## **Submission to the LegCo Panel on Education**

## Leonard K. Cheng Department of Economics Hong Kong University of Science and Technology

19 February 2001

Mr. Chairman, the Honorary Dr. YEUNG Sum,

I would like to comment on (a) the Government's decision to cut funding for the SAR's tertiary institutions in relation to the Government's professed commitment to building a knowledge-based economy, and (b) on recent talks about the high costs of Hong Kong's tertiary institutions relative to the world's top universities.

- 1. We are all aware that Hong Kong is losing some of its traditional competitive advantages due to competition from low-wage economies such as the Chinese mainland. In order to maintain Hong Kong's living standard and hopefully improve it further, there is no way other than to develop its ability to produce competitively high value-added products (goods and services).
- 2. Hong Kong's semi-skilled and less educated workers cannot compete in the world market without a drastic reduction in their wages because much cheaper workers are in abundant supply in the world. In my view, their best hope for making a decent living in Hong Kong would be to produce non-tradables (such as restaurants, retails, personal services, etc.) for consumers in the SAR. Thus, for good or for bad, the livelihood of the semi-skilled and less educated depends on the success of Hong Kong's high value-added industries.
- 3. Transforming the traditional economy into one that is based on the creation and exploitation of knowledge is not only about shifting resources from some sectors into other sectors. It is really about upgrading the knowledge and skills of Hong Kong's workers to enable them to compete in the high value-added industries.
- 4. Education and R&D are the twin foundation of a knowledge-based economy. Education trains people in the frontier knowledge and methods of discovering new knowledge, in particular better solutions to problems faced by individuals and the society. The primary objective of R&D is the discovery of new ideas, new skills, and new technologies.
- 5. It is ironic that the Government has decided to reduce support for Hong Kong's tertiary institutions at a time when the SAR needs these institutions the most. Funding for the current triennium has already been reduced, and the

Government thinks it is appropriate at this juncture to cut further its investment in tertiary education and research in the next triennium. On top of the explicit cut, the government has been accused of short-changing the institutions by \$1 billion with inappropriate funding parameters. It is not clear how cutting support for tertiary institutions demonstrates the Government's commitment to developing the SAR into a knowledge-based economy.

- 6. Excellent tertiary education is never cheap, but it is also an investment that no country can afford to miss if it wants to maintain a high living standard. Recent talks about subsidizing tuition for qualified students to get a degree from the Harvard's and Oxford's of the world, I hope, are only an expression of the Government's desire to ensure that funding for Hong Kong's tertiary institutions is getting the money's worth. I hope they are not a prelude to a serious proposal to dismantle Hong Kong's own universities.
- 7. I believe the suggestion that the Government can save money by sending Hong Kong students to top-tier U.S. universities is based on erroneous or incomplete information. First, much more than US\$80,000 would be needed for four years of undergraduate studies at these top-tier private universities. Second, an ability to pay tuition is probably the least important factor in Harvard's admissions decision, because the university is not short of outstanding applicants who are able and willing to pay over US\$29,000 of tuition and fees (not including room and board). Realistically, the top universities in the world will only admit a very small percentage of students from a small place like Hong Kong. Third, the functions of a university are often more than training undergraduates. It also attracts talents from abroad and provides continuing education to the working professionals. All of these are based on a university's ability to consolidate existing knowledge and discover new knowledge.
- 8. As an illustration of the last point, I would like to quote Professor Gerhard Casper, President of Stanford University. "Universities promote the public welfare through the increase of knowledge..... While few of the University's supporters could have envisioned the extent to which students from Stanford, ideas from Stanford, and in many cases, breakthroughs from Stanford would shape the close of this century, all share a deep commitment to supporting the continued search for knowledge that is our mission." (*Stanford University Annual Report 1999*, p. 6.)
- 9. It is also interesting to note that Professor Casper quoted a well known Chinese proverb when he argued why Stanford should build up a large endowment fund to ensure its strengths. "If you plant for a year, grow rice. If you plant for a decade, grow trees. If you plant for a century, grow educated men and women." (*Stanford University Annual Report 1999*, p. 4.)
- 10. The recent operating expenditures of some U.S. universities are presented in the attached table. (Unfortunately, data on the operating expenditures of British universities have yet to be collected.) Apparently, the expenditures varied depending on the mix of undergraduate and graduate students, the

- extent of research (sponsored and non-sponsored) undertaken, and the amount of public services provided.
- 11. The operating expenditures of Hong Kong's tertiary institutions in 1999/2000 amounted to about US\$1,578 million (HK\$12,311 million). With a total of 69,948 FTE, the operating expenditures per FTE are US\$22,564 (data are taken from UGC's web site). That is to say, Hong Kong's operating expenditures per student is slightly below those of Michigan State University but substantially below those of UCLA and all the included U.S. private universities. Note that some of the operating expenditure figures are relatively old. Since the endowment funds increased very substantially from 1999 to 2000, their operating expenditures would likely be higher. In contrast, funding for Hong Kong's universities in the new triennium is expected to decline. Thus, the gap between the financial support received by the U.S. universities and Hong Kong universities will widen.
- 12. Realistically, in the foreseeable future Hong Kong's tertiary institutions cannot match the U.S. top private universities and leading state universities such as UC-Berkeley and UCLA. It takes time to build a great university. As the increase in research funding to the tertiary sector in Hong Kong took place only about ten years ago, it would be unrealistic to expect any local university to attain the stature of the world's top universities.
- 13. Nevertheless, in some areas Hong Kong academics have already attained international recognition. With adequate support Hong Kong's research intensive universities should be able to compete well in teaching, research and public service against well respected universities such as the Michigan State University. Indeed, in a recent ranking of business schools in the world, HKUST Business School (at 48) was almost 29 places ahead of Michigan State's Broad School. Other areas of excellence at Hong Kong's tertiary institutions, I have been told, include mathematics, electrical and electronics engineering and information engineering, biology, and medicine, etc.
- 14. Sending some students overseas for undergraduate education and graduate studies is certainly valuable to Hong Kong because it is always beneficial to learn from others. However, there is yet no known case of a developed country that does not have its own universities. Hong Kong aspires to become a world class city in the same league as London and New York. Is it possible to have a world class city without very good universities? May be, but it has not happened yet. Moreover, because universities are a primary receptacle of existing knowledge and the key generator of new knowledge, I believe it would be highly unlikely for a city to be regarded as world class in the sense of frontier knowledge in science, technology, management, arts, etc. if it does not have very good universities.

## **Enrolment and Annual Operating Expenditures of Selected U.S. Universities**

University and academic year	Undergraduat e Enrolment (percentage of total enrolment)	Graduate Enrolment (percentage of total enrolment)	Total Enrolment	Total Operating Expenditures  (US\$ million)	Operating Expenditures per Student (US\$)	Percentage of Operating Expenditure Financed by Tuition
MIT, 1999/2000	4,300 (43.1)	5,672 (56.9)	9,972	1,290	129,361	12.4
Princeton, 1999/200	4,556 (72.4)	1,735 (27.6)	6,291	631	100,353	26
Stanford, 1998/1999	6,594 (46.4)	7,625 (53.6)	14,219 (FTE: 13,147) <sup>+</sup>	1,421	99,944	20.4
Harvard, 1998/1999	7,127 (38.2)	11,512 (61.8)	18,639 (FTE: 17,930)	1,784	95,719	28.9

Yale, 1996/1997	5,312 (48.5)	5,646 (51.5)	10,958	995	90,819	25
UCLA, 1998/1999	24,103 (67.3)	11,693 (32.7)	35,796	2,395	66,907	8.3
Minnesota, 1998/1999*			FTE: 51,638	1,581	30,617	14.2
Michigan State, 1999/2000	33,966 (78.9)	9,072 (21.1)	43,038	1,129	26,235	22

Sources: Official web sites of the above universities.

<sup>+ &</sup>quot;FTE" stands for "full time equivalent."

<sup>\*</sup> The total enrolment figure is for the entire University of Minnesota system, which includes four campuses, namely, Twin Cities, Duluth, Morris, and Crookston. Without further clarification there is ambiguity as to whether the total expenditures were for the entire system, or were only for the major campus of Twin Cities. Since the Twin Cities campus account for about 75% of the system's total enrolment, in the latter case the average expenditures per student would be about 30% higher.