Industrial Policy and the Role of Government: Is China East Asia?

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The power of government: Singapore

- “Will Singapore be around in 100 years? I am not so sure. . . I am absolutely sure that if Singapore gets a dumb government, we are done for. — Former Prime Minister of Singapore Lee Kwan Yew

The government of Singapore is powerful

- Government holds assets through Temasek etc.
- And well compensated.
- Government pay scales calculated using a formula to ensure competitiveness with the private sector.
- Starting compensation for a minister is set at 60% of the median salary of the top eight earners in six different fields, ranging from bankers to multinational CEOs.
- A straightforward objective function: GDP maximization
- A major pay raise in 2000 justified by the then Prime Minister Goh Chok Tong:
- “The damage we had prevented to the economy from the Asian financial crisis is more than enough to pay the ministers and the other political office-holders for the rest of their political lives and in fact over many lifetimes.” [“Judge my government by its results,” Strait Times, 2000]

Model for China?

- Many in China admire “Singapore Inc”
- Temasek often invoked to justify state ownership
- Meritocracy admired and emulated
- But real lessons of Singapore lie elsewhere:
- The government makes its decisions on the basis of complete market signals and information
- Among the freest capital markets, least regulatory burdens, and substantial cross-border labor market mobility
- The 60% median wage of civil servants is determined on globalized market-determined wage rates
- Singapore’s success: A managerial and leadership success
- Rather than a defiance of basic market-economic principles

Model for China?

- Paul Krugman (1994) analogized—and denigrated—Singapore Airline to Aeroflot
- He is wrong not only because of amenity differences and safety record between the two airlines
- But also because Singapore Airline operates in a fully competitive international market
- There is no domestic destination for its flights
- Temasek, which holds shares in Singapore Airlines, relies on market signals for its decision making
- None of these claims is true for China either in part or in whole
- Index of Economic Freedom (2024):
- Singapore: 1st out of 176 with a score of 83.5 out of 100
- China: 154th out of 176 with a score of 58.2 of out 100
- The power of Chinese government includes its power to determine the environment in which it exercises that power with complete discretion
- On top of huge managerial challenges of running one of the largest bureaucracies in the world with multiple and complex objective functions

Taiwan

- The Industrial Technology Research Institute (ITRI), founded in Taiwan in 1973, played a crucial role moving Taiwan beyond its reliance on low-cost manufacturing and into more technologically advanced industries, such as semiconductor industry and TSMC specifically.
- ITRI, the brainchild of K.T. Li, was non-profit, globally oriented collaborative and explicitly supportive of private entrepreneurship.
- It was modelled on similar organizations in Japan and South Korea
- The government provided substantial funding but after democratization the funding from the government declined
- Collaborated with RCA to transfer its Complementary Metal-Oxide-Semiconductor (CMOS) process technologies to Taiwan
- Many of the engineers were trained in the United States
- It housed the technology in Electronic Research and Service Organization (ERSO) that spun into United Microelectronics Corporation (UMC)
- Morris Chang, the director of ITRI, went to found TSMC

Taiwan

- ITRI encouraged, rather than hoarding, engineering talents
- It created a "X+Y=65" rule: Any employee whose combined age and years of service at ITRI totaled 65 or more was eligible for full retirement benefits
- ITRI acted as an incubator, the Taiwanese version of Y-combinator
- But with a guaranteed pension payout to reduce the risks of startups.
- Engineering talents flowed to the private sector
- A sharp contrast with the regulatory and political crackdowns on Chinese private sector

Size matters: East Asian tigers

- As successful as East Asian tigers are, they are still relatively small on a global scale
- One way to think about a successful, small export economy is that it is a price taker even at a relatively high per capita GDP level
- The global and domestic impact is dramatically different when that export economy turns into a price maker
- In 1996, semiconductor prices fell by 40%, triggered by the extraordinarily successful forays of Korean companies into this sector (mainly by Samsung and Hyundai)
- At the 1996 scale, Korean semiconductor industry affected global prices in ways it did not in 1990
- One of the triggers of financial woes in Korea's highly leveraged corporate sector and its broad financial crisis
- Second-tier Chaebols such as Hanbo (14th), Jinro (19th), and Sammi (26th), ran into problems, dragging down other Chaebols through lending contraction

The left tail problem in China: Length and persistence

- At the China scale, even at a relatively low per capita GDP, China is a price maker in many industries
- South Korea to US per capita GDP ratio in 1996: 0.36
- China to US per capita GDP ratio in 2023: 0.15
- And More so because of China's funding model and "mayor economy"
- China does not have an industrial policy
- It has an industrial campaign:
- Every region wants to do the same thing—data center, AI, EVs, etc
- And no region wants to back down first (or at all)
- The result is a long, persistent left tail of companies in many sectors of the economy
- "The Wish List of Industrial Policy," by Anran Tan, Shaoda Wang, and Daniel Yi Xu: Very modest average treatment effect from industrial policy designation in 2005
- The length of the left tail is a phenomenon rooted in soft-budget constraints, rent seeking or "banking on resurrection"
- A classic problem in a statist economy going back to Janos Kornai

The engineering success vis-à-vis economic success

- China is clearly capable of engineering products and companies
- Huawei, BYD, DJI, CATL, NIO, etc.
- Engineering successes without shortening the left tail create a commercial problem at the sectoral level
- Preempt technological rent to the winners
- And a capacity problem for the rest of the world
- We can debate the normative implications for the world, such as the impact on climate
- But for China’s corporate sector, and its banks, this is a huge problem
- And a problem for the economywide productivity (TFP)

Finally, the demand—and the income--side

- No East Asian economies has had state ownership of land and Hukou system
- By the early 1970s, South Korea already achieved rural-urban income parity that automatically stabilized population movements
- Land reforms in Taiwan turned farmers into entrepreneurs using their land as collaterals to access credit.
- Several suppliers to TSMC started out as rural businesses
- Taiwan had a “graduation” strategy rather than “capital scrapping” strategy (Alwyn Young’s description of Singapore in the 1980s)
- In China, state ownership of land and tiered population system reduced the income flows to the household sector, especially the rural household sector
- Increased income flows to the investment-prone government and capital sectors
- Exacerbated overcapacity problem on top of the savings effect

Thank you