

documents change in the four major regions of manufacture in England: East Anglia, Devon, the West Country, and West Yorkshire. He places particular emphasis upon Yorkshire, which quickly emerged as the most responsive region and which dominated the trade in the second half of the century.

England's wool textile industry in this period is not under-researched: regional shifts in markets, merchanting, and products have received attention, and innovations in organization and technology, particularly in West Yorkshire, have been the subject of a number of major studies. Many historians have attempted to explain Yorkshire's success, and in these analyses the closer integration between merchanting and manufacturing in the region than elsewhere has been recognized. Smail is clearly familiar with all this work and with the wider literature of debate, empirical and theoretical, on the nature of the industrialization process. His achievement lies in synthesizing what we know; adding new research on a varied and voluminous array of correspondence between manufacturers and merchants, memoranda, and business accounts; placing renewed emphasis upon the nature of links between each region's producers and their markets; and, finally, in demonstrating very forcefully how these links were vital both in creating and in foreclosing potential paths to growth. He argues that close connections between producers and their markets in the late eighteenth century, especially in Yorkshire, created an economic and cultural environment in which entrepreneurs were induced to focus upon changing production technologies as the main route to greater profitability. His argument is particularly strong and interesting in documenting the origins and implications of vertical disintegration (the separation of spinning from weaving) in the worsted trade, and the emergence of a separate marketing structure for yarn a decade or more before machine-spun yarn became available. In the woollen sector, again through the medium of stories of particular businesses and businessmen, Smail shows how changes in the mode of production owed as much to the activities of merchants and the volatility of markets as it did to the logic of the production process. Smail's important point, reminiscent of a Marxian argument about the shift from mercantile to industrial capitalism, is that this change involved a fundamental reorientation in the ways in which manufacturers conceptualized their economic activities. It certainly involved a wholly different attitude to the investment of fixed capital and to cost accounting, and Smail's argument would have been strengthened by more prominent reference to the literature on these subjects. Nevertheless, we are in Smail's debt for producing a cogent and well-researched argument that gets at the human relationships and exchanges which generate and shift both supply and demand curves.

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Economics of Transport: The Swedish Case 1780–1980. By Thomas Thorburn. Södertälje, Sweden: Almqvist and Wicksell International, 2000. Pp. 589. SEK 422.

This is an important book, with implications far beyond the Swedish case. The author has painstakingly constructed a unique aggregate series of transport expenditures covering two centuries (the book contains 260 pages of appendices). He uses this information in a series of models that analyze the crucial role of transport improvements in Swedish economic development, with a special focus on industrialization.

As with all attempts to develop estimates of historical aggregates, Thorburn has some solid data sources, on railway freight charges for example, but must make estimates from shaky bases in other areas, such as foot travel or wagon carriage. This, along with the tendency of transport historians to specialize, helps explain why no such aggregate series

have been constructed elsewhere. The author laudably faces these shortcomings directly, and provides a range of plausible estimates as appropriate. Rarely do different assumptions have a significant impact on Thorburn's key insights into the course of development of Swedish transport: for example, that the increase in transport's share of GDP from 6–7 percent before 1850 to 14 percent in 1980 was *entirely* due to a tenfold increase in the share of passenger traffic, whereas the share of goods transport remained remarkably stable; that "efficiency" (roughly, total factor productivity) in goods transport increased by a factor of 37 in the century before 1973; that railways caused the contribution of roads to total internal transport costs to fall from over 80 percent in 1850 to 40 percent in 1913, while having little impact on the contribution of water transport; and that trucks subsequently pushed the contribution of roads back above 80 percent (largely by dominating short-haul transport) in 1973, while reducing water transport to barely 2 percent (but still 17 percent of ton-miles).

Both Thorburn's data and his expertise (he has combined careers in academia and the shipping industry) are strongest for the modern era. And while he often draws on research concerning other European countries, he does not always provide international comparisons. I found his assertions that commercial road transport was insignificant before 1818, that travel times by land barely fell before 1913, and that costs of road transport fell by a meager 0.5 percent per year between 1780 and 1870, to be at odds with results from other countries showing considerable improvements in roads, horses, and coaches over that period.

Thorburn emphasizes that both organizational and technical changes were important to transport improvement. In particular, he identifies some key advantages in the development of common carriers to replace part-time carriage by farmers: specialized staff, decreased time in terminals, and increased numbers of trips. There were further benefits to customers: a drop in transactions costs as fares were posted, increased confidence associated with regular schedules, and the legal liability associated with common-carrier status.

A little more than half of the text is devoted to an examination of the economic impact of transport. Thorburn details how transport improvements halved the cost-of-living disadvantage of urban areas in the century before 1913, and erased it thereafter; Swedish urbanization would otherwise have been severely limited. He is unable to estimate precisely transport's impact on industrial scale, but he provides evidence that it was substantial (though variable across regions). Laudably, he devotes a chapter to the distribution of consumer goods, and concludes that consumer goods could not be produced on a large scale in any sector until appropriate transport systems were ready to distribute them (speed, frequency, and reliability were of different relative importance to different sectors). In particular he details how large-scale production began with goods of a high value-to-bulk ratio, and spread as transport costs fell. This is a crucial insight: despite the work of Alfred Chandler, economic historians all too often focus on production processes and neglect the impact which changes in distribution have on firm decisions.

Thorburn notes at the outset the danger of ignoring those effects of transport which are not easily quantifiable, but he does not always heed his own advice. He recognizes that increased scale encourages technical innovation, but says nothing of the additional stimulus flowing from urbanization, regional specialization (mentioned only briefly), ease of travel (facilitating the interaction of innovators and entrepreneurs), access to a wider range of raw materials, or even division of labor (which is not identical to increased scale). Thorburn estimates the cost of a slow transport system in terms of goods-in-transit, and finds it to be modest (except for imports); but he neglects the much greater inventory costs that would be imposed on firms by a slow and unreliable transport network (and would discourage centralized, capital-intensive production), despite noting that damage and theft of goods-in-

transit was a major problem before 1850. He discusses the role of peddlers, but does not discuss the fact that as catalogues and common carriers replaced face-to-face sales, industry had to produce a highly standardized output, with critical implications for technology and organization.

Thorburn provides a masterful survey of the development of the Swedish transport system, and provides detailed analyses of its impact on economic development. The fact that yet more causal linkages can be identified should only serve to encourage further research in the area.

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The Development of Modern Spain. An Economic History of the Nineteenth and Twentieth Centuries. By Gabriel Tortella. Cambridge, MA: Harvard University Press, 2000. Pp. xvi, 528. \$49.95.

The publication of this book in English is good news. Gabriel Tortella presents a synthesis of Spain's economic history during the last two centuries, written with scientific rigor and didactic guidance. He expertly combines economic theory and general historical analysis to formulate his hypotheses and to develop his arguments. The present volume contains some modifications of the original Spanish edition, and Valerie J. Herr's translation is excellent. Its 16 chapters include numerous tables, figures, and maps, and are followed by an updated bibliography and a chronology.

The book devotes equal space to the nineteenth and twentieth centuries, and is the first general treatment of the modern economic history of Spain to do so; the works of Nicolas Sanchez-Albornoz, Jordi Nadal, and David Ringrose, by contrast, are dedicated only to the nineteenth century. Throughout, Tortella's approach is sectoral and thematic, including significant analyses of human capital, the entrepreneurial factor, money and banking, and the foreign sector. This is a work of economic history, but it makes reference also to special events in the political history of Spain: regarding the twentieth century, in particular, the Civil War and the Franco regime are adduced to explain the economic backwardness of the 1940s and 1950s in comparison to the European democracies.

The Development of Modern Spain represents an interpretation of Spain's industrialization that dissents from the findings of Jordi Nadal (*El fracaso de la revolución industrial en España, 1814–1913*. Barcelona: Ariel, 1975). Tortella and Nadal agree in recognizing a relative failure of Spanish industrialization in the nineteenth century, but they differ in their explanations. Tortella attributes the failure to the absence in Spain of an entrepreneurial factor able to invest in or foster the new industries; this void, he argues, was filled by foreign businessmen, especially Frenchmen, who invested in mining, banking, and railroads, with their sights set more on speculation than long-term growth. The root cause of all this, according to Tortella, was the weak development of human capital in Spain. Spain's stunted economic growth is also traced to the crisis of 1866, which adversely affected the banks and the railroads (the latter being in any case quite cost-ineffective to run, given the lack of cargo); another reason relates to the protectionist policies of successive governments, especially the conservative ones of the political Restoration. In any case, Tortella says that the period 1868–1891 was a free-trade epoch for Spain. In my opinion the entrepreneurial factor could be an endogenous variable in the economic system.

The most pronounced counterpoint to professor Nadal, besides the disagreement over the implications of foreign-trade policy, is Tortella's claim that the failure of Spanish industrialization cannot be attributed simply to demand, and thereby to insufficient agrarian