International Constraints, Railway Finance and the Menace of Motorization in Germany, 1925–35, Including a Brief Comparison with Sweden and Great Britain

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> Der Fehler in der Konstruktion der Dawesgesetzgebung, die von den öffentlichen Verkehrsunternehmungen allein die Eisenbahn belastet habe, könne jetzt kaum noch ausgeglichen werden.[53]

As many of the contributions to this conference testify, the movement of capital across borders was a key feature of the development of the European railway network in the nineteenth century. However, railways are heavy consumers of capital not only during the expansionary phase: Mature railways need vast amounts of capital for the maintenance and improvement of their large fixed-capital assets. This paper deals with the capital requirements of the German national railways (Deutsche Reichsbahn-Gesellschaft, DRG) in the interwar period, when international finance was largely unavailable owing to war reparation agreements or balance of payments problems; when railways were stagnating or declining rather than expanding; and when the motor car began its rapid ascendance toward the centre of the transport system. In turn the following questions will be asked: Which were the financial requirements of the DRG? What were the international constraints on the railways' access to capital? To what extent did these constraints result in underinvestment in the railway system? And last but not least, what did this situation imply for the division of labour between road and rail, considering that these years constituted a decisive phase for the shaping of the institutional and legal designs of the twentieth-century transport system?

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[53] DRG, Board of directors, Tariff Committee, Minutes, 25 Sept. 1925, Berlin, Bundesarchiv, R2/31646

The Deutsche Reichsbahn-Gesellschaft was a product of the international financial negotiations in the wake of the First World War. Gaston Leverve and William Acworth, appointed to consider the Reichsbahn as part of the reparations scheme, suggested in May 1924 that funds could easily be diverted from the present habit of subsidising the German economy with low tariffs and unproftable traffic, to paying war reparations at a relatively low cost to the German economy. This required the creation of an international company with German and Allied board representatives. Ownership remained in the hands of the Reich and the Reichsbahn was valued at 26 billion GM consisting of 11 billion GM first-mortgage bonds, 2 billion preferred stock and 13 billion common stock. The bylaws adopted at the London Conference in July 1924 stipulated that the preferred stock would bear 7 percent interest and be redeemable after sixteen years. 500 million GM of preferred stock would be sold in the in the first two years, claimable for the Reich. The 11 billion GM first-mortgage bonds would be provided the trustee and sericed with 200 million in the first year, rising to 660 million in the fourth and subsequent years.[54] In other words, the DRG came to life with a considerable financial burden and a particular relation to the international financial community.

Despite the heavy burden of reparations, the implications of Dawes agreement did not constitute any direct threat to the DRG. Revenues were always sufficient to pay the annuities. In fact, in an international comparison the total debt burden of the DRG seems comparable to that of main railways in other nations. However, the Dawes agreement restricted the DRG's access to finance by two other means. The reparations bonds were equivalent to a form of debt which made the DRG seem less attractive as a borrower. Also, the DRG could not enter into any obligations extending beyond its 40-year concession. Since not only fixed railway capital, but also rolling stock could have a life exceeding 40 years this posed a constraint.[55]

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[54] Alfred C. Mierzejewski, *The Most Valuable Asset of the Reich: a History of the German National Railway*, vol. 1, 1920-1932 (Chapel Hill, NC & London, 1999)., pp. 116-18

[55] Ibid., pp. 266-7

The DRG estimated that half of its expected annual investment budget of 400-450 million RM could be covered by current revenue and that the remaining half had to be sought in the open market. Every year from 1925 the DRG attempted to seek credit in the market either through the sale of preferred stock, through a loan or through bond issues. In 1925 the scarcity of capital in Germany and the government's desire to control the preferred stock resulted in the government making the DRG a 120 million RM loan in exchange for a chunk of preferred stock. The procedure was repeated in 1926.[56]

In March the same year a loan committee was authorised to organise up to RM 250 million in credit. Several U.S. banks were attracted, particularly Dillon, Read of New York through its partner Ferdinand Eberstadt, who in spite of Allied opposition met with leading representatives DR in March and April 1926. This scheme was however overridden by the Reichsbank president Hjalmar Schacht, who intervened and coerced the DRG to let the Reichsbank and a consortium of German banks oversee a sale of 150 million RM of series IV preferred stock. The DRG got further infusion in the shape of 154 million Reich credit aimed at stimulating the German economy. This happened despite the protests of the agent-general for reparations, Parker Gilbert.[57]

The sale of the 13 billion RM bonded debt, initiated by Reich foreign minister Gustav Stresemann, fell through first owing to U.S. intervention, then again in 1927 because of the resistance of J.P. Morgan, who wanted to give precedence to the Dawes Loan, which Morgan had underwritten. In 1927, the DRG had difficulties in finding any external funds, mainly because a failed 500 million RM Reich bond floated in February depressed German bond prices. Nevertheless, the board decided to prepare the sale of preferred stock to cover the recent increases in spending on renewal and construction. In the end the deal was

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[56] Ibid., p. 268-70
[57] Ibid., p. 271-3

opposed by Morgan's skepticism and Gilbert's concern about the involvement of the sale of the rest of the failed Reich bonds.[58]

Although the DRG made a succesfull public offering of 200 million RM on 1 February 1928, subscribed mainly by foreigners, the above pattern was the rule rather than the exception. An attempt to launch equipment bonds for rolling stock in 1928 was stalled by Gilbert. Instead the liquidity crisis was solved by the growing revenue of the DRG. The same logic applied in 1929 when the DRG obtained only little credit. In a strange reversal, the DRG lended money to the Reich in 1929, partly to prevent the sale of the Reich's preferred stock.[59]

Thes recurrent failures to get access to international capital suggests that the Reichsbahn's business was severely impeded by the interventions of the German government and the Allied consortium. Jan-Henrik Peters has argued that the DRG suffered from lack of capital and could not make big investments to reap the fruits of rationalisation. In Peters' narrative, the main cause of the imbalances is the excessive personnel expenses of the DRG.[60] Peter Schymanietz has also argued that the reparations burden consisted a real check on the DRG's access to capital.[61] However, the fact that current revenue saved the Reichsbahn in 1929 points to another story, which becomes even clearer through a look at the DRG's spending policies.

As Alfred C. Mierzejewski has shown, the DRG's capital needs are hard to define. Acquisitions of rolling stock were often made for the social purpose of maintaining employment and preserving companies rather than meeting the real needs of the railway company, incurring opportunity costs which are hard to

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58 Ibid., pp. 278-80

59 Ibid., pp. 285-92

60 Jan-Henrik Peters, "Rationalisierungsbestrebungen der Deutschen Reichsbahn-Gesellschaft zwischen 1924 und 1929," *Zeitschrift für Unternehmensgeschichte* 1996., p. 196-7

61 Peter A. Schymanietz, *Die Organisation der deutschen Eisenbahnen, 1835-1975* (Freiburg-im-Bergau, 1977)., p. 34

quantify.[62] Although the general director, Julius Dorpmüller, admitted in 1928 that the DRG plainly did not need more locomotives, social and political pressure made the board invest in 120 million RM of vehicles on 18 September.[63] The situation with freight cars was largely similar to that of locomotives: the DRG inherited a surplus of vehicles from its predecessor and faced pressure for further acqusitions. However, in the case of freight cars the DRG was able to exert control of the German Car Builders Association (in the traditional vein of organising the market) and gain the full benefits of rationalization.[64] As for passenger cars there was no surplus and a constant need for upgrades to match the appearances and comfort provided by competitors such as busses and private cars. These patterns were largely continued through the Depression.

If rolling stock never became a problem, the story of track is slightly different. The DRG inherited a backlog in track renewal. Furthermore a lot of the rail was inadequate to support heavy locomotives. Deferred maintenance continued to be an issue throughout the late 1920s, in spite of recurrent efforts to catch up. The problem did never reach major proportions and the overall picture of is that the DRG had no great difficulties in finding capital for maitnenance. Yet, from the end of 1927 the DRG faced a severe liquidity problem and did actively seek credit in the open market.[65]

The root of the liquidity problem was a propensity to spend large sums on projects for non-economic reasons. Every year in the 1920s the Reichsbahn spent over 400 million on capital investment, most of which was financed through the current account, directly or through hidden reserves, and most of which was spent on loss-making projects such as grand station buildings and new secondary lines. The biggest expansion came in 1927 when revenues had increased and Reichsbahn officials had high hopes for access to credit in the

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62 Mierzejewski, *The Most Valuable Asset of the Reich: a History of the German National Railway*., p. 207

63 Ibid., p. 196, 203, DRG, Board of Directors, Minutes, 18 Sept. 1928, Berlin, BA, R2/31647

64 Ibid., pp. 208, 212

open market. Kurt Tecklenburg's improved accounting methods showed that these investment were bleeding cash and only served a political and social purpose.[66]

Mierzejewski argues that the DRG's spending policies were a legacy from the era of railway system building, and that state and local governments wanted new lines built in the belief that this would induce long-term growth as well as short-term employment. He dismisses the Reichsbahn's claim that it lacked capital with reference to the budget being 'bloated by unnecessary projects for buildings and secondary lines' and that 'Its operating budget was burdened with expenses that properly belonged in the capital account and which were undertaken to satisfy the social imperatives of the commonweal economic order and the engineers' desires for technical perfection'.[67] In other words, the liquidity problem faced between 1927 and 1929 was self-created by unnecessary spending, often out of the operating account and in abstruse ways.[68]

Mierzejewski's judgment is very compelling as far as the finances and operations of the DRG are concerned. While he does give a lot of attention to the problem of road competition, it could be argued that he dismisses the railways' succumbing to road traffic a bit too easily, referring to inherent characteristics in the technology.[69] First, arguably the Reichsbahn could have invested more to prevent the diversion of traffic to the roads, most clearly exemplified by electrification and containerization. The first investments in electrification proved very advantageous and the DRG attempted to reap these benefits as far as the availability of investment capital allowed. However, as Dorpmüller explained in 1928, the return on electrification was about 4 percent while investment capital was available only at 7 to 8 percent interest rates.[70] According to Peters, the DRG's inability to raise capital for large-scale

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[65] Ibid., 214-22
[66] Ibid., p. 231
[67] Ibid., p. 236
[68] Ibid., p. xiii
[69] Ibid., p. 356
[70] Ibid., p. 226

investments such as electrification led the DRG to invest in improvement in existing but outdated technology rather than new innovations. Second, there is the possibility that the lack of investment capital affected the institutional arrangements for the division of labour between road and rail. Intense negotiations in the 1920s and 1930s laid the foundations for a transport system which still retains many of the interwar characteristics. These issues of road-rail competition will be explored further in the final presentation at the conference.

In sum, it is clear from the interest expressed by leading bankers, that the DRG was a potential client of international investors and bankers, not only during politically determined phases such as the Dawes and Young negotiations but also more widely. It is possible that the railways would have benefitted vastly from an open international environment where easier access to capital would have enabled profitable investment in electrification, braking systems or containerisation. However, in the light of investment decisions actually made by the railway management, it is unlikely that increased access to capital would have resulted in remunerative investment. Better access to capital could even have resulted in a worsening of the situation through excess purchases of rolling stock or the investment in new unprofitable line. Thus, it cannot be convincingly argued that the German railways were victims of the contingencies of the inter-war financial system. The failure to respond efficiently to road competition was based in another realm, namely the strong identification of the railways with national well-being and a particular idea of public modernity, which was inscribed in the regulatory systems as well as in the minds of regulators, politicians, railway managers and the general public alike. In this light, the lack of capital was a problem of secondary nature.

Mierzejewski, Alfred C. *The Most Valuable Asset of the Reich: a History of the German National Railway*. Vol. 1, 1920-1932. Chapel Hill, NC & London, 1999.

Peters, Jan-Henrik. "Rationalisierungsbestrebungen der Deutschen Reichsbahn-Gesellschaft zwischen 1924 und 1929." *Zeitschrift für Unternehmensgeschichte* 1996, 187-200.

Schymanietz, Peter A. *Die Organisation der deutschen Eisenbahnen, 1835-1975*. Freiburg-im-Bergau, 1977.