Global Experience: Insights from UNU-WIDER Research
Background and Introduction:
Six Points of Reference
1. UNU-WIDER’s 2014-18 Research Programme

• 3 Challenges
  – Transformation
  – Inclusion
  – Sustainability

• 3 Concerns
  – Africa’s inclusive growth
  – Gender equity
  – Development finance

• 3 Audiences
  – Decision-makers in developing countries
  – International agencies, both bilateral and multilateral
  – Global research community
2. Transformation and Development Theory

- Arthur Lewis (highlighted: the dynamic role of industry/manufacturing is essential)
- Hollis Chenery (empirical regularities of the development process)
- Import-substituting industrialization (ISI) as the key policy focus
- But from transformation to adjustment in the 1980s ..... 
- Gradually back to transformative agenda
- New structuralists (Lin, Rodrik, Stiglitz, ++++)
3. The Potential for Structural Change

• In countries at low levels of income productivity differences between sectors are large:
  – The movement of resources from low productivity to high productivity employment helps drive growth
  – As incomes rise, productivity differences among sectors (and enterprises) tend to converge

• As Africa has the greatest differences in productivity among sectors, it has the greatest potential for benefits from structural change
4. The Natural Resource Sector is Important

- 2008-2013: 17 African Economies grew at over 5%
- 14 of these 17 classified as resource-dependent*
- Any industrialisation strategy must think about the natural resource sector (governance, management of super-cycles, dutch disease etc.)
- To what extent is manufacturing output, really downstream mining?
- Use of natural resource boom revenues?

* The 17 countries are: Ethiopia, Uganda, São Tomé and Príncipe, Ghana, Rwanda, Burkina Faso, Tanzania, CAR, Niger, Sierra Leone, Mozambique, Zambia, DRC, Congo, Chad, Angola, and Nigeria.

Note: From Haroon Bhorat
5. The Fact: Africa Has Deindustrialized

- Africa’s share of manufacturing in GDP is less than half of the average for all developing countries.
- Per capita manufactured exports are about 10 per cent of the developing country average.
- Africa’s share of global manufacturing is smaller today than in 1980.
- Industry has played only a minor role in Africa’s growth turn around.
- In Africa recent structural change (2000-2010) has been from agriculture into low productivity services (urban informal sector) + high productivity low employment mining.

Source: World Bank World Development Database and World Bank Africa Development Indicators. Author’s calculations.
Notes: SSA excludes South Africa.
6. Leading to Questions about the Sustainability of Africa’s Growth

“there is a genuine question about whether Africa’s growth can be sustained...I come down on the pessimistic side, due to what I think are poor prospects for industrialization”

-- Dani Rodrik (2014)

“... it is unlikely that manufacturing export led growth will have the impact that it had in China and East Asia. It cannot be the sole strategy or even at the heart of a country’s growth strategy.”

-- Joseph E. Stiglitz (2018)
Learning to Compete (L2C) and Subsequent Work
Learning to Compete (L2C)

• A multi-year, multi country comparative research programme by UNU-WIDER and Brookings (with AfDB)

• Where we tried to answer some key questions:
  • Why is there so little industry in Africa?
  • Does it matter?
  • Is it realistic for Africa to break into global markets?
  • What makes firms more competitive?
Subsequent Work (1)

• **Special Issue of Journal of African Economies (2017)**
  • Focused on learning from exporting

• **The Practice of Industrial Policy (2017)**
  • Comparative case studies of business-government coordination in Africa and East Asia
Subsequent Work (2)

  - Expanded the definition of “industry” to tradable services and agro-industrial exports

• **Forthcoming work**
  - Understanding the importance of natural resources (boom)
  - Role of construction sector
  - Local content

*Natural Resources, Structural Change and Industry in Africa*

Edited by John Page and Finn Tarp

Forthcoming OUP (2019)
Key Message

• Africa has a chance to break into global markets
  – But business as usual will not deliver desired for results

• Three global changes make industrialization more difficult for Africa and three opportunities stand out in coming to grips with the context within which African development will have to take place
Three Challenges
First challenge

1. China and East Asia now dominate as manufacturing centers...

Source: World Development Indicators database.
Note: High-income countries (HICs), as defined in 1994, are those whose gross national income per capita was at least US$8,955.
Second challenge

1. China and East Asia now dominate as manufacturing centers...

2. Manufacturing as a share of GDP is falling everywhere on average

Manufacturing as share of GDP on average declines over four decades

- Rising importance of services
- “Servicification” of production
- Emergence of GVCs - and trade in tasks
Third challenge

1. China and East Asia now dominate as manufacturing centers...

2. Manufacturing as a share of GDP is falling everywhere on average

3. Selling to the global market increasingly requires participating in global value chains

Most African countries have a lower than average share of GVC participation for LICs
Three Opportunities
1. Changing Circumstances in Asia

- **Rising costs in China**
  - Increasing real wage: average manufacturing wage more than doubled between 2005 and 2010 and again between 2010 and 2016

- **Increasing domestic demand in Asia**
  - Growing population, incomes and access to credit

- **Asian economies are moving up the technology ladder**
  - China, Malaysia, Thailand, also Vietnam, are producing more complex products
  - Opening up an opportunity for less sophisticated producers to enter the market

- **China is becoming increasingly globally engaged, particularly in Africa**
  - FDI from China in 2009 was US$9.3bn
2. Trade in Tasks

- Production processes in manufacturing can increasingly be decomposed into a series of tasks
- Dramatic decline in transport and communications (coordination) costs over the last 20 years
- So efficient for different tasks to be located in different countries
- And as much as 80% of global trade is linked to networks of multinational corporations
- This implies there is great potential for late industrializers:
  - Easier to manage a single stage of production than to develop vertically integrated production
- But efficient trade logistics are crucial.....
3. “Industries Without Smokestacks”

- Technology and falling transport costs have created many new activities that share characteristics of traditional manufacturing...
- For example...
  - Horticulture
  - Agro-processing
  - Tourism
  - Tradable services, such as Information and communication activities

Like manufacturing these activities tend to:
- Employ large numbers of unskilled workers
- Have relatively high productivity potential in which innovation can lead to on-going opportunities for productivity improvements
- Form a growing segment of international trade
“Industries Without Smokestacks” (continued)

- **Share of horticulture** exports doubled from 10 to 22% in SSA ag exports in 1990-2014; horticulture exports up in Ethiopia, Senegal, Ghana and South Africa, typically out performing other exports

- **Agro-processing** has grown to 35% of SSA ag exports, still low relative to potential

- **Tourism** now amounts to 3% of SSA GDP in South Africa, amounting to 680,000 jobs, and 36% of jobs in the entire food and beverage industry. In Tanzania, tourism accounts directly and indirectly for 14% of GDP, and accounts for 3% of employment. In Rwanda, tourism has increased 22% annually during the last decade and is the largest forex earning.

- **Business services** emerging as important because of advances in telecommunication, smart phones, computing, and transport...
  - Kenya has pioneered mobile money payments that is revolutionizing cross-border financial flows. Call-centers now a major forex earning exports
  - Mobile money subscriptions in Rwanda rose 10 fold between 2011-2014 to reach 6.5 million subscribers
  - In Senegal, call centers didn’t perform well because of monopoly in backbone services, but they appear to have done well in software services exports

- **Transport services** are also expanding as costs fall with new investments in ports, roads, and air facilities

But case studies highlight risks...

- Excessive or mis-guided public investments (e.g., air transport, tourism)
- Granting excessive tax incentives or monopoly positions to encourage entry
- Trade-reducing beggar thy neighbour industrial policies
Summing up: “Industries Without Smokestacks” Have Become More Important in Africa

IWSS sectors grew more rapidly or at least as fast as traditional sectors in two thirds of African countries – and faster in half of the countries.

Countries with IWSS growth
This Implies: Need to Rethink African “Industrialization”

• Patterns of structural change in contemporary low income countries may differ substantially from historical experience

• Africa’s resource endowments suggest that many internationally competitive activities will be “industries without smokestacks”

• This expands the range of options for structural change in Africa

• The challenge for policy makers is to promote the growth of high productivity sectors capable of absorbing large numbers of low and moderately skilled workers
“Industrial Policy” for the 21st Century

• Market imperfections mean that the social returns in growth-promoting investments exceed private returns: A case for public action

• Externalities and coordination failures call for a coherent strategy of public action: Put differently, Africa needs a strategy for structural change

• Because “industries without smokestacks” share many firm characteristics with smokestack industries, they also respond to broadly similar policies

• But to design effective policies we need to understand what drives firm productivity
Increasing Firm-level Productivity: L2C
Back to Learning to Compete (L2C)

• A multi-year, multi-country comparative research programme where we asked:
  o What makes firms more competitive?
The L2C Country Comparative Framework

• Eleven countries
  – Nine African: Ethiopia, Ghana, Kenya, Mozambique, Nigeria, Senegal, Tanzania, Tunisia and Uganda
  – Two Asian: Vietnam, Cambodia

• Top national researchers
  – Teamed with global experts

• Three track approach
  – Detailed case studies of industrialization and the evolution of public policies
  – Econometric analysis of the stock of firm level surveys
  – Qualitative surveys of FDI firms and linked domestic firms
Three Potential Drivers of Firm-level Productivity

• Exports and competition
  – Firms in low income countries increase their productivity by exporting
  – Competition increases productivity through entry and exit

• Firm capabilities
  – The tacit knowledge and working practices that affect both productivity and quality
  – Capabilities can spill over to other firms through supply chain links

• Agglomerations
  – Industrial clusters confer significant productivity gains
  – But virtually everything we know about agglomeration economies comes from middle and high income countries
Exports and productivity
Cambodia, Ethiopia, Mozambique, Senegal, Tunisia, Vietnam

• Confirming expectations
  – More productive firms select into exporting
  – Large (and foreign) firms are more likely to export
  – But exporting further raises productivity
  – And learning effects are stronger in
    • Domestically owned firms
    • More sophisticated products
    • Higher income (or more distant) markets
    • The initial years of exporting

• Some surprises
  – Many African exporters are “born global” (both FDI and local)
  – Few firms “learn to export” over time (few partial exporters and fewer switchers)
  – Export activity is highly persistent
Firm capabilities
Cambodia, Ghana, Kenya, Ethiopia, Mozambique, Uganda, Vietnam

• Africa lacks capable mid-sized firms (50-70 workers)
  - Management of a growing labour force is a major constraint
• Firms learn capabilities from exporting
• Firm to firm knowledge transfers are an important source of capabilities
  - FDI is a major source of higher capabilities
  - Vertical linkages along supply chains are important for learning
Agglomeration and capabilities
Cambodia, Ethiopia, Tunisia and Vietnam

Industrial clusters confer significant productivity gains
- Jobs created in clusters have additional impacts on the productivity of others
  » Firms (and workers) located in close proximity learn from each other
  » Firms in clusters benefit from a broader pool of skilled labour
  » Clusters help to link local firms with foreign firms and export markets where further learning takes place
- Localization (“cluster”) effects are strongest in lower income countries
- Large (formal) firms benefit more than small (informal) firms
Future Directions: Three Key Dimensions and Associated Activities
First: Promote Firm-Level Productivity

– This requires attention to the “basics” (the “Investment Climate”), i.e.
  • Infrastructure (manufacturing output requires the building of transport infrastructure, provision of energy, logistics)
  • Supportive institutions and appropriate regulation
– But also a focus on exports, firm capabilities, and agglomerations

• And the global experience shows that these elements are interdependent and mutually reinforcing: can’t be approached piecemeal

• This involves three key actions:
1. Mount an “Export Push”

- High social returns but high private costs of entry
- Entering global markets needs an export push
  - Broad ownership and effective institutions (leadership from the top)
  - Trade related infrastructure and trade logistics
- Support for regional institutions and infrastructure
- Sustaining an open trading system and rationalizing preferences
2. Build Firm Capabilities

• An export push is a major source of capabilities
  o Demanding buyers; repeated relationships

• FDI is another
  o Build effective FDI agencies

• Strengthen domestic value chain relationships

• Apply new approaches to management training
3. Create Clusters

- Agglomeration economies face a collective action problem
- SEZs are a means of creating clusters
  - Bring Africa’s SEZs up to world class
- Strengthen the links between firms in the SEZ and domestic suppliers/purchasers
  - “Open architecture” in SEZs and better integration with urban planning
Second: The Practice of Industrial Policy

• Knowledge about the existence and location of the spillovers, market failures, and constraints that block structural change is diffused widely within society
  o To make effective industrial policy governments must engage the private sector
• Implementing industrial policy needs “close coordination” with the private sector to identify constraints, shape policies and monitor results
• Businesses have strong incentives to “game” the government
  o This can result in capture
The Practice of Industrial Policy (continued)

• Balancing between engagement and capture is the central challenge of the practice of industrial policy
• Coordination mechanisms used by the high performing Asian economies provide some guidance
• Four elements of success:
  – A high level of commitment of senior government officials to the coordination agenda
  – Sharply focusing policy decisions and actions on specific constraints to firm performance
  – Willingness to experiment
  – Careful attention to feedback
Third: Accountability is Essential

• Good policy requires accepting a certain failure rate
  o East Asian countries are well known for relying on both incentives and discipline (carrots and sticks)
• But who judges success and how do you build the capacity to let the losers go?
  o East Asia has been less successful in enforcing accountability
• Thus: conditionality, sunset clauses, built-in programme reviews, monitoring, benchmarking, and periodic evaluation should be features of all incentive programmes
Concluding Remarks
Development Challenges in Africa

• Global demographic and work force projections (2015-2100): see next slide
• Structural transformation slow
• Jobs and employment creation lagging
• Agriculture and industrialization constrained
• The potential pitfalls are many, but there is every reason – and a distinct need – to push decisively forward in African development over the next decades
• Trickle down alone will not do the trick – see the ”Stockholm Statement” https://www.wider.unu.edu/news/stockholm-statement-%E2%80%93-towards-new-consensus-principles-policy-making-contemporary-world
The Future African Workforce: The Challenge to Industrialisation

Population Projections, World and Sub-Saharan Africa: 2015 - 2100

<table>
<thead>
<tr>
<th></th>
<th>Total Population (Billion)</th>
<th>Working Age Population (Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015</td>
<td>2100</td>
</tr>
<tr>
<td>SSA</td>
<td>1.0</td>
<td>3.9</td>
</tr>
<tr>
<td>World</td>
<td>7.3</td>
<td>11.2</td>
</tr>
<tr>
<td>SSA Proportion (%)</td>
<td>13.7%</td>
<td>34.8%</td>
</tr>
</tbody>
</table>

Source: Haroon Bhorat et al. calculations using the UN World Population Database
Concluding Thoughts

• The global economy and changing technology offer new possibilities for structural change; industrial policy in the 21st Century must adapt to these changing opportunities; keeping in mind:
  
  • On average the services economy is more skills-intensive than manufacturing: “With few exceptions, services traditionally have not acted as an escalator sector like manufacturing“ (Rodrik, 2014)
  
  • The practice of industrial policy depends fundamentally on engaging the private sector
And Three Take-Aways

- Africa must create sustained growth, but its form will have to rely in part on industries without smokestacks plus the natural resource sector
- Policies should neither focus obsessively on manufacturing...nor ignore manufacturing
- The key to growth will be policies that promote higher-productivity activities and exports... in agri-business, tradable services and in manufacturing