

## ÖFSE Development Lecture No.2

# INDUSTRIAL POLICIES FOR INCLUSIVE GROWTH

organised by **ÖFSE** in cooperation with **WU**  
WIRTSCHAFTS  
UNIVERSITÄT  
WIEN VIENNA  
UNIVERSITY OF  
ECONOMICS  
AND BUSINESS

October 18, 2011

C3 – Centrum für Internationale Entwicklung  
Alois-Wagner Saal  
1090 Wien, Sensengasse 3

Vienna, November 2011

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### IMPRINT

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ÖFSE DEVELOPMENT LECTURE NO. 2

In cooperation with the Economics Department of the Vienna University of Economics and Business

## INDUSTRIAL POLICIES FOR INCLUSIVE GROWTH

With Prof. Raphael Kaplinsky, The Open University (Milton Keynes/UK)

October 18, 2011, 18:00-20:00

Alois Wagner Saal, C3 – Centre for International Development, Sensengasse 3, 1090 Vienna

Registration: Ingrid Pumpler, i.pumpler@oefse.at or Phone: +43/1/317 40 10-100

Industrialization lies at the heart of the development agenda. Hence, discussions about industrial policies have a long history in international development and have recently regained prominence given the success of China and other emerging economies in expanding manufacturing and enhancing economic growth rates over the past two decades.

Industrial policies face however a very different policy and economic environment today than three decades ago. The global economy has undergone profound changes in the context of globalization that have led to growing integration, outsourcing of production, the extension of global value chains, and increasing competition in global and local markets. More recently and accelerated by the global economic crisis, the primary drivers of growth have shifted from the Triad to large emerging and developing countries. Economic growth rates in many parts of the developing world have been high in the last decade; however poverty has persisted and inequality increased.

What are the main opportunities and challenges for industrialization and development in this new global environment? How can industrial development and economic growth ensure inclusive and pro-poor outcomes? What do these changes mean for the formulation of industrial policies for inclusive growth in developing countries? What is the role of South-South trade and cooperation?

With the ÖFSE Development Lectures, ÖFSE is initiating a series of high-level events in the new C3 – Centre for International Development, which aim at

- presenting innovative international academic work and research findings to the Austrian development community, and
- providing a venue for open interchange between academia and development practitioners.

### SPEAKER:

Raphael Kaplinsky is Professor of International Development at the Development Policy and Practice Unit at The Open University in the UK. Building on extensive research and operational experience in the fields of industrial development, technology and innovation, his research has lately focused on global value chains and the unequalising characteristics of globalisation and on the rise of China and India and their impact on low-income economies, in particular in Africa.

### PROGRAMME:

**18.00** **Welcome:** *Werner Raza*, Director, ÖFSE

**18.15** **Keynote:** Industrial Policies for Inclusive Growth  
*Raphael Kaplinsky*, The Open University

**19.00** **Comments:**

- *Joachim Becker*, Economics Department, Vienna University of Economics and Business
- *Ludovico Alcorta*, Research Department, United Nations Industrial Development Organization (UNIDO)
- *Wolfgang Polt*, Zentrum für Wirtschafts- und Innovationsforschung, Joanneum Research

Public Discussion

Facilitator: *Cornelia Staritz*, ÖFSE

**20.00** Wine reception

*Conference language: English*

## **WELCOME ADDRESS**

**Werner Raza**

**Director, ÖFSE**

Mr. Raza welcomed the audience as well as Raphael Kaplinsky as the keynote speaker of the 2<sup>nd</sup> ÖFSE Development Lecture and the three commentators.

With the Development Lectures, ÖFSE wants to promote the dissemination and discussion of innovative international research among the Austrian development research and policy communities to stimulate the exchange of perspectives and ideas between researchers and policy makers.

In this context, this lecture discusses industrial policies in developing countries – a debate that has regained prominence in recent years given the industrial development and economic growth success in emerging economies such as China, Brazil and India. The structure of the global economy has changed importantly, particularly related to the extension of global production networks and shifting drivers of growth to emerging countries. Further, the ecological dimensions of industrialization and economic growth have gained importance requiring ecologically sustainable industrial and economic policies. It is therefore crucial to discuss the opportunities for industrial policies for developing countries given this new global context. The second ÖFSE Development Lecture has the aim to start such a discussion in the Austrian development research and policy communities.

## **KEYNOTE**

**Raphael Kaplinsky**

**Professor of International Development, Development Policy and Practice Unit, The Open University, Milton Keynes/UK**

see attached slides

## COMMENTS BY

**Joachim Becker**

**Economics Department, Vienna University of Economics and Business**

Mr. Becker stated that his view on the consequences of the crisis differs to some extent from Mr. Kaplinsky's view which is the first point of his comment. Mr. Becker agrees that there is a deep crisis in the centre states of Europe, the US and Japan and that the crisis will even become deeper and lead to a period of stagnation. This will have implications for China as it is very export-oriented, especially industrial exports towards the US. The crisis had already severe impacts on industrial exports of Korea and other East Asian states, more severe than in Latin American countries (with the exception of Mexico). This means that industrial policies will be obliged to be reoriented towards the domestic market which implies a different type of industrialization where global value chains play a lesser role and domestic value chains are more important. This implies different wage policies, social security policies, etc.

In his second point Mr. Becker proposes that industrial policies and processes of the post-1930s area, for example in Latin America and Turkey, should be revisited. These policies were more inward looking and more domestically based (less so in the 1950s, 60s and 70s). In Latin and particular South America global value chains play less of a role and export and import ratios are much lower than in East Asia or Eastern and Southern Europe. Mr. Becker supposes that this is a better base for industrialization strategies/industrial policies to build on. The basis would not just be the nation state but regional which implies major changes in regional integration projects. Huge income inequalities still persist but in Latin America industrial policies have been linked to systematic increases of minimum wages (for example in Brazil) and certain social security payments (for example in Argentina and Uruguay). These might be reforms towards pro-poor outcomes. But they would require protection against China where tensions will arise between Latin America and China.

Mr. Becker's third point is that such policies require a policy base to build upon. Brazil and Argentina still have an industrial bourgeoisie but this is not the case in Venezuela and Bolivia which are commodity-based economies. In countries where the industrial bourgeoisie is weak, a more important protagonist role of the state would be required.

In the case of Sub-Saharan Africa, Mr. Becker sees it as more realistic to build on local markets than integration into global value chains – even if these value chains go to different end markets such as emerging countries as China.

## **Wolfgang Polt**

**Zentrum für Wirtschafts- und Innovationsforschung, Joanneum Research**

see attached slides

## **Ludovico Alcorta**

**Research Department, United Nations Industrial Development Organization (UNIDO)**

Mr. Alcorta, first, stressed the importance of industrialization for employment generation which has been the case historically and currently where China is the best example of lifting 500 million people out of poverty through industrial development and employment generation. The main reason why countries industrialize is to generate employment and lift people from poverty through employment. Mr. Alcorta discussed the trade off between employment, industrialization and mechanisation referring to the debate on the choice of appropriate technologies. This trade off still exists (for example in an assembly process activities can be conducted by a robot or a person) but by and large industrialization and structural change lead to significant employment generation. The problem is that many countries have not gone deep enough on the industrialization path such as India and Sub-Saharan Africa. For at least the next 50 years industrialization and employment generation will be central for developing countries. Besides employment generation, there are other advantages of industrial development such as high skilled jobs and increases in wages.

Mr. Alcorta's second point refers to linkages. He agreed that linkages from the commodity sector to industrial sectors can be an important path for growth, industrialization and employment generation but raised the question if any linkage is as good as any other. Backward linkages often require economies of scale for profitability. If these scale economies are not given the positive impact of linkages is questionable. Hence, different types of linkages lead to different types of development that should be taken into account. Another question is who undertakes these linkages. In developing countries industrial structures are often concentrated and involve monopoly power. If backward linkages require economies of scale only large firms can undertake these activities which might lead to more concentration of income and negative impacts on poverty reduction. A further question is if backward and forward linkages are the only way to go. Another option would be fiscal linkages and thus the use of commodity-related funds through taxation for industrial activities. In Mongolia, for example, the processing of copper may not necessarily be an optimal path to development at this point in time given the global over-capacities in copper refinement. A better strategy may be to export unprocessed copper and use the funds for other industrial sectors.

Mr. Alcorta's third point raised the issue of functional/horizontal versus selective policies. He stressed that Mr. Kaplinsky focused on innovation which is crucial but that the question of selectivity has to be addressed and how selective policies can be pursued. This is relevant for linkages as this requires choosing relevant linkages from and to industrial sectors but also for addressing environmental issues of industrialization.

The fourth point addressed trade policy and the question was flagged if developing countries that import manufacturers from China need to begin thinking about how to deal with Chinese competition to be able to industrialize.

## **OPEN DISCUSSION WITH THE AUDIENCE**

There were five broad questions from the audience:

- Industrial policy could eventually be a tool to reduce poverty by diversifying the economy and increasing employment and incomes but industrial policy can also be more directly a tool for poverty reduction. In which countries would which role/path be more appropriate? In countries where industrial policies exist, what could be done to make these existing policies more pro-poor?
- Even though China and India are often named together, are there not important differences between them – China developed based on manufacturing and India more based on services?
- What is the role of the state in industrial development strategies? Mr. Kaplinsky stated that industrial policy is not an issue of planning but cooperation between the private and the state sector. But in the recent experiences of China, South Korea and Brazil a strong and interventionist state played an important role. What is the role of the state in different phases of industrialization?
- Can the commodity price boom also be a disincentive for industrialization because countries can rely on high incomes from commodity extraction and exports? In Latin America resource-rich countries with reformist governments use incomes from commodities for social policy but do not think seriously how to use this boom for industrial diversification.
- It is difficult to talk about industrial policy in this general sense because if industrial policies work depends very much on the design of specific policies in certain contexts.

## CONCLUDING STATEMENTS

### Raphael Kaplinsky

Mr. Kaplinsky agreed to nearly all comments and tried to respond to common themes by stressing once more the main points of his presentation.

Globalisation is intrinsically unequalising because it enables those with rents to appropriate them on a global scale and those without rents have to compete on a global scale. There have been crucial changes in the global trajectory that change the path of the global economy. The objective of the presentation was to selectively pick some aspects of this changing trajectory that have implications for pro-poor growth.

There are three main changes in the global economy that have important implications for pro-poor growth:

- The locus of innovation is changing to countries with low per capita incomes. Chinese capital goods that are used in Africa are more labour intensive and less demanding with regard to skills, infrastructure and scale.
- There is a structural shift in global trade to dynamic low-income countries.
- Commodity prices have increased and will continue to rise faster than the prices of manufactures (that is a terms of trade reversal) which leads to the possibilities for linkages. Hirschman identifies three types of linkages: Fiscal linkages refer to using the surplus generated to support diversification to other sectors. Demand linkages relate to increased local demand from employment in commodity sectors which is less relevant in the context of globalisation since most final consumption goods are produced on a global scale and are imported into low income countries. Forward and backward linkages from and to the industrial sector. Industrial policy is not only about linkages between the commodity and industrial sectors but this structural shift has opened new opportunities for commodity-based industrialisation.

The consequence of these changes is that we increasingly live in a world which offers scope for both Ricardian (resource) and Schumpeterian (innovation) rents.

Poverty is endemic and persistent in developing countries despite sustained economic growth. A structural feature of the contemporary capitalism is that it is labour-displacing. This happens not just in industrial sectors but also due to the application of science and technology in agricultural sectors. Hence, a crucial point is the question of employment absorption and to what extent the current accumulating system will create employment. China is not a good example for employment generation as China's employment intensification has displaced labour elsewhere and in shifting from extensive to intensive growth labour-saving technological change will become more important.

China and India will not come away unaffected from the crisis and will turn inwards. But they are part of regional East and South Asian production systems that will become more important.

### **Wolfgang Polt**

With regard to commodities and linkages, Mr. Polt still sees the resource curse as relevant in developed and middle-income countries such as Russia. The possibilities of backward linkages may be quite limited as capital goods required for commodity extraction are high tech and countries would need to leapfrog technological activities to provide these inputs. There is also the political economy issue and a pro-industrialization coalition is crucial for linkages and industrial development policies. In certain contexts this may not be possible and hence it may be more appropriate to shift rents from commodity extraction to other sectors.

### **Raphael Kaplinsky**

Mr. Kaplinsky and colleagues just finished a study on linkages in nine African countries and found that linkages, particular backward linkages, have unfulfilled potential. This does not just refer to high tech inputs but lower tech inputs and services that are required for commodity extraction and has to be seen in the context of outsourcing and the concentration on core competencies of mining corporations. He agreed that the resource curse does exist and gives examples of Australia and Brazil but the crucial question is what commodity-rich countries can do in the context of the commodity price boom. Fiscal and production linkages offer important opportunities in this new context.

### **Joachim Becker**

With regard to commodities, in Latin America one can see that in countries with an industrial base left such as Brazil and Argentina the commodity boom might provide some opportunities for diversification and deepening of existing industries. But if the industrial sector is small it is very difficult even if the government is willing like in Venezuela where the share of manufacturing in Gross Domestic Product has declined. But the share of the financial sector has increased. The issue of the financial sector, financialisation and financial interests and contradictions with industrial policies are crucial. For example the question of exchange rate policies and capital controls that would be important for industrialization.

Mr. Becker stated that we have not talked yet about countries that are not export-oriented in commodities and have no large manufacturing sector but whose growth trajectory has been based on imports and the real estate market – the European periphery such as the Baltic states, Ex-Yugoslavia, Bulgaria and Southern Europe, including Greece, Portugal and Spain. These countries experienced de-industrialization. EU-integration and the exchange rate regime have deepened de-industrialization. These countries face large challenges to re-industrialize as strong interest groups are linked to the financial sector and to imports.

Decentralization of industrial production in Europe would also be important for ecological reasons by reducing transport intensity.

### **Ludovico Alcorta**

Mr. Alcorta questioned the opportunities related to Chinese and Indian technology and if these technologies will end up as more appropriate for developing countries. Chinese technologies allegedly break down more often and hence require more maintenance and repair, thus generating employment opportunities in the countries that purchase them, but they are not necessarily intrinsically more labour intensive as China is driven by global competition and is developing globally competitive technologies.

### **Raphael Kaplinsky**

Mr. Kaplinsky gave examples of Chinese technology such as motorbikes, batteries, generators and mobile phones that are much cheaper than Western technologies and open up opportunities in African countries. The circumstances under which innovation occurs in China and India are much closer to the circumstances in other developing countries which makes these technologies more appropriate for pro-poor growth in the African context.

Mr. Kaplinsky summed up by stating that the world is in a period of structural shift of unknown proportion and the main question is what are opportunities for developing countries that are confronted with persistent and massive poverty in this new context. There is no magic bullet. In the context of the commodities boom, this provides the potential for those developing economies with resources, and perhaps those neighbouring resource-rich economies, but the problems may be exacerbated for low income countries who do not have natural resources and are unable to compete with China and other rapidly industrialising low-wage economies. Different types of policies will be required but they have to be informed by new lenses given the structural changes in the global economy.

**POWERPOINT PRESENTATIONS BY**

**RAPHAEL KAPLINSKY**

**and**

**WOLFGANG POLT**

# INDUSTRIAL POLICIES FOR PRO-POOR GROWTH



The Open University

Raphael Kaplinsky  
Development Policy and Practice,  
The Open University

*ÖFSE Development Lecture, Vienna, 18<sup>th</sup> October,  
2011*

## OUTLINE



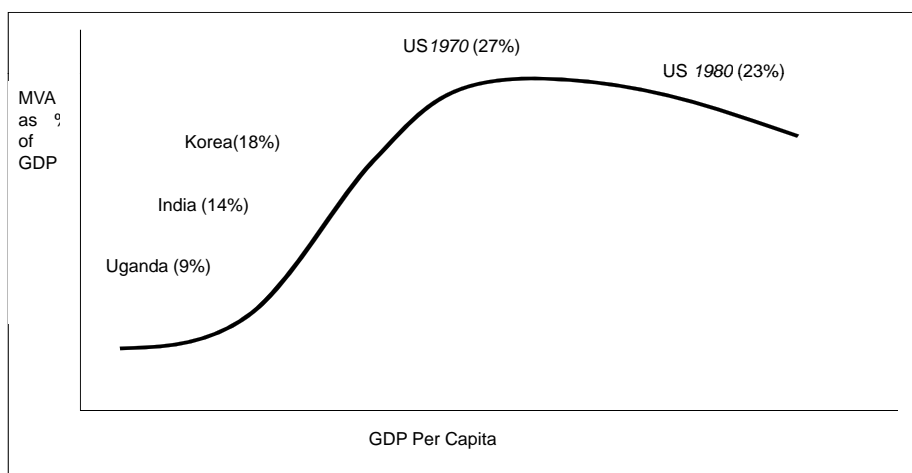
1. Arguments for industrialisation and history of Industrial Policy Debate
2. The current global context for industrialisation
3. The Challenge for Industrial Policy in the context of pro-poor growth strategies



# Why Industrialise?

- The Demonstration Effect

The “normal” relationship between per capita incomes and share of manufacturing in GDP, Uganda, India, Korea and the USA (1970), and USA (1980)



Source: Farooki and Kaplinsky, 2012

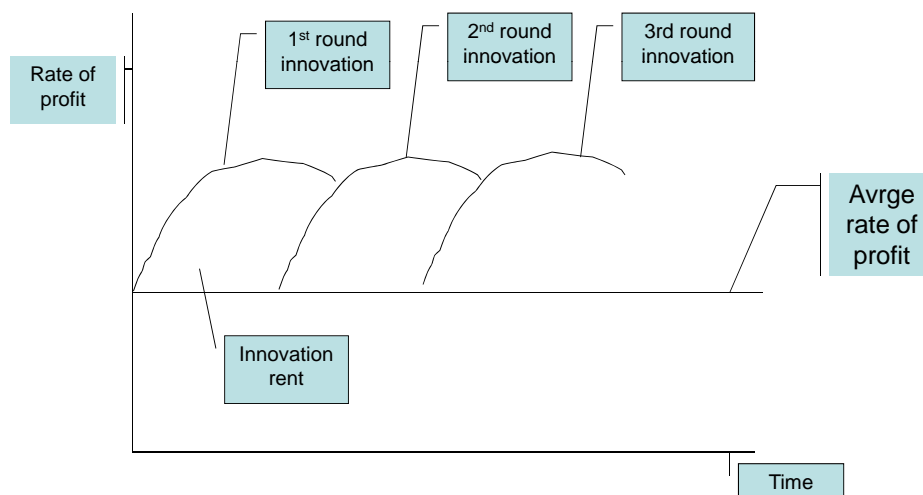


# Why Industrialise?

- The Demonstration Effect
- Schumpeterian rents, externalities and learning



## THE SCHUMPETERIAN INNOVATION SCHEMA

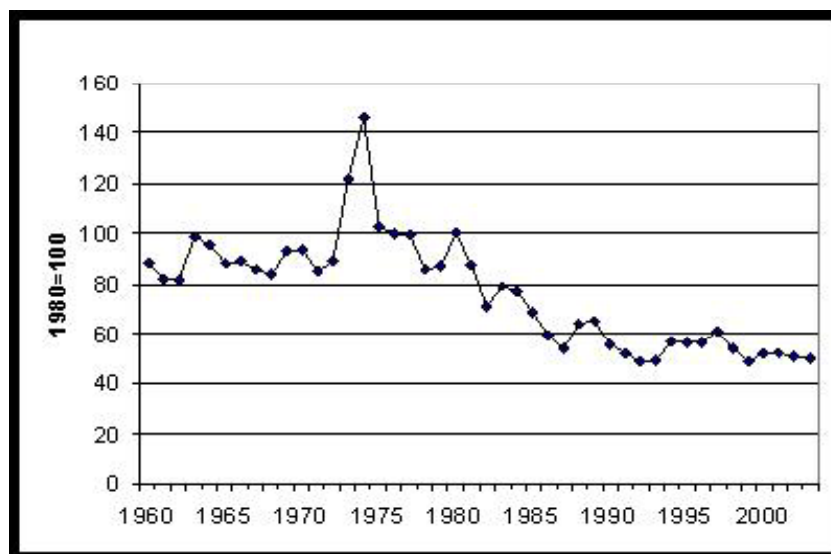




# Why Industrialise?

- The Demonstration Effect
- Schumpeterian rents, externalities and learning
- Terms of Trade and price volatility

## Commodities-Manufactures terms of trade, 1960-2002





## The Industrial Policy Debate

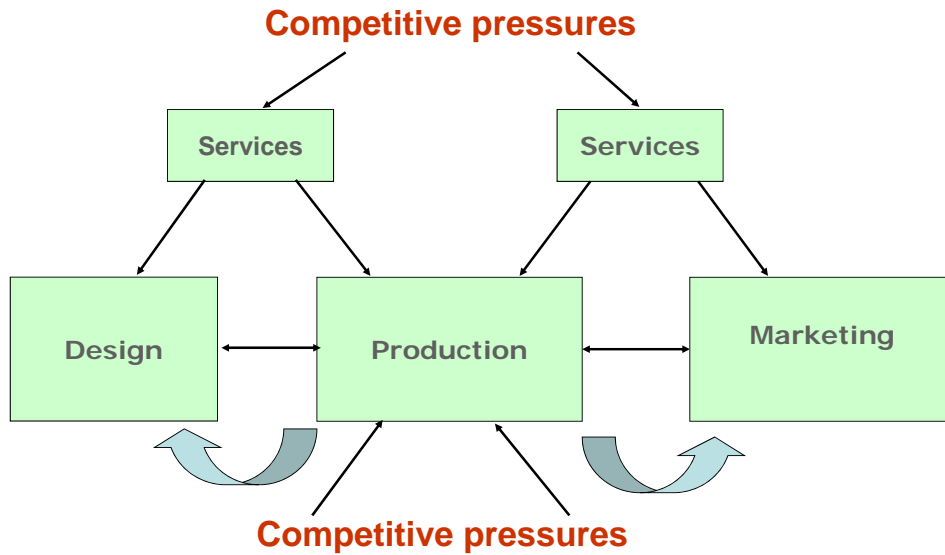
- Free trade for the efficient
- Protection, subsidies and import substituting industrialisation (ISI) for the followers
- From ISO to Export Oriented Industrialisation (EOI)
  - The Gang of Four
  - The Second Tier NICs
  - China



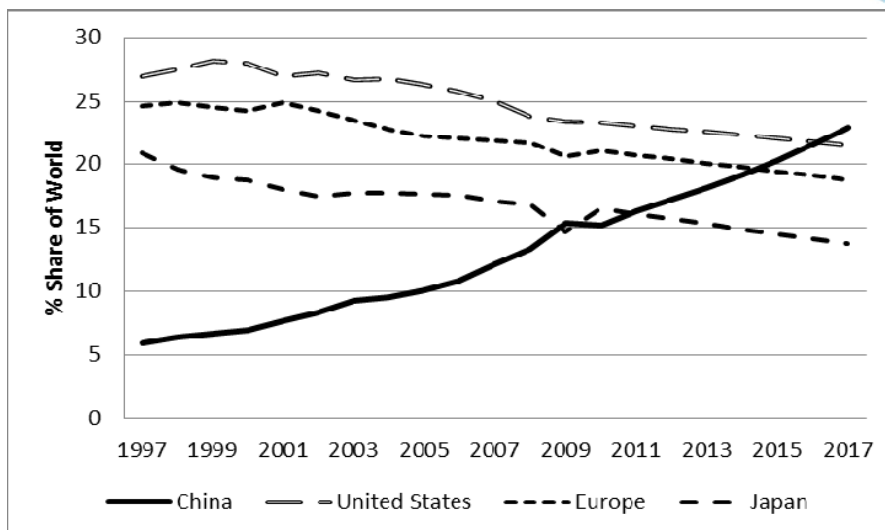
## The Current Global Context

- Global value chains and the fragmentation of trade

# The increasing globalisation of VCs



## Share of global manufacturing output (1997-2010)



Farooki and Kaplinsky 2012



## The Current Global Context





- Global value chains and the fragmentation of trade
- The northern “growth” trajectory

## Economic Crisis





The Open University



“Is this a V recovery or a W?  
I think it’s the latter...”

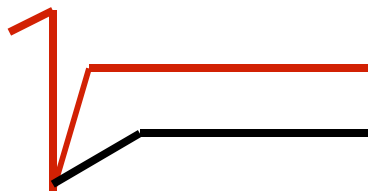
(CEO HSBC Bank, Financial Times, 5<sup>th</sup> Oct 09)



Perhaps its an



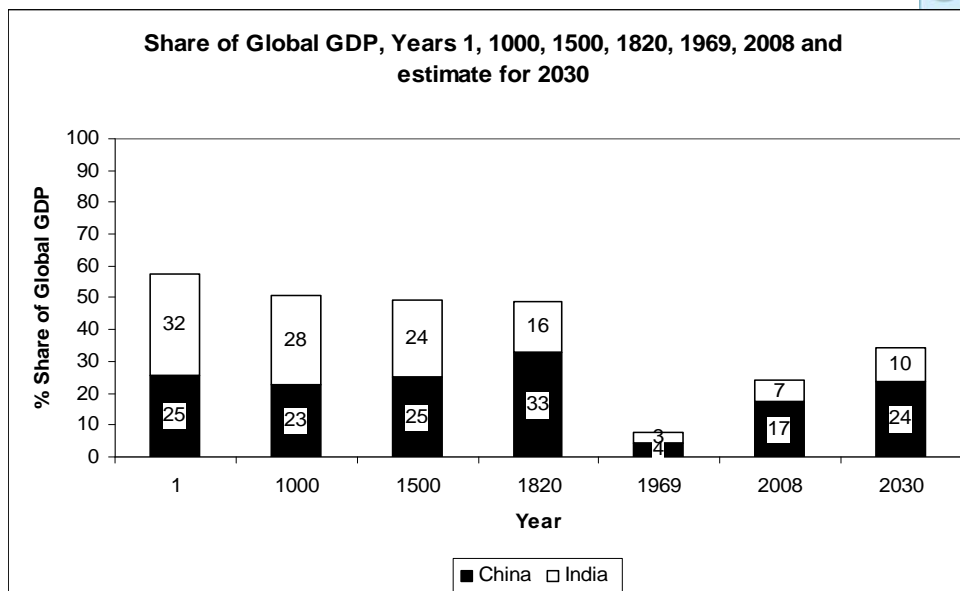
OR, MAYBE



# The Current Global Context



- Global value chains and the fragmentation of trade
- The northern “growth” trajectory
- The Rise of the Asian Driver Economies

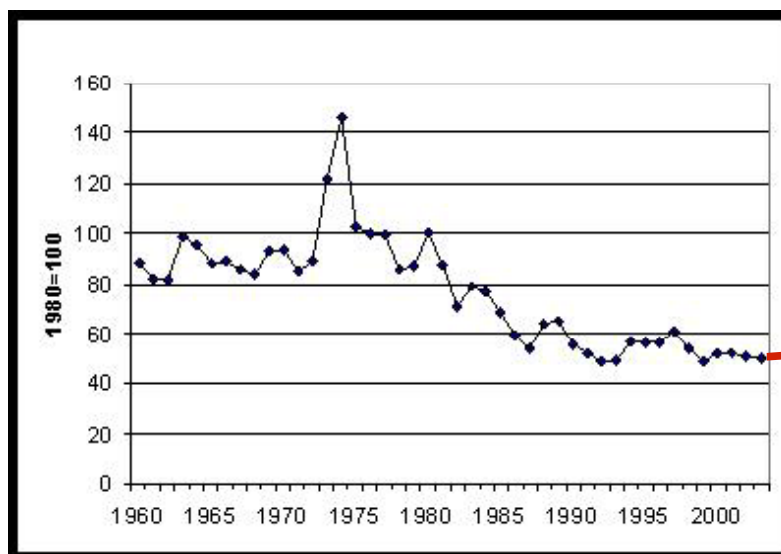


## The Current Global Context



- Global value chains and the fragmentation of trade
- The northern “growth” trajectory
- The Rise of the Asian Driver Economies
- Terms of Trade reversal

## Commodities-Manufactures Terms of Trade



## The Current Global Context



- Global value chains and the fragmentation of trade
- The northern “growth” trajectory
- The Rise of the Asian Driver Economies
- Terms of Trade reversal
- Unemployment and the reserve army of labour
- Stubborn levels of global poverty

## Global growth and global poverty



	GDP growth p.a (%)		Living below \$1.25 per day (MDG1)	
	1988-90	2007-8	1990-2000	2000-2008
<b>World</b>	<b>2.9</b>	<b>3.1</b>	<b>1,668</b>	<b>1,329</b>
Middle Income countries	3.6	6.2	121	293
China	9.9	10.4	724	208
India	5.5	7	414	456
SSA	2.2	4.9	224	355

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## The Challenge for pro-poor growth

- Pro-poor growth strategies are of first order significance and Industrial policy of second order significance

## The Challenge for pro-poor growth

- Pro-poor growth strategies are first order significance and Industrial policy of second order significance
- But there are issues for Industrial Policy:
  1. Innovation



## *Induced* Innovation

- Those factors “leading in” or “bringing in” – in other words, **inducing** - new products, new processes, new ways of doing things



## The Theory of Induced Innovation

- The nature of demand
- Factor and infrastructure availability and price
- Firm trajectories and path dependency – institutional economics
- and
- Regulatory regimes



So, from Schumacher to  
Schumpeter

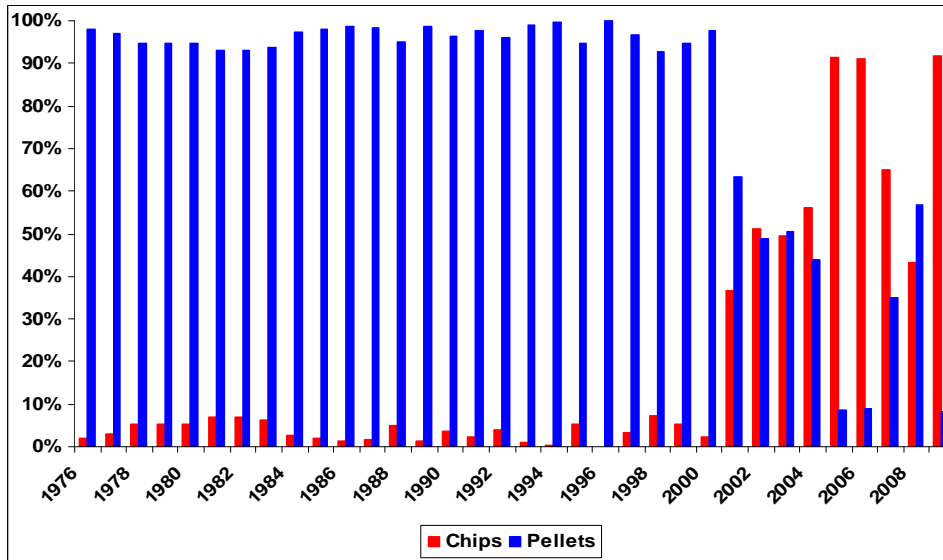
Appropriate Technology is now  
driven by the market



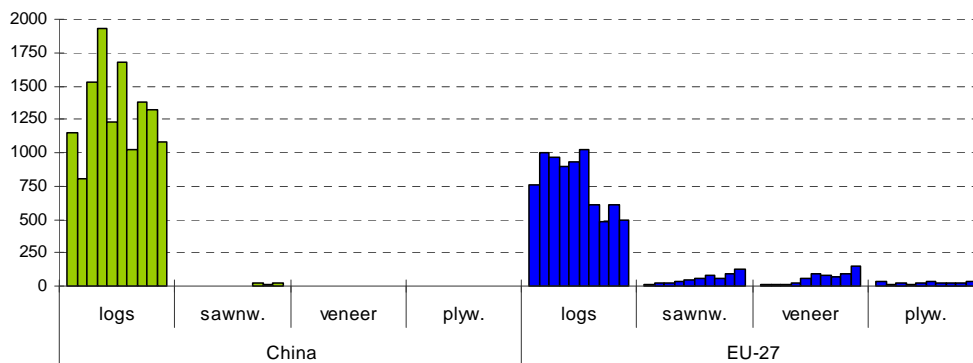
The Challenge for pro-poor growth

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  2. South-South Trade

## Thai Dried Cassava Export: The shift in product composition



## Gabon: Exports to China and EU-27



Source: FAO ForesSTAT, accessed December 2009

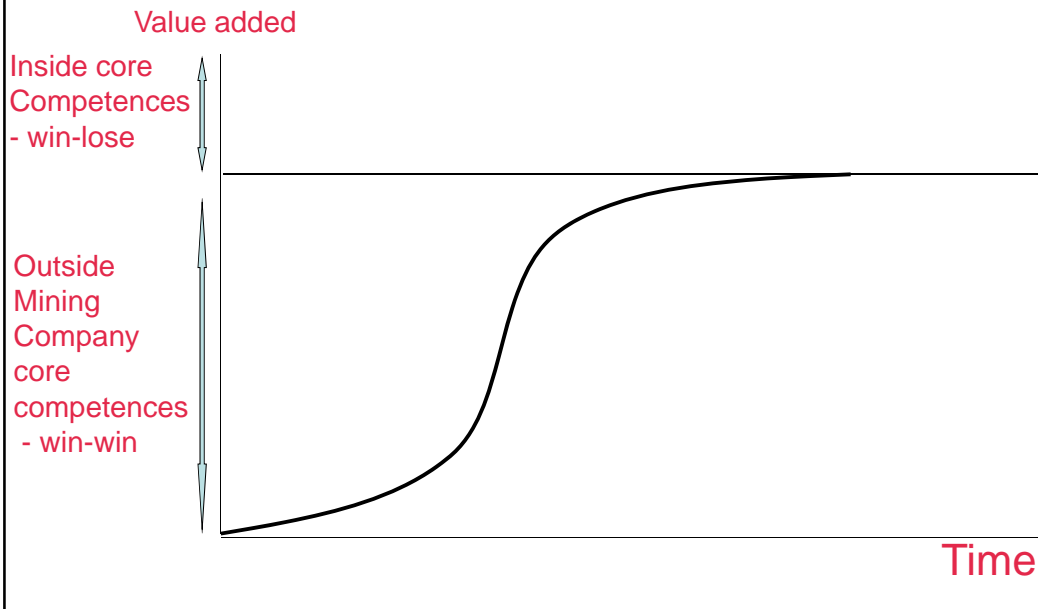
**Figure 7: High and Low-Income Commodity Importing Economies –  
Complementarity and Competition with Low-Income Commodity Exporting  
Economies**

	<b>Highincome importing economy</b>	<b>Low-income importing economy</b>
Pollution and energy intensity	High preference to outsource to exporting economy	Indifferent to location
Complementary or competitive industrial structures	Complementary –focus on technologies with high barriers to entry	Competitive – importers also have low technology industrial structures
Labor costs	High wages militate against labor intensive processing	Low wages facilitate labor-intensive processing
Labor standards	Working conditions are effectively protected by enforce legislation	Weak protective environment of working conditions

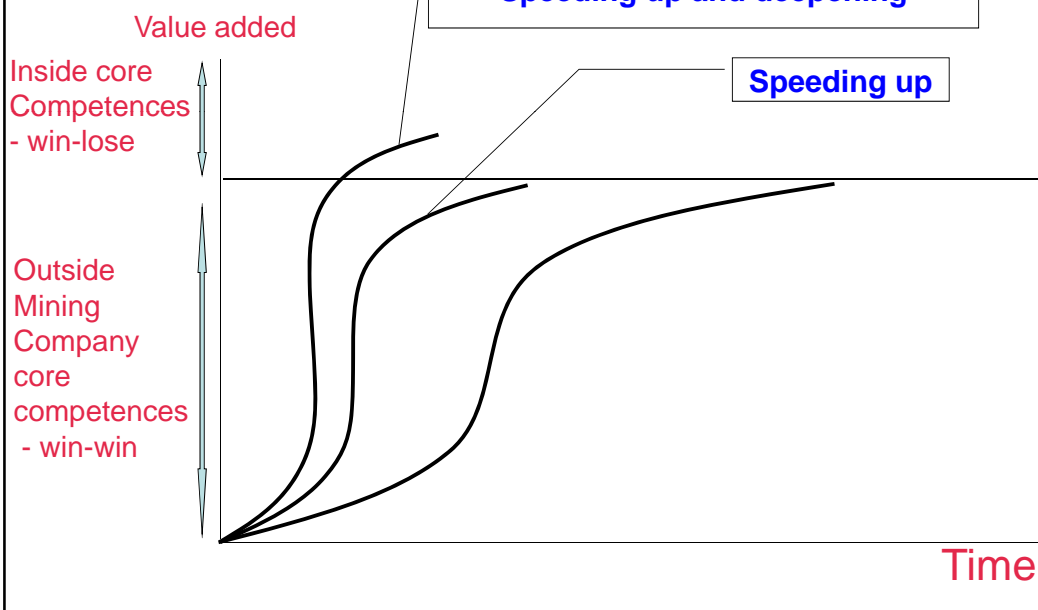
## The Challenge for pro-poor growth

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- But there are issues for Industrial Policy:
  1. Innovation
  2. South-South Trade
  3. Linkages from the commodity sector

# Linkages in the commodities sector



# Linkages in the commodities sector





## New Directions in the process of Industrial Policy

- State failure is widely recognised
- But market and private failure is also widespread
- This requires collaboration between private and public stakeholders
- It requires systemic efficiency – value chain positioning
- Process if more important than Paper

# Success and Failure in Industrial Policy - some lessons from the last decades and some comments on Prof. Kaplinski

Wolfgang Polt  
POLICIES - Center for Economic and Innovation Research  
JOANNEUM RESEARCH  
wolfgang.polt@joanneum.at

ÖFES Lecture  
Vienna  
18 October 2011

- Currently, we see the **re-emergence of Industrial policy**, e.g. in discussions like: „Does the UK/US need a re-industrialisation?“ or in the recent EU Communication on Industrial Policy (EU 2010)
- Historically, practically ALL examples of successful industrial development have involved **massive state intervention** (which is not to say that all State Intervention is necessarily successful....)
- Industrial Policy (especially with a development purpose) often has to **act against existing patterns of comparative advantage** - and purposefully DISTORT market signals to get out of unfavourable trajectories. even in developed economies an escape from Lock-in into CO2 intensive activities needs massive industrial policy

- **'Infant Industry' protection** is necessary and can come in different forms (and mixes thereof), e.g. but not confined to KOREA, CHINA and INDIA
  - State ownership                      Favourable tax treatment to selective industries
  - Selective credit allocation      Restrictions on foreign investment
  - Local context requirements      Special IPR regimes
  - Government procurement          Promotion of large *domestic* firms
  
- In developing countries, necessarily, governments will have to **favour small numbers of firms through INDPOL**, especially if there are Economics of Scale or Scope (including network economies) involved. → i.e. not 'picking', but 'creating' (potential) winners!

- While these are the prerequisites of successful development, these policies also entail **substantial potential pitfalls** (...and these pitfalls have materialized quite often.....):
  - Rent-seeking
  - Political 'capture, and hence
  - Complacency of the incumbents
  
- But is there still a chance for INDPOL which would support latecomer's catching-up? **Current international trade regimes reduce possibilities for industrial policies**: WTO & TRIPS
  
- Plus: the **,curse of commodities is still valid** ! (Examples in case:Russia, Venezuela)

## Successful policies for industrial development

- (1) did '**manage the rents**' from 'Protected Development' and channeled it into physical (infrastructure) and human capital (education&training, research&development) investments. To do so, you **need a pro-industrialization coalition**
- (2) **Did away with protection after a certain level** of development was reached
- (3) **Did NOT eradicate competition altogether, but shaped its form** (e.g. in 'Export-oriented Modernization' - which has worked much better than 'Import-substitution') and AIMED at being competitive on the world markets from the start.

## Successful policies for industrial development

- (4) Has to **adept when getting approaching the 'technology frontier'**: more emphasis on R&D, Higher Education, 'intangible investments', less on physical Investment
- (5) **Combined these 'generic' support with 'sectoral' one**. Did not define 'sectors' too narrowly.
- (6) Should **strive for new international trade and IPR rules!**

## PHOTOS



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