In this important book, Robert Millward provides the first truly cross-national survey of the development of the infrastructure industries in Europe. The outcome is an innovative study of a wide range of industries in several countries over a long period. Historians and other scholars are likely to return to this book for years to come—although as a tentative research overview rather than for the last word on any subject.

The subject matter is the development of the regulation of the energy, telecommunications, and transport industries, which all depend on a fixed infrastructure network and share the ensuing problems of regulation and the provision of services and commodities that meet both a commercial demand and a public service. Interestingly, Millward includes coal and oil in the study, although these industries as a rule have not been natural monopolies, and state intervention in them has occurred because of strategic rather than economic reasons. Millward's geographical scope is western Europe, and the study is based on all the available English-language literature on the United Kingdom, France, Germany, Italy, Spain, and Scandinavia, occasionally covering Belgium and the Netherlands. Although the author's previous research has been U.K.-centered and the book is in many respects a European version of a previous book on Britain, Millward carefully avoids the trap of imposing the regulatory history of Britain onto Europe as a whole.[1] Throughout the study Millward has three main concerns: the role of government, the effectiveness of industries, and the role played by ideologies of socialism and capitalism. These three issues are in turn related to cross-national differences in resource endowment, trading positions, and political system.

The first part of the book presents a brief summary of the historical and analytical framework. Part 2 deals with the construction of new infrastructure in the nineteenth century, when state involvement was induced for three reasons. The new infrastructures required rights of way, which called for parliamentary sanction and scrutiny of the engineering and financial soundness of companies. The natural monopoly problem created incentives for the state to prevent exploitation.
of monopoly power. Finally, the desire to encourage economic growth and political unification led to the use of subsidies, interest guarantees, and public ownership of railways and telegraphs. Millward summarizes his two main findings for the nineteenth century in chapter 6. First, no simple link resulted from government intervention in the infrastructure industries, neither in the pace of their development or in the level of income in the country (p. 91). Secondly, "government ownership in the nineteenth century was not strongly associated with the kind of ideological positions found in twentieth-century Europe. State ownership was not based on any strong distrust of capitalism, but rather on more pragmatic matters like the control of information flows, speeding up of construction work, and ensuring social and political unification" (p. 92).

In part 3, Millward addresses the paradigm of increased intervention, which dominated the period 1914-50. He argues that the most characteristic feature of intervention was the challenge of regulating large monopolies while at the same time subsidizing them. Chapters 7 and 8 deal with the move to system integration in electricity supply and telephony. Chapter 9 provides an insightful analysis of increased state involvement in transport co-ordination, emphasizing the difference in governance and market structure between different modes. In the fourth part, Millward addresses the rise and fall of state enterprise between 1945 and 1990. After World War II governments faced high expectations to manage the macro-economy, ensure fair allocation of resources, and raise the living standards of the poor. Infrastructure industries were central to this effort. Switching manufacturing capacity away from armaments to consumer and capital goods required access to key intermediate inputs like steel, coal, oil, electricity, and freight transport. Moreover, the services produced by infrastructure industries were important to working-class household budgets and residential patterns. The trend towards public ownership from the 1930s continued, so that by 1950 in Britain and France railways, airlines, telecommunications, gas and electricity supply, and coal mines were in national ownership, with similar patterns in most countries. Millward identifies a difference between social democratic states, where popular pressures led to outright state ownership, and fascist regimes, where arms-length regulation backed by violence was the model, and there was no extension of state ownership after the war.

Millward argues that a common pattern had emerged by 1950, a pattern far more important to the shaping of the infrastructure industries than distinctive ideologies in different nations. Three models for the organization of state enterprise can be discerned, depending mainly on their historical origin (p. 182). Where there was an advantage to having a single national network and a growing unwillingness to achieve this by means of arm's-length regulation of private monopolies, the ensuing form was to run the enterprise as a section or an agency of a government department. Where there was a desire to combine business-like management with public service objectives, the outcome was a public enterprise organized as a separate legal entity. Finally, where there was a case for securing access to and leverage on key resources, the solution was a joint stock company with state ownership of shares. In most cases these organizations were increasingly troubled by tension between the two objectives of public interest and business-like operations and by budget constraints.

Chapter 11 describes how oil replaced coal as the major source of energy in western Europe in the third quarter of the century and the implications for national security, which stimulated intervention. Chapter 12 deals with the development of air transport under government control of airspace via state-owned joint stock companies and later, the IATA price cartel. Chapter 13 describes the break-up of the monolithic state-owned post and telecommunications enterprises.
from the 1980s, once again with an emphasis on technological and economic development rather than ideology. Chapter 14 contains an excellent summary of the changing basis for costing and pricing infrastructure industries and a cross-national assessment of performance, which suggests that there is no evidence of poor productivity growth in state-owned enterprises.

In part 5, Millward concludes his history with an eye to contemporary debates about regulation. His conclusion is that the infrastructure industries have been perceived in ways that conflict with the historical record, concerning the role of ideology and the role of managerial performance and efficiency. The state-owned monopolies were not, as is often thought, a product of the 1940s and of twentieth-century socialism (p. 289). Neither did the problems of regulation and public enterprise that paved the way for privatization and deregulation “despite much theorising to the contrary, lie in any obvious deficiencies in X efficiency, that is, in managerial competence” (p. 295). Instead, Millward looks to “the range and complexity of the non-commercial obligations laid on state enterprises” (p. 295). Often the institutional format was no longer optimal for the inherited objectives, and the means for meeting obligations were not sufficiently planned or their costs calculated (p. 295). This failure of non-commercial objectives combined with technological change led to financial failure, a move to cost-based pricing, less monopolistic markets, and a revision of the means of promoting social unity and ensuring strategic aims.

Millward makes a very convincing case for presenting the history of European infrastructure as a shared pattern of regulatory behaviors and ownership, where cross-national similarities modified by national contingencies dominate political ideology as the main causal factor. Millward does not deny the existence of the ideological shifts that have influenced previous historical writing, but doubts whether they can account for the timing and incidence of regulatory and ownership changes. Unfortunately, Millward does not engage into a more extended discussion of earlier research that emphasizes the role of domestic institutions and traditions in creating national particularities.[2]

The discussion of inherent economic characteristics of the infrastructure technologies is very accomplished. Millward’s study should help researchers shift attention from political ownership to the form of regulation. The characterization of the different time periods is strong, but the causal explanations are somewhat less convincing, or at least less developed, which may be forgiven given the scope of the book. The notion of “technological change” sometimes feels like a *deus ex machina* that delimits time periods without full reference to which technical changes influenced the development of the infrastructure industries and how. The collection and presentation of cross-European data is only partly successful. The tables and figures present benchmark years only and do not help the reader to form an opinion on cross-national patterns. The inclusion of a data appendix or a selection of more detailed tables would have improved the usefulness substantially. The overall impression is somewhat marred by the systematic misspelling of foreign names and words, which can only partly be forgiven because of the large number of languages involved. Specialists on Germany will perhaps be disappointed with the treatment of that country, which is based on a few English-language works and contains little new information or analysis. However, the immense value of the comparative perspective and lengthy time horizon make this book indispensable for any historian of Germany interested in transport, energy, and telecommunications, or in regulation more generally.

Notes


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