## Reviews

## Scarcity and frontiers: how economies have developed through natural resource exploitation

By Edward B. Barbier. Cambridge: Cambridge University Press, 2011. Pp. xviii+748. Hardback £65.00, ISBN 978-0-521-70165-5.

Reviewed by Jonathan Curry-Machado University of London, UK; University of Wageningen, the Netherlands E-mail: jon.curry-machado@sas.ac.uk

doi:10.1017/S1740022812000319

Throughout history, the exploitation of natural resources to meet the needs and demands of human society has been both the driving force behind successful development and the cause of economic stagnation and failure, as well as social inequalities and environmental degradation. It is the source of our food and raw material to our industry; but, while some civilizations have thrived, others have languished, and empires that have expanded have ended in collapse. As resources have been used up, and demand has increased, there has been an ongoing need to move into new areas – both spatial and economic; as a result, human history can be viewed through the ever-shifting frontiers of resource-seeking activity.

In Scarcity and frontiers, the economic historian Edward Barbier distils a number of historical theories (from early frontier theses put forward by Turner and Webb, through the economic hypotheses of Domar and di Tella, to Engerman and Sokoloff's factor-endowment hypothesis) to propose his own hypothesis that successful frontier expansion 'must lead to efficient and sustainable management of natural resource exploitation capable of yielding substantial economic rents', and that the surplus so generated 'must in turn be reinvested in productive

economic investments, linkages and innovations that encourage industrialization and economic diversification' (p. 20). He then proceeds to use this hypothesis to examine the full sweep of global history, from the start of the Agricultural Transition 12,000 years ago up to the present day, looking at what made successive and simultaneous civilizations ultimately successful or failures.

In order to manage the vast historical scope, Barbier adopts a chronological division into a number of key historical eras, to each of which he devotes a chapter. The prehistoric agricultural transition (10,000 BCE to 3000 BCE) led to the rise of cities (3000 BCE to 1000 CE) and the emergence of the world economy (1000-1500 CE). Following the Black Death of the fourteenth century, western Europe - thanks to the fortuitous coalescence of conditions and dynamics pulled away from the previously dominant great landbased empires of Asia. Hence it was European empires that were in a position to take full advantage of developments in naval technology and trade, which resulted in the pushing forward of global frontiers: through the Atlantic triangular trade (setting up a self-propelling dynamic of captive labour, frontier commodities, and metropolitan industrial manufactures), and arriving by the end of the nineteenth century at a golden age of resource-based development. By 1914, 'for the first time in human history, economic and military superiority was no longer dependent on the expansion of horizontal frontiers of land and agriculture' (p. 519) and this ushered in an 'age of dislocation' (1914 to 1950), in which, with global trade ensuring potential access to all necessary resources regardless of a country's direct control of those resources, exploitation of mineral resource frontiers for industrial production replaced agriculture as the primary economic driver. From 1950, the contemporary era has seen the global economy become both more integrated and more divergent in terms of development, possibly (as Barbier sees it) ushering in a new era of ecological scarcity.

Certainly this division into broad epochs is a device that gives the book a manageable structure. However – and although Barbier does attempt to demonstrate how later periods built upon developments from earlier eras – it brings with it a limitation in that it tends to obscure the substantial overlap between what are, essentially, divisions of convenience rather than substance. The result is a somewhat linear historical narrative, despite the considerable range of material and cases upon which Barbier draws.

Likewise, the overarching global scope of the book also tends towards a homogenization of particular frontiers. This is probably unavoidable in a volume written on this scale, but research would indicate that, if we lower our sight to the local or regional level, individual frontiers display quite marked contrasts of relative success; and where a particular frontier may appear in one historical period to be sustainable and displaying the qualities of positive feedback indicated by Barbier, in the next the virtuous circle may have turned vicious. Similarly, more could perhaps be made of the question of multiple perspectives, whereby a particular frontier may figure in more than one developmental frame - apparently contributing to the sustainability of one, while acting to the detriment of another.

However, Barbier's frontier-expansion hypothesis may offer a very potent tool for the comparison of resource extraction and development on different commodity frontiers, and for understanding the subtleties that are outside the scope of a volume of this magnitude. By clearly defining the 'necessary and sufficient conditions for successful frontier-based development' (p. 21), he offers a straightforward means of assessing whether or not a frontier at any given historical moment may be sustainable, and thus enabling its comparison with others: generated surplus reinvested in other productive economic activities in the local economy; these investments resulting in diversification; and 'complementarities and linkages' developed 'between the frontier and other sectors of the economy' (p. 22).

That the book may have the potential to prompt further in-depth comparative research is itself a credit to its erudition and timeliness; and the volume's coverage is certainly phenomenal, in both its historical and geographical range. The narrative combines engaging accounts of cases with detailed examination of key phenomena and processes, and expansive footnotes; it is bolstered throughout with extensive maps, diagrams, tables of data, and bibliography. Undoubtedly this will come to be seen

as essential reading for all students of global economic history, and a substantial work of reference for many researchers.

However, while this is a substantial text book in its own right, Barbier has a more pressing objective in writing it than just education and historical analysis. The final chapter testifies to the urgency with which we need to deal with questions of how development has been sustainable in the past, in order to respond effectively to the economic and ecological challenges of our present times; and Barbier attempts to draw contemporary policy prescriptions from the historical lessons that his model has revealed. But, worthy though his recommendations undoubtedly are, it is hard not to feel that he is himself constrained both by the very global focus of his analysis and by his own position within this. The result is that he concentrates on the need for concerted international political agreement and action on the part of the powerful, rather than the myriad of potential local and social responses that may, in the long run, offer a more sustainable future than any that remains defined upon present-day global power structures, however greened these may become. Nevertheless, Barbier should be praised for demonstrating just how relevant the study of our global past is for the world today.

## The long divergence: how Islamic law held back the Middle East

By Timur Kuran. Princeton, NJ: Princeton University Press, 2011. Pp. xvi+405. Hardback £19.95/US\$29.95, ISBN 978-0-691-14756-7; paperback £16.95/US\$24.95, ISBN 978-0-691-15641-5.

Reviewed by Ghislaine Lydon UCLA, USA E-mail: lydon@history.ucla.edu

doi:10.1017/S1740022812000320

There was a time when the economic landscapes of the Middle East and Europe were remarkably similar. But in the course of the second millennium, economic growth in the Middle East progressively declined. Only in the nineteenth century, and largely as the result of foreign influence and the establishment of Western institutions, did Middle Eastern business practices begin to evolve in the direction of modernity in certain cities. Discovering what were the root causes