

Development Policy
Lecture 8

**Institutions and Policies for
Industrialization**



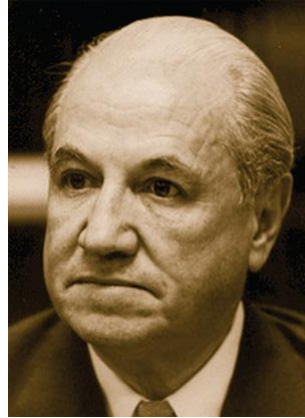
Paul Rosenstein-Rodan



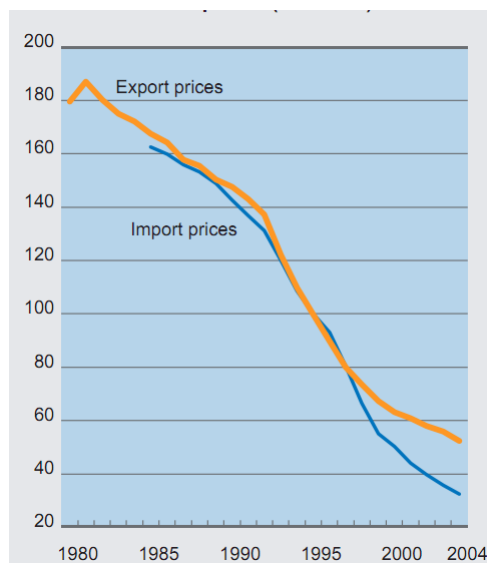
- A critical mass of investment or “big push” is needed to get industrialization underway.
- Large investments in infrastructure (transport and communications) are lumpy.
- Investment in complementary industries lowers costs and risks
- Positive externalities are available on the supply and demand side if the investment effort is large

Raul Prebisch

- Periphery exports raw materials and the center exports manufactures
- Prices of raw materials fall relative to manufactures because of power of labor unions, market power
- ISI is needed to stimulate the development of industry
- Over-estimated the potential of domestic markets and under-estimated contribution of agriculture



World computer prices, 1980-2004

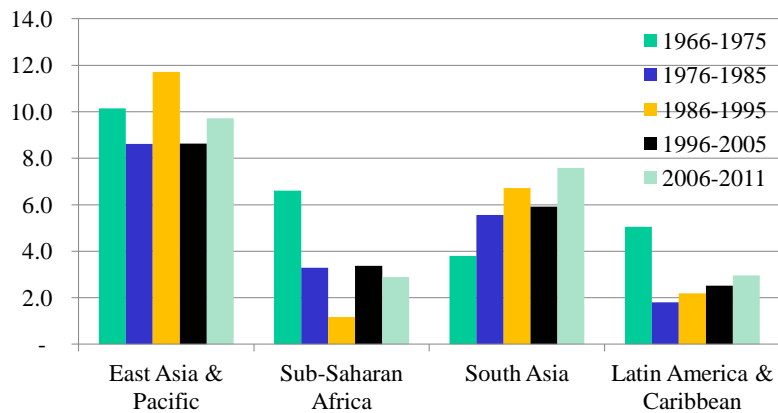


Source:
UNCTAD

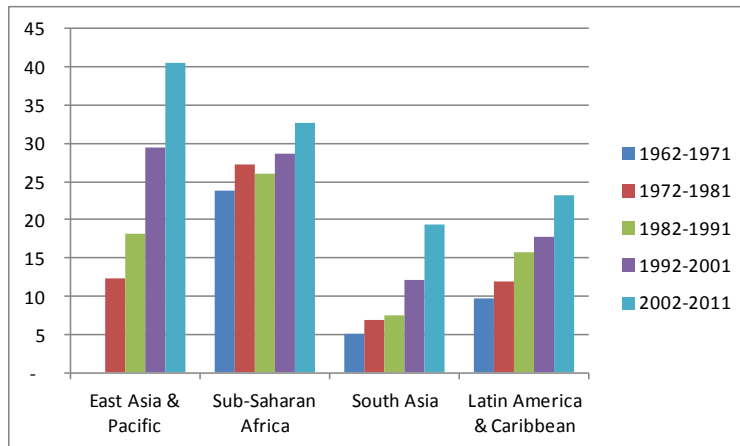
Natural resources as share of total exports (%)

	Agric	Food	Fuel	Ores and metals	Total
European Union	1.3	8.9	5.2	2.4	17.7
United States	2.3	10.2	5.8	3.5	21.9
Japan	0.7	0.7	1.8	2.8	6.0
Australia	2.0	14.1	32.0	27.4	75.5
Canada	3.6	11.5	25.0	7.3	47.4
China	0.5	2.9	1.7	1.2	6.3
India	1.2	8.0	13.4	6.2	28.8
Brazil	3.8	34.2	9.0	11.7	58.7
Indonesia	4.5	17.3	28.4	9.2	59.4
Russia	2.3	3.2	66.7	5.7	78.0
Vietnam	2.9	20.0	20.3	0.9	44.1

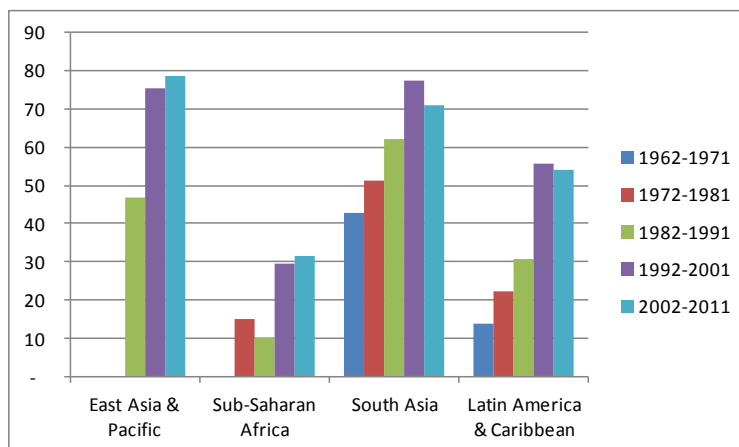
Growth of manufacturing value added (developing countries only)



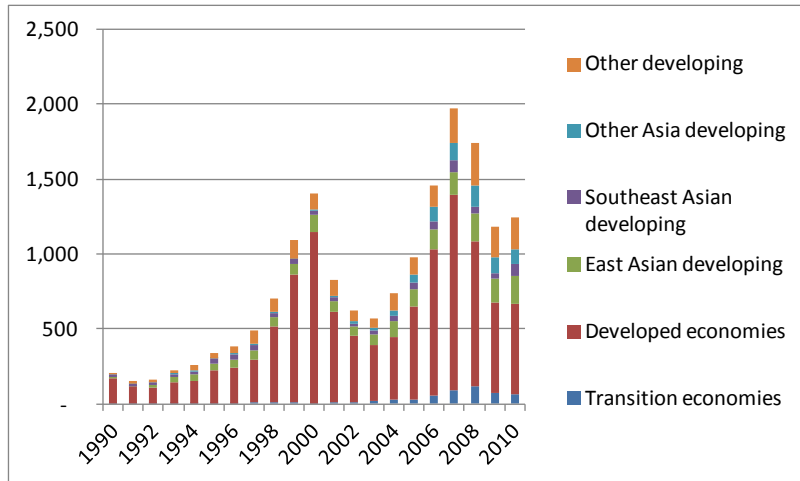
Exports as % GDP (developing countries)



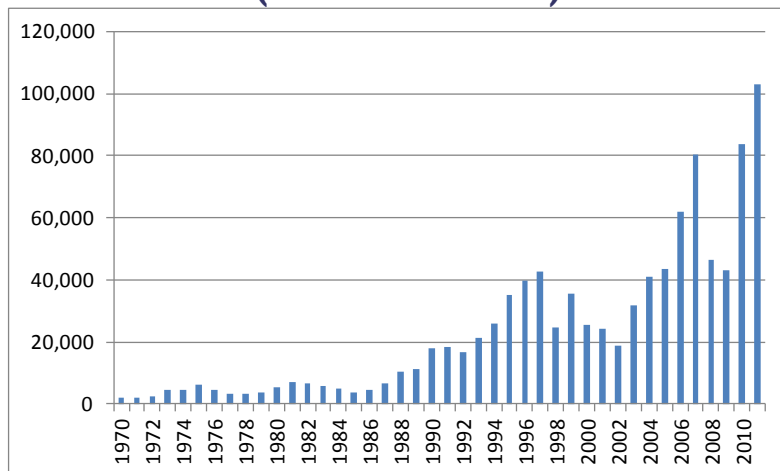
Manufactures as % of merchandise exports (developing countries)



Global FDI, USD billions

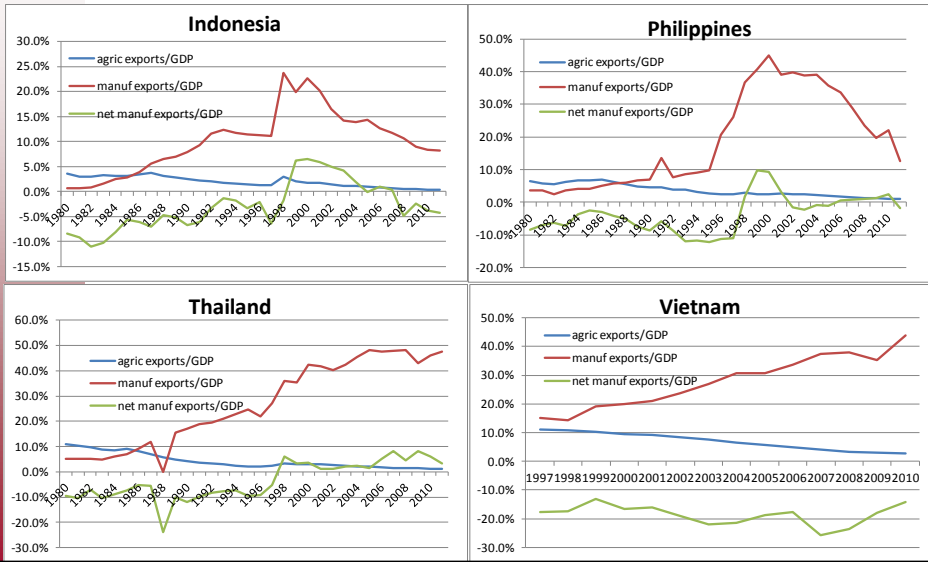


Inward FDI, constant US millions (2005 dollars)

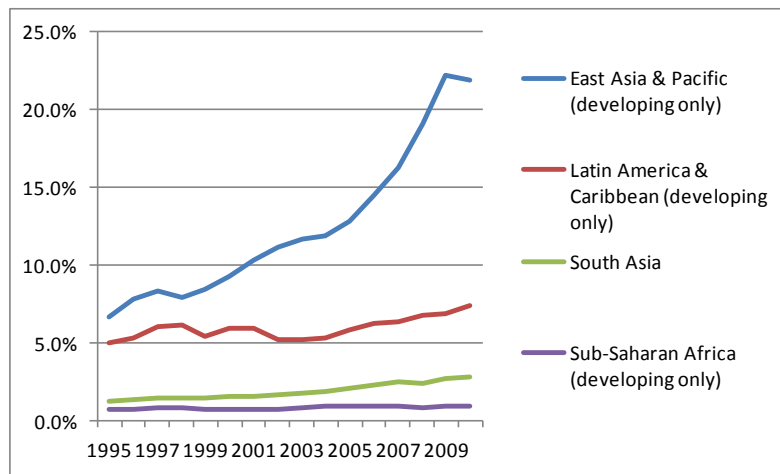


Includes ASEAN countries except Timor Leste. Source: UNCTAD

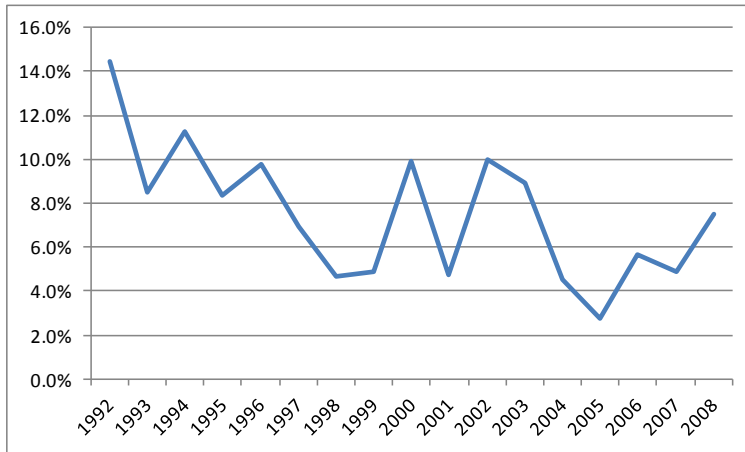
Exports as % of GDP



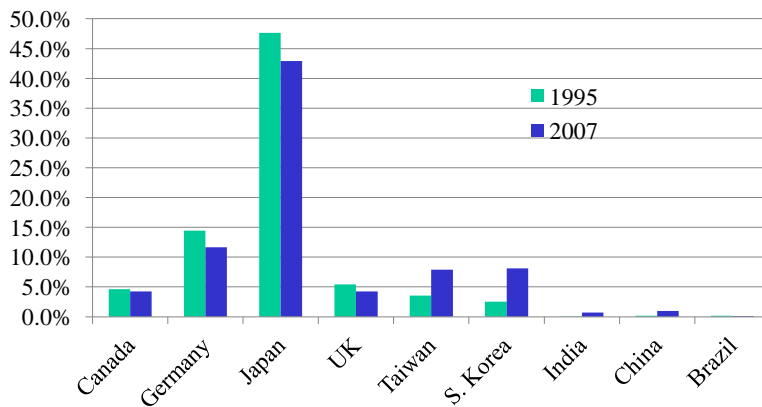
Share of global manufacturing value added



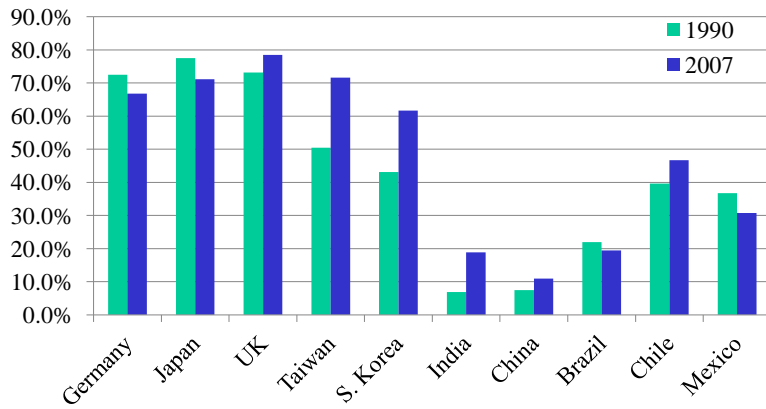
Growth of value added per employee in industry, East Asia developing countries



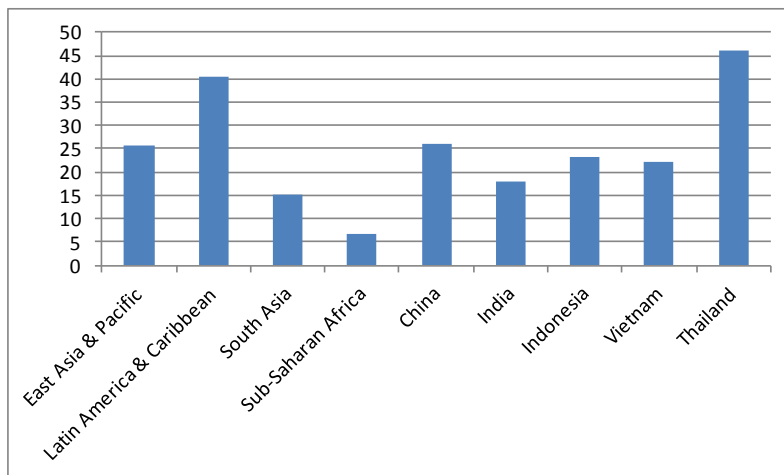
Share of Non-US holders of US patents by country



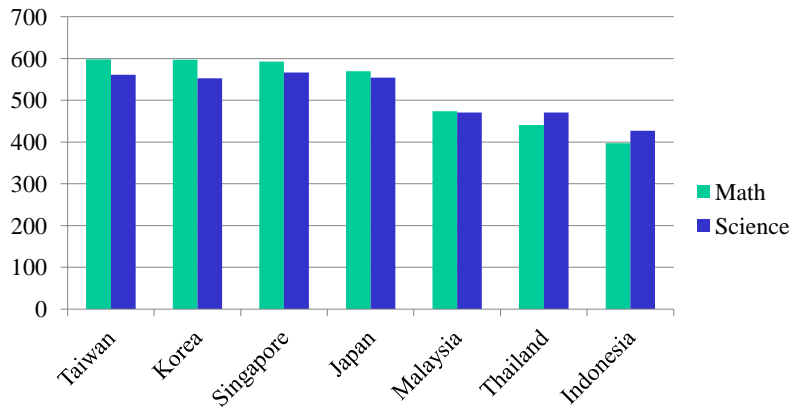
Labor productivity as % of USA



Gross tertiary enrolments



Results of standardized tests 2007 (500 = international average)



Times Higher Education Supplement top 400 global universities

Country	University	Count
Japan	University of Tokyo	27
Singapore	National University of Singapore	29
China	Beijing University	46
Korea	Pohang University of Science and Technology	50
Taiwan	National Taiwan University	134
Thailand	King Mongkut University of Technology	351+
Malaysia	None	
Indonesia	None	
Vietnam	None	

R&D spending as % GDP (2010)

