cost, and capital accounting. These innovations were mainly the work of salaried managers like J. Edgar Thomson (Pennsylvania), D. C. McCallum (Erie), and B. Latrobe (Baltimore & Ohio)-- all trained civil engineers who, with the growing complexity and volume of managerial decisions quickly captured much of the power that was legally vested in the stockholders and directors.

However, before the Civil War the challenge and opportunity for through traffic in a truly national network was not being met and as result transhipment costs were high both to the roads and to the traders. To deal with this problem required the standardisation of operating procedures and equipment and agreement on rate levels-- in other words, inter-road cooperation. While such cooperation proved to be very successful in the sense that by the 1880s a rail consignment could be moved from one part of the country without a single transhipment, it did lead to certain problems for railroad leaders. As the railroad system expanded and became more integrated there was an increase in competition for long-distance traffic carried on parallel routes. From the beginning, however, railroad managers understood the costs involved in conflict and searched for cooperative solutions. They first sought, in the 1850s and 1860s, informal alliances with competing roads. Then, after the Civil War, as through traffic became more important and as new, alternative routes emerged, the system of informal alliances looked increasingly fragile. How were decisions on rates to be enforced? Most alliances did not set up appropriate administrative machinery. The depression after 1873 revealed the unsatisfactory nature of many of the arrangements. Driven by the pressure of high fixed costs, and facing a decline of traffic, railroad managers sought to protect their market shares by cutting rates and engaging in aggressive service competition. Rate agreements and informal pools collapsed.

There appeared to be two possible solutions. The first, which seemed too daunting to most managers, at least at this stage, was to build a giant, self-contained and self-sustained system like the Pennsylvania. The timing, with low dividends and poor stock market valuations of railroads, was hardly propitious. The second solution, led by the trunk lines, was to improve inter-road cooperation through the establishment of formal federations with their own legislative, executive, and judicial bodies. But by the early 1880s even these arrangements were running into difficulties. Albert Fink, the leading figure in the pooling movement, and other disillusioned representatives of the railroads hoped that if the government legalized pooling the situation might be saved. As it was they encountered growing political opposition to the idea. The other way forward, which, as Albro Martin argues, was being contemplated in the mid-1880s by many leading railroad men and investment bankers [13], and earlier by some

[10], was the rapid consolidation of railroads into self-sustaining systems. In fact the Interstate Commerce Act of 1887 made pooling illegal. Supreme Court interpretations in 1897 and 1898 of the Sherman Anti-trust Act of 1890 meant that even rates agreements were, in effect, illegal. Railroad leaders turned instead to the building of huge systems. The basic motive was defensive; the outcome was over-capacity and, in the 1890s, widespread bankruptcy and a big shake-out in the industry through financial reorganisation and consolidation. Hence the consequential growth in the scale of railroads and in concentration can be seen as responses to competition and the failure of cooperative devices to check it, rather than a quest for scale economies. Having stabilised the railroad system through their own efforts, the surviving giants bitterly opposed, without success, proposals for increasing the power of the Interstate Commerce Commission to fix rates. The unwillingness of the ICC to grant rate increases during a period of policy uncertainty, starting with the Hepburn Act (1906), led to capital starvation according to Martin [14]. The flow of investment funds was stemmed at a time when railroad traffic was increasing, which opened the way for a collapse in the profitability of operations after 1911.

Britain

The efforts of railway leaders in Britain to stabilise their industry have not received the extensive scholarly treatment that characterises the historiography of American roads although there are some important exceptions [2, 3, 8]. Nevertheless, certain useful generalisations can be made. The broad typology for the development of American railroads described here, which runs from competition to cooperation and, finally, to system-building does not neatly fit the British experience although there were many common elements. The sequence was more compressed and the railways' interaction with the political system produced somewhat different results. From the early years railway leaders had to contend with the problems of internal and inter-company administration, competition, and, as they saw it, political interference. To promote through traffic a number of the leading companies in 1842 established the Railway Clearing House, through which inter-company relations were mediated and decisions monitored by a separate administration [2]. This early development occurred in an industry in which, with the rapid growth of the network and multiplication of routes between major centres, competition soon became widespread. At the same time the level of concentration was already high: by 1850 the four leading companies were taking 41.7 percent of gross traffic receipts in England, Scotland, and Wales, a share that was only slightly exceeded (47.0 percent) seventy years later-- shortly before the state intervened to transform the

structure of the industry through the Railways Act of 1921.[2] Competition took various typical forms over time: first, rate competition, which reached a peak in the 1850s; second, competition for urban sites in the following decade; and finally, after 1870, service competition.

Corporate strategy was rarely, if ever, decided on the basis of market considerations alone, for railway leaders, as in the United States, sought to influence, anticipate, and respond to the variable requirements of the state. Their success in managing this relationship had a major bearing on their individual and collective fates. Because railways owed their corporate existence and powers to Parliament they were inevitably drawn into competitive struggles there as they sought to develop and defend their separate "territories". They were also peculiarly vulnerable to the imposition of controls. In the late nineteenth century in particular, when the political culture became more hostile, they were portrayed by their small-scale business clients as powerful "monopolists"-- just like their counterparts in the United States. The companies responded by adjusting their operating policies to accord with a "public service" image which meant the over-provision of services and facilities and lower levels of profitability [4, 9, 12]. At the same time their strategic options were being increasingly circumscribed by Parliament's view of the industry. When Parliament rejected several important merger bills in the early 1870s railway leaders concluded that this particular route to stability was not a realistic option. Its closure helps to account for the relatively stable level of concentration before the compulsory mergers under the 1921 Railways Act. Railway leaders had then to rely, as they had to some extent since the earliest days, on less formal ways of regulating competition between themselves, particularly rates and pooling agreements, which were widespread. Did such arrangements lead to the stability which they said they wanted? Did they have more success than their American counterparts?

A popular solution to the problems of instability was the rates agreement. By 1870 rate competition in Britain was held at bay through numerous so-called "rates conferences". But these had an intrinsic weakness: they did not contain a mechanism to deter non-price competition and although rates competition was rare after 1870, service competition was not, and this played some part in the long-term decline in net returns [12, p. 53]. Pooling agreements, under which rates and market shares were predetermined for an agreed period, offered in Britain, as in the United States, an apparent solution. Such agreements, while widespread in the late nineteenth century, can be traced back to the "post mania" period of the 1840s and 1850s. They tended to emerge in periods like the early 1850s, the mid 1880s, the early 1890s, and the beginning of the present century when the industry faced over-capacity and falling returns. From the 1870s on,

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[2] Calculated from the Railway Returns. For a more detailed breakdown see [6, p. 192]. The 1921 Act merged virtually all the companies into four large systems.

as mergers fell into Parliamentary disfavour, pools were seen as an important alternative and thus proliferated [11].

Probably the most ambitious pool of the mid-nineteenth century was the English and Scotch (1856-1869). Its history, told in detail elsewhere, offers a case study of why pools were developed, how they worked, and what they achieved [5, 7]. It also provided the executives of some of the leading companies with a model which they variously adapted, adopted, and rejected in different contexts and times. The English and Scotch pool was the direct successor to two more limited pools of the period (1851-1855) which had been initiated by the powerful London & North Western Company through its resourceful chief executive, Capt. Mark Huish. The main objective of these pools had been to contain the growth of the recently opened Great Northern, whose line between London and York promised to enhance the position of the chain of railways that was beginning to form an east coast route to Scotland-- a direct rival to the west coast route which was dominated by the London & North Western. Huish's tactics were to make exclusive treaties with key feeder lines, block the Great Northern, and then to negotiate pooling agreements based on recent market shares, which of course favoured the London & North Western. These agreements were concluded after the over-expansion of the "mania" when the east coast lines in particular were too weak to resist. In fact the short duration of the two pools (five years) and some uncertainty about their legality meant that in the last analysis railway leaders could and did ignore those provisions which inhibited the achievement of their long-term goals. The east coast companies came to co-operate more closely at the operational level, offered "loss leader" services, and finally secured, through the payment of "mileage bonuses" to feeder companies, access to Glasgow and the north of Scotland. They were well placed in 1855 to negotiate a better share of Anglo-Scottish traffic. The English and Scotch pool was planned to last for fourteen years, which it did but only just. It was much more extensive than any previous pool and included the division of all traffic receipts, except coal and mail, for the area between London and Glasgow, Edinburgh, and the north of Scotland. In the first instance seven companies took part.[3] Decisions were made by executives meeting in committee and the sharing out of revenue was undertaken by the Railway Clearing House. The revenue was substantial: by the mid-1860s the pool's annual transactions amounted to nearly #1.5 million a year, which represented about 7.6 percent of the companies' traffic receipts.[4]

[3]The seven companies were: London and North Western, Lancaster and Carlisle, Caledonian (West Coast Route), Great Northern, North Eastern, North British (East Coast Route). The final company, the Midland, was assigned to the "alternative" East Coast Route (L and NW to Rugby via MID to Normanton, via NE to York, via NBR from Berwick to Edinburgh). See English and Scotch Agreement, 1 Jan. 1856, RAIL 1080/508, Public Record Office, London.

[4]Calculated from BR/NBR/4/226, 13 Feb 1869, Scottish Record Office and Railway Returns. The pool's decisions affected a value of traffic as large as that of many big companies.

Some aspects of the pool's life are worth isolating because they help us to assess the viability of pools in general. First, because a pool was a static response to a changing business environment, as the relative positions of the members changed so the basis of the original division was undermined and challenged. This was particularly so when members promoted new routes or dramatically improved old ones. The Midland Railway, in its bid to develop a "middle" route between England and Scotland, had precisely this effect. Moreover, that company was able to secure the support of the courts (1866) in its contention that since the new route had been established after the 1856 agreement any traffic it carried was outside the pool's jurisdiction. This was a damaging decision for the pool and for the industry in general for it meant that existing pooling agreements could not easily be used as a brake upon the development of new routes. Second, however, when railway leaders were confident about the need for a pool and traffic was expanding slowly, usually in the early years, they were able to make some economies. Managers then attempted to "tune" their services to produce market shares that approximated to those in the division. And for a time, at the turn of the 1850s, this was in fact achieved. As the end approached, not surprisingly, they sharpened their competitive activities and so drove up operating costs with the result that one route, the west coast, which was more effective in this than the others, was having to pay large sums into the pool. The Pennsylvania Railroad in the 1880s was almost invariably in the same position. But throughout, the English and Scotch pool maintained an agreed fares and rates structure despite a squabble over intermediate traffic near the beginning. Cooperation over the setting of long-haul rates was never really questioned and the tradition was carried forward after 1869 when the pool was succeeded by a Rates Conference. Third, and this was a factor which affected many pools in Britain, there was competition with seaborne carriers for long-haul traffic. For the English and Scotch pool and its successor, the Rates Conference, it was the major factor in decisions about the rates for low value, heavy goods, livestock, and on certain routes, third class passengers. Moreover, a further problem for the pool was that outside "feeder" railways were in a position to offer traffic to the ships rather than to members of the pool and so could extract favourable terms from either. Shipping operators were not easily convinced that it was in their interest to come in with the railways. The implications for the railways of coastal shipping competition are especially important after 1870, for as shipping rates fell and they lost a lot of long-haul traffic the proportion of short-haul freight business increased, which led to a rise in train mileage and a fall in receipts per train-mile [4, pp. 13-15].

Some of the problems faced by the English and Scotch pool might have been better managed if the companies involved had been willing to take part in a more extensive pool in which all traffic receipts, short haul and long haul, were divided. It was an option which railway leaders from companies north of the Thames considered but eventually rejected when they met in 1886 to discuss their

problems [11]. These men were worried about falling returns per train mile. They were unable, however, to reach an agreement. There were three main reasons. First, they could not agree on a basis for dividing traffic: low-spending lines like the Great Western, for example, were opposed to a division based on recently-earned gross receipts because this would favour the big spenders. Second, individual managers were unwilling to lose some of their power. When the English and Scotch pool was in existence the member companies were unwilling to establish an independent organisation to market services collectively; indeed, more effort was put into giving the separate routes an identity, especially from the mid-1860s as preparations were made for the demise of the pool. But third, and this highlights the dilemma faced by railway leaders in the late nineteenth century, it was thought that Parliamentary authority would probably be needed for such a radical proposal. Their timing was not good. Criticism of the industry was vocal and influential and the countervailing "railway interest" of Parliamentary directors was a declining force. Moreover, the new Conservative government was expected to introduce a measure which would increase official control over railway rates [1, pp. 120-126].[5] The chances of success were slim and the costs, in terms of a loss of managerial freedom, perhaps to a quasi public body, appeared too high. Railway leaders had to tread a cautious path. Although progress in the formation of pools was made in the late nineteenth century, these were more limited in their scope. In fact railway leaders tended to react to public criticism by increasing services while attempting to maintain rates.

The idea of a large-scale pool received serious attention after a longer period of decline in the early twentieth century. Railway leaders recognised that they had to reduce costs. Now that rates were fixed but prices generally had moved ahead, they hoped that their plans would receive less public criticism. So, like their American counterparts in the 1880s, they tried to get official approval for their arrangements and like them they were rebuffed. As Peter Cain has shown, because of the intensity of opposition from Parliament, the traders, and their own employees, the companies removed their agreements from public view and tried to continue secretly [3]. Therefore before 1914 British railway leaders were unable to legitimate their attempts to manage competition: large-scale mergers were unlikely to get Parliamentary approval, while pools and similar devices had to operate near the margins of legality, which reduced their effectiveness.

[5]The Railway and Canal Traffic Act of 1888 was the culmination of five years of attempts to revise and consolidate railway rates.

Conclusion

The British outcome differed significantly from what happened in the United States where, once pooling was made illegal, railroad leaders were able voluntarily to turn to formal consolidation. Despite these different experiences, the railroad industries of both countries faced the interwar years with a legacy of problems. In both countries government had had a significant, often harmful impact on strategic options, operating policies, and financial results. There is perhaps a plausible case for arguing that government intervention was necessary after the First World War to improve a situation to which earlier policies had contributed.

References

1. Geoffrey Alderman, *The Railway Interest* (Leicester, 1973).

2. Philip S. Bagwell, *The Railway Clearing House in the British Economy, 1842-1922* (London, 1968).

3. Peter J. Cain, "Railway Combination and the Government, 1900-1914," *Economic History Review*, 25 (1972).

4. ________________, "Private Enterprise or Public Utility? Output, Pricing and Investment on English and Welsh Railways, 1870-1914," *Journal of Transport History*, 3rd series, 2 (1981).

5. Geoffrey Channon, "Pooling Agreements between the Railway Companies involved in Anglo-Scottish Traffic, 1851-69," unpublished University of London PhD thesis (1975).

6. ________________, "The Great Western Railway Under the British Railways Act of 1921," *Business History Review*, 55 (Summer, 1981).

7. ________________, "Railway Pooling in Britain before 1900: The Anglo-Scottish Traffic," *Business History Review*, 62 (Spring 1988).

8. Terence R. Gourvish, *Mark Huish and the London and North Western Railway* (Leicester, 1972.)

9. ________________, "The Performance of British Railway Management after 1860: The Railways of Watkins and Forbes," *Business History*, 20 (1978).

10. Delores Greenberg, *Financiers and Railroads 1869-1889. A Study of Morton, Bliss and Company.* (East Brunswick, 1980).

11. Inter-company meetings for the discussion of pooling and other topics, RAIL 410/718 1886, Public Record Office, London.

12. Robert J. Irving, "The Efficiency and Enterprise of British Railways, 1870-1914: an Alternative Hypothesis," *Economic History Review*, 31 (1978).

13. Albro Martin, "The Troubled Subject or Railroad Regulation in the Gilded Age - A Re-appraisal," *Journal of American History*, 61 (1974).

14. ________________, *Enterprise Denied: Origins of the Decline of American Railroads, 1897-1917* (New York, 1971).

DISSERTATION SESSION