

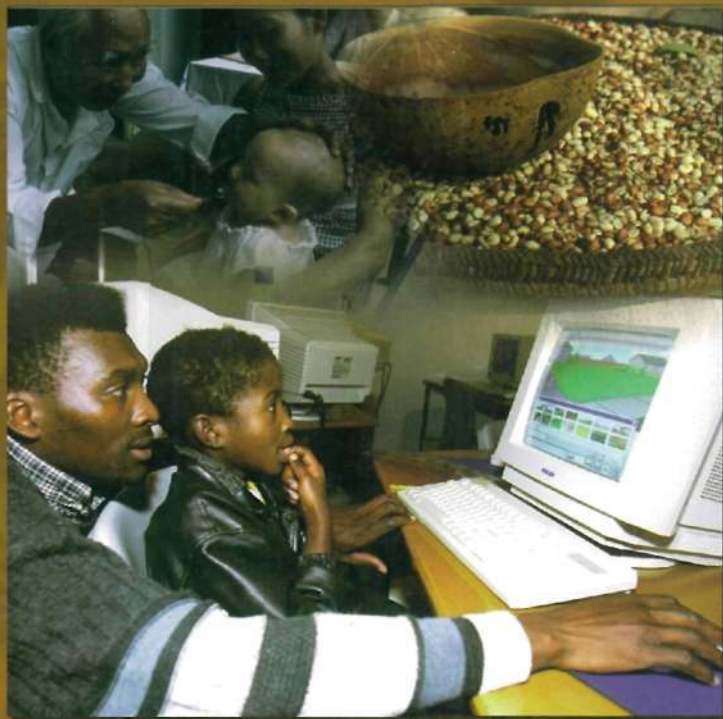
1W//539307(039)

YAK 347.77/78

INTELLECTUAL PROPERTY AND DEVELOPMENT

LESSONS FROM
RECENT ECONOMIC RESEARCH

Editors
Carsten Fink • Keith E. Maskus



CONTENTS

	Editors' Preface	ix
	Contributors	xi
	Abbreviations and Acronyms	xiii
1	Why We Study Intellectual Property Rights and What We Have Learned <i>Carsten Fink and Keith E. Maskus</i>	1
Part I	INTELLECTUAL PROPERTY, TRADE, FDI, AND INTERNATIONAL LICENSING	
2	How Stronger Protection of Intellectual Property Rights Affects International Trade Flows <i>Carsten Fink and Carlos A. Primo Braga</i>	19
3	The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer <i>Keith E. Maskus</i>	41
4	Intellectual Property Rights and U.S. and German International Transactions in Manufacturing Industries <i>Carsten Fink</i>	75
5	Intellectual Property Rights and Licensing: An Econometric Investigation <i>Guifang (Lynn) Yang and Keith E. Maskus</i>	111
6	The Composition of Foreign Direct Investment and Protection of Intellectual Property Rights: Evidence from Transition Economies <i>Beata Smarzynska Javorcik</i>	133

Part II INTELLECTUAL PROPERTY EXHAUSTION AND PARALLEL TRADE		
7	Entering the Jungle of Intellectual Property Rights Exhaustion and Parallel Importation <i>Carsten Fink</i>	171
8	Parallel Imports in a Model of Vertical Distribution: Theory, Evidence, and Policy <i>Keith E. Maskus and Yongmin Chen</i>	189
9	Developing and Distributing Essential Medicines to Poor Countries: The DEFEND Proposal <i>Mattias Ganslandt, Keith E. Maskus, and Eina V. Wong</i>	207
Part III INTELLECTUAL PROPERTY, MARKET STRUCTURE, AND INNOVATION		
10	Patent Protection, Transnational Corporations, and Market Structure: A Simulation Study of the Indian Pharmaceutical Industry <i>Carsten Fink</i>	227
11	Strengthening Intellectual Property Rights in Lebanon <i>Keith E. Maskus</i>	259
12	Intellectual Property Rights and Economic Development in China <i>Keith E. Maskus, Sean M. Dougherty, and Andrew Mertha</i>	295
INDEX		333
Figures		
8.1	Wholesale Price and Parallel Imports	195
8.2	Profits and Trade Costs	197
8.3	Social Surplus	198
Tables		
2.1	Definition of High-Technology Aggregate	24
2.2	Maximum Likelihood Estimates for Total Nonfuel Imports	27
2.3	Maximum Likelihood Estimates for Total Nonfuel Exports	29
2.4	Maximum Likelihood Estimates for High-Technology Imports	31
2.5	Maximum Likelihood Estimates for High-Technology Exports	33
3.1	Total FDI Flows, Selected Countries (US\$ million)	44
3.2	Net Receipts on Royalties, License Fees, Business Services, and Direct Investment Income, Selected Countries (US\$ million)	46
3.3	U.S. FDI Position in Selected Countries (US\$ million)	47

3.4	U.S. FDI Position by Major Sector in Selected Countries, 1994 (US\$ million)	49
3.5	Indicators of Multinational Activity in U.S. High-Technology Industries, 1989	52
3.6	Percentage of Firms Claiming that the Strength or Weakness of IPRs Has a Strong Effect on Whether Direct Investments Will Be Made, by Type of Facility, 1991	57
3.7	Percentage of Firms Claiming that Intellectual Property Protection Is Too Weak to Permit Types of Investment, 1991	58
3.8	Elasticities of Modes of Supply with Respect to Domestic Characteristics and Policies	64
4.1	U.S. International Transactions in Total Manufacturing: Ordinary Least Squares Estimates	83
4.2	U.S. International Transactions in Total Manufacturing: Maximum Likelihood Estimates	84
4.3	U.S. International Transactions in Individual Manufacturing Industries: OLS Estimates	86
4.4	U.S. International Transactions in Four Manufacturing Industries: Pooled Ordinary Least Squares Estimates	89
4.5	U.S. Arm's-Length Exports and Sales by Affiliates in Total Manufacturing: OLS Estimates	92
4.6	U.S. Arm's-Length Exports and Sales by Affiliates in Individual Manufacturing Industries: OLS Estimates	93
4.7	U.S. Arm's-Length Exports and Sales by Affiliates in Three Manufacturing Industries: Pooled OLS Estimates	95
4.8	German Total Exports and FDI Stocks in Four Manufacturing Industries: Pooled OLS Estimates	98
4.9	German Receipts for Patents, Inventions, and Processes in Six Manufacturing Categories: Tobit Maximum Likelihood Estimates	101
5.1	Summary Statistics and Correlation Coefficients (NT = 69)	121
5.2	Estimation of Determinants of Licensing Volumes	122
5.3	Fixed-Effects Model with Heteroskedasticity-Consistent Standard Errors	128
6.1	Measures of IPR Protection	141
6.2	IPR Index Based on IIPA Special 301 Watch List Recommendations	142
6.3	Probit Results with Ginarte-Park Index of Patent Rights Protection	145
6.4	Probit Results with IPR Index	148
6.5	Bivariate Probit with Sample Selection: Manufacturing versus Distribution Projects (Ginarte-Park Index)	152
6.6	Bivariate Probit with Sample Selection: Manufacturing vs. Distribution Projects (IPR Index)	156

6.A.1	Results of OLS Regressions	160
6.A.2	Multinomial Logit Results: Manufacturing versus Distribution Projects versus No FDI	162
8.1	Summary of Exhaustion Regimes	193
8.2	Product Categories	201
8.3	Estimation of Vertical Pricing Model	203
9.1	Deaths and DALYs Caused by HIV/AIDS, TB, and Malaria, 1999 (thousands)	211
9.2	International Price Comparison for a Selection of HIV/AIDS Drugs: Prices in South Africa, Sweden, and the United States, March 2001 (in US\$)	213
9.3	International Price Comparison for a Selection of HIV/AIDS Drugs: Prices as a Share of GDP Per Capita (percent)	214
10.1	Quinolones: Overview	239
10.2	Hypotensives: Overview	240
10.3	Quinolones—Calibrated Weight Parameters	242
10.4	Hypotensives—Calibrated Weight Parameters	243
10.5	Quinolones—Average Profit Margins (percent)	243
10.6	Hypotensives—Average Profit Margins (percent)	244
10.7	Quinolones—Simulation	246
10.8	Hypotensives—Simulation	247
10.9	Quinolones—Simulated Consumer Welfare Losses (Rs thousands)	249
10.10	Hypotensives—Simulated Consumer Welfare Losses (Rs thousands)	250
11.1	Static Effects of Stronger Patent and Trademark Protection on Pharmaceuticals Firms	270
11.2	Simulated Effects of Stronger Copyrights on Software	279
11.3	Effects of Stronger Copyrights on Printing and Publishing	284
11.4	Effects of Stronger Copyrights on Music and Video, and Film Industries	287
12.1	Estimates of Percentage Piracy Rates for Copyright Goods, 1996–97	304
12.2	Patent Applications by Type and Nationality, 1990–2000	315
12.3	Patent Grants by Type and Nationality, 1990–2000	316
12.4	Patenting Indicators for Top 11 Patenting Regions, 1985–96	317
12.5	Trademark Applications and Registrations	318
12.6	Trademarking Indicators for Top 10 Trademarking Regions, 1996	319
12.7	International Comparisons of Science and Technology Indicators, Recent Years	320
12.8	Science and Technology Indicators by Region, 1995	321