How the railways transformed the world

By Brendan Martin

Only someone with passion for the subject and an optimistic nature would set out to write a global history of the railways. Those qualities have sustained Christian Wolmar through not only this ambitious project but no fewer than ten other books about railways, and there are three more on the way. However, it could be that his sheer love of the subject might have produced some rather extravagant assertions in this volume, such as his claim that railways “were the most important invention of the second millennium”.

You would have thought that so prolific a writer as Wolmar might have handed that accolade to the printing press, or that the enthusiastic tweeter in him could have nominated the microchip. And what about other modes of transport? The internal combustion engine and the aeroplane would surely have their advocates, and I would be tempted to at least shortlist the unsung shipping container for its role in transforming global trade over the last half century.

Then there are the technologies that transformed railways themselves. Trains were being pulled by horses or even by unfortunate prisoners until steam engines came along, as Wolmar informs us, and their potential was transformed further by the application of electricity. Humanity did not invent horses, but the steam engine and the electrical motor are surely among the railway’s rivals as the most important invention of the last 1,000 years.

Railways and economic development

On the other hand, Wolmar is surely right that the extent to which railways transformed not only economic and social development but also political history has been underestimated. He notes that railways transported the Industrial Revolution worldwide, spread “economic development everywhere” and proved a “democratising force” that has “relieved many of tedious and hard labour”. Yet the great strength of his
fascinating book is that it tells a far richer and more complex story than that would suggest. Indeed, it shows how railways made work no less tedious or hard for many people, but far more profitable for their employers, particularly in colonies with rich natural resources.

As Wolmar shows in his accounts of early railways in Britain and India, national differences in economic and social development are shaped by international power relationships. The book begins with what he calls the “first global news story”, the opening of the Liverpool & Manchester Railway. Although its chief innovation was that it carried passengers, its construction had been stimulated by the need to carry raw cotton from Liverpool’s port to Manchester’s mills. In India, the “prime motivating force” was the need to get the raw cotton to port, in what is now Mumbai.

“The failure of the American cotton crop in 1846 pushed the cloth manufacturers in Manchester and Glasgow to seek new sources of the material such as India,” Wolmar writes. “However, in order to guarantee a steady supply, transport to the port at Bombay needed to be improved and therefore the cotton magnates pressed the British government to build a railway there.” Wolmar comments: “There was no attempt to disguise the fact that this was a nakedly imperial project which later would attract the wrath of nationalists, including Gandhi. The British rather than the Indians would decide on the location of lines and when they would be built.”

The same pattern can be seen globally: the need to move workers to where they were needed for extraction of raw materials by imperial interests, alongside the movement of those raw materials out of the country for sale or value-adding processing, has shaped the history of the railways in many countries. Wolmar shows how this encouraged trade and the pursuit of lower labour costs by enabling ‘comparative advantage’ specialism: “By creating expanded markets, like today’s globalization, the railways removed the protection which inefficient enterprises had enjoyed as a result of high transport costs. Areas which produced crops that were inferior to those in other regions or were more expensive to produce were forced out of business.”

Patterns of railway investment today

Understanding the significance of power and wealth inequalities in shaping the different impacts of railways development on different groups of people is important not only historically but also because of the relevance of those factors to the way in which transport infrastructure is developing today.

In Latin America, for example, investment decisions driven by the interests of the companies that have taken control through privatisation have reshaped freight railways over the last 20 years. This has brought some economic and social development benefits, undoubtedly -- Brazil’s export-oriented economic growth could not have happened without the freight railway improvements that followed privatisation. But a full impact
analysis must take into account the opportunity costs of other approaches to transport infrastructure development.

What opportunities have been lost as a result of predicing investment so predominantly on export orientation rather than on regional and local economic development? If railway investments were planned more as part of an integrated approach to multi-modal transport development would the employment and social benefits of economic growth be greater and more widely shared?

We do not know the answers to those questions, partly because they have not really been asked by the international institutions whose development finance and technical advice have guided much of the railways policy reform and infrastructure development seen in Latin America and elsewhere over the past couple of decades. What we do know is that those reforms have typically involved wiping out inter-city passenger services, with all the social and environmental effects that might be expected. Wolmar comments:

“The fashion for privatization has wreaked havoc on various railways around the world, resulting in some countries, such as Argentina, virtually abandoning passenger services. In Europe, a basic failure to understand the workings of railways has led the European Union to enforce rules separating the infrastructure from the operations, in order to allow ‘open access’ to the tracks. This was designed to free up the market for rail transport and to break up the state-owned monopolies, but these laudable aims have created a huge bureaucracy, a bonanza for expensive consultants, lawyers and regulators, complex working arrangements and greatly added costs to operations.”

Critical though he is of these trends, Wolmar’s accounts shows that by encouraging buccaneering behaviour at public expense and producing unforeseen consequences they are rather typical of railway history. As well as charting the role of railways in nation building, globalisation, labour specialisation, tourism, commuting and much else besides, his vivid narrative shows the blood price paid by many workers for the ruthless singl mindedness of some of the entrepreneur-engineers who pioneered their construction. If the book also contains the occasional contentious claim, that only adds to its potential to stimulate much needed debate about the future of transport and the people who earn their livings by working in it.