Economic Diversification and Economic Development

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Should you deliberately diversify the economy? I

- Until a decade or so ago, under the ideological dominance by neo-liberalism, the predominant view was that a country does not need to worry about what it produces.
- It was argued that, if left to market forces, countries naturally will end up specialising in products in which they have comparative advantage in, thereby maximising their current income and future economic growth – and if that ends up making you narrowly specialised in a few things, so be it.
- From this point of view, the government deliberately trying to change a country's specialisation through policy tools, like tariff protection or subsidies, is at best a waste of time and at worst a recipe for economic regression.

Should you deliberately diversify the economy? II

- Fortunately, in the last decade or so, it has become become increasingly accepted that developing countries should be concerned with what they produce and try to diversify their economies.
- People who have only been exposed to mainstream Neoclassical economics find this idea original, but it is an old idea that has been around for five, six decades – it was one of the central themes in early, non-Neoclassical development economics (e.g., Prebisch, Rosenstein-Rodan, Hirschman, Myrdal, Kuznets).
- These economists have pointed out at least four main reasons why developing countries should try to diversify their economies, especially through industrialisation.

Why should you diversify the economy?

- A. Need to spread risk
  - portfolio diversification

- B. Need to reduce long-term vulnerabilities to technological changes

- C. Need to upgrade the economy
  - Diversification tends to create greater productive capabilities

Need to spread risk

- A more diversified economic structure allows you to spread risk – on the principle of portfolio diversification.
- If you are reliant on a small number of products, you can get big negative shocks if the prices or the demands for them fall by a large margin.
- This is particularly a problem for developing countries, which tend to be reliant on a small number of primary commodities, although small industrialised countries with narrow specialisation are not immune to such a problem.
- Primary commodities are particularly prone to price and demand fluctuations, making macroeconomic management, including budget balancing and inflation control, more difficult.
- Of course, you have to bear some degree of risk if you are to specialise, but there is such a thing as 'excessive specialisation' from risk-management point of view.

Need to reduce vulnerability to technological changes

- The values of primary commodities can change dramatically due to technological changes, originating from the technologically superior countries.
- Malaysia knows this problem well, from its experience with synthetic rubber, but so many countries have suffered from the collapses of markets in bird guano, saltpetre, and natural dyes (e.g., cochineal) with the development of organic chemistry since the mid-19th century.
- Oil-producing countries, including Malaysia, will soon face this problem again, with the acceleration of developments in alternative energy technologies.

Need to upgrade the economy

- Diversification is needed for upgrading an economy's productive capabilities, which is the ultimate source of economic development in the long run.
- Diversification per se does not necessarily mean upgrading of productive capabilities – there can be horizontal diversification (e.g., Chile from copper into salmon, fruits, and wine).
- However, without upgrading, diversification can proceed only so far, as there is a clear limit to horizontal diversification (the recent economic slowdown in Chile)
- So, in practice, a more diversified economy has greater productive capabilities, and thus greater abilities to stay ahead of other nations economically.

How should you diversify?

- Today's prevailing view is that countries need to diversify into activities related to what they are already doing, especially activities that are related to the natural resources they have.
- So, for example, oil-producing countries are encouraged to diversify into petrochemical or energy-intensive industries like aluminium smelting.
- Developing countries are told that trying to enter industries that are too far away from their existing activities should be avoided because it runs a high risk of failure.

Related vs. Unrelated Diversification I

- ‘Natural’ resource endowments are often the results of somebody else’s industrial policy
  - Malaysian rubber (from Brazil), palm oil (from west Africa), and tea (from China) all results of British industrial policy

- A country’s natural endowments are more or less irrelevant when it comes to high-technology, high-productivity industries.
  - In industries like electronics, raw materials – like silicon, plastic, or coltan – account for very little of the cost.
  - In industries like automobile, so many different types of raw mat erials are required that no country can be said to have a ‘natural’ advantage for it.

Related vs. Unrelated Diversification II

- The principle of 'related' diversification is not a very useful guideline.
  - Starting from natural resources, after the first stage or two, where you diversify into is not obvious.
  - So, simply saying that you should diversify into 'related' industries does not tell you which path to choose.
    - If you are an oil-producing country, diversifying into petrochemicals may be obvious, but from petrochemicals you can diversify along a number of different routes, which will take you in very different directions.
    - Synthetic fibre – garments – fashion design
    - Pharmaceuticals – medical equipment/biotechnology
    - Plastics – new materials – nanotechnology
    - OR Plastics - plastic electronics/solar panels
    - OR Plastics – advanced packaging

Unrelated Diversification and Economic Development

- Therefore, a continuous and coordinated series of unrelated diversification is needed, at least until you reach a certain level of development.
- The South Korean Example
  - Initially: Natural Resources (tungsten ore*, raw silk, rice, fish) *no. 1 export
  - The 60s: Saw the development of labour-intensive manufacturing (textile, garments, wigs, plywood, shoes,, simple electronics) through five-year plans and active industrial policy
  - The 70s: More sophisticated industries intensive in their uses of capital and technology (steel, shipbuilding, automobile, petrochemicals), with even stronger industrial policy measures
  - The 80s-90s: Entry into semi-conductors; Upgrading of existing industries (electronics, automobile, shipbuilding, textile) through industrial policy measures

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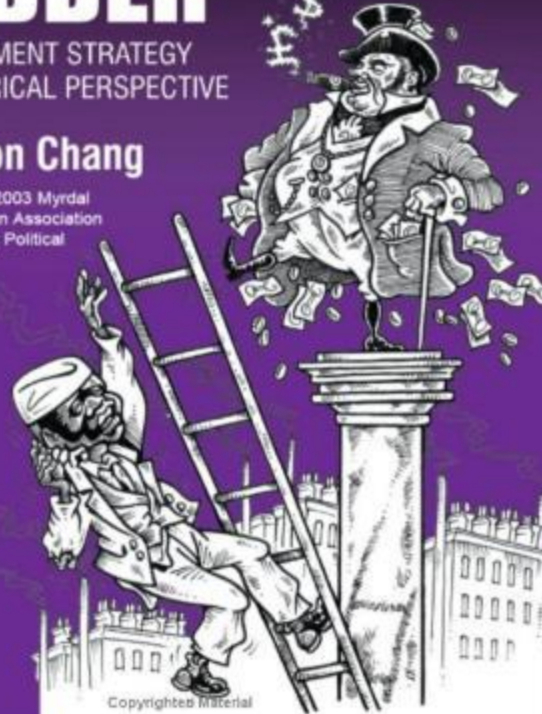

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Diversification is deliberate

- My view is that, in the end, countries become good at certain industries only because they decide to become so and make the necessary investments in machines, research, and worker skills, NOT because they are somehow destined to do so.
  - Japanese and Korean cars
  - Swiss and the Germans pharmaceuticals
- The same with companies
  - Toyota (textile machinery to cars)
  - Samsung (sugar and textile to electronics)
  - Hyundai (construction to cars and ships)
  - Nokia (logging to electronics)

A Balanced Diversification Strategy I

- There needs to be a balance between supports for new industries and supports for existing industries, including primary commodities
  - On the one hand, without the established industries earning sufficient foreign exchanges, the new industries won't have the means to import better technologies (through imports of machines and technology licensing).
  - Because it will take long time to fully establish new industries, it is important to maintain the export capabilities of existing industries for considerable lengths of time
  - Emphasising the importance of supporting existing industries to export does NOT mean that we don't need industrial policy

A Balanced Diversification Strategy II

- There needs to be a balance between supports for new industries and supports for existing industries, including primary commodities **(continued)**
  - Export markets have high entry barriers, so even existing industries need support from active industrial policy in order to achieve export success (e.g., export subsidies, help with meeting quality and sanitary standards, marketing support)
  - On the other hand, without a constant supply of new industries, the country's ability to export is going to stagnate or even decline over time, as there will be limits to raising productivity in existing industries and as new competitors emerge from poorer, lower-wage countries.
  - So, the government needs to promote successive generations of export industries through 'infant industry' promotion.

A Balanced Diversification Strategy III

- Even among the newly-promoted industries, a country needs to build a balanced portfolio in terms of the ‘difficulty’ (or the ‘distance’ from existing activities, if you like) involved.
  - It is true that farther away the industry that you want to enter is from industries that you are already engaged in, the greater the danger of failure.
  - However, if you only try easy, safe things, you will never make it big (“If you are not failing, you are not trying hard enough”: Joe Stiglitz)
  - Thus, what is needed is a balanced portfolio of industries with different risk/return profiles – a few high-risk/high-return new industries, a good number of medium-risk/medium-return industries, and a significant but (over-time) declining number of existing industries. .