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UNU-WIDER resources on industrialization

## Papers, articles, and blogs

### Project | Jobs, poverty and structural change in Africa

#### *Industries without smokestacks*

This book includes the following working papers:

##### **New technologies create opportunities**

This paper argues that new technologies—for communication, such as mobile phones and the internet, but also for manufacturing, agriculture, energy, and transport—have the potential to bridge many of the productivity gaps between sub-Saharan Africa and more advanced developing and developed countries.

##### **Tourism global value chains and Africa**

This paper identifies some of the variance that can be seen in different regions and countries across the continent, highlighting the policy interventions that can be implemented to increase efficiency and facilitate economic upgrading.

##### **Agro-processing and horticultural exports from Africa**

This paper analyses the principal features of agro-processing and horticultural exports from sub-Saharan Africa and explores policy alternatives based on simulation analyses.

##### **Air transport in Africa – a portrait of capacity and competition in various market segments**

This paper describes air transport in Africa and gives policy recommendations to develop it further.

##### **How trucking services have improved and may contribute to economic development – the case of East Africa**

This paper utilizes a combination of unpublished data surveys and published data (mainly port data) to assess the extent of regional integration.

##### **Trade in services – opening markets to create opportunities**

This paper reviews the role of services in development and growth, the potential role of trade in services as

a driver of the productivity performance of sectors that use services as inputs, and the links between services policies and domestic trade costs.

##### **Industries without smokestacks – implications for Ethiopia's industrialization**

This study takes the case of Ethiopia and examines the current state and contribution of industries without smokestacks to the economy and exports, with the aim of improving our understanding of major bottlenecks and solutions to unlocking the potential of these industries.

##### **The agro-processing industry and its potential for structural transformation of the Ghanaian economy**

The paper explores the potential of Ghana's agro-processing industry for contributing to the development and structural transformation of the economy.

##### **Prospects for information and communications technology-enabled services in Kenya – the case of the mobile money transfer industry**

This paper provides an analysis of the information and communications technology-enabled services (ITES) industry, specifically the mobile money transfer (MMT) industry's potential in terms of market opportunities and its development impact in terms of jobs, income generation, and productivity growth.

##### **Industries without smokestacks – Mozambique country case study**

This paper uses hard data from statistics and other complementary sources to analyse the structural transformation of the economy, as well as the size and the role of industries without smokestacks in the domestic economy.

### **Senegal – a service economy in need of an export boost**

This paper summarizes the macroeconomic and trade performance of Senegal, emphasizing the limits of traditional exports.

### **Understanding and characterizing the services sector in South Africa – an overview**

This paper explores whether structural change, less dependent on a manufacturing-driven growth but more biased toward the services sectors, can provide an alternative avenue for sustained economic growth and development in Africa.

### **Employment and productivity growth in Tanzania’s service sector**

This paper addresses the role that different subsectors of formal and informal services have played in Tanzania’s growth.

### **Rwanda – from devastation to services-first transformation**

This article examines the determinants of the growth path of the Rwandan economy, focusing

on the central role of government, the structural transformation of the economy, the role of exports and foreign investment, and particularly the role of industries without smokestacks.

### **Industries without smokestacks in Uganda and Rwanda**

We use unique high-frequency Government of Uganda and Government of Rwanda tax administration datasets to map the characteristics of industries without smokestacks in East Africa.

### **Regional opportunities in East Africa**

This paper assesses how the customs union has supported intraregional trade and industrialization, through the development of competitive smokestack-free industries.

### **Integration along the Abuja road map – a progress report**

This paper reviews integration among the eight African Regional Economic Communities by comparing their characteristics and progress with three other South–South Regional Integration Arrangements.

## *The practice of industrial policy*

This book includes the following working papers:

### **Industrial policy, learning, and development**

This paper argues that learning is central to development, that there are intrinsic market failures associated with learning, and that carefully crafted industrial policies can promote learning and development.

### **State-business relations as drivers of economic performance**

This paper examines the theory and evidence on state-business relations (SBRs) and summarizes the results obtained from previous research on Asian and African countries.

### **State capability and prospects for close co-ordination – considerations for industrial policy in Africa**

Recent research highlights the considerable potential of industrial policy to support structural transformation in sub-Saharan Africa. Given the importance of the state in industrial policy, this paper considers the implications for these discussions of recent work on state fragility.

### **Korea’s evolving business–government relationship**

This paper focuses on the most dynamic period in South Korea’s economic development from the 1960s to the 1980s and looks at the developmental state and industrial policies, the role of the private businesses, and state–business relationships.

### **The industrial policy experience of the electronics industry in Malaysia**

This paper analyses the industrial policy experience of the electronics industry in Malaysia.

### **The political economy of industrial development in Vietnam – impact of state-business relationship on industrial performance, 1986–2012**

This paper provides a political economy account of Vietnam’s industrial growth since 1986.

### **A natural experiment of industrial policy – floriculture and the metal and engineering industries in Ethiopia**

This study provides comparative analysis of the policy process, and outcomes of the interventions in the floriculture and the metal and engineering Industries.

### **Policy co-ordination and growth traps in a middle-income country setting – the case of South Africa**

This paper compares and contrasts South Africa’s growth trap relative to middle-income peer economies.

### **Ghana’s experiments with business–government co-ordination**

This study explores the various co-ordination mechanisms between the state and the business community in Ghana, and the implications for economic growth in the country.

## *Other working papers*

### **Role of the construction sector and key bottlenecks to supply response in Tanzania**

The structure of the construction sector, underlying policies, challenges, and recommendations are at the centre of discussion in this paper.

### **Optimal local content for extractive industries – how can policies best create benefits for Tanzania?**

Several new laws in Tanzania are dedicated to establishing linkages between foreign firms in natural resource extraction and the local economy. This paper documents this legislation and the institutions set up to enforce and monitor these laws.

### **Natural resources, structural change, and industrial development – local content in Zambia, a faltering experience?**

This paper traces the role of local content in Zambia's mining sector in supporting industrialization and economic diversification.

### **The role of the construction sector in Ghana**

The research explores the structure and performance of Ghana's construction subsector, in light of the country's 2007 oil discovery.

### **Enhancing local content in Uganda's oil and gas industry**

This paper analyses policy options to promote local content in Uganda as the country transitions to an oil-producing country.

### **The construction sector in Mozambique – an overview**

This paper looks at the construction sector in Mozambique, presenting an overview of the historical development, economic structure, and dynamics of the sector.

### **What are the prospects for Mozambique to diversify its economy on the back of 'local content'?**

This paper argues that the prospects are extremely challenging for 'local content' to provide the link between the extractive industries and the economic diversification of the local economy in Mozambique.

### **Rowing against the current – diversification in Africa's resource-rich economies**

This paper explores ways to achieve diversification in a resource-rich economy.

### **The boom, the bust, and the dynamics of oil resource management in Ghana**

This paper shows that Ghana is a fairly modest producer of oil and has made some effort to learn proper oil governance from the experiences of other countries, but has not always managed to implement the lessons learned.

### **Industries without smokestacks – telecommunication and ICT-based services trade**

This paper underlines the importance of governments creating a more open and competitive environment to attract infrastructure investment and foster rivalry among suppliers of devices and services, thereby providing users lower prices and better-quality services.

### **The role and effectiveness of special economic zones in Tanzania**

The focus is on understanding the nature and extent of interactions between firms and their employees within special economic zones, the extent to which these zones facilitate technology transfers, and the perceived benefits and constraints associated with operating with zones.

### **Financial systems in new middle-income African economies – the opportunities and the risks**

This paper examines the possible implications for the financial systems of low-income African economies, and in particular Tanzania, of their stated aspiration to achieve middle-income status.

### **Tanzania – from mining to oil and gas**

This paper compares and contrasts the economic situation in Tanzania during the resurgence of gold and diamond production after 1999, with the situation that is now emerging as the country begins to exploit very large resources of natural gas mainly from the Indian Ocean.

### **Industry in Tanzania – performance, prospects, and public policy**

The paper discusses a number of policy initiatives that should be undertaken to strengthen the industrial sector's recent dynamism, including strengthening special economic zones (SEZs), improving trade logistics, and reforming micro and small enterprise programmes.

### **Alternatives to local content**

This paper suggests that an optimal local content policy in the context of flawed institutions should be simpler than those typically pursued by developing countries with recently discovered petroleum reserves. We argue that local content requirements need to be a public expenditure question: such requirements increase multinationals' costs and hence reduce the taxes that can be extracted from these companies.

### **The practice of industrial policy – lessons for Africa: case studies of decentralized co-ordination in China**

This paper draws on both successful and failing cases of industrialization in China to analyse the role of local governments in fostering the growth of light manufacturing.

### **It worked in China, so why not in Africa? The political economy challenge of special economic zones**

This paper looks at the progress of African special economic zones (SEZs) so far, analyses the obstacles for their success, and proposes some potential solutions.

### **Industrial policy in practice – Africa’s presidential investors’ advisory councils**

This paper examines the performance of one coordination mechanism, presidential investors’ advisory councils, in Ethiopia, Senegal, Tanzania, and Uganda.

## *Blogs*

**Industrial policy in the 21st century**, by John Page (Oct 2018)

**What is the future of industrial policy in Africa – views from experts**, by Tim Shipp (Oct 2018)

**Prospects for a Tanzanian transformation**, by James Stewart (Dec 2016)

**New structural economics – an interview with Justin Lin**, by Roger Williamson (Aug 2014)

## **Project | Learning to compete**

### *Manufacturing transformation – comparative studies of industrial development in Africa and emerging Asia*

This book includes the following working papers:

#### **Industrial policy and development in Ethiopia – evolution and present experimentation**

This paper examines the choices, implementation processes, and outcomes of present Ethiopian industrial policy.

#### **Education, skill, and earnings – further evidence from Ghana**

This paper provides evidence on the nature of returns to education in Ghana and confirms the emerging empirical literature on the convexity of returns to education in Ghana.

#### **Scoping paper on Kenyan manufacturing**

This paper seeks to review the history of manufacturing in Kenya over time, starting with the period immediately before independence in 1963.

#### **Mozambique’s industrialization**

This paper discusses the evolution of industry in Mozambique since the colonial era in the first half of the twentieth century to date.

#### **Industrial development and growth in Nigeria – lessons and challenges**

This paper provides an overview of the policy framework for industrial development in Nigeria from the 1960s to the present day and discusses emerging industrial policy issues.

#### **Scoping paper on industry in Senegal**

Through a careful analysis of the main advantages and drawbacks of the Senegalese economy, this scoping paper emphasizes the key obstacles to unleashing prosperity in the country.

#### **The performance of the manufacturing sector in Tanzania – challenges and the way forward**

This paper aims at examining the performance of the manufacturing sector, with particular interest in identifying the emerging manufacturing subsectors, drivers of their success, and challenges for sustained competitiveness.

#### **Scoping study of the Tunisian economy**

This paper reviews the historical background of the Tunisian economy which has undergone substantial structural change since independence in 1956.

#### **The evolution of industry in Uganda**

The paper looks at the evolution of industry in Uganda, examining drivers and constraints since the pre-colonial period in the 1940s to date.

#### **Economic history of industrialization in Cambodia**

This paper sets out the historical evolution of the economy of Cambodia and documents the political and economic events that led to its current economic structure.

#### **The evolution of Vietnamese industry**

This paper discusses the historical episodes of the nation’s industrial growth and analyses the structure of the industrial sector.

## *Other Working papers*

### **Industrial clusters – the case for special economic zones in Africa**

This paper considers the case for creating Special Economic Zones (SEZs) in Africa. The paper also gives an overview of the evidence the success SEZs and provides a set of policy recommendations to improve the performance of SEZs.

### **Do firms learn by exporting or learn to export? Evidence from Senegalese manufacturing plant**

This paper investigates how the relationship between exporting and productivity impacts on manufacturing sectors in Senegal.

### **The main obstacles to firms' growth in Senegal – implications for the long run**

This paper uses a rich amount of firms' accounting information from the Single Information Collecting Centre in Senegal over the period 1998–2011 to investigate the two main obstacles to growth; poor education and poor access to electricity supply.

### **Learning to export and learning by exporting – the case of Ethiopian manufacturing**

This study investigates the relationship between exporting and firm performance using a longer panel dataset of Ethiopian manufacturing firms for the period 1996–2009.

### **From productivity to exporting or vice versa? Evidence from the Tunisian manufacturing sector**

This paper explores the link between firm productivity and exporting using firm level datasets on Tunisian manufacturing firms from 2004 to 2006.

### **How many manufacturing firms are there in Mozambique?**

This paper addresses the issue of poor data on Mozambican manufacturing firms.

### **Exporting and foreign direct investment spillovers – Cambodia's experience**

This paper examines the extent to which the presence of foreign-owned export firms impacts on the productivity of domestic firms.

### **Scoping study on the evolution of industry in Ghana**

This paper chronicles the evolution of industry in Ghana.

### **Productivity-enhancing manufacturing clusters – evidence from Vietnam**

This paper explores the extent to which firms experience productivity spillovers from clustering using a rich data source from Vietnam for 2002–07.

### **Exporting and productivity – the role of ownership and innovation in the case of Vietnam**

This paper investigates the relationship between exporting and productivity in the case of Vietnam.

### **Disentangling the pattern of geographic concentration in Tunisian manufacturing industries**

This paper examines the pattern of spatial concentration of manufacturing industries observed in Tunisia and explores the factors driving firms' location choices at the provincial level.

### **Clustering, competition, and spillover effects – evidence from Cambodia**

Using data on the population of all firms in Cambodia we investigate the pattern of firm clustering and explore the extent to which it leads to productivity-enhancing effects.

### **Learning by exporting – the case of Mozambican manufacturing**

This paper aims to analyse the learning by exporting hypothesis in the Mozambican context.

### **Enterprise agglomeration, output prices, and physical productivity – firm-level evidence from Ethiopia**

This paper uses census panel data on Ethiopian manufacturing firms to analyze the connections between enterprise agglomeration, firm-level output prices and physical productivity.

### **Measuring industry agglomeration and identifying the driving forces**

This paper proposes a new measure of industry agglomeration and examines what it reveals about the importance of transport costs, labour market pooling, and technology transfer for agglomeration processes.

### **Are spatial networks of firms random? – evidence from Vietnam**

We present a new approach for the empirical investigation of agglomeration patterns. We examine the clustering of manufacturing firms by identifying patterns of spatial network formation that deviate from randomly generated networks.

### **Corruption and the efficiency of capital investment in developing countries**

Using firm-level level data from World Bank enterprise surveys, covering 90 developing and transition economies, we consider whether the cost of informal bribe payments distorts the efficient allocation of capital by reducing the marginal return per unit investment.

### **Industry switching in developing countries**

A core aim of this paper is to diagnose the extent to which differences exist between entry, exit, and sector switching firms.

## *Journal articles*

[Learning by exporting – the case of Mozambican manufacturing](#)

[Exporting and productivity – learning from Vietnam](#)

[The dynamics of exporting and innovation – evidence from the Tunisian manufacturing sector](#)

[Learning to export and learning from exporting – the case of Ethiopian manufacturing](#)

[Export spillovers – comparative evidence from Kenya and Malaysia](#)

[Measuring industry co-agglomeration and identifying the driving forces](#)

[Industry switching in developing countries](#)

## *Journal special issues*

[Learning to compete – evidence on exporting and firm-level performance](#)

The Learning to Compete research project seeks to answer a seemingly simple but puzzling question: why is there so little industry in Africa?

## *Blogs*

[Made in Africa – the future of production on the continent](#), by Carol Newman, John Page and Finn Tarp (Jan 2017)

[Made in Africa – learning to compete in industry](#), by Roger Williamson (July 2016)

[Getting a high five – advancing Africa’s transformative agenda](#), by John Page (May 2016)

[Commodities, industry, and the African growth miracle](#), by John Page (April 2016)

[Made in Africa: some new thinking for Africa Industrialization Day](#), by John Page (March 2016)

[Understanding FDI spillover mechanisms](#), by John Rand (March 2016)

[Industrial clusters – who benefits?](#), by Carol Newman (March 2016)

[Africa’s failure to industrialize – bad luck or bad policy?](#), by John Page (Dec 2014)

[Learning to compete – lessons from Vietnam – an interview with Carol Newman](#), by Roger Williamson (May 2014)

[What did we Learn at the L2C Conference about industrial development and policy in Africa?](#), by Roger Williamson (Aug 2013)

## *Other materials*

Journal special issue [Aid and Employment](#) from the ReCom project

This journal special issue brings together five articles that tackle the questions of how and where foreign aid donors might usefully support a more inclusive or job-friendly pattern of economic growth in the African region.