

# The Economics of Technical Change and International Trade

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## Preface and acknowledgements

This book is the result of a convergence of research interests that began when Giovanni Dosi, Keith Pavitt and Luc Soete were together in the early 1980s in the Science Policy Research Unit at the University of Sussex. Giovanni Dosi's broad interests in redesigning the contours of economic theory based on new insights into the nature and process of technological change seemed, at least at first sight, to fit well with the more specific and eclectic interest and expertise of Keith Pavitt on the determinants, causes and impacts of sectoral patterns of innovation and technological progress, and the more empirically focussed trade and technology research interests of Luc Soete.

The original idea was to go for a relatively quick publication building on some of the work already published by each one of us and leaving each author responsible for his chapter. However, it quickly appeared that such an approach would suffer from the overlap in theoretical visions, empirical tests and policy conclusions which each one of us wanted to draw in his chapters. A richer, more demanding approach was chosen, aiming at a fully integrated book, redesigning, so to speak, the theoretical foundations of the economics of technological change and international trade, while drawing on each other's previous research expertise. This approach required, however, as quickly became apparent, a far more comprehensive undertaking than any one of us would have predicted five years ago, not in the least because from the 'symbiotic' SPRU atmosphere couched in the Sussex South Downs, we got dispersed across Europe before a final draft could be written.

Giovanni Dosi was appointed Professor in Rome, Keith Pavitt was appointed Professor and Deputy Director of SPRU in Sussex and Luc Soete was appointed Professor and Director of MERIT in Maastricht.

Geographical distance appeared a major disruptive factor in progressing along what became known as the 'trade book'.

For the reader, fond of original acknowledgements, the following extract from a letter, dated 1 March 1988, of one of the authors to his fellow co-authors gives a fairly impressionistic picture of some of the problems involved in getting the 'trade book' into its final format.

It was with a great sense of intellectual excitement and 'remembrance of things past' that I returned to the preparation of our above-named masterpiece. Thus, I have found correspondence with Wheatsheaf in 1983 making romantic and idealistic promises of prompt delivery. And in a recent visit, Edward Elgar (with whom the deal was negotiated at Wheatsheaf, and who now has his own publishing business) re-affirmed his admiration for the book, and confirmed advanced bookings worthy of the latest offerings of Andrew Lloyd Webber (or La Cicciolina) on Broadway. ... In addition, Linda and Lesley have spent weeks printing out large volumes of text from a disc found with Vanessa. For a moment, I wondered whether it might be an undiscovered masterpiece by Proust (or Joyce). But with some regret I remembered that the prevailing artistic ethos surrounding the preparation of our book was closer to that of Marx (Harpo) and Monty Python.

But with the spread of information technologies, the benefits of communication technologies finally did filter through. The organisational support of MERIT, in the form of Wilma Coenegrachts taking things under control, paid off, and rather than 2015 – which we have seen somewhere the 'trade book' being referred to – it has become 1990, half a decade after a first draft was put on paper.

Over the last five years, as will be clear from the extensive reference list, many things have happened in international trade and growth theory. With time passing by, many of the sometimes radical critiques of traditional trade theory which we had put forward in the eighties and restate here more extensively, can now also be found in many so-called 'new' trade and growth contributions and are even beginning to become 'reviewed' in some of the new trade textbooks (Krugman and Obstfeld, 1988; Markusen and Melvin, 1988). However, there remain substantial differences between this new rich body of trade and growth contributions and *our* analysis based as it is on a different conceptual framework, starting from the economics of technical change. We certainly benefited from the new trade and growth theoretical insights; we did, however, also benefit from the progresses made in the less traditional approaches to the economics of technological change, such as those published in Dosi *et al.* (1988).

We have, in other words and maybe paradoxically, profited from the slow process of getting this book to its final draft. None of the issues

raised have lost their importance. On the contrary, we would even argue that with the increasing trend in the internationalisation of technology, issues of trade and innovation policy will be even higher on the agenda of the 1990s.

The time it took to produce this book also implies a long list of names of persons and institutions to thank. We have benefited greatly from the support of – and debate with – numerous colleagues at SPRU, in particular Tibor Barna, Chris Freeman, Christopher Saunders and Nick von Tunzelmann; at the University of Venice and Rome in Italy, in particular Mario Cimoli and Luigi Orsenigo; and at MERIT, University of Limburg, the Netherlands we thank in particular Gerald Silverberg, Bart Verspagen and Rohini Acharya. Financial support came from the Designated Research Center on Science, Technology and Energy Policy of the ESRC (Economic and Social Research Council); from the Leverhulme Trust; from the Italian National Research Council (CNR); and from MERIT. We are also greatly indebted to Lesley Elliot, Linda Gardiner, Heather Page, Rob Maessen, Corien Gijsbers, Mieke Donders and Wilma Coenegrachts, for their patience, dedication and a firm hand in extracting this final text from the three of us.

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