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Transfer of Technology for Successful Integration into the Global Economy

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Preface

The book focuses on successful cases of technology transfer and integration into the world economy.[1] They identify factors that could enable firms in developing countries to upgrade technologies or develop new technologies with a view to enhancing their *productivity.* Thus, these cases are expected to provide lessons, in terms of best practices, to other developing countries in the context of technological capacity building.

The book deals with sectors where selected developing countries have demonstrated their ability to create new productive capacities and successfully participate in the world market. They represent examples of *created* comparative advantage–that is, cases in which a country's factor endowments were modified through investment in physical capital, human resources and the building up of capacities so as to develop and use new technologies. The lessons for other countries lie not in the actual selection of the industry but rather in how each of the three countries overcame the handicaps they faced and struggled to secure a place in the world market.

Establishing new lines of productive activity is the essence of the catch-up process and the bridging of the gap between developing and industrial economies. The case studies illustrate how this was done in three sophisticated and relatively capital- and technology-intensive industries. The relevant issues are how international competitiveness was achieved in new lines of productive activities and whether similar policy approaches can be made to work in today's relatively more open and rules-based global trading environment.

The case studies help to show that industries are created by means of a combination of market signals and government policies and institutional support. This process takes a very long time and it is not always smooth. In the early stages, protection allowed industry to grow.

The studies have been carried out under the UNCTAD/UNDP Global Programme on Globalization, Liberalization and Sustainable Human Development: Best Practices in Transfer of Technology.

[1] Three case studies were made available, as separate documents, to the WTO Working Group on Trade and Transfer of Technology, as follows: A Case Study of Embraer in Brazil, UNCTAD/ITE/IPC/Misc.20; A Case Study of the Pharmaceutical Industry in India, UNCTAD/ITE/IPC/MISC.22; and A Case Study of the Automotive Industry in South Africa, UNCTAD/ITE/IPC/MISC.21.

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The overview of the three cases was prepared by Irfan ul Haque. The case study of the aircraft industry in Brazil was prepared by Professors José E. Cassiolato, Roberto Bernardes and Helena Lastres; the case study of the pharmaceutical industry in India was prepared by Biswajit Dhar and C. Niranjan Rao, and received inputs from Veenu Gupta; and the case study of the South African automotive industry was prepared by Professors Trudi Hartzenberg and Samson Muradzikwa. Atul Kaushik provided valuable inputs to and comments on the initial draft on the international dimension of the policies adopted for supporting technological capacity building.

Thomas Ganiatsos, Paolo Bifani, David Vivas and Jagdish Saigal at the UNCTAD Expert Meeting on Best Practices in Transfer onTechnology provided comments and suggestions.[2] Comments were also received from Pedro Roffe and Yehia Soubra.

The views expressed by the authors do not necessarily represent those of UNCTAD or UNDP

[2] UNCTAD/UNDP Global Programme on Globalization, Liberalization and Sustainable Human Development: Best Practices in Transfer of Technology. Meeting on Transfer of Technology for Successful Integration in the Global Economy. Geneva, 11–12 April , 2002. See Report on the Meeting in www.unctad.org

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