

The Manufacturing Sector

- A Key Foundation for a Vibrant Economy

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Ha-Joon Chang

University of Cambridge

hjc1001@cam.ac.uk

Website: www.hajoonchang.net

Malaysia's Achievements and Challenges I

One of the fastest-growing economies in the world in the last half a century

Upgraded itself out of 'traditional' natural-resource industries (rubber and tin), first into other natural resources (palm oil), then into processed natural resources (processed palm oil), and then into manufacturing (electronics and others)

World's third highest share of high technology exports (as defined by the World Bank) in total manufactured exports – 40% as of 2008

Malaysia's Achievements and Challenges II

However, not as fast-growing or as structurally transformed as countries like Korea and Singapore

Has failed to develop national firms that can compete at the top ends of the world market, even in government-promoted industries like automobile and steel (petroleum a partial exception)

High share of high-tech exports basically thanks to foreign companies

Share of Manufactured Exports & Share of Hi-Tech Exports in them

(World Bank data, ordered according to the latter,
excluding countries with less than 50% share in the former [in brackets])

1 the Philippines 66% (86%)	11 the Netherlands 22% (55%)
2 Singapore 51% (70%)	12 Finland 21% (81%)
3 Malaysia 40% (70%)	13 France 20% (79%)
4 Korea 33% (87%)	14 Mexico 19% (76%)
5 China 29% (94%)	14 UK 19% (72%)
6 US 27% (67%)	16 Japan 18% (89%)
7 Ireland 26% (86%)	17 Sweden 16% (76%)
8 Thailand 25% (75%)	17 Denmark 16% (67%)
9 Hungary 24% (80%)	17 Israel 16% (94%)
10 Switzerland 23% (90%)	20 Canada 15% (50%)

Malaysia's Achievements and Challenges III

Comparison with Korea

- 1961: Malaysia 2.6 times richer (per capita income \$215 vs. \$82 in current dollars)
 - Korea's main exports were fish, seaweed, tungsten ore, etc.
- Today (2009): Korean 2.7 times richer (\$19,830 vs. \$7,230 in current dollars)
 - Korea in possession of companies with internationally recognised brand names (e.g., Samsung, Hyundai, LG, POSCO) and ability to compete at the top end of the market in a number of industries (e.g., semiconductors, display, shipbuilding, automobile, steel)

What Should Malaysia Do? I

An increasingly popular view is that Malaysia should let services become the new engine of growth

- competition from China
- inability to catch up with the manufacturers from Korea, Taiwan, and Singapore
- current slowdown in manufacturing exports

This is seen as a natural – and smart – move in a ‘knowledge-driven post-industrial’ world

‘Post-industrial Knowledge Economy’? I

We have always lived in a knowledge economy.

- Control over knowledge has always been the key to economic prosperity
 - state-sponsored poaching of skilled workers in Europe until the 19th century
 - recent strengthening of IPRs
- Many knowledge-intensive services (e.g., research, engineering, design) have always been there – inside the manufacturing firms
- They look new only because they have been ‘spun off’ or ‘outsourced’.

‘Post-industrial Knowledge Economy’? II

More importantly, wrong to separate the manufacturing sector from the ‘knowledge’ sector

Historically, manufacturing has been the main source of new productive knowledge (the ‘learning centre’)

-Many technological innovations are driven by demands for practical solutions in the productive, especially manufacturing, sector

-Little knowledge created through ‘pure’ knowledge activities

‘Post-industrial Knowledge Economy’? III

De-industrialisation does not mean that (manufacturing) industry is now less important

- It is true that a higher proportion of people are working in shops and offices than in factories
- However, it is not as if we are producing or consuming less manufactured goods.
- Countries are consuming ever more manufactured products and many of them are also producing more in physical terms – share of manufacturing looks shrunken mainly because their productivities rise faster and therefore their relative prices fall.
- Thus seen, the usual ‘demand-driven’ explanation for de-industrialisation – that countries de-industrialise because, with growing prosperity, the relative demand for manufactured goods fall– is wrong.

‘Post-industrial Knowledge Economy’? IV

But, if de-industrialisation happens because of faster productivity growth in manufacturing, why worry?

The truth of the matter is that de-industrialisation can happen even when a country’s manufacturing sector is not doing very well

- All that is necessary for de-industrialisation to happen is that manufacturing has a higher productivity growth rate than services in the same economy.
- So it is possible that it has lower productivity growth in manufacturing than its competitors do
- This results in ‘negative de-industrialisation’ that leads to the loss of international competitiveness

‘Post-industrial Knowledge Economy’? V

Even if it is of the positive variety, de-industrialisation will have negative consequences for the national economy in the long run

- Slow-down in overall productivity growth due to the shrinking share of manufacturing, where productivity growth is faster
- Greater balance of payments problem due to low tradability of services
- This is particularly problematic for developing countries because these countries need a stable supply of foreign exchanges if they are to import advanced technologies (e.g., machines, technical consultancy)

‘Post-industrial Knowledge Economy’? VI

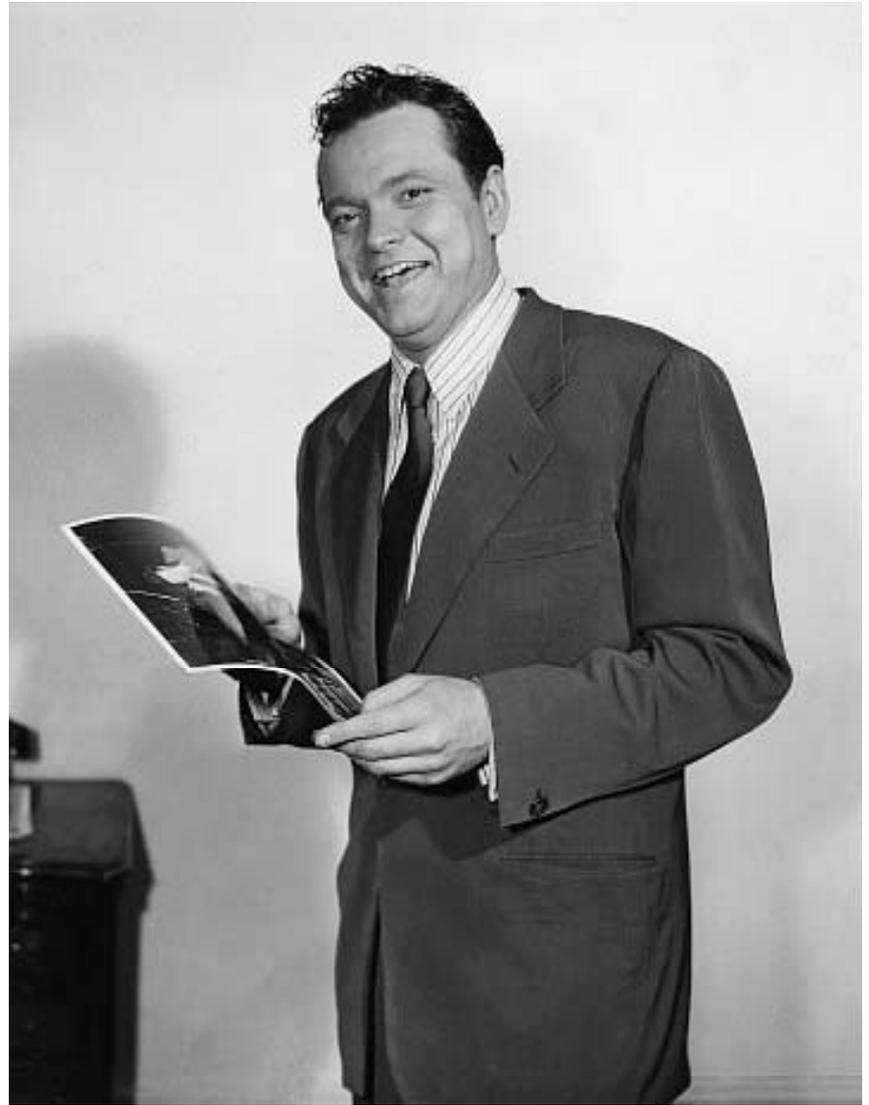
How about knowledge-intensive services, such as finance, design, engineering, which have high productivity growth and high tradability?

- Productivity growth in finance has been illusory (will fall with strengthening regulation, following the current crisis)
- These services can be developed only after you first acquire the ability to manufacture the relevant products
- Anyway, they sell mostly to manufacturing firms, so their prosperity depends on manufacturing success
- Of course, countries can export these services, but over time they are likely to lose their competitiveness in these services (and the services eventually relocate to the production sites).
 - This is because geographical proximity, shared traditions, and continued interactions between different stakeholders are critical in learning and innovation.

‘Post-industrial Knowledge Economy’? VII

But then how about countries like Switzerland and Singapore, which has become rich on the basis of services?

Or how about India, which has shown that countries can develop by specialising in the production and the export of knowledge-intensive services?



“In Italy for thirty years under the Borgias, they had warfare, terror, murder, bloodshed, but they produced Michelangelo, Leonardo da Vinci and the Renaissance. In Switzerland, they had brotherly love - they had five hundred years of democracy and peace, and what did that produce? The cuckoo clock.”

**(Orson Welles as Harry Lime,
The Third Man)**

Wrong, wrong, wrong!

- Five hundred years of democracy? What democracy?
 - Women were given votes only in 1971.
 - Two rogue cantons refused to give women votes until 1989 and 1991.
- The cuckoo clock was not invented in Switzerland.
 - It was invented in Germany.
- Switzerland is *not* an economy living off the black money deposited by Third World dictators and selling cuckoo clocks and cow bells to American and Japanese tourists (or, if you want to be nice to it, a post-industrial economy relying on services like banking and tourism).
 - It is one of the most industrialised economies in the world.

Manufacturing Value Added Per Capita, 2005

(in constant 2000 US dollars; index USA=100)

- Japan: \$8,474 153
- **Switzerland**: \$6,874 124
- **Singapore**: \$6,708 121
- Sweden: \$6,462 117
- Finland: \$5,939 107
- USA: \$5,528 100
- Korea: \$3,827 69
- **Malaysia**: \$1,430 26
- **China**: \$496 8
- **India**: \$83 1.5

Source: UNIDO

How about India? I

- Then how about India? - the supposed success story of service trade specialisation
 - “If China is the workshop of the world, India will be the office of the world”
- The truth is that India’s service trade has *not* been much of a success
 - Until 2004, India had deficit in service trade.
 - Between 2004 and 2009, India recorded service trade surplus equivalent to 0.9% of GDP, which covered only 19% of its manufacturing trade deficit (4.8% of GDP).

How about India? II

- This means that, unless it increases its service trade surplus by 5 times (an implausible scenario, given that its service trade surplus has *not* even been on a firm rising trend since 2004), India cannot maintain its current pace of economic development without a serious balance of payments problem.
- To repeat, the economic development of a technologically backward economy requires a stable supply of export earnings that will allow it to import advanced technologies.

What Should Malaysia Do? II

While developing some high-end services, Malaysia should develop manufacturing further by developing national technological capabilities (not necessarily ‘national brand names’ – see Singapore).

This requires the development of productive capabilities (both managerial and technological) through sustained investments in machinery, education, training, and R&D, supported by better policies regarding government procurement, social welfare, and other areas.

What Should Malaysia Do? III

Of course, Malaysia should not make a fetish of manufacturing and try to keep whatever manufacturing industry that has come into being.

- Some industries may have to be wound down, should it become clear that it is not viable in the long run.

Ultimately, what matters is not what you produce, but how you produce it, so it is vital that Malaysia gains greater productive (technological and managerial) capabilities.

- The Philippines has only \$2,000 income despite being the most hi-tech economy in the world on one indicator (hi-tech exports as a share of total manufactured exports) because it does not control the technologies at all.
- The Netherlands, despite having one of the highest population densities in the world, is the 3rd largest agricultural exporter in the world because it has 'industrialised' agriculture (hydroponic agriculture, computer-controlled feeding, high quality chemicals).