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# MANUFACTURING TRANSFORMATION

COMPARATIVE STUDIES OF  
INDUSTRIAL DEVELOPMENT IN  
AFRICA AND EMERGING ASIA

*Edited by*  
*Carol Newman, John Page,*  
*John Rand, Abebe Shimeles,*  
*Måns Söderbom, and Finn Tarp*

UNU-WIDER STUDIES IN DEVELOPMENT ECONOMICS

# Manufacturing Transformation

UNU World Institute for Development Economics Research (UNU-WIDER) was established by the United Nations University as its first research and training centre and started work in Helsinki, Finland, in 1985. The mandate of the institute is to undertake applied research and policy analysis on structural changes affecting developing and transitional economies, to provide a forum for the advocacy of policies leading to robust, equitable, and environmentally sustainable growth, and to promote capacity strengthening and training in the field of economic and social policy-making. Its work is carried out by staff researchers and visiting scholars in Helsinki and via networks of collaborating scholars and institutions around the world.

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## Comparative Studies of Industrial Development in Africa and Emerging Asia

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Carol Newman, John Page, John Rand,  
Abebe Shimeles, Måns Söderbom, and Finn Tarp

A study prepared by the United Nations University World Institute  
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# Foreword

This book presents the results of a comparative, country-based research programme entitled *Learning to Compete* (L2C)—led collaboratively by the African Development Bank, the Brookings Institution, and UNU-WIDER—that sought to answer a seemingly simple but puzzling question: *why is there so little industry in Africa?* It brings together the results of eleven detailed country case studies—eight from sub-Saharan Africa (SSA), one from North Africa, and two from newly industrializing East Asia—conducted by teams of national researchers in partnership with international experts on industrial development; and provides the most comprehensive description and analysis available to date of the contemporary industrialization experience in low-income Africa. It also compares the SSA industrial development story with the more successful industrial development experiences of Tunisia, Cambodia, and Vietnam.

The editors' Introduction—"The Pursuit of Industry: Policies and Outcomes"—describes the motivation for the book and explores some of the cross-cutting themes that emerge from the individual case studies; while the concluding chapter sets out the implications of the country cases for policy. Africa's failure to industrialize is partly due to bad luck. After a brief period of post-independence state-led import substitution (IS) the macroeconomic chaos and subsequent reforms of the 'structural adjustment' period brought more than twenty years of low growth and low investment. By 2000, as African governments began to focus again on industrial development, Africa was not simply competing with the industrial 'North'—it was competing with China. But the failure to industrialize is due also to bad policy. This book shows a remarkable similarity in the policies for industrial development followed by the eight SSA countries: state-led IS, structural adjustment, and reform of the investment climate. The latter two of these policy regimes strongly reflect the priorities and dogmas of the aid community. It is fair to conclude that none has succeeded in sparking dynamic industrial growth. This book demonstrates how this state of affairs can start changing and what is required to make that happen.

I hereby sincerely express my appreciation and admiration of the academic and analytical skills of the L2C team and the detailed knowledge of the case countries brought out so clearly in this volume.

*Finn Tarp  
Helsinki, May 2016*



# Preface

Meeting the challenge of industrialization will need new thinking both in Africa and among its development partners. Put bluntly, Africa will not succeed in industrializing if the conventional wisdom offered by the international aid community to African governments continues to define their public policies to spur industrial development. One of the unifying themes in the eight SSA country case studies in this volume is the predominant role of donor-driven investment climate reforms. In our view while investment climate reforms are necessary, they need to be re-prioritized and refocused. Urgent action is needed to address Africa's growing infrastructure and skills gap with the rest of the world.

For most African countries, investment climate reforms alone are unlikely to be enough to overcome the advantages of the world's existing industrial locations. Drawing from the policy histories of Cambodia and Vietnam and—because these to a great extent reflect a shared approach to industrialization in East Asia—on Asia's experience more broadly, we identify three new initiatives to address Africa's industrialization challenge.

- Breaking into export markets will need an 'export push' of the type undertaken by Cambodia, Vietnam, and Tunisia: a concerted set of public investments, policy, and institutional reforms focused on increasing the share of industrial exports in GDP. Because governments have limited scope for public investment and public action, the export push needs a government-wide commitment to focus investments and policy actions first on boosting non-traditional exports.
- In Cambodia and Vietnam the export push was accompanied by policies designed to promote the formation of industrial clusters. Spatial industrial policies are complementary to both the export push and capability building. African governments can foster export-oriented industrial agglomerations by concentrating investment in high-quality institutions, social services, and infrastructure in a limited physical area such as an export processing zone (EPZ)—an industrial agglomeration designed to serve the global market—but African governments have not yet succeeded in doing so.

- Cambodia, Vietnam, and Tunisia each recognized that policies and institutions for attracting foreign direct investment (FDI) are a key tool in capability building. The institutional design of successful FDI agencies is well known. The SSA countries that we studied had all created institutions intended to attract FDI, but we did not find any examples of high-level government commitment to the promotion of FDI, and implementation has not achieved best practice. Building better investment promotion institutions is essential.

Finally, perhaps the single most important insight to emerge from the country studies in this book is that any one of the above initiatives taken in isolation is likely to fail. Two decades of piecemeal reforms have not succeeded in pushing a single low-income African country over the threshold above which industrial growth becomes—as it has been in Vietnam—explosive. Africa will learn to compete only once donors and policy makers accept the need for a comprehensive strategy for industrial development.

Carol Newman, John Page, John Rand, Abebe Shimeles,  
Måns Söderbom, and Finn Tarp

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Many people worked with the group of editors during the five years that the *Learning to Compete* project was under implementation. Our greatest debt is to the country-based research teams, who carried out many of the case studies and much of the quantitative research presented in this book.

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We benefited from the thoughtful advice of Ernest Aryeetey, Arne Bigsten, Howard Pack, and Tony Venables in designing the research programme. Over the years, we have engaged in many discussions with colleagues who study industry and development—these conversations helped shape our thinking and test our assumptions. Without implicating any of them in the perspectives offered in this book, we would like to thank Paul Collier, Hinh Dinh, Ann Harrison, Mark Henstridge, Justin Lin, Margaret McMillan, Celestin Monga, Benno Ndulu, Keijiro Otsuka, Tetsushi Sonobe, Joseph Stiglitz, John Sutton, and Francis Teal.

The African Economic Research Consortium (AERC) and the Economic Commission for Africa (ECA) helped us to organize preparatory workshops with the country teams in Nairobi and Addis Ababa, respectively. We are grateful to the participants in numerous meetings, seminars, and lectures, including the June 2013 WIDER Development Conference in Helsinki, for comments, critiques, and advice. In addition we are grateful to Adam Swallow, Economics Commissioning Editor at Oxford University Press—we can confidently say that the book benefited significantly from his constructive suggestions on refining the original book proposal.

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ACGSF	Agricultural Credit Guarantee Scheme Fund
ADEPME	Agency for the Development and Supervision of SMEs
ADLI	Agricultural Development Led Industrialization
AERC	African Economic Research Consortium
AFI	Industrial Land Agency
AGOA	Africa Growth and Opportunity Act
AIMO	Associação Industrial de Moçambique
ANSD	National Agency of Statistics and Demography
API	Industrial Promotion Agency
APIX	Investment Promotion and Major Projects Agency
ASEAN	Association of Southeast Asian Nations
ASEPEX	Senegalese Export Creation Agency
ATL	Akosombo Textile Limited
BAF	Business Assistance Fund
BIS	Basic Industrial Strategy
BoI	Bank of Industry
BPE	Bureau of Public Enterprises
BRIC	Brazil, Russia, India, and China
BTA	bilateral trade agreement
CADI	(AIMO's) Industrial Development Advisory Centre
CBN	Central Bank of Nigeria
CDC	Council for the Development of Cambodia
CDRI	Cambodia Development Resource Institute
CEFP	Committee for Economic and Financial Policy
CEPEX	Export Promotion Centre
CET	common external tariff
CIEM	Central Institute for Economic Management (Vietnam)
COMESA	Common Market for Eastern and Southern Africa

## List of Abbreviations

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CPP	Convention Peoples Party
CSA	Central Statistics Agency
CSAE	Centre for the Study of African Economies
CSES	Cambodia's Socio-Economic Surveys
CUCI	<i>Centre Unique de Collecte de Information</i>
DAC	Development Assistance Committee
DERG	Development Economics Research Group
EAC	East African Community
EAS	East African Strategy
EBA	Everything but Arms
EC	Economic Census
ECA	Economic Commission for Africa
ECBP	Engineering Capacity Building Program
ECOWAS	Economic Community of West African States
EDM	<i>Electricidade de Moçambique</i>
EDRI	Ethiopian Development Research Institute
EFCC	Economic and Financial Crimes Commission
EIC	Economic Institute of Cambodia
ELLPTI	Ethiopian Leather and Leather Products Technology Institute
EPRC	Economic Policy Research Centre
EPRDF	Ethiopian People's Revolutionary Democratic Front
EPZ	Export Processing Zones
ERP	Economic Recovery Programme
ERS	Economic Recovery Strategy
ERS	Export Rebate System
ERSAP	Economic Recovery and Structural Adjustment Programme
ESAF	Enhanced Structural Adjustment Facility
ESAM II	2001 Senegalese Household Survey
ESAP	Economic and Social Action Programme
EU-ACP	European Union-African Caribbean and Pacific
EZ	economic zone
FBT	food, beverages, and tobacco
FDI	foreign direct investment
FFYP	First Five-year Plan
FI	Federation of Industry
FIA	Foreign Investment Agency

FIPAG	Water Supply Investment and Assets Fund
FOB	free on board
Frelimo	Mozambique Liberation Front
FTA	free trade agreement
FTZ	free trade zones
FUSMED	Fund for Small and Medium Scale Enterprises Development
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GEMS	Governance and Economic Management Support
GFZB	Ghana Free Zones Board
GHATIG	Ghana Trade and Investment Gateway
GIC	Ghana Investment Centre
GMAC	Garment Manufacturers Association in Cambodia
GPRS	Growth and Poverty Reduction Strategies
G-PSF	Government–Private Sector Forum
GRS	General Retention Scheme
GSLI	(Kearney’s) Global Services Location Index
GSP	global social product
GSP	generalized system preference
GTMC	Ghana Textile Manufacturing Company
GTP	Growth and Transformation Plan
Ha	hectares
HCMC	Ho Chi Minh City
ICS	Investment Climate Survey
ICT	information and communications technology
IDS	Industrial Development Strategy
IFIs	international financial institutions
IGC	International Growth Centre
IIDS	Integrated Industrial Development Strategy
ILO	International Labour Organization
IMF	International Monetary Fund
IPEME	Institute for the Promotion of micro, small, and medium enterprises
IPS	Industrial Policy and Strategy
IS	import substitution
ISI	import substitution industrialization
ISIC	International Standard Industrial Classification

## List of Abbreviations

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ISSER	Institute of Statistical, Social and Economic Research
IZ	industrial zones
JVC	joint venture companies
KIPPRA	Kenya Institute for Public Policy Research and Analysis
LIDI	Leather Industry Development Institute
LPG	liquefied petroleum gas
M&E	monitoring and evaluation
M3	broad money
MAFF	Ministry of Agri, Forestry & Fisheries
MDA	ministries, departments, and agencies
MDGs	Millennium Development Goals
MFA	multi-fibre arrangement
MFI	micro-finance institutes
MFN	most favoured nation
MGS	Maximum Growth Strategy
MHESRT	Ministry of Higher Education Scientific Research and Technology
MIGA	Multilateral Investment Guarantee Agency
MLSM	medium and large-scale manufacturing
MoFED	Ministry of Finance and Economic Cooperation
MoT	Ministry of Tourism
MoTI	Ministry of Trade and Industry
MPLA	Angolan Liberation Popular Movement
MS	Mixed Strategy
MSE	micro and small enterprise
MSMEs	micro, small, and medium enterprises
MTTI	Ministry of Trade, Tourism and Industry (Uganda)
MUB	Manufacturing under Bond
NARC	National Rainbow Coalition
NBC	National Bank of Cambodia
NBS	National Bureau of Statistics
n.e.c.	not else classified
NEC	National Economic Council
NEEDS	National Economic Empowerment and Development Strategy
NEPZA	Nigeria Export Processing Zone Authority
NERFUND	National Economic Reconstruction Fund
NESP	National Economic Survival Programme

NIE	newly industrialized economies
NIP	National Industrial Policy
NIPC	Nigerian Investment Promotion Commission Act
NIS	National Institute of Statistics
NISER	Nigerian Institute of Social and Economic Research
NLC	National Liberation Council
NPA	new agricultural policy
NPI	new industrial policy
NSDP	National Strategic Development Plan
NTR	normalized trade relationship
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
OPIC	Overseas Private Investment Corporation
PASDEP	Plan of Action for Sustainable Development and Eradication of Poverty
PCS	community solidarity levy
PEED	Private Enterprises and Export Development
PMAC	Provisional Military Administrative Council
PMI	Industrial Modernization Programme
PODE	(WB's) Private Sector Development Program
PPP	purchasing power parity
PRE	Economic Rehabilitation Program
PRES	Social and Economic Rehabilitation Program
PRI	industrial redeployment policy
PRK	People's Republic of Kampuchea
PRSP	Poverty Reduction Strategy Programme
R&D	research and development
RGC	Royal Government of Cambodia
RMRDC	Raw Materials Research and Development Council
RS	statistical tax
S&T	science and technology
SADC	South African Development Community
SALs	structural adjustment loans
SAPs	structural adjustment programmes
SCA	Accelerated Growth Strategy
SDPRP	Sustainable Development and Poverty Reduction Program
SDR	special drawing rights

## List of Abbreviations

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SEDS	Socio-Economic Development Strategy
SEM	South and East Mediterranean
SENELEC	Senegal National Electricity Company
SEZs	special economic zones
SFYP	Second Five-year Plan
SGER	State of the Ghana Economy
SIDP	Sustainable Industrial Development Policy
SME	small and medium enterprise
SMEDAN	Small and Medium Enterprises Development Agency of Nigeria
SNDES	National Social and Economic Development Strategy
SOEs	state-owned enterprises
SON	Standards Organization of Nigeria
SONEPI	National Company for Industrial Research and Development
SPA	Seven Point Agenda
SSA(n)	sub-Saharan Africa(n)
SSM	Survey on Small-scale Manufacturing
SSRS	Small-scale Rural Strategy
STC	State Trading Corporation
STPI	Software Technology Parks of India
TAI	Textile and Apparel Institute
TCI	special import tax
TCL	textiles, clothing, and leather
TDP	digestive protection tax
TFP	total factor productivity
TIDI	Textile Industry Development Institute
TIP	Trade and Investment Programme
TIRDO	Tanzania Industrial Research Development Organization
TWF	textiles, wearing apparel, and footwear
TYP	three-year development plan
UIA	Ugandan Investment Authority
UN	United Nations
UNCTAD	UN Conference on Trade and Development
UNDP	UN Development Programme
UNIDO	UN Industrial Development Organization
UNU-WIDER	UN University World Institute for Development Economics Research
USPTO	United States Patent and Trademark Office

VES	Vietnamese Enterprise Survey
WAMU	West African Monetary Union
WAEMU	West African Economic and Monetary Union
WB	World Bank
WTO	World Trade Organization
WWI	First World War
WWII	Second World War
ZFID	Dakar Industrial Free Trade Zone



## Notes on Contributors

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