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## General Discussion

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Wing Thye Woo noted that Singapore has faced serious economic challenges in the past and has shown an extraordinary ability to overcome such difficulties. The main question is whether the present challenge differs in nature and magnitude from past ones and whether it requires a different approach to be solved. Fredrik Sjöholm noted that past economic growth has been attributed to factor accumulation. However, declining fertility rates and an investment rate of nearly 50 percent of GDP suggest that future growth has to be generated through technological progress. One problem is that Singapore is totally dominated by foreign-owned firms and that such firms typically locate R&D in their home countries. Through subsidies, the government is encouraging foreign firms to locate R&D in Singapore, with some success. However, the success comes at a high price, since the subsidies are amounting to about 50 percent of R&D expenditures. Jong-Wha Lee agreed that technological progress has to be the main issue of future policymaking in Singapore. Most studies of Singapore show a historically very low, and sometimes even negative, degree of technological progress, at least as measured by total factor productivity (TFP). Lee suspected that the problem was worst in the service sector rather than in manufacturing. The authors replied that there are signs of increased TFP growth during recent years, that manufacturing shows a reasonable growth, and that the construction sector is the worst performer. Chia Siow Yue argued that one problem, and one explanation for Singapore's relative paucity of R&D and technological progress, is the low level of education in Singapore. Attainment of tertiary education is well below the level in countries at a similar income level. In other words, Singapore has traditionally educated only the elite, and a large share of the population does not have the necessary

skills required in a more sophisticated economy. On the positive side, the government seems aware of the problem and has expanded higher education in recent years, and the universities have become more research oriented. Choong Yoon Ahn noted that Singapore is obviously trying to promote itself as a hub economy. It might be possible to import high-level skills from elsewhere in the region if there is a shortage of highly educated people within Singapore.

Several participants discussed the issue of entrepreneurship in Singapore. Sjöholm noted that talents are allocated where the return is the highest. In Singapore this is in the government sector. As a result, Singapore's administration is highly efficient, and this is likely to be one explanation for its past high economic growth. However, it is not likely that the most talented Singaporeans will continue to be best used in government administration. Instead, it might be preferable if they set up their own companies in order for Singapore to develop an indigenous private business sector. In order for this to happen, the government has to change the monetary rewards by lowering the salaries of its own workers, a policy that is likely to be difficult to pursue. Chia Siow Yue agreed and said that the present policy for achieving entrepreneurship in Singapore was through the establishment of a ministry of entrepreneurship, which is unlikely to solve the problem of a small private business community. Chia expressed concern that government-linked companies (GLCs) dominated the domestically owned business sector. Singapore's free trade agreement with the United States has improved the situation, since the GLCs were forced to divest. However, a new conglomerate in the form of the trade union NTUC was spreading into a wide array of activities, including taxi service, health care, and even supermarkets. Sjöholm noted that Singapore is perhaps the only high-income country in the world with an authoritarian regime. It is possible that the lack of democracy is negative for future economic growth, since constraints on freedom of speech and civil society might also have a negative effect on creativity and entrepreneurship.