The future of manufacturing-led development

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Outline

• Globalization waves and manufacturing-led development
• Premature deindustrialization
• Industry 4.0
• Services and manufacturing
• Policy recommendations
Development Has Historically Been Associated with Industrialization

The second wave of economic globalisation has outstripped the first

As a percentage of country sample GDP

1 Prior to 1970, calculated as external financial assets multiplied by two.

Source: BIS (2017), 87th Annual Report
Trade has become more complex as EME involvement has grown

Composition of trade

Country links in GVCs

Contributions to world trade openness

Source: BIS (2017), 87th Annual Report
Contribution to global growth and consumption (%)

Source: IMF, *World Economic Outlook*, April 2017

GDP growth (actual and forecast)


Source: IMF staff calculations.
Note: Weighted averages are calculated using market exchange rates. Colored bars show percentage of contribution to growth; black squares show percentage of contribution to consumption.
Share of global manufacturing value added in China, global regions, and high-income countries, 1994–2015

Manufacturing Subsectors, Grouped by Pro-Development Characteristics, 2013

Trade-income elasticity and Exports-GDP ratio – global economy

Source: Escaith and Miroudot, ch. 7 in Hoekman (2015).
Manufacturing employment and gross value added

Manufacturing employment share, %
- Developed Markets
- Africa
- Asia
- Latin America

% of total
- DM - employment
- EM - employment
- DM - GVA
- EM - GVA

Note: DM = Developed Markets; EM = Emerging Markets; GVA = gross value added
Source: IIF, A Primer on Premature Deindustrialization, October 19, 2017
Shifts to services common across countries

“Peak” manufacturing levels have fallen

Note: (right side) the size of the bubble reflects GDP per capita
Source: IIF, A Primer on Premature Deindustrialization, October 19, 2017
Change in manufacturing value added as a share of domestic GDP among countries with contracting global shares, 1994–2014

Change in manufacturing value added as a share of domestic GDP among countries with expanding global shares, 1994–2014

Operational stock of industrial robots in manufacturing, selected countries and regions, 1995–2018

Value Added of Services in Manufacturing, 1970s versus 21st Century

Policy priorities to strengthen manufacturing-led development, by country’s level of competitiveness, capabilities, and connectedness

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Priorities for countries currently “lower” on this dimension</th>
<th>Priorities for countries currently, or aiming soon to be, “higher” on this dimension</th>
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<tbody>
<tr>
<td>Competitiveness</td>
<td>Strengthen the business environment</td>
<td>Facilitate firm entry and exit, and the reallocation of capital and workers; improve bankruptcy procedures and universal coverage of social protection to facilitate worker mobility and to lower costs of disruption</td>
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<td>Promote flexible labor markets</td>
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<td>Liberalize backbone services critical to supporting manufacturing</td>
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<td>Capabilities</td>
<td>Develop mobile finance to facilitate use of embodied and embedded services</td>
<td>Set competition policy framework for network platforms; adjust regulations for new business forms</td>
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<td>Prioritize literacy, numeracy, basic ICT, and socioeconomic skills, but also invest in the development of advanced skills for people with access to higher education</td>
<td>Facilitate contracting, to enable greater use of sharing economy on production side</td>
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<td>Improve basic management skills and processes</td>
<td>Develop programs to strengthen more-advanced skills, creativity</td>
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<td>Develop certification of quality standards</td>
<td>Emphasize the use of data and data processes within production</td>
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<td>Support the development of a data ecosystem (access to ICT, policies on localization, network security, IPR)</td>
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<td>Connectedness</td>
<td>Reduce restrictions on trade in goods, particularly inputs (lower tariffs and NTBs, support trade facilitation)</td>
<td>Further facilitate trade in services, including removing restrictions on FDI</td>
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<td>Strengthen basic logistics</td>
<td>Support IoT logistics systems</td>
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<td>Develop regulatory frameworks to support cross-border data flow</td>
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Note: Items that relate more specifically to new technologies are set in italics within blue shading. ICT = information and communication technology.
IoT = Internet of Things.
IPR = intellectual property rights.
FDI = foreign direct investment.
NTB = nontariff barriers.

References


Thank you!

www.worldbank.org/en/about/people/o/otaviano-canuto

https://en.wikipedia.org/wiki/Otaviano_Canuto

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