because of indivisibility and inappropriability. Rescher's proposition speaks to the scientific worker labour market rather than the market for the information such workers produce.

This is a tightly reasoned work that demands careful reading: the more widely read, the better. I sincerely hope those who read *Cognitive Economy* will turn to Rescher's *Scientific Progress* (1978) and *The Limits of Science* (1984).

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Technology and the Tyranny of Export Controls: Whisper Who Dares *by Stuart Macdonald*
(Macmillan, London, 1990), pp. xi + 206, £35, ISBN 0-333-49374-5.

Stuart Macdonald's book, *Technology and the Tyranny of Export Controls,* is filled with irony. Some irony is inherent in the subject of export controls, and is recognised — even emphasised — by the author. Some irony exists in Macdonald's presentation of his arguments and research. Finally, some irony arises from the vicissitudes of recent history, which have profound implications for any analysis of export controls.

Macdonald has taken as his subject the complex system of export controls that exists within the multilateral CoCom structure and the relationship of that system to the much more restrictive United States export laws. Given the two control systems in place, he has naturally had to focus the lion's share of his attention on US efforts to restrict the flow of goods and information to 'unfriendly' countries. This subject matter is inherently both political and economic, and he has willingly indulged himself in both levels of analysis.

Given this subject matter, and the timing of Macdonald's work, he had to deal at length with the export-restrictive policies of officials operating during the Reagan presidency. Macdonald recognises that national security export controls have some practical, psychological, and symbolic value. However, he argues, they have been grossly overextended by special interests and bureaucratic empire-builders, notably Richard Perle of the US Department of Defence. Although I agree with this broad premise, I occasionally found his depiction of his antagonists a bit monochromatic. Macdonald might have served his purposes better had he made the arguments he was countering more coherent.

It is the clash of a plausible broad policy involving national security with a badly flawed structure to implement that policy that provides Macdonald with his chance to bring out the inherent ironies of his subject. He does a fine job of documenting and supporting his positions: that US export controls do more to restrict Western productivity than Soviet Bloc productivity; that they restrain the military and economic potential of Western enemies by restraining and alienating US allies; that US regulation 'supports' a multilateral CoCom approach by rendering it almost superfluous; and that overbroad export controls restrict information transfer to the East by restricting information flow in the West. Perhaps better than any other recent author on export controls, Macdonald appreciates and documents these ironies.

Technology and the Tyranny of Export Controls is clearly written and is of moderate size. The author's lively style should permit readers only passingly familiar with export control regulation to approach the subject without artificial stimulants.

Whether ingenuously or as an academic ploy, Macdonald claims that he tries to avoid both "the sensational" and "sophistication" in his argument (p. 5). Yet the book's subtitle is nothing if not sensational (or at least melodramatic), just as some of the arguments within the book are rendered sensational by their forceful presentation. Similarly, the author's approach can justly be called sophisticated, particularly near the end of the book, where the relevance of Western technology to Eastern economic development is questioned. Sophistication does not have to arise from complexity, as any fashion designer working in basic black can tell you. The author's arguments are basic but go to the heart of the issues underlying export control regulations.

Writing in an area of somewhat restrictive information, Macdonald has gathered a good and wide range of sources — governmental, journalistic, and corporate. The notes for each chapter are extensive and appear at the end of the chapter. Unfortunately for a book dealing heavily with information flow and technology transfer, there is no bibliography, either selected or comprehensive. Any reader wishing to read more must therefore wade through each chapter's endnotes seeking the first, and only full, citation of books and articles identified elsewhere. The book is attractively published. Other than the lack of a bibliography, I am pleased with its format. In particular, the book is liberally scattered with charts and other exhibits. These have the salutary effect of relieving the eye while continuing to inform the mind.

Perhaps the greatest irony associated with this book, and the least fair, is how recent events have treated it. The author mentions perestroika in the first and last few pages of the book, but understandably fails to anticipate how developments since submission of the manuscript have demonstrated its considerable implications for the effectiveness of export controls. The author argues that "a growing realisation by Western firms" of the direct and indirect costs of export controls will be a major prod for change in the system (p. 200). The changes in Eastern Europe and the USSR will undoubdedly have far greater effects than anything the author foresaw. Europe 1992 was seen as having some impact on export controls, but the unification of Germany will have more. I certainly cannot fault the author, for none of us writing on East-West relations before the fall of 1989 demonstrated Nostradamian capacities, but events have overtaken some of his judgments. In particular, the United States successfully proposed to CoCom in May 1990 the immediate decontrol of most goods and technologies and the liberalisation of licensing requirements in central European countries. Several items of domestic US legislation have also eased the restrictions that concerned Macdonand. In this sense he has been vindicated.

Unfortunately, the book has not lost its relevance. As with 'Star Wars', the debate will no doubt continue as to whether the costs imposed on the USSR, in particular, by the strict US approach contributed to the rapid unravelling of the Warsaw Pact. Perhaps of greater concern, the special interest influence, the bureaucratic heavy-handedness, and the governmental disrespect for free information flow evident from Macdonald's presentation of export control issues will continue, whether in this area or others as yet unforeseen. This book successfully chronicles one battle in a larger philosophical and regulatory war.

The author writes well of irony, and recognises the scope of irony inherent in his subject matter — if not in his own work or recent events — in his final paragraph:

> As for the erosion of basic human liberties that export controls have allowed in order to preserve the West from a regime that does not respect such liberties; as for the damage to the Western alliance and to relations with friendly countries that export controls have wrought in order to unify the West and its friends against the communist aggressor; as for the affront to national sovereignty caused by the extraterritorial enforcement of export controls in order to encourage greater sovereign responsibility in export control enforcement: the irony speaks most eloquently for itself. The supreme irony of export controls, though, is that they are justified in terms of insuring the West's military strength through technological supremacy: it is difficult to imagine any artifice more likely to undermine the West's capacity for technological innovation than the current systems of national security export controls (pp. 200-1).

This passage is a fair sample of the clarity of Macdonald's prose, the scope of his analysis, and the nature of his views on export controls. He supports the views with extensive research and argument. For individuals or institutions interested in expanding their resources on export controls, particularly the worldwide debate on US export control initiatives and practices in the 1980s, this is a fine, thoughful, and provoking book. For those interested in ongoing issues of governmental regulation in the international context, the book has continuing significance.

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Economics and Sociology. Redefining their boundaries: conversations with economists and sociologists *by Richard Swedberg*
(Princeton University Press, Princeton, NJ, 1990) , pp. viii + 361, $US12.95, ISBN 0-691-00376-9 (pbk.).

The format of the book is unusual. Richard Swedberg has interviewed 16 prominent or up-and-coming sociologists and economists who are or have been concerned about the interface between the two disciplines. Gary Becker, James Coleman, Kenneth Arrow, Neil Smelser, Daniel Bell are just a few of the names I pick at random.

What Swedberg wants to do (as he indicates in his sub-title) is to tease out from his sample germane and forward-looking ideas about the association of the disciplines, based on an identification of problems that have to be solved. What he gets instead are snippets of intellectual history, the considered but somewhat random thoughts of his stable of scholars about the influences on the early direction of their thought, and ideas about where matters stand now, mostly in response to pre-prepared thematic questions. Even in the thematic questions, the past dominates the discussion of the present and the future.

The format and the limited time allowed for the actual interviews imposes severe restrictions. The history of the respondents' thought has fascinating asides and data presented largely as anecdote. The discussion of present-day problems is surprisingly 'off-the-cuff', rather like intelligent academic journalism. I did