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## Govt needs to intervene for innovation to take off in HK

By Naubahar Sharif

## *Naubahar Sharif says until people appreciate the contribution science and technology will make to HK's future growth, further declines in the SAR's global innovation rankings are likely.*

Earlier this week, an article appeared in the South China Morning Post entitled, "Hong Kong slips in global innovation ranking as regional competitors edge ahead", in which the latest (2016) rankings published by the Global Innovation Index



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(GII) were discussed.

The title of the article was a little misleading insofar as it may have given the impression that in terms of global innovation, Hong Kong was once ahead. If we are to use the standard measurement of innovation — namely, research and development (R&D) spending as a percentage of an economy's GDP — Hong Kong has, sorry to say, never been ahead and never been a leader as compared to its competitors. The usual economies to which Hong Kong is compared are the neighboring Asian economies of South Korea, Taiwan and Singapore, sometimes referred to as fellow "Tiger" or "Dragon" economies. From among this group, Hong Kong's moves toward growing its efforts in terms

of science, technology and innovation have been the most conspicuous by their absence. Instead, South Korea, Taiwan and Singapore are examples of successful catch-up, Tiger Economies that have implemented aggressive science, technology and innovation policies, combined with intensive technological learning. In 2014 (the latest year for which figures are available), Hong Kong's expenditure on R&D as a percentage of its GDP was 0.74 percent. Compare this figure to South Korea's, where it was 4.29 percent, Taiwan 3 percent, and Singapore 2.2 percent. To illustrate that we have never been ahead, some 20 years ago in 1995 the corresponding figures were: Hong Kong: 0.36 percent; Korea 2.2; Taiwan 1.69; Singapore 1.1.

The comparison with South Korea, Taiwan and Singapore is insightful because each of these three economies has taken moves to step away from traditional advantages of low factor input costs of land, labor and capital in order to transform themselves into knowledge-based economies with a strong focus on adding value through the use of higher scientific and technological sophistication of their products and services produced. While it is easy to bash the government for any of society's ills, if there is one lesson to be learned from developed (or fast developing) innovation systems — such as those of our regional neighbors — it is that strong governmental leadership is required.

Pursuing R&D is a classic example of market failure. That is, without government intervention there is substantial evidence of private-sector underinvestment in innovation. In other cases of market failure, governments intervene in (usually a combination of) two basic ways — by using the price mechanism or by using legislation. With R&D too, governments can implement policies that work to correct this underinvestment, typically by using the price mechanism. If such policies are ill-designed, however, they will at best be ineffective, and may at worst harm technological performance. The issue for Hong Kong, though, is not about which way to intervene to boost Hong Kong's scientific and technological performance. Rather, the issue for Hong Kong is to do something at all! For too long, the misplaced ideology of "laissez-faire", or "positive non-interventionism", or "big market, small government" has led the government to perpetuate the status quo, or use

the ideology as an excuse to do nothing. There have been some bursts of government activity (notably under Tung Chee-hwa's leadership, post-Asian financial crisis), but the efforts, as compared to those of our regional neighbors once again, have neither been concerted enough nor sufficiently consistent.

In the meantime the Chinese mainland, which only opened its doors to foreign investment in 1978, has powered along in ways that are atypical for a developing economy, and now has developed Shenzhen — a non-existent city prior to 1979 and a city that was a Hong Kong-wannabe for much of its existence — as well as the broader Pearl River Delta into a high-tech zone for the country at large. The euphoria over the recently announced Shenzhen-Hong Kong Stock Connect was in no small part due to the opening of the possibility for Hong Kong and overseas investors to invest into the mainland's highest technology companies, many of which are listed on the Shenzhen Stock Exchange.

Shenzhen's (and the whole mainland's) embrace of science and technology should serve as a harbinger for Hong Kong. If the leaders of a massive economy like that of the Chinese mainland realize that they cannot forever rely on their low factor input costs to spur growth, competitiveness and employment, then it behooves us in Hong Kong, with our vast financial resources — yet comparably tiny economy — to embrace some of the policies that Shenzhen has instituted to promote innovation and technology.

Regrettably, in terms of science and technology in Hong Kong, it is not for want of resources that we lag behind either the mainland or our other regional neighbors, but rather because of our mindset. As a community we have not sufficiently bought into the idea that science and technology hold any possibility of contributing even remotely to our future growth prospects.

Until we do, we should expect further decline in global innovation rankings. The author is an associate professor of social science at the Hong Kong University of Science and Technology.