

RAISING STANDARDS: TURNING HONG KONG INTO CHINA'S TESTING AND CERTIFICATION CENTER

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More than a decade after reunification with the People's Republic of China, and after struggling with the effects of one past and one current economic crisis, the former Crown Colony, now a Special Administrative Region (SAR) of China, continues to seek—with erratic success—a post-industrial economic model in a world driven by information technology and global enterprise.

Mainland China's prodigious growth into an economic powerhouse, following its embrace of market-based economic principles, has transformed Hong Kong's role in Asia and the world. In the wake of the financial crisis of the late 1990s, Hong Kong attempted, among other measures, to fund various initiatives meant to stimulate new activity in technology and innovation, thereby taking a small step away from its traditional laissez-faire approach to economic policy. Now, facing yet another economic crisis, the government's response, coupled with recent controversies caused by lax consumer product safety standards at low-cost mainland manufacturing plants, may provide it with a unique opportunity to adopt a new role consistent with the trend towards inevitable economic integration with China.

Chinese problems with consumer safety standards have emerged in several industries, provoking recalls in the United States and many other countries of Chinese-produced goods such as baby formula, pet food, toys, candy, blood-thinning drugs and more. Concern in the U.S. has grown so acute that the American government has opened a branch office of its Food and Drug Administration (FDA) in Beijing. This move into China includes inspection stations in Shanghai and Guangzhou. These events represent an opportunity for Hong Kong to step into the regulatory breach by harnessing recent gains in innovation and technology to position itself as a testing and certification center for Chinese industries.

In fact, such a strategy forms part of the Hong Kong government's own plan for recovery from the current economic crisis. To establish Hong

Kong as a center for testing and certification of private sector compliance with a host of industry standards taps into two of the six key industries now targeted as “engines” for development as part of a new government strategy for advancing not only Hong Kong’s capacity to compete in global markets but also provide essential services for the mainland economy. A brief review of the recent history of innovation and technology in Hong Kong sets the stage for an evaluation of Hong Kong’s potential as a testing and certification center.

Hong Kong before the Asian Financial Crisis of 1997

Hong Kong has long represented an Asian success story, and may long remain so even considering the many challenges it has faced not only in the wake of the handover but also in response to global economic currents. As British rule ended, Hong Kong was repositioning itself on the world stage as a manufacturing center, offering an effective proposition based primarily on low production costs. Neither innovation nor technological sophistication figured significantly in this success, as manufacturers relied on traditional modes of production to keep costs low. As costs rose, however, companies simply moved to the nearby mainland, allowing them to leverage the abundant labor and land resources of Guangdong Province to fuel export-led growth. Thus did Hong Kong control a large manufacturing base in Guangdong. Even when upgrading this organizational model, Hong Kong firms exploited their traditional strategies of imitation and followership based on organizational know-how rather than on expensive formal research and development.¹ Hong Kong has also remained an important financial services provider, although this sector has for the most part not invested in expensive indigenous R&D.

Indeed, this legacy of can-do, entrepreneurial industriousness has until recently seemed to vindicate the government’s laissez-faire approach to economic policy, memorialized in the phrase ‘positive non-intervention’ (re-coined a few years ago as ‘small government, big market’). This legacy has pervaded all sectors of the economy, including innovation and technology. Limiting government to creating just enough infrastructure to enable entrepreneurs to exploit market opportunities, Hong Kong’s innovation and technology activities followed a desultory path prior to 1998.² There was little or no structured innovation activity; in contemporary terms, there was no innovation system. Minimalism prevailed.

Innovation and Technology after the Crisis

The shock of the 1997 financial crisis changed the course of innovation in Hong Kong. Seeking to spur the economy forward, the government began actively supporting and developing institutions designed to fuel economic growth through innovation and technology. Tung Chee Hwa, Chief Executive of Hong Kong following reunification, formed a Commission on Innovation and Technology (CIT), and eventually several initiatives involving technology-related resources were created to help bring Hong Kong's economy into the global knowledge-based economy. The government agency that is primarily responsible for innovation and technology policy, the Innovation and Technology Commission (ITC), recently proposed a new strategic framework to enable the sustainable development of its innovation and technology program, based on five 'R&D Centers'.

This program, established in April 2006, represented a strategic change of policy direction. The five centers conduct industry-oriented applied R&D in order to enrich collaborative applied research activities involving industry and research organizations in five areas—automotive parts and accessory systems, information and communication technologies, logistics and supply chain management, nanotechnology and advanced materials, and textiles and clothing—and promote technology transfer to relevant industries.³ In line with the market-driven, demand-led approach of the new innovation and technology policy, the centers work closely with industry on setting the direction of R&D, promoting technology transfer, and facilitating the commercialization of R&D results.

Given the brief tenure of the R&D Centers, existing statistics cannot yet gauge their performance reliably, but it may be possible to begin judging their effectiveness as early as mid-term reviews scheduled during 2009.⁴

Response to the New Crisis

The current global recession, which began in the United States and spread across the industrialized world, has hit Hong Kong hard, leading the government once again to search for alternative paths—not related to its traditional lifeblood of finance—to renewed prosperity. Facing a citizenry anxious for leadership and direction, Hong Kong's current Chief Executive, Donald Tsang, announced, in his 2008-2009 policy address, the establishment of a special task force charged with transforming the challenges posed by the crisis into new business opportunities which could enhance Hong Kong's competitiveness. On 28 October, 2008 the 'Task Force on Economic Challenges' (TFEC) was formed, chaired by Tsang himself, with members from industry, academia and government,

meeting for the first time on 3 November 2008.⁵ Although its mission is similar in some ways to that of the older CIT, the TFEC has been given a broader portfolio that ranges beyond leveraging innovation and technology for economic growth. The TFEC is expected to offer broader recommendations pertaining to ‘opportunities for economic development’—whether or not they relate to innovation and technology.

The TFEC has accordingly identified six ‘new engines for economic growth in Hong Kong’s knowledge-based economy’: medical services; testing and certification; innovation and technology; educational services; cultural and creative industries; and environmental industries. As Tsang wrote in an editorial published in the *South China Morning Post* on 22 June 2009, these six “industries will complement our four pillar industries of financial services, producer and professional services, trading and logistics, and tourism. Combined they will form an even more solid base for economic growth”. Given this list of targeted industries, an effort in Hong Kong to harness its recent gains in innovation and technology to establish testing and certification facilities could in effect kill two birds with one stone by linking innovation and technology resources with testing and certification resources. How well positioned is Hong Kong to realize such a goal?

Evaluating the Proposed New Economic Areas⁶

Can Hong Kong’s existing innovation and technology resources provide it with a competitive advantage in developing testing and certification facilities with the capacity to solve China’s regulatory problems? In terms of ‘innovation and technology’, Hong Kong is by world standards a late-comer. Not until 1999 did it develop any kind of formal, coordinated innovation policy and only now, in 2009, do we see innovation and technology (amongst other areas) truly taking center stage. It remains to be seen whether innovation and technology will now (finally) be taken seriously. Key policy advisors in Hong Kong see both weakness in the development of systemic relationships among various policy areas and too little policy coordination. Despite the advent of the ITC, for example, several independent, unconnected policymaking bureaus address innovation as well, including the Commerce and Economic Development Bureau (CEDB), the Financial Services Branch (for financial innovations), and to a lesser extent such regulatory bodies as the Telecommunications Authority and the Television and Entertainment Licensing Authority.

Policy coordination is further complicated in that, while ‘innovation and technology’ has been identified as an economic area of its own, it cuts

across numerous economic and business sectors—from providers of services to producers of both traditional manufactured goods and high-technology products. Finally, technologically sophisticated machines resulting from advanced innovations are surely needed for the development of proficient testing and certification facilities. Here the overlap between innovation and technology and testing and certification is clear: The ‘Hong Kong Accreditation Service (HKAS)’,⁷ the ‘Standards and Calibration Laboratory (SCL)’ and the ‘Product Standards Information Bureau (PISB)’ all fall under the auspices of the ITC. In the remainder of this essay I therefore focus on ‘testing and certification’ with the understanding that developments in that area presuppose corresponding developments in innovation and technology.

Potential: There is massive market potential for testing and certification services in Hong Kong. Not only is there local demand (for example, from food importers and suppliers), but Hong Kong has the added advantage of being able to tap into demand from China, particularly the Pearl River Delta (PRD), in the wake of the regulatory scandals.⁸ The melamine-tainted milk powder scandal of 2008, for example, demonstrated the acute need for respected testing and certification services in food products. Additional areas include industrial product certification services and regulation of consumer products such as toys, electrical and electronic goods, and textiles and garments manufactured in the PRD. Additional certification services could extend beyond tangible products to certification of management systems and professional service providers.

Finally, given the increasing global importance of testing services, especially in relation to Mainland-manufactured products, Hong Kong service providers could move beyond inspection, testing and certification services to provide comprehensive consultancy services (in relation to testing and certification). Such consultancy services would offer comprehensive and in-depth solutions to firms manufacturing Mainland-made products and selling them in various markets around the world, ensuring that such products meet exacting, market-specific manufacturing and certification standards.

After all, Hong Kong already has a reputation as an international, metropolitan trade, finance and business center. It is precisely that ‘brand’ name and image recognition that the testing and certification stakeholders could leverage in order to become a certification center for mainland China. The pitch would be that, if the Hong Kong brand equates to quality in other areas, then Hong Kong’s certification facilities would surely be rigorous enough to meet testing thresholds in other parts of the

industrialized world, acting as independent third parties and thereby boosting confidence in Chinese products among overseas and local buyers.

Threats: The potential for testing and certification in Hong Kong is considerable, but the picture is by no means all rosy. Local testing and certification providers will compete with international testing and certification brands such as Intertek Testing Services, SGS and TÜV,⁹ which along with others have already set up operations in many parts of the mainland (as well as Hong Kong) to provide such services at competitive prices. Still, competition from internationally recognized brands is not the most serious threat Hong Kong faces—more damningly, testing reports produced by Hong Kong laboratories are not currently recognized by mainland authorities, a situation that must be rectified for Hong Kong to become China’s key testing and certification center.

Need for Government Support: I have mentioned Hong Kong’s laissez-faire legacy, but with almost all activities related to innovation and technology, government support is a pre-requisite of success. Most stakeholders in the area of testing and certification are private laboratories serving customers from various industries. Their market is driven by consumer demand. As Europe and North American customers place increasingly stiff standards and requirements on Chinese-made products, the manufacturers of such products need to identify laboratories with an increasingly strong global reputation.

In this respect, Hong Kong’s government could intervene in three specific ways: First, the government could set up laboratories of its own for use by private manufacturers to certify that products meet safety or other quality standards. Such services are necessary not least because of the high operating costs and capital investments required for testing and certification equipment.¹⁰ Second, the government could require all private laboratories to obtain accreditation to assure customers that they provide the same services with the same standards of reliability as their government-run-laboratory counterparts. More ambitiously, the government might consider establishing a product-testing park (similar to the current Science Park) that would private laboratories with low-cost land. Third, surely the government could help potential testing and certification concerns persuade mainland authorities to remove technical and regulatory barriers so that product-testing certificates issued by Hong Kong laboratories—whether public or private—would be accepted by them. Finally, while the proposed ‘Hong Kong Council for Testing and Certification’ is a step in the right direction towards enhancing testing and certification standards, questions surround its mandate, purpose and

expected outcomes as well as its relationships with HKAS and private industry.

Looking Ahead

Currently, government focuses on ensuring high standards of operation on the part of certification bodies, inspection bodies and laboratories through accreditation. Government and industry stakeholders should also work to increase the capacity of local accreditation bodies to provide services for a wider range of products, such as automotive parts, healthy and safety system certification and quality tests of Chinese medicines. Second, local and overseas services offered by Hong Kong conformity assessment bodies need to be promoted more vigorously to persuade mainland and overseas manufacturers and suppliers to turn to Hong Kong for laboratories and certification and inspection facilities. Third, government efforts should focus on developing or importing state-of-the-art equipment, testing methods and standards as well as certification professionals to upgrade existing services.

In addition, the current R&D Center Program should be better integrated with the needs of the testing and certification industry so that both it and various initiatives designed to strengthen testing and certification services in Hong Kong can reap mutual benefits. For instance, the centers for textiles and clothing or for information and communication technologies could direct resources to testing and certification of products in their respective areas, thereby engaging not only in the high-tech manufacture of those products but also (and simultaneously) the necessary adherence to strict international standards and controls. Finally, more generally, the government should invest in educating the necessary personnel by offering training programs in vocational institutes and universities, as well as by enhancing the profile and recognition of the profession in the community.

While many questions remain to be answered, there is a strong case to be made that Hong Kong is advantageously positioned to become China's testing and certification center. If the government channels its resources properly, it could leverage the political winds blowing across China in the wake of the regulatory scandals. Its brand recognition profile could enable China to show the world that it is serious about regulatory reform. More importantly, by channeling its growing innovation and technology resources into testing and certification, Hong Kong could realize its new goals for economic renewal in two of the six targeted sectors and establish a new platform for long-term economic growth.

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¹ The bulk of private R&D expenditure in Hong Kong supports redesigning and improving products. In other words, process innovation has often trumped product innovation.

² The idea that Hong Kong is a laissez-faire society is arguably a myth as the government has always controlled crucial parts of the economy, including land supply, housing policy and exchange rates. For example, there has never been unrestricted allocation of land resources because the local government has always monopolized the supply and sale of land in the territory.

³ The primary funding vehicle for innovation and technology development in Hong Kong, the Innovation and Technology Fund (ITF), has earmarked HK\$2.6 billion to support the establishment and project funding of the R&D Centers in the first five years.

⁴ Interviews with three of the five R&D Centre heads have however yielded some criticism, primarily that the R&D Centers are too closely governed and monitored by the ITC. Rather than allowing the Centers to determine which university-industry collaborative projects are most worthwhile, they are required to adhere to strict guidelines laid out by the ITC, effectively adding yet another layer of bureaucracy between the higher education sector and private industry.

⁵ For good measure, Mr David Burton, Head of the Asia and Pacific Department of the International Monetary Fund, also attended the first meeting of the task force to update members on the global impact of the current financial crisis.

⁶ Details in this section are partially sourced from: http://www.fso.gov.hk/tfec/eng/doc/TFEC%20-%20final%20Recommendations%20TFEC-INFO-13_%20Eng_.pdf and: http://www.fso.gov.hk/tfec/eng/doc/Summary%20focus%20groups%20TFEC-INFO-12_%20Eng_.pdf, accessed 3 August 2009.

⁷ HKAS provides accreditation services to laboratories, certification bodies and inspection bodies through the Hong Kong Laboratory Accreditation Scheme (HKLAS), the Hong Kong Certification Body Accreditation Scheme (HKCAS) and the Hong Kong Inspection Body Accreditation Scheme (HKIAS).

⁸ With the setting of progressive legal standards for harmful substances in food and the introduction of law empowering authorities to prohibit the import and supply of food and order food recalls, as well as the commencement of nutrition labeling requirements on 1 July 2010, the demand for testing services by the food trade in Hong Kong will increase substantially.

⁹ Testing and certification activities conducted by these companies include calibration services, chemical testing, Chinese medicine, electrical and electronic testing, environmental testing, food, physical and mechanical testing, textiles and garments, and toys and children's products.

¹⁰ While there already exist Government Laboratories (GLs), these labs are not open for private enterprises to make use of. Rather, these labs are used by various government departments only (for example, customs and excise, etc.).