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New model history

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JEFFREY G. WILLIAMSON:
Late Nineteenth-Century American Development
350pp. Cambridge University Press. £8.

Economists, on the whole, are historical morons. A political scientist, say, who based his thinking about the political present on a folk version of the political past would evoke from his colleagues embarrassed silence. By contrast, an economist who bases his thinking about the economic present on a folk version of the economic past elicits invitations to conferences and requests for offprints. Foreign trade, it is said, was an engine of American growth in the nineteenth century; the frontier, it is said, was a safety valve; the savings of the East, it is said, powered the economic machinery of the West—fairytales such as these, clothed in metaphors of machines or trees or aircraft, dominate economics to an extent few economists understand. Most do not read history, satisfying themselves with "stylized facts" learnt at their tutor's knee and repeated thenceforth through long careers to sustain one or another piece of economic nonsense.

This comical and dangerous tendency in economics has now its remedy: the cliometric movement, of which Jeffrey G. Williamson is a leader, and which revises economic history in the style of economics. Economists will find Professor Williamson's style of thinking engaging. He has constructed in *Late Nineteenth-Century American Development* a model with seventy-two equations, more or less, and used it to rewrite the history of the American economy from the Civil War to the First World War at many points. His new history, for example, interprets the climacteric in American growth at the end of the nineteenth century not as a retardation of technological change but as an approach to a steady state after the disequilibrium of the Civil War. It finds the development of a national capital market to have had little impact on income per worker. It shows that the frontier, open or closed, had trivial effects on the size but substantial effects on the composition of national income; that cheap land accounted for little of the immigration into the United States; that the terms of international trade rather than internal developments governed American industrialization; and that the railways, contrary to the opinion of some other cliometricians, were indispensable for American growth. The book is profoundly original and bold in conception.

If, however, the cliometricians are to rebuild the historical foundations of economics, they must take more care than is exhibited here. The book reads like a hurried first draft. The literary offences range from those against grace to those against clarity; from bromidic mottoes at the head of each chapter, solecisms and self-advertisement, to repetition, review, and excessive rhetorical question. A better book would have been half as long. One wonders what editors do with manuscripts in that long darkness between submission and print.

The flaws in the book, however, are not confined to a lack of readability. Professor Williamson has constructed his model with characteristic ingenuity, revising the usual two-by-two model to include capital accumulation and partial mobility of capital and labour between his two regions, the "West" (that is the East-North-Central, with Chicago as its metropolis) and the North-east. Now it is no great trick to attack a detailed and general model as insufficiently detailed and general. Indeed, fear of such attack has inhibited economists from using large models, or driven them to build larger and still larger ones, with poor rewards in economic insight and worse predictions. Professor Williamson does not have the usual, though weak defence that each equation in his model taken by itself fits well, for he does not estimate them statistically.

He must rely on how well the model as a whole, using his choices of elasticities in production functions and the rest, replicates the facts of American history. It does this reasonably well. Yet doubts about the model remain, and are not assuaged by the slapdash way in which they are handled. Given the many things determined outside the model—technological change and the propensity to save, for example—one might expect some concern that other models (almost any model?) would replicate the history just as well. Professor Williamson offers no tests of competing characterizations of the economy. Given the difficulty of testing the model, one might expect him to compile evidence to establish each piece of it solidly in fact and to test the sensitivity of his results to errors in presumed fact. He does neither. And given the subtlety of the conclusions built on these doubtful foundations, one might expect him to be vigilant for assumptions in the construction of the model that would vitiate conclusions drawn from it.

Yet his model of the "American" economy does without the labour of nearly two-thirds of the actual American labour force (located in all sectors in the South and far West, in agriculture in the North-east, and in mining and services everywhere); its manufacturing sector makes shoes and steel without materials from agriculture and mining (materials constituting half the value of manufactures), and its transport sector, central to the model, carries goods and people without the assistance of any inputs at all (transport costs are treated as a tariff).

One can ask, then, whether his model is sufficient for its tasks. Professor Williamson himself at times appears to think not, for he requires supplements to the model, not tested with the rest of it, to complete his arguments. One can ask, too, whether his model is necessary. Again, Professor Williamson himself provides the answer, for his arguments typically do not use the full model. In the few cases where they do the argument is suspect, as in his most striking finding, that transport improvement—contrary to R. W. Fogel's celebrated calculations—was indeed massively important for American growth, raising income in 1890 20 per cent above what it would have been as against 5 per cent.

Each of the peculiarities of the model figure in the finding: Professor Williamson's definition of "America" is precisely the America most affected by railways; allowing for the use of agricultural goods in manufacturing would reduce the divergence in their prices; and a transport sector that required inputs would become more expensive as the inputs did. To take one example, Professor Williamson believes, although he does not prove, that his result arises from the dynamic nature of his model, in particular its specification that the growth rate of capital is the product of the saving rate and the output-capital ratio minus the rate of depreciation: the static rise of output from the railways of, say 5 per cent raises the output-capital ratio 5 per cent and yields faster growth. Railways, however, had in 1890 a capital-output ratio of around 10, and their capital constituted over a tenth of the nation's. If railways in his model used capital they themselves would gobble up the additional accumulation. But they do not, and his truncated version of the United States enjoys a free lunch.

Readers who are not themselves cliometricians will perhaps be able to ignore these dangling threads of logic and evidence. If they are tolerant they will find the book charming in its energy and breadth. But they should be wary of its conclusions, and should know that the new economic historians—Professor Williamson included—can do better work.