One of the most momentous and least understood events of this half-century is East Asia's rise from poverty. The high rates of economic growth consistently achieved over decades by the Asian tigers--Hong Kong, Singapore, Taiwan and South Korea--have almost no equal anywhere at any time. Growth theory has trouble explaining this. The difficulty is compounded by the wide divergence in circumstances and economic policies of the four countries. Alwyn Young, a business professor at the Massachusetts Institute of Technology, has written a paper looking at how Hong Kong and Singapore did it. If his analysis is right, it augurs ill for Singapore in the next decade or two.

Hong Kong and Singapore started on a similar footing in 1945. Both were city-states, British colonies (with a British legal and administrative system) making their living as trading ports. Neither manufactured much. Both were populated mainly with immigrants from southern China. In 1960 the two territories had roughly the same GDP per head, which over the following quarter-century grew at an astonishing and virtually identical 6% a year in real terms. Both were free traders, allowing foreign goods and money to flow where they would. Both climbed the same industrial ladder, moving up from textiles to plastics to consumer electronics to financial services.

There were two crucial differences. First, Hong Kong, its population luckily swollen by sophisticated Shanghainese refugees from Communist China, had a vastly better educated population than Singapore's until well into the 1980s. Second, Hong Kong had a laissez-faire government (to the point of not investing even in needed infrastructure until street riots forced it to); Singapore had an extremely interventionist one.

The government decided which industries Singapore should go into and when. Through its Central Provident Fund levies on companies and workers, it compelled private savings of around 40% of GDP. Through state-owned companies and boards the government channelled much of these savings, as well as its large excess of current tax revenues over current spending, into investment it favoured. It welcomed, indeed heavily subsidised, direct investment by foreign multinationals. The sources of growth in the two territories turned out to be startlingly different. Between 1960 and 1985 Hong Kong saved and invested a more or less consistent 20% of GDP. Singapore, which in 1960 invested half as much as Hong Kong, surpassed it in 1967 and has invested a larger share ever since: by the late 1980s Singapore's investment as a share of GDP was more than 40%, more than twice Hong Kong's rate.

In the two decades after 1970, Hong

1 "A tale of two cities: Factor accumulation and technical change in Hongkonf and Singapore", to be published in the "Macroeconomics Annual" (1992) of the National Bureau of Economic Research.
Kong's output per worker went up more than 2.5 times, Singapore's a little more than twofold. Not much difference there. However, Hong Kong's output per unit of capital stayed roughly constant over the 20 years; Singapore's was more than halved.

The alarm bells about Singapore's use (or misuse) of capital keep ringing louder. By the mid-1980s Singapore's incremental capital-output ratio--meaning how much extra capital was needed to produce an additional unit of output--was twice Hong Kong's. As you would expect from an ever-increasing use of capital, Singapore's return on capital, which in the early 1960s had been 40%, by the late 1980s had fallen to 11-12%, one of the lowest rates in the world.

Most damning of all, Mr Young finds that over the two decades after 1970, 56% of Hong Kong's increase in output per worker came from a rise in "total factor productivity" (how much can be produced by combining given units of land, labour and capital). Singapore's total factor productivity fell by 6% over those years: in other words, 106% of Singapore's growth in output came from adding capital. To put it crudely, Hong Kong got richer by becoming a lot more efficient in the way it used people, capital and technology. Singapore became richer by thrusting its hands ever deeper into its citizens' pockets--through taxes, forced savings and subsidies to multinationals--and throwing the money at the problem.

Economic-growth buffs will find it interesting that Hong Kong seemed to benefit so much from the better education of its people. For Singapore, however, Mr Young's analysis has a gruesome and more or less immediate practical implication. If he is right, Singapore has very few years of growth left along the old lines: it simply cannot extract much more savings from its people--already the biggest savers in the world--to support its growing craving for capital. Mr Young's cruel comparison is to the Soviet Union, which turned in respectable growth rates from the 1930s to the 1960s by pouring on the capital. Everyone knows what happened after that.

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The laggard

Output per:

- worker
- $ of capital

in Hong Kong

in Singapore

1971=100

Source: Alwyn Young, Massachusetts Institute of Technology