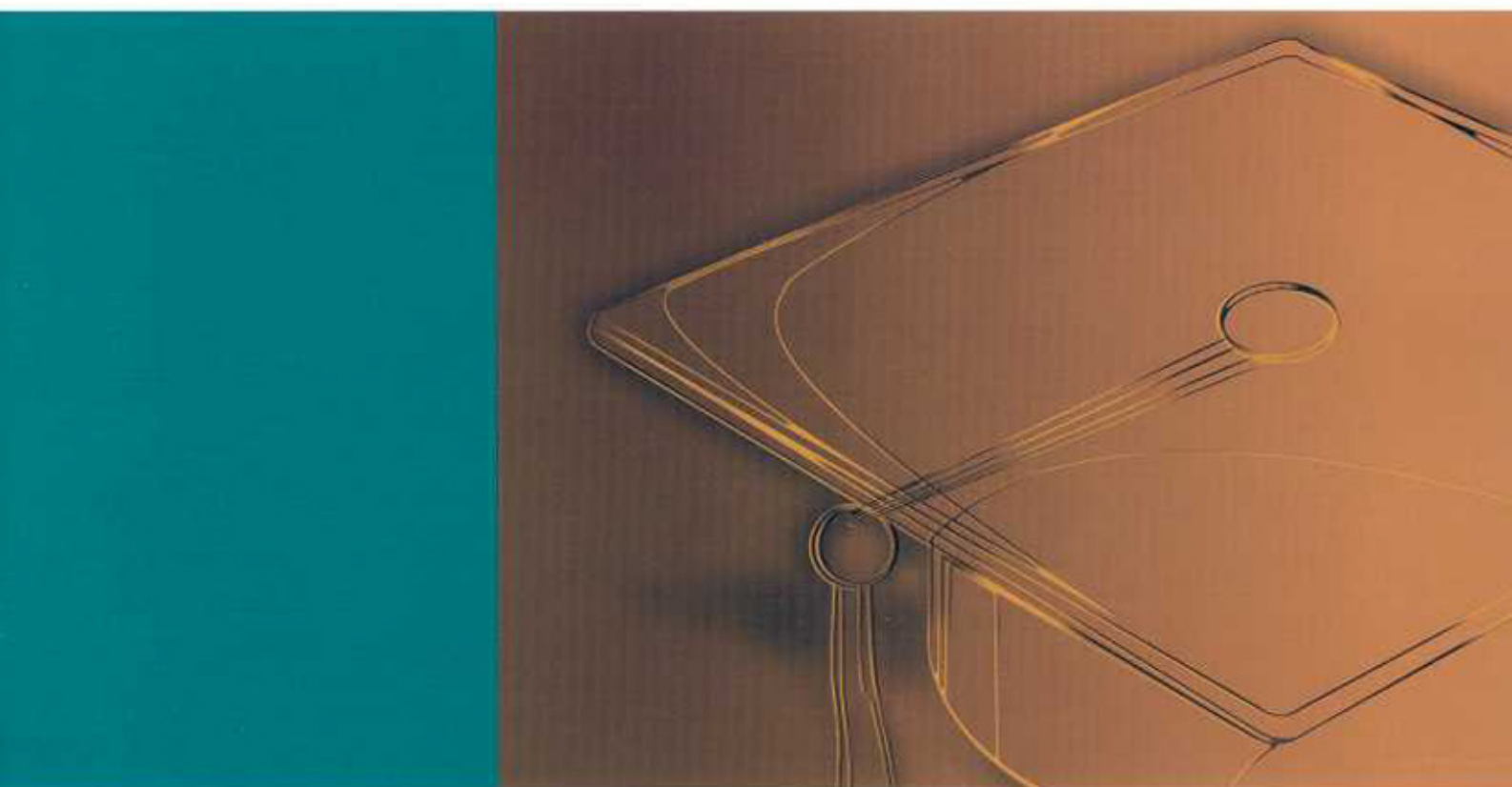


# HIGHER EDUCATION IN HONG KONG

REPORT OF THE UNIVERSITY GRANTS COMMITTEE



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MARCH 2002

# **Higher Education in Hong Kong**

**Report of the University Grants Committee  
commissioned by the Secretary for Education and Manpower**

**Stewart R. Sutherland**  
**Principal and Vice-Chancellor, University of Edinburgh**  
**March 2002**



# Foreword

In 1996, the University Grants Committee (UGC) published *Higher Education in Hong Kong*. In the five or six years since the publication of that comprehensive report, the whole post-secondary education sector has undergone rapid changes. The Government has declared a strategic intent to increase the participation rate to 60% for the relevant age group by the year 2010, as part of the ambitious reforms proposed by the Education Commission. All these initiatives require a major re-think of the sector.

Accordingly, in May 2001, the UGC announced the launch of another review on higher education in Hong Kong commissioned by the Secretary for Education and Manpower. The Review takes into account the Government's policy intentions to increase significantly post-secondary education opportunities, and the reform proposals recommended by the EC that are relevant to higher education. It covers all aspects of higher education provision, including the governance of universities and an administrative framework for a much expanded post-secondary sector.

The Review has been led by the Lord Sutherland, a senior member of the UGC and currently Principal and Vice-Chancellor of the University of Edinburgh, UK. He has been advised by a Steering Committee comprising mainly local UGC members who are directly involved in, or familiar with, higher education in Hong Kong (see *Appendix A*). The Committee has spent the larger part of 2001 considering various ideas and options for the future developments of higher education in Hong Kong, by first of all examining the current landscape within which future challenges of higher education development would have to be met (see *Appendix B*).

Both the UGC and the Steering Committee recognise at the outset the importance of obtaining input from all stakeholders, and Lord Sutherland has consulted widely and listened carefully to the views and aspirations of stakeholders in the course of this review (see *Appendix C* for a list of stakeholders who have been consulted and have contributed to the debate).

The outcome of the consultations and of deliberations by the Steering Committee is encapsulated in this well argued and pragmatic report from Lord Sutherland. The UGC is indebted to Lord Sutherland for his dedication and effort in producing this report. On behalf of the UGC, I commend this report to the Government, institutions, stakeholders and the community so that a wider debate on the issues addressed in this report can continue.

**Dr Alice Lam**  
**Chairman**  
**University Grants Committee**



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# Abbreviations used in the Report

AoE	Area of Excellence
ARF	Applied Research Fund
CATS	Credit Accumulation and Transfer System
CERG	Competitive Earmarked Research Grants
EMB	Education and Manpower Bureau
FEC	Further Education Council
HKCAA	Hong Kong Council for Academic Accreditation
ITF	Innovation and Technology Fund
QEF	Quality Education Fund
R&D	Research and Development
RAE	Research Assessment Exercise
RGC	Research Grants Council
RPG	Research Postgraduate
SAR	Special Administrative Region
SEM	Secretary for Education and Manpower
TLQPR	Teaching and Learning Quality Process Review
UGC	University Grants Committee





# Overview and List of Recommendations

The 1996 report from the University Grants Committee (UGC) on *Higher Education in Hong Kong* gave a coherent account of the development of the higher education system in Hong Kong and how the UGC came to be. The present review (subsequently called the Review) builds on that pioneering work. The previous report and subsequent changes demonstrate, clearly and unequivocally, that the higher education sector in Hong Kong has made dramatic advances, both qualitatively and quantitatively, in educating students and in conducting research.

In the course of the Review, the landscape of Hong Kong's higher education has been covered. Our focus is not just local, but also regional and international. When we look outwards, we find that some of our main strategic partners and competitors are changing even more rapidly. For higher education in Hong Kong to be internationally competitive, we will require comparable strength and flexibility in the governance and management of our higher education system and its institutions, so that the achievements in teaching and research can provide the most beneficial service to the wider community.

This report is offered as a contribution to realising these objectives, which I believe will be achieved by several means. The higher education sector will need to diversify its income from private and public sources, and then focus its resources to attain the highest quality of teaching and research. Because resources are always limited, it will be necessary to selectively identify outstanding performance where that occurs in institutions, teachers, learners and researchers, to ensure they receive the support to achieve international excellence in the application of their expertise.

Greater selectivity does not mean narrowing the base of higher education. Hong Kong needs to continue to develop a diverse set of institutions with distinctive missions, acknowledging that the higher education system is greater than the sum of its parts. To build on the ambitious reforms envisaged for other parts of the education system, we will need to do more to link staff and students into a continuum that will include the new associate degrees, where much of the intended expansion of post-secondary education in Hong Kong will occur. Hence this report makes several recommendations about the linkages between the associate degree and degree sectors of post-secondary education. This in turn requires the UGC to reflect on its own role, and assume greater responsibility for steering the strategic development of the degree awarding sector.

It is important, in the new landscape, that Hong Kong continues to connect its diverse institutions by clear articulation arrangements that promote and enable student-centred learning, and by collaborative teaching and research arrangements which best serve teachers and researchers. Technology is challenging us to acquire new skills to harness its powerful but demanding potential to enhance teaching and learning. Accordingly, there are recommendations to assist the higher education system in the transition to the new learning environment.

The further development of Hong Kong's research capacity is part of this changing environment. The defining characteristic of teaching in higher education is that it is informed by research and scholarship, and this wide base of research linked to teaching needs to be nurtured. At the same time, to be internationally competitive, we must focus our resources on selected areas of research strength, and provide the funding and institutional environment to ensure they flourish.

Having explored these themes and made a number of recommendations, it is reasonable for the reader to ask what the sector might look like if the objectives of the recommendations are met. Hence, in the concluding chapter I have offered my aspirations for the post-secondary sector in Hong Kong ten years from now.

Listed below are the key recommendations which have been extracted from the main body of the report.

### **List of Recommendations**

- 1 That a small number of institutions be strategically identified as the focus of public and private sector support with the explicit intention of creating institutions capable of competing at the highest international levels.
- 2 That, as the new landscape of the post-secondary sector is defined, the UGC conduct an internal review of its procedures, and publish a clear statement of its responsibilities in the light of new challenges, emphasising an enhanced strategic role for steering the higher education sector.
- 3 That a Further Education Council be established to oversee the provision of programmes at associate degree and comparable levels by both public and private providers.
- 4 That clear lines of financial accountability be established for all public sector funds used to support programmes at associate degree level, consistent with the Government's intention that associate degrees be predominantly funded by the private sector.
- 5 That an adequate quality assurance system be established to oversee all programmes at associate degree level.
- 6 That the governing body of each university carry out a review of the fitness for purpose of its governance and management structures. Such an exercise will necessarily include a review of the relevant Ordinances and, where appropriate, proposals for legislative changes should be made.
- 7 That the UGC and the institutions jointly assess the need for staff in the sector to develop new skills to respond effectively to technological and other changes in higher education, and jointly support initiatives addressing these needs, including the dissemination of best practice across the sector.

- 8 That the UGC's support for teaching and learning be informed by continued attention to the educational opportunities created by demographic changes in the demand for education, by the economic case for investment in education, and the technological revolution which is reshaping both the means of delivering education, and the opportunities for learning.
- 9 That the dual funding system for research be maintained whereby the RGC, as an integral part of the UGC, plays its part in enhancing the research base in the universities and in promoting research activities outside the UGC sector.
- 10 That institutions should not use the UGC block grant to subsidise externally funded research, whether from private or public sources; and, as a corollary, that bodies funding research should accept their responsibility for funding research at full cost.
- 11 That, in consultation with the institutions, the UGC build on the success of the RAE in allocating research funds on the basis of research performance, and devise means to sharpen the RAE so that the highest levels of research excellence can be identified and funded accordingly.
- 12 That the UGC conduct another review of higher education in Hong Kong five years from now, to assess the progress made in the expansion of the post-secondary sector, the interface with the school sector, the articulation arrangements between the community college and university sectors, and the implementation of specific recommendations in this report.

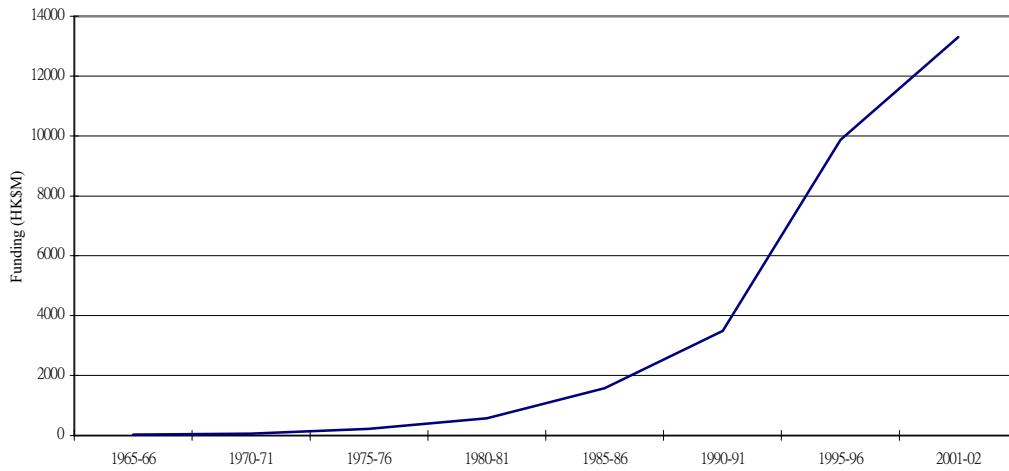


# Chapter One

## Vision and Opportunity

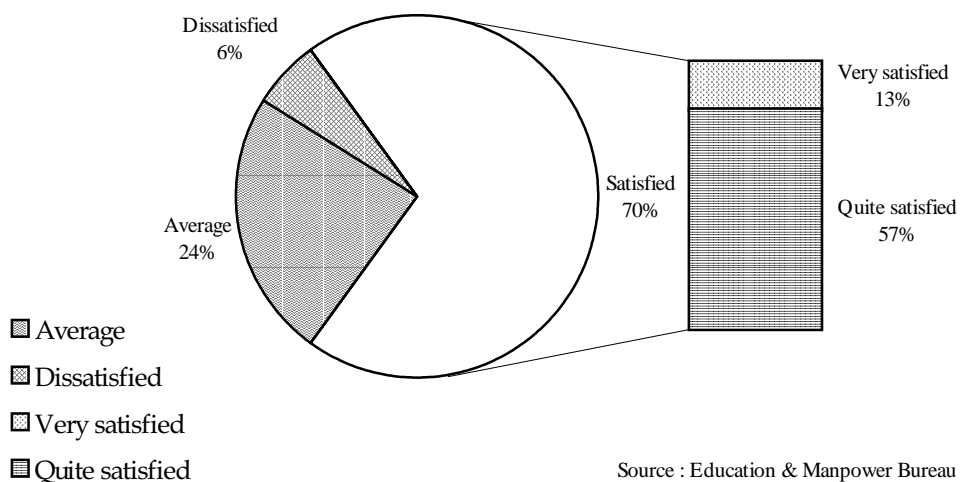
- 1.1. This report is about ‘higher education’. There are differing views as to the nature and purpose of higher education and I shall not attempt to impose a precise definition upon that legitimate diversity. However, this report assumes a geography that locates higher education as a sector within a larger field of post-secondary education which has at least two other sectors: the vocational education and training sector, and the emerging community college sector. The latter sector will receive significant attention in this report because it deals with associate degrees, a newly emerging qualification in Hong Kong, whose nomenclature indicates its close association with degrees. When I refer to the higher education sector it is distinguished from those other post-secondary sectors by the level of qualifications conferred within it, namely undergraduate and postgraduate degrees. Within the degree awarding institutions of Hong Kong there is a dominant subset of institutions, the UGC-funded universities, which this report frequently refers to simply as ‘the universities’.
- 1.2. In all developed communities the shape of the future will significantly determine the future shape of universities. Equally, the shape of its universities will partly determine the community’s future. The indisputable reason for this is that in all developed societies the future depends upon harnessing knowledge and understanding to define the cultural vision and create and respond to economic opportunity. Hong Kong is no exception to this general rule. It was never the case that it depended economically upon the extraction and export of natural resources, although there was a time when low cost manufacture was a central driving force in the growth of wealth. But neither of these which are the staple diet of other economies now apply in the Hong Kong Special Administrative Region (SAR). The future for Hong Kong will build on the opportunities which its geographical location offers, upon its strong record of probity in finance, its independent legal system and, most importantly, on its growing population of highly educated and skilled people. This report will focus upon the part to be played by a vigorous, top quality higher education sector in maximising these opportunities.
- 1.3. The ambition to be Asia’s world city is a worthy one, but there is no doubt that realisation of that vision is only possible if it is based upon the platform of a very strong education and higher education sector. There are very good reasons for that which have to do with what universities are and what makes them excellent. The full landscape for higher education is set out in Appendix B. It is not confined to the universities, but its core centres on the eight institutions funded by the UGC, and it is these institutions which are the primary focus of this report. The development of the universities of Hong Kong is undoubtedly a success story, and it is worth reminding ourselves of the story so far.
- 1.4. Over the past two decades, the higher education sector has grown significantly. In 1981, only 2.2% of the population in the 17-20 age group could enter local universities. In 2001, this proportion has increased to nearly 18%. The Government has enabled this growth in participation rate by injecting additional money year on end to support the higher education institutions, as shown in the graph below.

Total Recurrent Funding  
(at current market prices)



1.5. The universities of Hong Kong have developed by leaps and bounds in the past decades. Our scholars pride themselves in their teaching and research excellence and achievements. They count among the very best in the Asia-Pacific region. Quality teaching and research work has earned Hong Kong an international reputation, which is reflected locally. In 2001, the Education and Manpower Bureau (EMB) of the Government Secretariat conducted an employer survey on the performance of local graduates. In contrast to anecdotal remarks by some commentators, as reported in the media, the results show that among the interviewed employers, 94% have in fact found the graduates' performance to be satisfactory or average, and indeed 13% commented that the graduates' performance has exceeded their expectations.

Performance of Local Graduates, 2001



Source : Education & Manpower Bureau

- 1.6. On research, since the establishment of the Research Grants Council (RGC), funding channelled through the RGC has increased dramatically from only HK\$100 million in 1991-92 to about HK\$470 million in 2000-01. This increase is commensurate with the community's changing perception of research and its increasing importance to Hong Kong's economy. Whilst welcoming increases in research funding, we should nonetheless be conscious that our strategic partners and competitors are spending far more on research. In terms of total research and development (R&D) funding as a percentage of gross domestic product, Hong Kong falls far behind Taiwan and Singapore (see Chapter Five below).
- 1.7. Returning to the fundamental principles, universities have two basic functions: teaching and research. A third critical element in any understanding of universities is their place in the communities. This report will have as its shape the relationships between these three elements. The relationships will vary from jurisdiction to jurisdiction, and from institution to institution. For some, research will have a higher profile than in others; in some the research role will be defined by their local community needs, in others by definitions and norms set by the international community. With appropriate changes, the same distinctions will be found in relation to teaching, and to the shape of the student communities served. But it has to be stressed that all university level teachers are expected to be engaged in research and scholarship. This is what distinguishes a university teacher, and I will return to this point (see Chapters Four and Five below).
- 1.8. There are three levels of community in which Hong Kong's higher education sector resides. The first is, of course, the population of Hong Kong; but this is a varied and changing community with many dimensions. Two things, however, are common to all of its dimensions: the need for both a strong cultural identity and a strong economy. These are different but related. The former concerns how Hong Kong sees itself and its future, the latter concerns the creation of wealth and economic growth. Universities, for reasons to be discussed, have an essential role in the fulfilment of both.
- 1.9. Hong Kong has already given expression to the central role it accords to education. As the Chief Executive has stated recently, 'In the course of our restructuring, one of the Government's most fundamental tasks is to make significant investments in education to prepare each one of us for the advent of the knowledge-based economy' (*Building on our Strengths/Investing in our Future*, Policy Address by the Chief Executive on 10 October 2001). Changes envisaged by the Education Commission will have very great implications for higher education. In particular, the improvements and changes planned for the school system will bring an increasingly large cohort of motivated and qualified potential entrants to the doors of universities and the new community colleges that are proposed to deliver programmes leading to associate degrees. In due course this will require a review of the current policy of providing higher education places for 18% of the 17-20 age group. More immediately, the intention to increase to 60% the proportion of those proceeding beyond the age of sixteen to further stages of education will require higher education to make practical responses (see Chapter Two below). Specifically, the Education Commission is contemplating the possible reduction of secondary school provision from seven to six years, accompanied by the lengthening of the basic first degree by the equivalence of one year. This offers considerable opportunity for the universities to contribute to both the education vision for Hong Kong and its opportunities. It is the intention of this report to contribute to, and to draw upon, the continuing work of the Education Commission.



- 1.10. While the first level of community to which the universities belong is the population of Hong Kong, the second and third levels are to be found outside the Hong Kong SAR. In this, they mirror the challenges and opportunities which face the Hong Kong economy. Clearly, Hong Kong SAR is strategically positioned in a way which would be envied by many other world cities. In a lecture to mark the impact for higher education of the handover of Hong Kong to China, Professor Lu Yongxiang, President of the Chinese Academy of Sciences, observed that one-third of the world's population amass in this region. More than half of the world's population lives within a five-hour flight from Hong Kong. The region has incomparable markets and manpower resources. The extended community to which Hong Kong belongs – the Pearl River Delta area (especially Guangzhou, Shenzhen and Zhuhai) and beyond that the whole of the People's Republic of China – is its initial opportunity, both economically and educationally. Equally, to compete with Singapore and Shanghai for example, is to enter upon the world stage, and to be measured by the most exacting international standards. A higher education sector which is fit for the future purposes of Hong Kong will operate at all three levels of community.
- 1.11. What then of the basic roles, indeed core businesses, of higher education – teaching and research? How can these best serve Hong Kong's wish to figure in local, regional and international levels?
- 1.12. Teaching is the transmission of knowledge and understanding to future generations. The converse side of it is learning, for increasingly the core of teaching is seen as the creation of the conditions of, and motivation for, learning. If it is done well, then that knowledge and understanding will help the community shape the future rather than simply react to other influences.
- 1.13. This is at the core of Hong Kong SAR's future economic development. Without a highly educated and capable workforce, with the necessary developmental skills, there will be no success in building a knowledge economy, which is not simply appropriate for, but is essential to, Hong Kong's place as a developed, internationally focused community.
- 1.14. Initially the basic shape of such a workforce will be significantly influenced by the 60% post-secondary participation target, including the current 18% higher education participation rate. However, such targets bring specific new opportunities for, and demands on, higher education. Those who complete credits in non-degree awarding institutions will wish to build upon them at first degree level, and in due course will demand to be allowed to do so, entering higher education at stages other than the initial year of a first degree. This will provide both opportunities and challenges for the sector (see Chapter Two below). Equally others will be achieving credits in work-based situations, or through distance-learning or electronic modes of delivery. Again there will be opportunities and challenges for universities and colleges. New patterns of provision, new modes of delivery, new means of assessment, and a system for credit accumulation will be necessary. These developments will, in turn, redefine the issues for quality assurance and enhancement and require new responses from the sector (see Chapter Four below).

- 1.15. Research, in ways parallel to my definition of teaching, is the extension of knowledge and understanding. The new directions of the economy of the Hong Kong SAR, or indeed any other society which continues to deserve the description ‘developed’, will be determined by the extension of knowledge and understanding in research communities across the globe. Minimally, Hong Kong needs to have an educated cohort of those who understand and can assimilate into the community and economy such extensions of human knowledge. Ideally there should be selective areas in which Hong Kong contributes to the growth of knowledge; otherwise its economic expansion and opportunity will always follow, and indeed be beholden to, those who have early access to the growth points of knowledge.
- 1.16. The connection between teaching and research is, of course, now apparent. At the most advanced levels of teaching (those appropriate to university level education), teachers need at least to keep abreast of changes in the development of their subject or field. Only thus will the graduates enter the economy with an understanding of how the changes in the relevant field or sector are shaping future economic development, and with the skills and competencies required to make an effective contribution as a member of the workforce. There are important implications of this which will be examined further in Chapter Five on research.
- 1.17. By way of summary at this stage in the opening chapter, I have argued that the economy of Hong Kong will depend upon a variety of factors, and close to the heart of many of these lies the future role of universities and colleges in Hong Kong. The core functions of teaching and research will be drivers of economic opportunity; first in providing the type of educated workforce which is the precondition of a successful knowledge economy; and second in ensuring that doors are open to the understanding and exploitation of the ways in which our knowledge and understanding of human beings, of human societies and of the world in which we live, is daily being extended.
- 1.18. There is one consequence of seeking international level excellence which has been understood by some of Hong Kong’s neighbours, and which must be confronted at the outset. International level excellence is an elusive and, it has to be said, resource intensive flower. Singapore recognised this some years ago, and has made significant investment in the National University of Singapore with the intention of creating internationally competitive centres of activity. The People’s Republic of China has explicitly identified a small group of universities to be resourced as the flagships of China’s higher education sector, able in due course to be measured alongside the best in North America and Europe. The alumni and private sector supporters of Harvard, Stanford and Princeton contribute generously to what they regard as respectively three of the finest universities in the world. The alumni and supporters of Oxford and Cambridge have in more recent years begun to accept the need to do the same for them to maintain the status which they have long enjoyed.
- 1.19. In one way or another, international competitors have been, or now are, in receipt of privileged support which is seen as a condition of competitiveness at the highest levels. The message for Hong Kong is clear: to aspire to be Asia’s world city is to aspire to compete internationally in all relevant areas including universities. Hence my first recommendation is one for the future development of higher education in Hong Kong.

**Recommendation 1:**

**That a small number of institutions be strategically identified as the focus of public and private sector support with the explicit intention of creating institutions capable of competing at the highest international levels.**

- 1.20. In practical terms, this means that there must be a long term objective to increase the proportion of public funding that is distributed according to performance and mission. This is not an attempt to rank the universities, but to differentiate them so as to enable them to excel in what they do best. Some universities have the capacity, and indeed will want, to be research-led. Others will have the capacity and will want to become centres of excellence in learning and teaching, although their staff will still be engaged in research and scholarship and could, for instance, receive recognition for scholarly work in public policy and educational development. It is worth stating that any differentiation is not irreversible. At one point in time, an institution could choose to concentrate on developing as an international centre of excellence in teaching and learning, but over time it could evolve and develop the capacity to be more research intensive. It is incumbent on those involved in leading the institutions and governing the higher education system to provide the conditions for such developments.
- 1.21. A necessary condition for Recommendation 1 is that the higher education system has to be further deregulated. This includes greater freedom and flexibility for the institutions to determine remuneration and terms and conditions of service for academic staff. Institutions will also need to be encouraged to diversify their sources of funding by increasing income from private sources; firstly by maximising donations and benefactions, and secondly by increasing their earning responsiveness and capacity. The additional resources will help them recruit the best students and staff on an international basis.
- 1.22. Any institution which wished to attract, and contend for, such support would have to show itself to have in place the structures of governance and management which would be necessary to follow such a path of strategic development. They would need to develop a stronger management model that is more akin to practices in the private sector. Management by committees is no longer appropriate for a modern university. It follows that they would also have to develop with the relevant stakeholders forms of accountability which would show resolution of purpose, and value for money over time (see Chapter Three below).
- 1.23. There is, of course, much else to the kind of vibrant higher education sector which Hong Kong needs. There is need for the continued development of a diverse range of institutions which are appropriately funded and well managed, and I shall discuss issues of institutional governance and management in Chapter Three below. Such a sector must clearly be located within the wider map of education in Hong Kong, and particularly must have clear and articulated relations with schools and with the planned associate degree sector. This will require appropriate funding and quality assurance arrangements with due division of responsibilities and accountability. This will be the focus of discussion in Chapter Two.

- 1.24. The higher education sector will also need to be alive to the many changes in educational practice, involving new patterns of teaching and learning such as those enabled by technology, which are currently changing the face of degree level education across the world. This will be discussed in Chapter Four.
- 1.25. Finally, institutions must define their respective missions in terms of the balance between research and teaching appropriate to that mission, and the availability of different types and different streams of research funding. In that broader context the UGC must clarify and enunciate its own strategy for the research funds for which it is responsible. This will be discussed in Chapter Five.



# **Chapter Two**

## **The Role of the UGC in the Expanding Post-Secondary Sector**

- 2.1. The higher education sector, including the universities, must define its role with respect to a number of different contexts or sets of stakeholders. One crucially important context is that of the whole education system, including the secondary schools. For reasons of time this report has not been able to discuss the many important interfaces with schools, for example, the training of teachers, the impact of university admissions systems and degree programmes on the curriculum of secondary schools, and of course, the recruitment of students. All of these deserve and should receive further discussion elsewhere.
- 2.2. One new context which does demand further scrutiny here is the stated policy of the Chief Executive to increase the percentage of those receiving post-secondary education and training to 60%. The details and funding patterns for this have not yet been comprehensively established, but certain points are clear. The first is that a number of community colleges will be created. Some of these will grow from the current universities which already offer sub-degree, continuing education and lifelong learning programmes, and some will be new institutions. The Chief Executive's 2001 Policy Address indicates that funding may include some public sources, but that there must be significant private input. Whatever the detailed patterns established, the universities must prepare for creative and positive relationships with what will grow to be a large and influential new sector.
- 2.3. One key change will be the creation of a new demand from those who have completed associate degrees, for entry with appropriate credits into the advanced years of first degrees. Such demand requires a credit accumulation and transfer system (CATS) to facilitate student mobility and to provide better articulation arrangements between the community colleges and the universities. The prospect of funding by credit units as a corollary of this offers some promise that will need to be further examined. This is discussed in Chapter Four.
- 2.4. A prior question, however, is how this new sector will affect the governance arrangements for the evolving higher education sector. These arrangements bestow key responsibilities on the UGC.
- 2.5. The UGC was established in 1965, and was based on the (now superseded) United Kingdom model of a grants committee. Its core role is to examine the academic development proposals of the institutions and the resource strategies (i.e. human resource, estates and finance strategies) which underpin them, to test the proposals' academic merits and the funding that is appropriate for them. In parallel, the UGC is accountable for the proper use of public funds, and monitors the academic and financial accountability of the institutions. It also performs a forward planning role for the sector.

This involves it in four core activities: distributing and accounting for public monies, quality assurance, strategic thinking and advice, and the implementation of strategies.

- 2.6. The UGC has in the past described its role as an ‘honest broker’ which safeguards the academic autonomy of the institutions on the one hand, and ensures value for money for taxpayers on the other. The term ‘broker’ was intended to convey both the place of the UGC and the type of role it plays. Its place is at the interface between the institutions and society (most commonly represented by the Government). Its role requires the exercise of considerable judgement to promote responsible understanding between the institutions and society. To maintain its place and perform its role the UGC must have open channels to both the Government and the institutions since it offers advice to, and receives advice from, both.
- 2.7. In this intermediary role the UGC has also been described as a ‘buffer’. Like the term ‘broker’ this is intended to convey the fact that it stands between the Government and the institutions. It protects the institutions from political interference with their internal management, and it protects members of staff from limitations on their lines of enquiry or expressions of opinion. At the same time it ensures that the institutions remain responsible to the society which provides their mandate and funding.
- 2.8. One important ingredient in this intermediate role is to ensure impartiality in the judgements it makes on the use of public funds. Its impartiality extends to specific courses offered by institutions, and the style in which they are presented. These are rightly internal matters for the institutions. But impartiality does not mean homogeneous, equal or undifferentiated funding of the institutions. The UGC makes decisions which differentiate between the institutions, and which influence – at a macro level – the types of courses offered and the research that is conducted. In the light of Recommendation 1 above, there is a need for the UGC to take a more proactive role in steering the sector by means of strategic planning, and also in the provision of strategic advice to the Government.
- 2.9. At present, once the UGC recommends a triennial recurrent block grant, that money comes with very few strings attached. Institutions have wide discretion and autonomy in its use. This ensures academic freedom, and institutional autonomy that is the foundation for responsive and efficient institutions. Similarly, an effective system is in place for capital funding to ensure that infrastructural investments are made strategically. Having said that, there is room for greater coordination between the UGC and the Government in order to minimise duplication of efforts on the part of the latter.
- 2.10. The UGC must balance a range of tensions to perform its role. Staff and institutions are funded by public money, but society expects that their academic freedom to choose what to research and teach will be constantly balanced with the policy and economic objectives that are endorsed for the SAR. On top of that, many academics would feel that they have a duty and responsibility to contribute to the society in which they live. This is a delicate and evolving balance that calls for expert peer judgement and subtle steering, not intrusive decisions by fiat. In this connection, it is important for members of the UGC to come from diverse sections of the local and international communities. Overseas members, in particular, provide a perspective and a benchmark for institutions that are competing on the world stage.

- 2.11. The institutions must also provide value for money, and in so doing balance their institutional freedom with public accountability. Heads of Institutions are officially accounting officers for their organisations and are obliged to sign a certificate of accountability annually for the disbursement of public money. But again, their position requires them to balance this obligation with leading and nurturing the vital characteristics of innovation, creativity and responsiveness.
- 2.12. There are other crucial balances. Higher education remains a rationed good accessed by a minority of people, but it confers substantial private as well as public benefits, and is funded by all taxpayers in society. As education is such a crucial formative process for the development of a person, and can properly be seen as a right rather than a privilege, the UGC must endeavour to balance a system which produces high quality outcomes for the best students, with respect for equality of access and inputs to all.
- 2.13. The response to these tensions has been a complex set of checks and balances. Not surprisingly, these have simultaneous strengths and weaknesses. Which predominates overall remains a critical question, and it will change over time. The UGC is aware that similar bodies to it, or bodies with parallel functions, in New Zealand, Australia and the United Kingdom, have been replaced by alternative arrangements. In their attempt to maximise the benefits of higher education for their societies, each of these countries has facilitated an evolution of the grants committee system to arrangements that provide a better fit for its local political, economic and cultural environment.
- 2.14. For this reason, the UGC in Hong Kong determined that it should debate and review its simultaneous strengths and weaknesses. It would fall short in its review of higher education if the UGC did not extend an examination to itself. What has emerged, in the course of consultations and interviews, is that the UGC should enhance its process and performance to ensure that it is best placed to respond to emerging trends and future changes in a proactive manner. This could be achieved by strengthening its role in strategic planning and policy development, so as to advise and steer the degree awarding sector. As a funding body it would remain responsible for the current eight institutions. The aim then, in examining the role of the UGC, is to put the test of relevance on it, and at the very least to improve performance and to increase transparency.
- 2.15. It is important, at this point of major change and development in the Hong Kong education map, that the UGC re-state its role in the changing landscape. Once decisions have been reached on the future landscape of the post-secondary sector, the UGC will have some soul searching to do.

**Recommendation 2:**

**That, as the new landscape of the post-secondary sector is defined, the UGC conduct an internal review of its procedures, and publish a clear statement of its responsibilities in the light of new challenges, emphasising an enhanced strategic role for steering the higher education sector.**

- 2.16. The UGC is keenly aware that in Hong Kong, as in elsewhere, there are demands for greater accountability and transparency from public sector bodies, and it has already responded positively to such demands by, for example, making public the funding



formula, and putting its Notes on Procedures on the web. The publication of the 1996 report on the previous Higher Education Review was in fact the UGC's first major step towards greater transparency. It is incumbent on the UGC to be alert to changing expectations and to continue to operate in a transparent manner. Similarly, institutions are urged to publish statements of their own responsibilities, so that the respective roles and functions of the funding body and the funded institutions are clear in the minds of the public.

- 2.17. There is a clear need for related and comparable governance arrangements to be made for the new sector which will provide programmes at associate degree level. The proper responsibility for that lies elsewhere, but the higher education sector has sufficient interest in this to offer one or two points for further discussion.
- 2.18. The first is that the evidence submitted to this review has consistently stressed the importance of not diluting the responsibilities of the UGC for the universities. The specialist needs of first degree and postgraduate studies and research would mean that a body that covered also associate degrees would be unacceptably large. A clear and effective division of labour would be to allocate responsibilities for all work at degree level to the UGC, and to create a Further Education Council (FEC) to be responsible for work at the associate degree level. This Council will need to work with both the UGC and the body governing the vocational education and training sector. It could also extend its remit eventually to cover continuing education currently provided in the extension and outreach departments of the universities. This leads me to make a further recommendation.

**Recommendation 3:**

**That a Further Education Council be established to oversee the provision of programmes at associate degree and comparable levels by both public and private providers.**

- 2.19. The intention of the Government is that for the majority of activity, associate degrees should be self-financing. Employers might well see advantage in supporting employees in this matter. However, the evidence from elsewhere is that private sector providers focus upon courses that offer a high market volume and low cost courses. Other courses without an immediate market appeal or having higher costs may be needed for strategic purposes. Therefore, it is important for some associate degree programmes, in this predominantly private sector, to remain publicly funded if they are to survive. Courses that have high start up and maintenance costs requiring access to well-equipped laboratories or sophisticated equipment, courses that meet specific manpower needs or courses which are regarded as 'endangered species' all need to be protected and remain publicly funded. However, it must be stressed that money to support these programmes has to be ring-fenced so that they are not cross-subsidised by other areas of university activity. In all such cases a bid system and review process will be necessary.
- 2.20. It is worth remembering that at present three of the UGC-funded institutions have major commitments in offering associate degree and sub-degree programmes that are publicly-funded. On the one hand, this provides a platform for an element of mission differentiation for those institutions. On the other hand, they can model best practice for

other providers who wish to participate in the development of associate degrees and equivalent qualifications.

- 2.21. Notwithstanding that there be such a separate body with distinct responsibilities governing associate degrees, the higher education sector and the UGC will have a strong interest in seeing its successful launch and continuing operation and will want to share such relevant experience and help as it can. Accordingly, the UGC could play a strong support role in the establishment and initial development of the FEC. One possible approach could be for the UGC to act as a parent to the FEC in its establishment, in a similar fashion to its relationship with the RGC. If this approach is adopted, there will need to be a well-defined migration strategy and a clear timescale for the FEC to become fully independent.
- 2.22. It is worth reiterating that any public sector funds used to support associate degrees and community colleges should be accounted for quite separately from any UGC funds to support degree level work, and that there be no cross subsidy. This ring-fenced separation is needed to provide a level playing field for all providers of associate degrees, be they current or potential, private or public. In this connection, universities will need to establish principles and rules to enable their community colleges to flourish with an appropriate degree of academic and financial independence from their parent universities.

**Recommendation 4:**

**That clear lines of financial accountability be established for all public sector funds used to support programmes at associate degree level, consistent with the Government's intention that associate degrees be predominantly funded by the private sector.**

- 2.23. In the interests of facilitating the award of credits to students with associate degrees who seek entrance to advanced years of first degree programmes, it is important that there be a rigorous and credible quality assurance mechanism, which judges outputs as well as processes, across the whole community college sector, whether publicly or privately based. For those community colleges associated with a UGC-funded institution, the quality assurance mechanism could be managed by franchising arrangements between the institution and its community college, based on a common framework developed across the institutions under the guidance of the UGC and the proposed FEC. One possibility would be for the institutions to create a joint, self-financing body whose principal function is to look after qualifications offered by these franchises and those of other providers. There are details that have to be worked out, not least the role which an accrediting body like the Hong Kong Council for Academic Accreditation (HKCAA) would play in such a scenario. For the purpose of this report, it is my intention to offer a more general recommendation.

**Recommendation 5:**

**That an adequate quality assurance system be established to oversee all programmes at associate degree level.**

2.24. If such arrangements for the new community college sector are put in place, there will be a need for a strategic overview and consequent coordination of activities across the whole post-secondary sector. It is for others to make decisions on these matters, but under current arrangements the EMB must have a central role. That being so, the Secretary for Education and Manpower may wish to put in place such coordinating and advisory mechanisms, as are deemed necessary, to advise on policy and strategic matters that cover the whole post-secondary sector, for example, the interface with the school sector, and articulation arrangements such as a credit accumulation and transfer scheme (CATS). The UGC, as a body with directly delegated powers and responsibilities, with specific remit for funding the higher education sector, will obviously play a significant role in such mechanisms.

# Chapter Three

## Institutional Governance

- 3.1. The governance of institutions takes many different forms. These range from Caligula's arbitrary tyranny in ancient Rome to the most egalitarian consensus-based commune. For our purposes the two outlying cases which might define the range of options for governance of medium size institutions in the contemporary world may be characterised as follows.
- 3.2. Model A is of a wholly hierarchical structure in which power and authority resides ultimately at the top, and in which that authority is delegated downwards within strictly defined confines. With the power and authority go also lines of responsibility and accountability. Remits are clear and those in the managerial structures are held accountable for agreed or prescribed outcomes. Financial accountability and limits are normally part of the structure in question. This model is flexible to the extent that those in the upper levels of the hierarchy may vary very considerably the nature and volume of the decision making power which is delegated. However, in the ideal version of this model it is always clear where the buck stops and where ultimate power, and therefore responsibility, lies. This is its strength.
- 3.3. A second, Model B, at the opposite end of the spectrum, is that of a collegiate and collegial academic group in which the decision-making process involves all members, each of whom has in principle an equal voice, and, if necessary, an equal vote. The college may from time to time elect individual members to positions of responsibility and power. However, in this model the lines of responsibility and power run from the group to the elected individuals. In a fashion converse to Model A, powers are given on prescribed terms by the whole community, and usually for prescribed periods, to the individuals to exercise on behalf of, and as licensed by, that community.
- 3.4. These two somewhat idealised models indicate a spectrum of possible models for institutional governance in which the various ingredients are mixed. Each of these two models has the benefit of clarity, and the attempt to mix them can run the risk of unclear lines of power, resource, responsibility and accountability. Each model has a correlated pattern of management and administration.
- 3.5. The attraction of Model A is that it is capable of speedy decision-making and indicates clear responsibilities for action and implementation. The dangers of the model are also significant and relate to where the definition of the values of the institution lies, and to questions of loyalty, trust, and ownership of initiatives. In Model B, the situation is more or less reversed. The dangers lie in the possibility of chronic indecision where change is involved, and lack of clarity about the powers to act and implement in uncharted territory. The strengths are significant group ownership of initiatives which do finally have approval, and the likelihood that decisions and initiatives are grounded in a well developed, although perhaps tacit, set of group values.
- 3.6. It is my contention that neither of these extreme models is appropriate to a modern university which is heavily dependent on public sources of funding. Model B may still

be a fleeting gleam in the eye of some academic staff that ‘remember’ either the heady days and rhetoric of the 1960s, or an idealised picture of a small academic unit of Fellows who could meet regularly around either a committee room or dinner table. Neither ‘memory’ mirrors the reality of large contemporary universities, or even medium sized institutions, which carry significant teaching responsibilities as well as, in some cases, engagement with major research activities.

- 3.7. Some members of the academic community express concerns that the equivalence of Model A is being gradually introduced into university governance and management to the detriment of the academic enterprise. Two points must be noted. The first is that Model A is not the only alternative. The second is that the essential question to ask of any model of governance is whether it is fit for purpose. This question identifies the key principle which must be involved in discussions of models of governance (and, by implication, management). The pattern of appropriate governance (and management) depends upon the nature of the institution. Models appropriate to one type of institution are not necessarily transferable without revision to another.
- 3.8. Any discussion of the governance of a university must therefore begin with a review of the core activities of the university. These activities are at most two in number although the proportions of the mix will vary radically. They are the transfer of understanding and knowledge, which we traditionally call teaching or education and the extension of knowledge and understanding, which we traditionally call research. Any pattern of governance must be appropriate to fostering these two activities.
- 3.9. There are a number of other activities which are appropriate to universities even if they are not defining activities (i.e. they are not core businesses). They may arise, for example, from the nature of the funding sources of the institution. Thus a university which raises a very large part of its income from corporate or alumni sources is likely to engage in a series of activities to enhance that income. However, these must be structured and defined in relation to core activities – to fit its character as a university rather than being simply a trading partner or a mutual society of some kind.
- 3.10. The definition of appropriate secondary activities is a matter of evolution based on internal deliberation as well as external negotiation, and absolute rules here are not available. The need for internal as well as external deliberation helps define the fitness for purpose of any proposed model of governance. Thus a university in which alumni giving is an important source of funds may well see the need to ensure that alumni sensitivities will be given a relevant profile in both governance and management. In a different way, serious engagement with the corporate sector requires a flexibility and speed of response nearer normal corporate practice than traditional, academic committee-based decision-making. Equally, significant public resources will inevitably bring with them demands for accountability and recognition of public or community priorities. Each of these demands also generates its own constraints on the fitness for purpose of the governance and management structures of the university.
- 3.11. The balance that it achieves between the two core activities of a university makes clear what distinguishes a particular institution from any others. There are, however, further distinctions which define the character of successful universities. These include the values which inform the core activities, and which influence the conditions for

successfully practising these activities. Equally however, there are other practices and values which are shared with a wide range of public and private sector institutions.

- 3.12. Thus, for example, all institutions whether in the public or private sector must value and practise probity. This probity extends to finances, contracts, written and verbal agreements and so on. Probity requires the degree of transparency and openness appropriate to one's business, clients and customers. The governance and management systems of universities must take account of the expectations and conventions which surround this for publicly funded institutions in the 21st century.
- 3.13. In addition, the governance and management of all successful businesses and corporations in the contemporary world require the capacity to plan and implement strategies and strategic alliances appropriate to core businesses. In the case of all but the very largest multinationals, and probably even there, this leads to the identification of business niches which determine investment in areas of strength. Universities must develop governance and management systems to promote this strategic flexibility and focus.
- 3.14. Other areas in which adequate governance and management processes in universities would find some congruence with the corporate world include the desirability of diversifying income sources, of satisfying customers, and of due attention to identifying and managing risks.
- 3.15. There are, however, a number of points of difference between universities and some other organisations which must also be reflected in their governance and management structures. It is important that these are recognised by the wider community and universities must engage the wider community in the discussion of these, particularly where they are publicly funded.
- 3.16. Thus, universities have a particular responsibility for deepening, understanding and applying educational processes to meet the standards of the best international benchmarks. This implies the need for internal as well as external quality assurance processes. The internal processes must be focused upon quality enhancement in education and learning. Universities traditionally have established an internal structure, the Senate, to ensure the means of fulfilling these responsibilities, with appropriate transparency. A Senate also has the ultimate responsibility for setting the 'output' standards of a university for its degree awards. In turn, this establishes the standards for credit accumulation for component courses. The means by which such standards are set and applied should also be appropriately transparent and explicit. In addition, setting entry standards, including language competence, must continue to be a focus of quality assurance processes.
- 3.17. Successful international universities have a particular responsibility to maintain the conditions under which the expansion of knowledge and understanding is fostered. This involves matching resources to ability and excellence, and the creation of the space appropriate to creativity and innovation. That is more easily said than done and has significant implications for governance and management. The fitness for purpose of a system of governance will be rigorously tested by the particular conditions of success in this core business, which distinguishes universities from many other organisations.

- 3.18. The key ingredients are individual ability, institutional excellence and adequate resource. Systems of governance and management which are fit for purpose will have to find means of balancing all three of these. They go to the heart of much academic aspiration, and the distinctiveness of universities that seek international recognition.
- 3.19. Individual ability has to do with the recruitment and retention of high quality staff. Clearly remuneration is one element of this and best international practice accepts the need for differential salaries and rewards. I have already suggested that, in order for institutions to compete at international level, they must have the freedom and flexibility to determine the appropriate terms and conditions of service that enable them to recruit and retain staff of the highest standing. A linkage to civil service pay and conditions is an impediment to international competitiveness, and delinking will give institutions the freedom to devise their own remuneration packages. But this also places a firm responsibility on the governing body and the heads of institutions to ensure fair and acceptable means of making such salary differentiations, when the system operates with a high level of deregulation.
- 3.20. Recruiting and retaining high quality staff, however, is a much more subtle matter than simply financial reward. This is where one sees the limitations of the fitness for purpose of Model A in universities. The creative extension of the boundaries of knowledge and understanding cannot simply be a delegated series of objectives and responsibilities. The individual and the group who are likely in some way to engage successfully in such work require degrees of freedom of thought and enquiry to follow the argument wherever it goes, whatever the corporate priorities handed down may be. The conditions for inventing the worldwide web, or discovering penicillin, or finding a key lost manuscript, or connecting philosophical ideas for the first time, are not simply a matter of objectives identified and responsibilities and power devolved in a strictly hierarchical system.
- 3.21. The essence of the creativity and the inventiveness of research is that some of the most interesting outcomes are a result of encountering the unexpected. A major consequence, and possibly intention, of Model A is the elimination of the unexpected. By contrast, systems of governance and management in universities must take account of the unexpected for two reasons. The first is that the unexpected is sometimes more important than the wholly predictable. The second is that the working conditions which attract the most creative academics, and which are necessary for their retention, require a degree of autonomy and trust which cannot be contained in a purely hierarchical model.
- 3.22. Do we revert then, by default, to a strong version of Model B? Certainly not, and that for reasons which have to do also with the patterns of activity which characterise much modern research. Much research is resource intensive in a varying combination of three elements. One is time. A second is significant cash investment and a third is space which is also not a free good. These require approaches to governance and management that go beyond collegial decision-making.
- 3.23. Not all forms of research are equally demanding, but all certainly require time. This is true for the historian as much as for the physicist. Time is expensive whether as factored into the normal teaching year or into sabbatical programmes. Cash investment in certain forms of research, e.g. particle physics or astronomy, are so great that the necessary

infrastructure is a matter of international investment by collaborating governments. The need for relative levels of investment apply to most forms of research in science, engineering and medicine, and increasingly often for projects in the social sciences and humanities. Here it is not enough simply to talk of the autonomy of the researcher, because that autonomy has to be earned. Apart from normal forms of accountability where large sums of public and private money are involved, the huge costs of international levels of research in many important areas require setting priorities and making difficult choices. In some research contexts equivalent issues arise in relation to the provision of serviced space.

- 3.24. In all such matters the institution will bear final responsibility for the investment strategy. The role of the individual researcher is absolutely crucial, but is not uniquely decisive. Within funds available institutions must set priorities and take difficult decisions of affordability. Academic freedom still exists for individuals, but it is a negotiated freedom that cannot ignore other factors, including public accountability. University management has to be sensitive to the needs of the individual scholars as well as what the public expects. Model B is not fit for this purpose, and to that extent would be a hindrance to realising the core activity of research for a major university seeking to be internationally competitive.
- 3.25. My contention is that because of their inherent limitations neither of the two extreme and idealised models of governance and management is appropriate for a university dealing with the realities of the 21st century. But equally, as a matter of fact, it must be recognised that in statutory terms the governance of universities is an internal matter for the university's own governing body. In those circumstances, my key recommendation for this chapter has to be one of self-examination.

**Recommendation 6:**

**That the governing body of each university carry out a review of the fitness for purpose of its governance and management structures. Such an exercise will necessarily include a review of the relevant Ordinances and, where appropriate, proposals for legislative changes should be made.**

- 3.26. To help give scope to such a review, I will comment on some of the features of good governance and management below. I also attach, at *Appendix D*, a note of a number of international examples of structures of governance and management, and I draw from those examples some trends which the university's governing bodies can consider.
- 3.27. One further issue which has been suggested and might be usefully included in the internal review is the fitness for purpose of any mechanisms to settle internal university disputes or to review administrative decisions. A possibility being considered elsewhere is the appointment of an Ombudsman for the sector. In the UK there are two current proposals for a university Ombudsman under discussion. In Hong Kong, the remit of the Office of the Ombudsman could be extended to cover the UGC sector.
- 3.28. Although each institution will conduct its own internal review, it is inevitable that, when an amended Ordinance is submitted for consideration by the legislature, there will be



various levels of opportunity for public scrutiny of any new structures or patterns of university governance and management.

- 3.29. The internal review I am recommending is essentially an exercise to find the right balance between the strengths of the traditional governance of a self-managing community of scholars operating in comparative isolation, with the governance demands of large public corporations. The tensions the governing bodies need to reconcile are summed up in the words *autonomy* and *accountability*. Their challenge is to find a middle path between the two extremes of Models A and B of governance, and to strike the balance for their institutions between academic freedom and being responsive to the public good – this is what I mean by negotiated freedom.
- 3.30. To find this balance there are seven features that characterise university governance in Hong Kong and elsewhere that are worth considering. I will not pass judgement on these features because they are neither black nor white. Their colour can change with the circumstances of the institution, its culture, and its stage of development. But I propose these features as a backdrop for the review of governance I have recommended.
- 3.31. The first feature is that typically governance is *widely distributed* across the institution, and does not reside in either one level of a hierarchy, or in a purpose built body. In this, it differs from private sector practice where there is usually a single governance body, the Board of Directors.
- 3.32. A second feature is related to the first. Governance in Hong Kong's universities is a *collective responsibility*. Both of these features – distribution and collectivity – reflect the historical evolution of universities from small, closed communities where each member had his (occasionally her) say in how the collective was run.
- 3.33. This leads to a third distinctive feature, which is the *large size* of the governing bodies. The governing bodies of universities generally have a membership with numbers which contrast starkly with the small size of decision-making bodies in most areas of private business.
- 3.34. A fourth feature is connected to this factor of size. It is the *composition* of the governing bodies. They have very wide representation of political, administrative, lay and academic members, including students and graduates.
- 3.35. A fifth feature is a factor of both size and composition, namely the *style of decision-making*. It is characterised by consultation, democracy and consensus.
- 3.36. A sixth feature is the *interleaving and interaction between advisory governance, executive governance and management*. For instance, the Head of Institution is a player at all three levels. The firm distinctions commonly drawn in the private sector between advice, governance and management are not so prevalent in the universities.
- 3.37. Finally, in the universities there is a deliberate *conjunction and intersection of academic and business management*. In practice these roles have different emphases, and the different skills they employ cannot be assumed by academic training alone.

- 3.38. Each of these features has its strengths, but may also have some inherent weaknesses. To help the universities governing bodies weigh these up I will set out what I believe any adequate model of governance will include, and on some of them provide some more depth. In my view a governing body will:
- determine the mission and core values of the university;
  - set strategic directions reflecting these values, to carry out the mission;
  - influence the institution's organisational philosophy and framework;
  - help management to deliver strategies;
  - agree with management appropriate resourcing policies;
  - oversee senior appointments and performance;
  - ensure leadership succession;
  - agree with the Head of Institution appropriate levels of delegated powers;
  - report on performance, quality assurance and value for money to stakeholders;
  - ensure appropriate lines of accountability and transparency of process; and
  - in all of the above, have regard to values, autonomy and international reputation.
- 3.39. It will be important for members of the governing body to distinguish between governance which is their central responsibility, and management which is the responsibility of the Head of Institution and the senior team. It will therefore be for the Head of Institution to make recommendations upon the appointment of, and delegation of powers and responsibilities to, senior academic leaders. International practice suggests that procedures should be devised for appointing rather than electing Deans and related senior budget holders, and that accountability and management lines should run to individuals rather than committees. In other words, responsibility should rest with an individual to avoid management by committee. Committees have a variety of important roles ranging from the very special position of Senates as the guardians of academic standards and academic probity, to committees which are advisory, but the first question which a committee should ask is, 'Am I necessary, and if so why?' Equally that should be asked by others of the various committees on a reasonably regular basis. So, a review of governance and management structures will also require a review of the underpinning committee structure.
- 3.40. I do not underestimate the scope and scale of the review I am recommending, but I have no doubt that for Hong Kong to compete at an international level, its universities will need to develop a strong model of management that is fit for purpose in the 21st century (see Chapter One above). Given the UGC's role in strategic planning (as proposed in Chapter Two above), it has a duty to assist the institutions in carrying out such reviews. One possibility is for the UGC to conduct periodic institutional audits that cover five areas: teaching and learning, research, community service, governance, and management. The institutional audit could subsume the current exercises of Teaching and Learning Quality Process Reviews (TLQPR), Research Assessment Exercise (RAE) and Management Reviews. It will also provide incentives for institutions to carry out their internal review.
- 3.41. The proposal for the UGC to undertake audits of institutional governance and management does not preclude institutions from establishing audit committees of their own, as widely practised in overseas universities and in the private sector. The purpose of an audit committee, directly responsible to the governing body, is to monitor the performance of management in providing value for money and in carrying out executive decisions that are in keeping with the strategic directions set by the governing body. An

effective audit committee encourages self-discipline which in turn enables more efficient delegation of powers. It is normal for the audit committee to appoint external auditors who will monitor the proper management of financial processes.

- 3.42. The implementation of Recommendation 6, supplemented by the establishment of audit committees and institutional audits by the UGC will, in my view, make university governance and management fit for purpose in the 21st century. It will also provide the right conditions for Recommendation 1 to be effectively executed.

# **Chapter Four**

## **Institutions and the Future I – Education, Teaching and Learning**

- 4.1. The nature of education, including higher education, is in a process of constant change. This is not a new phenomenon, but the speed of change, both within the practice of formal education, and more generally within society, gives reason to pause and reflect. The very fact that whereas once education was regarded effectively under the heading of teaching, but is now spoken of under the broader headings of teaching and learning, is itself symptomatic of some of the changes.
- 4.2. The changes are driven by four broader social and intellectual phenomena. These are the changing face of the demography of education; the increasing focus upon the implications for the economy of particular kinds of educational outcomes; the impact of technological development on teaching and learning; and lastly the changing nature of the development of knowledge. I shall discuss each of these in turn.

### **The Changing Face of the Demography of Education**

- 4.3. Historically, most of the discussion of the demography of education focused upon how much of education was compulsory, and at what ages transition from one sector to another (usually primary, secondary, and post-secondary) took place. Thus, in Hong Kong compulsory education is available to young people up to the age of fifteen. At post-secondary level, the public sector provides a range of options, including university or higher education sector places for 18% of the 17-20 age group. That situation is already changing quickly.
- 4.4. Across many developed countries there has been a move towards a mass higher education system. The most obvious and successful example is the USA where over 60% of the age-group 'go to College'. This is no longer the single striking exception and, for example, Scotland has a participation rate of around 50% and England at 33% is energetically pursuing a similar target. In fact, it is important to note that Hong Kong's equivalent figure is above 30%, rather than below 20%, when one takes into account those pursuing publicly-funded sub-degree places at the UGC-funded institutions, the Hong Kong Academy for Performing Arts, and the Vocational Training Council; those pursuing self-financing courses in continuing education (including programmes offered by the Open University of Hong Kong); those undertaking various post-secondary courses at private institutions (e.g. Shue Yan College, Chu Hai College); and those who choose to study overseas.
- 4.5. Another important sign of changing demography in education is the explosion internationally of continuing professional development/education, driven by the speed of expansion of relevant areas of knowledge. All of the main traditional professional bodies, e.g. doctors, lawyers, engineers, teachers, accountants, and so on, have seen a

growth of required professional development as a condition of continuing professional recognition and accreditation.

- 4.6. The term 'lifelong learning' and most of what it implies has entered forcibly the lexicon of education policy-makers and practitioners. This has implications of when and to whom adult education is available, but also significant implications for the nature of the educational process and aspiration in earlier years. No longer is it adequate, if it ever was, to assume that education is a matter of spending a few years of learning what is imparted by one-directional teaching and then living off educational capital for the rest of one's (working) life.
- 4.7. Hong Kong has responded to these changes in a number of ways, and detailed attention is currently being given to others by a variety of groups from teachers and professors to the Education Commission. The higher education sector was expanded in the first half of the 1990s to its current size. I have no inclination, nor have I sensed any pressure, to expand the current higher education target of providing for 18% participation for 17-20 years olds in the UGC sector. The universal response to my question about this has been that the first priority must be the quality of entrants and graduates, and I share this view. I should point out, however, that many countries have significantly expanded higher education without sacrificing quality, and that there is no educational validity in controlling quality purely by entry gates.
- 4.8. However, there are two policy decisions in Hong Kong which will bear directly on the question of educational demography, both of which have strong implications for higher education. The first is the decision to expand post-secondary participation to 60% of the age group over ten years. This is both bold and commendable. It will impact on higher education in a number of ways. As already noted in Chapter Two, the sector is likely to be a major supplier of the planned associate degree programmes and community college capacity. This has implications for financial accountability (as Recommendation 4 noted). It also has implications for the size and shape of higher education provision of a rather different kind. As the associate degree programme expands, so a demand-led market will be created from successful students to enhance these qualifications, by entering higher education programmes in the second or succeeding years and completing first degrees. Over the next few years, the UGC will have to work with the emerging associate degree sector to ensure sufficient flexibility to meet this demand. In particular, the UGC's funding mechanism will have to be capable of creating extra capacity for new entrants other than through the current first year first degree quota. In turn, the Government will have to weigh the financial consequences of meeting the demand which its policies will create.
- 4.9. The institutions will also have to devise means of articulating relevant credits from associate degree holders into their curricula to provide smooth transition routes to graduate status. The need for appropriate quality assurance processes has already been dealt with in Chapter Two. What is required is a qualifications framework, underpinned by credit accumulation and transfer that facilitates student mobility. Funding by credit units as an alternative to funding by student numbers will have to be further examined. There are pros and cons for this approach, but on balance the arguments favour a new methodology. *Appendix E* sets out a UGC discussion paper which proposes a model for funding teaching by credit units.

- 4.10. The essential message here is that changing educational demography will require new definitions of fitness for purpose and new forms of flexibility in university admissions, credit-allocation, and curricula, as well as in UGC funding mechanisms. The bonuses for the system, which could become specific points of mission-focus for some institutions, are the creation of new markets and sources of public and private funding. If local, publicly funded institutions do not seize the opportunities, there is no doubt that private and international competitors will. Thus, some institutions may find a central role and market in devising user-friendly, credit unit degree programmes which will meet the many future needs and demands for lifelong learning.
- 4.11. A rather different policy – the change of the normative length of secondary school courses from seven years to six – will also have radical implications for higher education. This is an opportune moment to consider articulation between the school and post-secondary sectors. Specifically, we need to find ways for university admission requirements to be broadened so that high quality students can be admitted to universities not simply on the basis of achievements in public examinations. Currently discussion has focused upon the need for, and costs of, the extension of the standard first degree programme from three years to four. The great need now is for creative attention to be given to the uses to which such extra time in the degree programme might be put. Simply to assume that it will be more of the same would be to dismiss the single greatest opportunity in this generation for re-thinking the curriculum and the way it is delivered and assessed. The whole of this chapter is in part intended as a contribution to that discussion.

### **Education and the Economy**

- 4.12. Internationally there has been a subtle change in language from talking about the *cost* of education, to talking about the *investment* in education. This reflects a profound shift in perception. It recognises the importance of education for the knowledge economy. It also implicitly raises the question of whether the outcomes of the education process are adequate for the changed economic circumstances. Complaints are made of graduates who lack some of the generic and transferable skills necessary for graduate level employment – for example, language skills (which always figures in Hong Kong discussions), and the skills of communication, and group participation and teamwork, as heard in many other societies.
- 4.13. The development of bi-literacy and tri-lingualism can only properly be dealt with by the whole education sector, starting with teacher education, kindergarten and primary schools. Detailed discussion of these issues belongs elsewhere. However, as a remedial action, the proposed introduction of a voluntary common proficiency assessment in English for all graduating students, which would inevitably become a requirement of employers, would provide some help. My intention, however, is not to offer a detailed prescription for higher education curricula and educational practice, but rather to stress, that as for all the other reasons given in this chapter, curricula will feel the pressure to develop and evolve to meet the various new circumstances, so the primary significance of university education for most students – improved job prospects – will also feature inevitably in the re-calibration of the higher education system. None of this is to deny the higher ideals of education – well-stocked critical minds capable of major contributions to the culture, democracy, science and economy of developed societies.

But higher education must show to the public and private purse-keepers of society good quantifiable reason for investment in education at all levels. Both types of aspiration are essential.

- 4.14. Whilst on the issue of improved job prospects, a significant number of taught postgraduate programmes have in recent years found niche markets to serve manpower needs in the knowledge economy, as well as to enhance career development of members of the workforce. Given the limited resources in higher education, there is a strong case for these taught postgraduate courses to be run on a self-financing basis, reflecting the benefits to be derived by both employers and employees.

### **Technological Development and Education**

- 4.15. The means of providing education and the sources of learning have been dramatically widened in the last decade because of the development and wide availability of the new technologies. The only thing which we know for certain about the future is that the changes will be even greater. This has happened before with the invention of the printing press – when Bill Caxton rather than Bill Gates was simultaneously changing education and society in England.
- 4.16. All that was five hundred years ago, but as with now, the world of education and learning was never the same again. Interestingly the changes then were not the replacement of teachers and professors by publishers and librarians, any more than the end of the teaching relationship is written in the virtual sky of the worldwide web. But equally, it is certain that the nature of that relationship has changed with the information and communication technologies, as have the opportunities open to education to reshape itself.
- 4.17. Electronically-based teaching and learning is changing what happens in the classroom next door, just as dramatically as the opportunity to provide distance learning and 24-hour global delivery. This increases rather than diminishes the need to educate critical minds for there is more dangerous junk on the web than ever to be found in the most liberal of libraries. Yet positively, the technology offers vast resources for learning and opportunities for creative and interactive forms of delivery. There is also a sense in which the learners in the current generation will set the pace in education in a way that has never previously been known. Their capacity to access resources in their own time to fit their own development schedule means that the notion of a uniform age cohort moving like a herd through the school is fast disappearing.
- 4.18. Electronic delivery is at present in its infancy. However, it is already clear that in the future it will assist in delivery of content and subject materials, and enable communication and dialogue between tutor and student, and between students, that will transform the bricks and mortar institutions. Institutions are already developing ‘virtual learning environments’ and ‘managed learning environments’ with tools and vehicles to facilitate the tuition, support and management of learners on- and off-campus. Electronic delivery will also assist the development of collaborative inter-institutional teaching. But this will put pressure on new skills required in authoring content, in supporting students, and in managing and maintaining the infrastructure that will need to be disseminated across the sector.

- 4.19. To fulfil its leadership and strategic planning role, the UGC should identify sources of funding to pump-prime initiatives that enhance skills and knowledge in learning, teaching and assessment. In this fast changing environment, it is important to invest in staff development so that university teachers can keep up-to-date with the technologies so as to enable the students to learn effectively. This is an important role for the leaders and management of the institutions, but the UGC's funding mechanisms will need to make that possible.

**Recommendation 7:**

**That the UGC and the institutions jointly assess the need for staff in the sector to develop new skills to respond effectively to technological and other changes in higher education, and jointly support initiatives addressing these needs, including the dissemination of best practice across the sector.**

- 4.20. The new technologies are also changing the competitive landscape of higher education. The web, in particular, has freed education from its historical geographical constraints. Distance learning courses serve students without regard to location. Institutions can operate satellite campuses or work with partners while retaining close virtual contact with core academic staff members. Non-traditional providers, including for-profit organisations (e.g. corporate universities and entrepreneurial universities), compete across broad geographies in selected (i.e. profitable) markets. Universities of the 21st century will have to operate in this virtual space of a global market and meet global standards for education quality and cost effectiveness.
- 4.21. Technology also changes staff roles and responsibilities. E-learning modules can now be acquired from outside the institutions, rather than custom-made by local staff. Such modules facilitate on-campus instruction as well as distance learning. They offer more options for delivering content and honing student skills, which allows staff to work with students on interpretation and other high level activities. To use a phrase now popular with technology leaders, 'The staff role shifts from sage on the stage to guide on the side'. In addition, staff must become expert at balancing the costs and benefits of alternative learning methods, selecting materials for supporting and managing more complex educational processes. Content expertise – including expertise that stems from research and scholarship – remains necessary for good teaching, but it is no longer sufficient. The aforementioned intensifying competition will seriously disadvantage any institution that fails to perceive and respond to these changes.

### **The Changing Nature and Development of Knowledge**

- 4.22. The English author and book reviewer, Frederick Raphael, wrote, 'The last man who knew everything lived and died in the eighteenth century'. The main reasons for that are twofold. The first is the absolute explosion of the knowledge and understanding of ourselves and our world which has taken place since the advent of the printing press and which is now expanding exponentially in cyberspace.



- 4.23. The second reason for the truth of Raphael's aphorism is that the successful expansion in our knowledge has been premised upon the fragmentation of that knowledge. The content of knowledge as well as the techniques for expanding it have become more and more specialised. Often the specialisation is technological in that literally new techniques whether, for example, those of the human genome project, or of nanotechnology, have been created to expand the sum of human knowledge. The consequence is that even if we had the time, most intelligent human beings could not absorb or understand all the avenues and byways of this explosion of human knowledge and understanding.
- 4.24. Interestingly, the situation often goes full circle, so that a specialist in one field sees the need for the expertise of another field in order to advance. Thus the chemist who wishes to understand the implications of his work for proteins, learns to talk to the biochemist and the biologist, or the software specialist working on speech recognition technology comes to realise that the linguist working on natural languages is a partner who is essential if progress is to be made.
- 4.25. What does this mean for education, teaching and learning? First and foremost that, although we need specialists, we also need those who can as necessary move beyond that specialism – not usually by becoming a specialist in two areas, but by seeing creative and unexpected connections and building teams with varieties of skills and the capacity to work together in a trusting but sometimes appropriately intellectually critical manner. What is true for the advancement of knowledge and technology is equally true for project management and team-participation which comprises so much of the business sector. Educationally the challenge is clear, and nowhere more so than in higher education where the specialism of the single honours degree has been so dominant in some societies.
- 4.26. Finally, the changing shape of knowledge is altering the world in which we live. The huge growth in impact of information technology and biotechnology over the last decade or so underlines the need for institutions to have both the vision and the capacity to manage change required to navigate in such waters (see Recommendation 6 above and Appendix D).

## **Conclusions**

- 4.27. First, it should be recognised that education in theory and practice is subject to dramatic and changing influences, pressures and opportunities, some of which have been outlined in this chapter. The need for flexibility of thought, planning and response is evident. Rather than list innumerable specific recommendations some of which could at best be informed hunches, I would rather address a specific recommendation to the UGC about funding and add a coda for the attention of institutions.
- 4.28. This will mean that the criteria for distributing the teaching element of the block grant will change, as will the mechanisms for funding. The UGC will need to investigate the development of performance indicators to assess the outputs of teaching which are as robust as those that it intends for research. This will in turn be related to the further development of mission- and performance-related funding. Institutions should manage themselves and their missions accordingly.

- 4.29. Further, the UGC will have to develop patterns of funding in which it is possible to support the needs of courses and course units, as well as the ‘package’ of first year first degree, entry based programmes. This will mean modifying the funding methodology to incorporate an element of funding by credit units (see paragraph 4.9 above). A more radical approach would be some kind of voucher system where the student holds a funding entitlement, but with little support at present among stakeholders this is an issue for the future.
- 4.30. Much of the success of the sector in confronting and exploiting the new opportunities will depend upon an internal change of culture – not least the culture of rewards where currently it is found easier to reward and promote on the basis of innovative research than on the basis of innovative teaching.
- 4.31. The UGC should also find ways of supporting innovative teaching programmes. At one level the support would take the form of specific funded places either by course unit or by programme. At another, the initial support needed will be for development work, followed by dissemination.
- 4.32. Finally, institutions and staff should recognise that the aforementioned forces necessitate a comprehensive view of education quality, and they need to have in place a rigorous process that assesses and maintains quality. In a similar vein, the UGC needs to develop further the TLQPR, bearing in mind my earlier proposal in Chapter Three that this could be subsumed in an institutional audit. The continuous improvement of excellence in teaching should be a goal shared by institutions and the UGC, as the development of mission- and performance-related funding continues.

**Recommendation 8:**

**That the UGC’s support for teaching and learning be informed by continued attention to the educational opportunities created by demographic changes in the demand for education, by the economic case for investment in education and the technological revolution which is reshaping both the means of delivering education, and the opportunities for learning.**



# Chapter Five

## Institutions and the Future II – Research and Research Funding

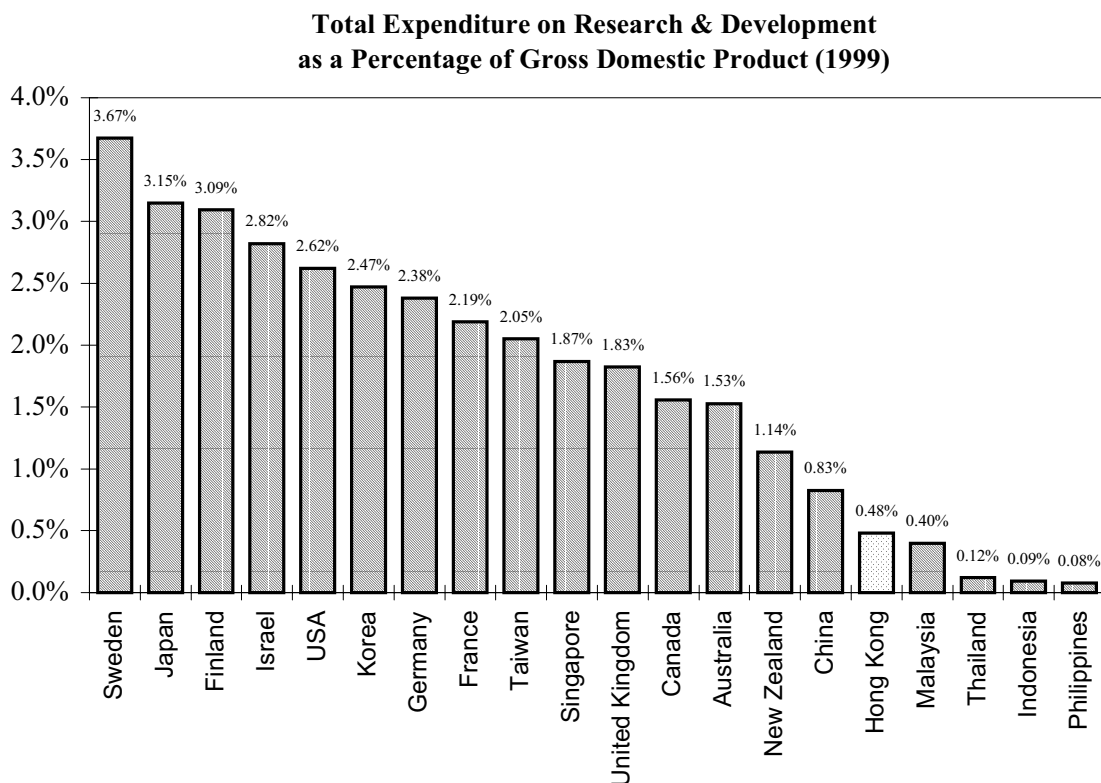
- 5.1. Research is in essence the means of extending human knowledge and understanding. It is one of the two major roles played by contemporary universities – the other being teaching, the transmission of knowledge and understanding. As I have argued, in universities teaching and research intertwine and a defining characteristic of university level teachers is that they are expected to undertake research to keep abreast of the extension in their field of knowledge.
- 5.2. The first and most important question about research which a report such as this must confront is not ‘Why do it?’ The answer to that is straightforward. If it is worth doing, then clever people will do it. The question for the Higher Education Review is rather, ‘Why should there be a significant public sector investment in research?’ The answers to that question, if compelling, will persuade the reader of this report of two things: the first is that Hong Kong is not alone in being unable to fund all likely demands to carry out research in its universities and colleges; the second is that there must be agreed policies and strategies therefore to maximise the impact of such public sector support as is made available.
- 5.3. The strongest argument for a society wanting to have a research capacity is to contemplate one in which there was no interest or wish to extend the boundaries of human knowledge and understanding. In the words of the President of one famous US University, ‘If you think knowledge is expensive, try ignorance!’ There have been such societies in the past, based on the view that to live well individually or socially, no new knowledge was necessary. Such societies usually turn in on themselves, and restrict interactions with other societies as a safeguard. They also cease to develop in a way that keeps pace with other human groups. The consequence is vulnerability to economic rivals and predators. Happily, Hong Kong shows no tendency to follow such a course. No developed or trading economy or city could contemplate being anything other than economically, and therefore cognitively, competitive.
- 5.4. The real questions for Hong Kong SAR, then, relate to how and what to invest in research. To answer these will require a review of what the objectives of research investment are. These objectives are a series of expressions of the different values which relevant groups attach to research, and not all of them will be shared by all stakeholders. I can identify and will now discuss three broad types of research which one group or another will attach to the idea of a strong research base, all of which are relevant to the questions of how much and how to invest in the research base.
- 5.5. First of all, when people talk about research they often think immediately of so-called blue sky research, or upstream research, undertaken by university teachers. This type of research is curiosity driven and bottom-up. It has to be said that the extension of human knowledge and understanding is one of the most noble and persistent human activities.

We are curious creatures and that is one of the reasons for our current evolutionary dominance. This type of research does not necessarily demonstrate any immediate usefulness – it is ‘pure’, rather than ‘applied’, research. However, most major research discoveries owe their origin to this type of work, e.g. pure scientific research by particle physicists working in CERN (*Conseil Européen pour la Recherche Nucleaire*) in Geneva led to the invention of the worldwide web.

- 5.6. There is a second type of research that impacts on the economic and cultural well being of a community. For example, the extension of knowledge and understanding of the development of information technology is now an essential capacity of any nation whose economy is knowledge based. More specifically for Hong Kong, international competitiveness in finance or in the movement of freight demand respectively, cutting edge engagement with the development of financial processes and of logistics. This requires engagement at the frontiers around which patterns for the future are being formed. This second type of research is essential to help the businesses and industries which drive the economy and deal with practical problems of implementation and development. These areas of research are often referred to as applied research, or R&D. This type of research also has the capacity to identify for the economy early opportunities for engaging in new areas of economic growth. Biotechnology and software and electronics are amongst the most fruitful areas in many developed countries. In most developed countries the R&D budgets are driven by private sector investment, or strategic public sector investment, and both sources contribute to research capacity in the higher education sector.
- 5.7. The third type is what is commonly known as policy research. There are many and various applications of research ability in the public sector. Improvements in education, or health, or in the environment will require appropriate funding and commissioning of research abilities. The same is true of improvements in management. Extending the understanding of Hong Kong’s social and cultural history and achievements is another important area. Research into Hong Kong’s place in regional and global history will enhance not only the clarity of its identity, but also of its attractiveness as a centre of tourism.
- 5.8. So how do these three types of research, all of which are undertaken in universities, intertwine with teaching? University teachers will be the first to point out that the quality of the teachers and teaching in higher education is directly related to the capacity of those teachers to engage with the points of growth in their respective fields. This is not to claim that the best university teachers must be Nobel Laureates – that would certainly limit the number of good universities – but rather that university teachers must be able to show students not just what the current sum of knowledge and understanding is in a particular field, but where the likely changes and expansion of that field are to be found. Whether we like it or not, the international standing and reputation of the higher education sector in Hong Kong, as in everywhere else in the world, depends upon a strong and varied research capacity within that sector. A significant number of the benefits of that sector depend upon such standing and recognition. That is what it takes to attract and retain some of the best staff, and therefore some of the most able regional and international students.
- 5.9. Similarly, for research development to contribute to the knowledge economy properly, we need a constant stream of bright and clever people who do know, and who do

understand, where human capacity is going. A significant grouping of such people tend to be attracted by, and to cluster around, points of research excellence and growth. Often they are internationally mobile and their first loyalty and basic commitment is to the growth of knowledge and understanding. To attract such people to come to and remain in Hong Kong makes good economic and competitive sense. Not only will they contribute to the research base in Hong Kong, they will also train future generations of researchers who can continue the work.

5.10. The case for the adequate funding of research is clear. The real problems relate to what can be afforded and what societies wish to spend, granted the many other competing claims for resource in both public and private sector. The comparisons made in the table below show Hong Kong lags well behind its obvious economic competitors. This must clearly give concern to both public and private sectors.



Source : The World Competitiveness Yearbook 2001

5.11. Whatever the outcome of that process of reflection, it will nonetheless prove to be the case that there are more demands for research funding than can be met from the public purse. Tackling this question is likely to be a complex matter, but the fact that the pie has to be cut in one way rather than another cannot be avoided. The evidence from international comparators points unreservedly towards strategic and concentrated investment. Singapore has clearly followed this policy, and in the People's Republic of China, the strategy of building research capacity in a small group of universities is already paying dividends. One striking general statistic from the USA is that, of the roughly 2,000 four-year universities and colleges accredited to award first degrees, approximately only 10% (200) are accredited to award Ph.D. degrees. The international evidence is that competitiveness implies selectivity.

- 5.12. Such a policy of selectivity in Hong Kong would have important consequences. Indeed in the allocation of research funding the UGC is already following such a route, and it is not without cost. The use of an RAE plus the discretionary allocation of funded research postgraduate (RPG) places is enhancing the quality and research capacity of a small number of institutions in important ways. There are dangers in this. The first is that of complacency, and ossification. The second is that of un-nurtured, and possibly undiscovered, talent in other institutions. The third is that the quality of teaching may be diminished in what might be perceived as non-favoured institutions. I will return to these dangers later in this chapter, but I am strongly of the view that the selective concentration of research on groups and institutions where high talent and excellence is to be found is a policy which should continue. This follows inevitably from my first recommendation in this report (see Chapter One above).
- 5.13. To improve the outcomes for Hong Kong of the policy of selectivity, and to strengthen the ability of the UGC to operate this policy in a transparent way, there are improvements to the research funding system that can be made. But we need first to understand the status quo.
- 5.14. Within the UGC sector, the provision of research funds comprises two main elements. Under the ‘dual funding’ system, a major portion of the research funding is embedded in the UGC’s triennial block grants. This part of dual funding finances the research infrastructure of institutions and enables them to undertake research and professional activities to basic levels. The other part is provided in the form of earmarked grants allocated mostly on a competitive basis under two major schemes, namely, the competitive earmarked research grants (CERG) distributed through the RGC and the Areas of Excellence (AoE) scheme operated by the UGC. For technical reasons related to the UGC cash limit, these schemes are at present confined to academic staff of the eight UGC-funded institutions whose salary is paid from the block grant. Access is denied to others, e.g. those working for the Open University of Hong Kong and other institutions at the post-secondary level.
- 5.15. The origin of the dual funding system dates back to the mid-1980s and became embedded in 1991 when the RGC was formally set up within the UGC cash limit. The strength of dual funding for research is that the recurrent funding element provides for:
- the infrastructure and ethos which develop and sustain research, allowing the institutions flexibility to cope with the sometimes short term and unpredictable nature of RGC funding;
  - a second stream of research funding, supporting the notion that research funding streams should be multiple;
  - funding that is partly prospective, as well as retrospective (based on track record of the RAE), so as to encourage institutions to plan ahead and think strategically about research; and very importantly,
  - the protection of academic freedom.
- 5.16. The dual funding system is not perfect. However, to switch to an alternative, such as that used in the USA, whereby academic staff are contracted to the university for nine months a year so that they have to undertake fully costed research to supplement their salary would involve dramatic changes and upheaval to the higher education system, and require significantly enhanced sources of private research funding (although it has

to be said that most academic-year salary support in the USA comes from institutional funds). At a time when Hong Kong should be enhancing its R&D, dedicating an undue amount of efforts and energy to changing the processes of funding research would be counter-productive.

- 5.17. I have already alluded to a technical problem with dual funding, which at present precludes researchers from outside the UGC sector from competing for research funds made available to the RGC. Indeed, in the course of this review, representations from the continuing education sector and the Open University of Hong Kong have been made to me about their ineligibility to apply for RGC funds. As I have argued in, and reiterated throughout this report, all university level teachers must be engaged in research. Therefore, it is understandable and indeed justifiable for them to seek research funds. The RGC should be able, and is indeed willing, to provide a service to this constituency, by advising any funding agency (both public and private) on whether research proposals submitted by researchers from the non-UGC sector merit funding support by these agencies. Effectively, the RGC would be acting as an assessor of research quality (to ensure comparability of research standards in the higher education sector) and as a vetting agent of proposals, for research funds outside the UGC cash limit.
- 5.18. A second and more radical option, which can only be implemented when the economic conditions are right, is to set up an endowment fund which is sufficiently large to generate a steady source of income and which is not subject to any encumbrance as far as remit is concerned, to support generally academic research. The potential benefits of an endowment fund will be its accessibility to a diversity of research organisations and its capacity to generate capital funding, or matching funds, from a variety of sources from both the public and private sectors. The creation of an endowment fund would allow the RGC eventually to operate independently of the UGC. This is an option to be considered for the long term future. An endowment fund could only be a reality when the financial conditions have improved, and the setting up of an endowment fund is a necessary condition before the separation of the RGC from the UGC could be contemplated.

**Recommendation 9:**

**That the dual funding system for research be maintained whereby the RGC, as an integral part of the UGC, plays its part in enhancing the research base in the universities and in promoting research activities outside the UGC sector.**

- 5.19. Whilst it is appropriate, under dual funding, for RGC grants not to cover the full cost of a research project, the same is not true of other sources of research funding. When funds for research are sought outside the RGC with other Government agencies or the private sector, I suggest that the funds should be awarded on a fully costed basis. That means paying for all indirect costs, including infrastructural costs and staff time, as well as direct costs. Otherwise, money from the Education Vote which is transmitted to the education institutions under the dual funding system could be seen as subsidising non-educational research. Full cost funding of research projects is extensive in the US research environment, and increasingly so in the UK. The same should happen in Hong Kong too. This may have the effect of trading off quantity for increased quality,



because the number of research projects that are funded might reduce, but it would ensure that approved projects are fully funded through the combination of UGC block funding, and project specific funding.

**Recommendation 10:**

**That institutions should not use the UGC block grant to subsidise externally funded research, whether from private or public sources; and, as a corollary, that bodies funding research should accept their responsibility for funding research at full cost.**

- 5.20. The SAR Government has in recent years properly focused on R&D in public policy issues. Through various initiatives, the Government has committed approximately HK\$11 billion in capital to funding strategic and applied research. The largest commitments are to the Innovation and Technology Fund (ITF), the Applied Research Fund (ARF), and the Quality Education Fund (QEF). The health sector also makes some provision, but at a comparatively low level. *Appendix F* sets out the major research funding streams outside the UGC/RGC budgets. These sources of funding provide a huge capacity for strategic and applied R&D on the economic, cultural and environmental well being of the community, and consideration should be given for further support in areas like the transport system, and environmental issues, etc.
- 5.21. Building on these real Government commitments, there should be a joint review of the role and potential of investment of public sector monies in applied and strategic research. This should be undertaken by a working group with representatives from the Government, the private sector, the higher education institutions, the UGC and the RGC. Ideally, business and industry should also be reviewing their respective commitments to R&D, not least in the light of the poor investment record (as shown in the bar chart at paragraph 5.10 above).
- 5.22. Should this low level of R&D investment continue it will exercise a significant constraint in the directions which the Hong Kong economy can take. Almost certainly it will exclude Hong Kong from being a proportionately significant player in large areas of the knowledge economy. The review proposed would identify the resources available to institutions on a competitive basis, to develop their base in strategic and applied research. The responsibility of the UGC would be to align its current moves towards mission-based funding with such funding sources. Another advantage of such a review is that it would create, particularly between the universities and business and industry, a forum which could articulate more clearly the strategic directions of Hong Kong's economic and cultural future.
- 5.23. The preceding discussion focused on the research funding at project level. Under the dual funding model, the other element of research funds is channelled to institutions through the triennial block grant. This element of UGC funding is determined by the outcome of the RAE, which is based on qualitative peer review judgement rather than a formula driven simply by volume and pro rata equity of treatment. The RAE aims to assess research output performance of the UGC-funded institutions by cost centre. The last RAE in 1999 adopted one single quality threshold which was defined as:

*Quality of output equates to an attainable level of excellence appropriate to the discipline in Hong Kong, and showing some evidence of international excellence.*

The scoring methodology provides for academic staff who reached or exceeded the threshold being counted as '1', and those below the threshold are assigned fractional scores commensurate with their quality.

- 5.24. This has the advantage of simplicity. Evaluation team members need only focus on one rating criterion and agreement emerges readily. In describing the development of higher education as a success story, I have already outlined the substantial research achievements of the universities (see Chapter One). Whilst this simple assessment method based on peer review was useful as the research capacity in the universities was developing, it is a relatively blunt instrument for determining higher levels of excellence which is what we are seeing in university research. The RAE in its present form is ready for further evolution and the time is ripe to sharpen it so that the highest levels of international excellence can be identified and funded accordingly, in line with Recommendation 1.

**Recommendation 11:**

**That, in consultation with the institutions, the UGC build on the success of the RAE in allocating research funds on the basis of research performance, and devise means to sharpen the RAE so that the highest levels of research excellence can be identified and funded accordingly.**

- 5.25. There are a variety of ways in which the RAE could be refined. For instance, the peer review process could be informed by an enhanced use of performance indicators. This would reflect international opinion on the value of combining objective performance indicators with the judgements of peer review. Performance indicators are formulaic, transparent and, once in place, relatively cheap and easy to administer. It is relatively easy to investigate how the RAE could incorporate more performance indicator driven information in its decision making, based on practices elsewhere. Another way, which could supplement the performance indicators, is the development of a multi-point scale of ratings. The UK for instance has seven differentiating ratings.
- 5.26. In Recommendation 1, and indeed throughout this report, I have emphasised the importance of selectivity if our institutions are to achieve international excellence. Another area in which there are severe pressures to be selective is in the allocation of RPG places. Just as the RAE needs to be sharpened up, so does the allocation of RPG places, and again greater use of performance indicators in the allocation has to be developed. Two obvious indicators are completion rates and completion times. In Hong Kong, the normative periods for M.Phil. and Ph.D. programmes are 2 and 3 or 4 years respectively. Combining completion times and completion rates would mean that completions are measured in terms of X% of research students graduated within Y years. To provide some tolerance, Y can be the normative period plus 1 or 2 year(s). Another indicator, which would need development, is the kind of employment obtained by graduates. For instance, do they pursue careers at international levels of attainment?
- 5.27. An emphasis on completions, rather than enrolments, will encourage those departments with high drop-out rates to attend to this problem. Just as importantly, the indicators will

discourage departments from enrolling poorly equipped or under-qualified students into their research degree programmes. Further selective allocation of RPG places will enable high quality research training to focus in those institutions which have the requisite research infrastructure and to develop critical masses.

- 5.28. By definition, selectivity implies that some will not be selected. Given the efforts required in submitting for the RAE and bidding for RPG places, I believe that institutions should be encouraged to make strategic decisions about whether to enter individual departments for the RAE. Those departments which opt out of the RAE could instead be given a lower level of non-competitive funding to support R&D, and scholarship which underpins teaching. In line with the arguments in Chapter One, those departments, or even institutions, which are not research-led but yet have the capacity to develop as centres of excellence in teaching and learning should accordingly be able to opt out of the RAE. It is my contention that if any expansion of the post-secondary sector to 60% were to occur in these departments and institutions, it would be achieved at a lower unit cost. This is a point to which I will return in the next, concluding, chapter.
- 5.29. Another vehicle for selectivity is the AoE scheme. At present the AoE scheme focuses on basic research, and was initiated on rather broad premises emphasising excellence and building on strengths. At present it is undergoing an exploratory phase seeking a clearly defined and broadly endorsed vision and criteria. A framework is taking shape which could support AoE networks that advance the creative nexus between basic and applied research, leading to a balance of research investment in both discovery and linkages. The rationale is that integration, or linkages, within R&D is emerging as a major determining factor in the wealth of nations. But the AoE scheme need not be confined to research excellence. The scheme could be developed to benefit centres of excellence in teaching and learning, as described in the preceding paragraph. It could also serve as a vehicle for individual academics to work outside of their institutions in areas where they excel.
- 5.30. In this way, the AoE scheme would be enhanced in its focus to support critical mass in areas of strategic importance. Over time, with strong government and community support, adequate and long term resources and a more established track record, a greater application of top-down criteria can be applied, to target and fund areas that have been identified as key development areas. The UGC can direct its priorities, be they research or teaching and learning, or whether they are from research-led institutions, more purposefully.
- 5.31. Before concluding this chapter, I want to return to the dangers earlier identified in the selective concentration of research resources (see paragraph 5.12 above). In relation to the first – the danger of complacency and ossification – I have argued that there should be even greater stringency in the qualitative assessments made. The judgements should be even sharper and the benchmark of comparison should always be the best in the world, not simply the best in Hong Kong. The growth in research quality in Hong Kong over recent years makes this a realistic policy.
- 5.32. In relation to the second danger of the possibility of un-nurtured or undiscovered talent in other institutions, there will be situations where talented researchers, particularly in high cost areas of research, find that their teaching contract in one institution effectively

excludes them from the research infrastructure which they require, and which has been developed elsewhere in Hong Kong. In a society of the geographical and economic size of Hong Kong, this is an unnecessary waste of talent. It is certainly not beyond the wit of intelligent men and women to devise structures to deal with such situations, and the AoE scheme which crosses institutional boundary is a conduit of such structures. The real problem is usually one of attitude. The research institutions which benefit from this policy have a responsibility to deal with this problem. Equally, the UGC has a responsibility to monitor how effective the response of the institutions is to inter-institutional collaborative research, and perhaps, to oil the wheels of specific co-operative ventures.

- 5.33. In relation to the third potential problem – the dangers of teachers losing contact with the advancing edges of their discipline – the UGC has particular responsibilities which must be shared with the institutions. In particular, the calculation of the triennial grant should have factored into it the need for all university teachers, irrespective of the research capacity of their departments or institutions, to keep abreast of the expansion of knowledge. The normal scholarly means of doing this includes time for personal study, access to adequate sources of books and periodicals, to appropriate conferences and staff development opportunities, and to strategic sabbatical leave. In addition, there should be a means of encouraging the shared use of specialist teachers between institutions.
- 5.34. In summary, the support of the UGC and the institutions for mission differentiation implies that a diversity of kinds and levels of research activity will be undertaken in the higher education sector. It is necessary to apply the appropriate funding mechanisms to support this differentiation. There is a clear difference, under the dual funding system, between research supported by RGC funds and university-based research funded from all other sources which must be on a fully costed basis. There are clear implications for the private sector in their attitude to funding research. The same applies to the public sector from existing funds (e.g. ITF, ARF and QEF), as well as to new funding pockets such as transport and the environment (see paragraph 5.21 above). These are realistic aspirations for the future of research, since Hong Kong has already made huge progress in research achievements, and it is now more than ready to move on to the next stage and take its proper place on the highest internationally competitive stage. We have a strategy with a clear sense of purpose, and a variety of purpose, for the future R&D of Hong Kong.



# Chapter Six

## Looking to the Future: 10-year Horizon

- 6.1. It is reasonable to ask what the future of the higher education sector might or perhaps should look like if the recommendations in this Review were to be implemented. It is well said that he who gazes too long into crystal balls ends up eating ground glass. However, attempting to help shape the future is the intention of this Review and it is surely right that my aspirations for the future are made clear.
- 6.2. I am confident that the success story of the development of universities in Hong Kong will continue, but there will be significant implications for the UGC in providing strategic directions to a highly deregulated system. In ten years' time the sector should aspire to the following features.

### Sector Wide Landscape

- 6.3. The sector will be larger in at least two different ways. The first is that the current participation rate for first degree courses will have risen. There is no proposal to raise the first year first degree participation rate of 18%, but additional places will be needed for students coming in, via the associate degree route, after the first year of the first degree course. This increase will be paralleled and stimulated by a vigorous community college sector. Four-year first degree programmes will be in place and will be the norm of undergraduate study in many disciplines, providing quality education and training to graduates who will have all the necessary skills to join the workforce. The growth in participation rate will follow the development of the associate degree as a new and different route into the advanced years of the university sector. This growth will be achieved principally in those institutions whose mission is to widen their teaching and learning profile, rather than at the research-led institutions, and accordingly will be achieved at a lower unit cost than at present. There will also be an increase in the number of students engaged in postgraduate study.
- 6.4. Such a growth can be accomplished without the creation of new publicly-funded institutions. There will however be a market-led growth in private sector provision. This will include locally-based providers, but we shall also see the development of programmes offered by overseas institutions. It is not inconceivable that, when the economic conditions are right, some private consortium might want to establish a new private university to service Hong Kong. This will provide a variety of learning opportunity for students.
- 6.5. These pressures will significantly increase the impact of the market on the current publicly-funded sector that will show in a number of ways. The most important of these will be an increasing deregulation of the sector in matters of finance and planning. Salaries will be set by the market rather than linked to civil service scales. Institutions will decrease their dependence on the public purse, by increasing the proportion of income from private sources. Although the size of public funding will not decrease, any

increase in budget will be achieved through competition in the market to win additional resources from the private sector. In many courses, especially taught postgraduate, fees will be charged at full cost rates or above.

- 6.6. Regulation of quality will be performance and output-based, and especially in relation to the latter, will apply on an equal basis to private sector providers. The Government will have ensured that the rigour of the quality assurance processes in place is comparable to that under the UGC's responsibility.

## **Diversity**

- 6.7. In the institutions that receive public funding there will be clear diversity of mission and practice. This will be driven both by the UGC's funding mechanisms and by the competitiveness of the market. The diversity will show in both teaching and research.
- 6.8. In the latter case there will be a small group of institutions funded to achieve internationally competitive research levels. The success expected of them, if such funding remains in place, will require powerful and selective strategies, and the management and governance arrangements necessary to define and implement such strategies. The goal of international competitiveness will almost certainly require these institutions to concentrate on fewer areas of teaching and research, with increases in student numbers largely in postgraduate research student places. Such change will not be easily achieved in the absence of leadership in governance, and an institutional management which is fit for purpose.
- 6.9. All staff in higher education need to be 'research active' to the extent that engagement in research and scholarship is an essential ingredient of teaching at advanced levels of learning. This means that no higher education institution is a pure teaching-only institution. However, I do expect that there will be significant differences in the volume and types of research undertaken in each institution. In addition, I envisage that a future emerging institution could focus its mission on teaching as its distinguishing point of excellence.
- 6.10. In the case of education and teaching, the diversity will show itself in many ways. Some programmes, such as medicine, law, social work, dentistry, and teacher education will be professionally driven by the benchmarks of best international practice. Some programmes will continue to offer highly specialised single discipline training, although there will be a broadening even here as a result of the move to four years as the basic norm for first degrees.
- 6.11. However, this will no longer be regarded as the dominating type of undergraduate degree programme and some institutions will develop different patterns to offer, for example, liberal arts programmes and degrees which exploit the opportunities offered by the developing CATS.
- 6.12. This latter system is compatible with both single discipline and multiple discipline programmes, but has a flexibility particularly suited to a multiple-entry, multiple-exit system, signalling a move away from the current first year first degree straitjacket. In future there will be growing demand created by associate degree programmes for entry

into the advanced years of first degree programmes, as well as from those whose education will be mixed over time with the demands of work. Similarly, changes in the secondary school curriculum will have an impact on the demand for first degree places.

- 6.13. Provision of such programmes will become a specialist skill, funded as such, in some cases by the UGC, and in others by an increasingly discriminating private sector. The two sectors will be well articulated, underpinned by CATS, with a high degree of student mobility. Funding will be determined, at least partly, by credit units.
- 6.14. At postgraduate level there will be equivalent diversity. Some institutions will be particularly strong in research programmes. Others will develop strong taught postgraduate programmes related to their own niche market or policy-driven research strengths, or to private and company-sponsored market demands. And indeed some may decide to concentrate on undergraduate programmes alone.
- 6.15. Diversity will take other forms – part-time or work-based courses, off-campus provision of lifelong learning and continuing professional development. All institutions will have developed considerable e-learning strengths and some will exploit this in distance-learning packages and/or in the growth of campus provision in mainland China. They will also use e-learning collaboratively to reach students on- and off-campus across Hong Kong.

## **Collaboration**

- 6.16. Although the market will demand diversity and competition, it will be apparent that the most powerful competition comes from outside Hong Kong – Singapore, Shanghai, the USA, the UK, Australia, and so on. This will force the realisation that no one institution is best positioned in such a world if it is solitary in its dealings with others.
- 6.17. Strategic collaborations will be an essential part of shaping the future. Institutions will take advantage of the geographical proximity to encourage local collaborations, and form strategic international alliances. Such collaborations and alliances will be stimulated by a variety of needs to develop and exploit niche markets, in pursuit of international excellence.
- 6.18. Within Hong Kong research-led universities will, on some projects, collaborate with each other where critical mass demands it. They will also provide opportunity for researchers from other institutions whose needs and abilities are appropriate. Most particularly they will develop strategic links with a variety of other research strong universities in mainland China and overseas.
- 6.19. According to their teaching distinctiveness and strength, all institutions will have cohorts of students from the People's Republic of China and from a variety of international sources. In some cases there will be specific exchange programmes, and in others a share of the private international market will be built.
- 6.20. Institutions will facilitate the movement of students within Hong Kong and the UGC will support this by more flexible funding arrangements. More specifically, the Hong Kong Institute for Education will develop collaborative links in Hong Kong to stimulate



two particular advances. The first will be to create new degrees in teacher education in which two years of subject study will be combined with two years of pedagogical study, although not necessarily strictly in that order. Such a new pattern would complement current Bachelor of Education (B.Ed.) and Postgraduate Certificate in Education (PGCE) programmes, by allowing much greater flexibility and choice. The second advance will be to make available to students on current courses, a much greater range of subject or discipline based teaching than could be provided in the Hong Kong Institute of Education alone, for example by seeking science-based courses from the Hong Kong University of Science and Technology.

- 6.21. More generally, such strategic links will allow institutions to be more focused upon their areas of strength and excellence.

### **Governance and Management**

- 6.22. In future the relationships between the Government and the UGC, and then to the institutions will be clearer and sharper. On this basis the block grant system and the freedoms which go with it will be complemented by accountability lines, by agreements over mission and performance indicators which are sufficiently robust to be used in funding, and by increased deregulation within agreed guidelines.
- 6.23. In such a changing climate, governance systems in institutions will have redefined themselves to be fit for purpose. In some cases this may well involve smaller governing bodies, and a clearer relationship between executive (senior academic and support management) and non-executive members. The latter will be subject to appointment processes which recognise the need for a range of 'lay' expertise and input in financial, human resource, estate, strategic planning and marketing processes.
- 6.24. Academic leaders below Head of Institution level will also carry the responsibilities of financial and other accountability and will therefore be the outcome of appointment and succession planning processes. They will be supported by a committee structure which is fit for purpose and which avoids the danger of the management-by-committee syndrome.
- 6.25. In such a context the issue of academic freedom, which even in evidence to this Review tends to be more characterised by slogan than argument, can be redefined. The slogans tend either to demand or to deny the importance of some generic absolute but unclear form of autonomy. No individual or institution anywhere in the world has such an unrestrained freedom to act without consideration for the consequences or costs. There are only negotiated freedoms. Such freedoms are agreed between funders, whether public or private, and funded institutions. I have argued earlier that specific forms of freedom are essential if the academic enterprise is to be successful, but that they are not without constraint.
- 6.26. The best research ideas are not the product of intrusive government direction. The best teaching builds upon the creative talents of lecturer and professor. Such ideas, such talents, are best fostered where autonomy is balanced by the acceptance of responsibility. It would be easy on the one hand to smother such creativity by intrusiveness; it would be equally easy to squander it through self-indulgence. Neither of these extremes

characterises the reality of the situation in Hong Kong. However, increasingly throughout the world there is an acceptance that the freedom of enquiry and mind, which is the lifeblood of academic creativity and health, is constrained by funding pressures. In a mature society the necessary freedoms are negotiated between players who share the common goal of a strong university system. The balance is delicate, but if the best researchers and teachers are to be attracted to and remain in Hong Kong, that balance must be found and maintained.

## **Conclusions**

- 6.27. There are grounds for optimism about higher education and its contribution to a dynamic Hong Kong SAR whose economy is knowledge based.
- 6.28. There is in place a good higher education system. It has been and still is funded at reasonable levels by international standards. On the assumption that this continues to be the case, and that new demands on the system are accompanied by adequate investment in both capital and recurrent terms, then there is a strong platform for growth.
- 6.29. The sector responded well to the decision to expand the system in the 1990s. The funds provided were well-husbanded by the UGC, and the sector made full use of the opportunities which this provided. The two original universities expanded their provision, and were competitively tested by the comparative speed at which the new Hong Kong University of Science and Technology established itself as a major player. The institutions which were admitted to UGC-funded status have developed their own distinctive niches and dramatically expanded the range of choice for Hong Kong students.
- 6.30. In research there has been astonishing progress over the last ten years. A decade ago there were individual scholars and researchers of high standard. The dual developments of selective funding by the UGC and the development of the RGC, has encouraged the growth of research groups and centres of weight and strength that allow aspiration to international competitiveness to be a reality. There is inevitably further progress to be made, but granted such recent explosive expansion, the professional and strategic platform provided would justify more and selectively channelled resources. The sector has demonstrated well that resources provided will be used to produce real additional value.
- 6.31. The institutions are now demonstrating a willingness to abandon a rather parochial internal focus upon Hong Kong. There is real engagement with international benchmarks in both teaching and research, and a wish to position each institution in a regional and international context. There is a wish to expand the numbers of international students, and this should be encouraged.
- 6.32. In future, the mark of the graduates of Hong Kong universities will be international competitiveness. They will be well taught in a variety of ways according to the diversity of institutions. Some will embark on first degree courses immediately after secondary education; others will do so after gaining an associate degree qualification in the community college sector, and perhaps some work experience. They will have a high level of written communication skill in English and Chinese, and spoken language

competencies in Putonghua, Cantonese and English. Specifically, many graduates will have demonstrated their English proficiency through achievements in an internationally recognised assessment. RPG training will produce highly skilled researchers with particular strengths and applications for the region, and they will have contributed to the development of a strong research base in Hong Kong. Research in the arts, social sciences and humanities will have enhanced Hong Kong's understanding of its culture and history, thereby engendering a self confidence so that citizens of Asia's world city will be key players in the world stage.

- 6.33. All of this owes much to the 1997 redefinition of Hong Kong's future as Hong Kong SAR. The Pearl River Delta beckons with opportunity that is both economic and educational. The institutions are aware that, in both contexts, the competition as well as the opportunities lie outside Hong Kong.
- 6.34. The shape of the future and the full exploitation of the possibilities will depend upon a tripartite acceptance of responsibilities. On the one hand, the Government, through the EMB, must have clear policies defining objectives and investment strategies. The UGC must develop funding mechanisms which will stimulate and reward performance based upon agreed missions. Institutions must accept the challenges of the new context by ensuring their strategies are clearly defined and supported by mechanisms of governance and management which can deliver those strategies.
- 6.35. In all of these contexts the boldness necessary to further deregulate the sector and thus strengthen its responsiveness to the winds of international competition is essential. For example, the delinking of salaries from civil service pay scales would be one small but essential step. Equally important is increasing the incentive to institutions to maximise income from private sector sources.
- 6.36. All of these goals are attainable. The first step is the implementation of the recommendations made in this review. The second is to recognise and exploit the change of culture which this will stimulate. As I have been crystal ball gazing in this chapter, it will be worthwhile to take stock in, say, five years from now, to conduct another review and see how far the system has advanced and how far the aspirations outlined in this chapter have been realised.

**Recommendation 12:**

**That the UGC conduct another review of higher education in Hong Kong five years from now, to assess the progress made in the expansion of the post-secondary sector, the interface with the school sector, the articulation arrangements between the community college and university sectors, and the implementation of specific recommendations in this report.**

# Appendix A

## Membership of the Steering Committee for Higher Education Review

### Chairman

Lord Sutherland of Houndwood, Member, University Grants Committee  
FBA, FRSE

### Members

Dr Alice Lam, JP	Chairman, University Grants Committee
Mr Peter Cheung, JP	Secretary-General, University Grants Committee
Dr York Liao, JP	Member, University Grants Committee
Mrs Mak Chen Wen-ning, BBS	Member, University Grants Committee
Dr Steven Poon Kwok-lim, JP	Member, University Grants Committee
Professor Richard Y C Wong, SBS, JP	Member, University Grants Committee
Professor Kenneth Young	Member, University Grants Committee
Dr Thomas K Leung, JP	Chairman, Vision in Business Consulting Limited



# Appendix B

## Landscape of the Post-Secondary Sector and Pressures for Change

### The Higher Education Landscape

The 2001 Policy Address of the Chief Executive of the SAR outlined three goals for education in Hong Kong. The first goal is to raise the general standards of primary and secondary students through current education reforms to enable every student to enjoy learning, be good communicators, be courageous in accepting responsibilities, and be creative and innovative.

The second goal is to increase the number of post-secondary places, so that 60% of senior secondary school leavers can attain post-secondary education. Included in this goal is improvement to the transition from secondary school to post-secondary education and reforms to the university system to nurture more outstanding post-secondary graduates.

The third goal is to continue promoting lifelong learning as a trend for others to follow, encouraging Hong Kong people to actively enhance their own knowledge and skills, and participate in the development of the knowledge-based economy.

What drives these bold targets is the awareness that Hong Kong lags behind developed countries in terms of average educational level. At present, approximately one-fifth of the population aged 15 and above has post-secondary education, while 48% has an education level up to Secondary Three. About 38% of 17-20-year-olds in the Hong Kong SAR receive post-secondary education, but this includes those students studying overseas. 14,500 first year first-degree places in the universities cater for about 18% of the 17-20 cohort. Sub-degree places are provided for a further 15% of the same age group. The Government has suggested that this long-standing freeze on university degree places (since 1994-95) could be broken, possibly as early as 2007, to cope with the anticipated influx of associate degree graduates.<sup>1</sup>

These developments in participation in post secondary education fit closely with the Education Commission's proposal to change the present '5+2' secondary school structure to a '3+3' system, and changing the present three-year university degree structure to a four-year one. This suggests the function, content, focus and modes of teaching of first degree programmes will need to strike a new balance between breadth and depth. Greater emphasis will be put on foundation and generic skills. For that reason the Government is also calling for an expansion of RPG places and the number of taught postgraduate places, on a self-financing basis, with a view to fostering more high quality specialists.

Extending the duration of university programmes from three to four years will require significant additional resources, but the Government believes that the universities, the community and the Government together are capable of bearing the cost.

In conjunction with this development, the system for university admissions is being asked to give more consideration to students' all-round performance besides public examinations

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<sup>1</sup> 'Freeze on degree places may be lifted, says education chief,' Gary Cheung of *South China Morning Post*, June 1 2001.

results, including aspects such as internal assessment reports of the secondary schools (including students' academic and non-academic performance), portfolios prepared by students, and interviews. Accompanying this reform of admissions the Government wishes for a flexible and transferable credit unit system to be implemented, to allow more flexibility and mobility for students to learn at their own pace, according to their needs and abilities.

At the same time, the Government has set aside \$5 billion to subsidise those with learning aspirations to pursue continuing education and training programmes. The aim is to help people to pursue continuous learning, thereby preparing for the knowledge-based economy. At the time of the preparation of this report the details of the plan, such as eligibility criteria and the maximum subsidy, have yet to be announced, but this new subsidy is intended to encourage the present trend of people enrolling in courses in their spare time to upgrade themselves.

These developments indicate the scope of the changes affecting higher education in Hong Kong.

### *The private sector component and regional development*

The Education Commission's 1999 review of the overall education system in the SAR, *Learning For Life*, recommended introducing more flexibility and diversity into the higher education sector. In particular, the Commission recommended the development of 'various types of private universities'.<sup>2</sup> This has been echoed in the Chief Executive's 2001 Policy Address, as an element in achieving the target of 60% participation in post-secondary education.

The only private, self-accrediting university in Hong Kong is the Open University of Hong Kong (OUHK). It has become largely self-financing and has not received any government subsidy for its recurrent expenditure since the 1993-1994 financial year.

Nonetheless, the Government still provides one-off grants for specific purposes, including capital developments, research and financial assistance to low-income students. Currently, the EMB, and not the UGC, is the conduit for policy and systems governance of the OUHK.

Shue Yan College is the only post-secondary college registered under the Post Secondary Colleges Ordinance, Section 8 of which prohibits the use of the word 'university' in the name of such colleges. Shue Yan operates on tuition fees that are substantially below university levels. The only government support has been free land in Braemar Hill. A 1995 review by the HKCAA recognised journalism, accounting and psychology as equivalent in standard to a university, though other areas had yet to reach such standards.

In addition to these two established institutions, informed estimates suggest nearly 20 post-secondary colleges or private schools running post-secondary courses could form the basis of new associate degree or degree awarding institutions.

The Caritas Francis Hsu College, for instance, offers full-time programmes at higher diploma level. The College is not self-accrediting. Its programmes are accredited by HKCAA, and are

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<sup>2</sup> 'Bold plan needed to push education reforms,' Gary Cheung of *South China Morning Post*, November 3 2000.

comparable in standing and standard with other Higher Diploma programmes in Hong Kong and overseas.

Chu Hai College represents a different accrediting model. All degrees earned are conferred by an overseas agency - the Taiwan Ministry of Education. Chu Hai College offers undergraduates and postgraduate programmes leading to Bachelor, Master and Doctorate Degrees.

Post-secondary courses at local, private, post-secondary colleges and registered schools provide 7,000 degree and sub-degree places, around 20% of which are in full-time, self-financing courses offered by members of the Federation for Continuing Education in Tertiary Institutions (FCE).

4,500 Hong Kong students are pursuing sub-degree and first-degree education overseas. The growing non-government sector of providers in higher education is also reflected in 300 plus institutions outside of Hong Kong that offer higher education courses through partners or agents here, and by various methods of distance learning. The Non-Local Higher and Professional Education (Regulation) Ordinance regulates the standards of distant learning courses.

Providers of management-related programmes (offering certificates and diplomas in specialised areas) include the Vocational Training Council institutions, the Hong Kong Management Association, the Hong Kong Productivity Council, the Hong Kong Institute of Human Resources Management, and the Hong Kong Institute of Marketing.

The Hong Kong Arts Centre offers certificate, diploma and degree courses in Fine Arts, Applied Arts and Media Arts, mainly on a part-time evening and weekend basis. *Alliance Française*, the British Council, the Goethe Institute of Hong Kong, and the Italian Society of Hong Kong provide arts and language programmes.<sup>3</sup>

This is not a full or comprehensive picture of all the players in higher education, but it indicates the growth in the private higher education sector internal to Hong Kong which can be expected to continue.

An even greater impact can be expected from the Pearl River Delta. Over the past two decades, Hong Kong and the Delta region have complemented each other to develop a highly productive economic region, with a population of over 40 million, including many affluent consumers in a number of cities. Initiatives planned to tie the region together include an Economic and Trade Office in Guangzhou in 2002 to strengthen business liaison between Hong Kong and Guangdong, a new exhibition centre at Sky City, adjacent to the airport, intended to serve the region with a high-speed ferry terminal linking to the Delta, and a 'conceptual' inland logistics facility in Nansha to secure high-value cargo volumes from the rapidly expanding high-technology industries in the Delta. Hong Kong's higher education is expected to be prominent in the development of the region, both in teaching and research. Partnerships are already existent between Mainland universities and Hong Kong institutions, for instance, in the recent development of the Guangzhou Science Park.

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<sup>3</sup> Education and Manpower Bureau - Legislative Council Panel in Education: Increase in post-secondary education opportunities (April 2001).



## Pressures for Change

Rapid economic changes are transforming Hong Kong. The exponential developments in information technology, global political events and financial impacts, and China's accession to the World Trade Organisation are well known. What is perhaps less well known is that the recent shift from a manufacturing economy to a value-added service economy has moved a step further, with the emphasis now on *high value* adding services, while backroom services such as airline reservations are moving off-shore. There is a corresponding demand for knowledge workers who are highly educated, with diverse and adaptable skill sets. The workforce is becoming international and fluid. But while the marketplace is global, there are increasing numbers of younger unemployed, and immigrants from the Mainland, who desire to increase their skills and knowledge.

These changes require a visionary and responsive post-secondary education system capable of managing a very wide diversity of needs. To be Asia's world city, and to maintain its traditional eminence as the logistical hub for East Asia by providing integrated services, means that Hong Kong requires concerted and coordinated strategies to develop, and redevelop, *all* its human resources, not just those fortunate enough to go to university.

In addition to the reforms already mentioned, the Education Commission has put forward further proposals that aim to develop this wide population base. It proposes a 'multi-channelled' senior secondary education, including senior colleges and vocational training schools; widening the curricula and increasing its flexibility, with greater emphasis on practical, vocational skills; reducing the assessment burden while introducing greater validity in assessment (in this respect the Commission wants the HKCEE removed and replaced with one school exit/post secondary entrance examination); and instigating a qualifications framework using credit accumulation and transfer to link the whole post-secondary sector.

Together, these proposals amount to a dimensional, paradigm change for Hong Kong's education system, rather than minor change. It will shift Hong Kong's higher education system from an *elite* system, focused exclusively on academic attainment and aimed at the top 20%, to a *mass* education system. Accompanying this will be a shift in the culture of higher education from closing *gates* (to control supply) to building *bridges* (to drive and meet demand).

This paradigm change is a necessity not a social luxury. UNESCO data shows that a 300% increase in global participation in higher education can be expected between 2000-2020. This means higher education in Hong Kong has to run simply to keep still. The paradigm change is also likely to drive a shift in the role of Government, from concentrating on producing outputs in a local environment, and owning the means of production in order to do so, to *purchasing* outputs internationally. Crudely, it will mark an evolving shift from 'make' towards 'buy' in higher education. This pattern is already becoming apparent in the development of associate degrees. And it is likely to mean that the Government will transfer some of its ownership responsibilities to the universities, as is happening widely overseas. Some universities may become public corporations, to ensure management disciplines go hand in hand with their enhanced self-rule and freedom.

Clearly, paradigm shifts do not occur overnight, and what often divides the critics from the supporters of higher education are their definitions of change. Advocates for radical change want the institutions to change what they do, altering their basic assumptions to transform

themselves, rather than continue what they do, albeit in different ways. However, history indicates that universities are creations of their past, and that they only change in ways that are congruent with their intellectual purposes and missions. At the same time it is also clear that Government and the public want the change to the universities to be both intentional and continuous. Intentional, because conscious strategies and behaviours involve charting a deliberate course, which differs from the actions that emerge from unplanned change. Equally, the change needs to be *continuous* because it is not sufficient to accomplish several alterations and stop there. Re-assessing the environment, and deciding whether, when, and how to act is a never-ending activity.

### **Impacts on the Institutions**

Universities are becoming one part only of a spreading post-secondary education system, itself linked to a much wider knowledge community operating across society. In this respect universities are becoming more porous institutions, with fewer gates and more revolving doors than in the past when they served a selected and elite membership. Some have likened them to holding institutions, where a core of faculty is employed who link to a wider periphery of experts, because it is impossible to keep in-house all the resources needed.

The wider knowledge community is increasingly rating the universities by their connectivity to the community, and by their ability to augment their human capital with others. Increasingly therefore, universities are becoming less autonomous, self-contained and self-referential than in the past, and they are embracing a business enterprise culture. Senior management teams, strategic plans, line managers, cost centres and similar corporate patterns are influencing the traditional domain of academic hierarchies and collegiality. Paradoxically, this often means that universities are becoming more administratively centred, while their products of teaching and research have become more diverse in nature.

Teaching and research are also undergoing significant change. They are evolving from largely self-contained activities, carried out in relative isolation within academic discipline communities. The new focus is on knowledge produced and used in living and applied contexts. In research, this change is marked by a shift from 'publish or perish' to 'partnerships or perish'. Rather than basic research being abandoned in favour of commercial, commissioned research, this development recognises that partnership (teamwork) is crucial to most advances, even in basic research. The discovery end of the knowledge-commerce chain (which universities have traditionally separated from application) is expanding to include development, production, marketing and sales.

Teaching too is changing from the transmission of knowledge by instruction in controlled environments, to facilitating processes of learning wherever they occur. This acknowledges the paradox that the only viable skill in the modern age is that of learning new skills. In a similar fashion, equipping knowledge-workers to *reconfigure and reshape* knowledge to solve local problems differs from the tradition of acquiring a body of passive knowledge.

What this means for education overall, is that the learning experience is evolving from a once-only founding experience for youth, to a continuum accessed by people at all stages of life. Teaching now deals with the dilemma of equipping people for difficult and intense jobs, while at the same time teaching them that they will soon change these jobs, and need to find new, and sometimes unknown, skills.

This is a challenge to universities – to be knowledge institutions firmly linked to society, and serving it rather themselves. It calls for extensions to their traditional boundaries. In response they may need to develop a wider range of contractual employment arrangements to achieve the diversity and outreach of networked organisations; to promote and reward interdisciplinary and group activities, going beyond the current focus on the individual teacher or researcher who is linked to an academic discipline. Increasingly the universities are being asked to act as curriculum developers and configurers, accrediting others to provide the actual teaching. In this they may act as standard setters and assessors of teaching provided by others, including self-directed teaching/learning. And in so doing, they become closer to the world of vocational training which has long practised assessment independent of teaching.

### **Is This Happening in Hong Kong?**

A number of questions can be legitimately asked about the post-secondary education system in Hong Kong.

Are the universities linking to the secondary system by developing relationships that are more than a physical supply relationship – by contributing to school curriculum and pedagogical reform to widen the base of future students? Similarly, are the universities articulating with Hong Kong's vocational education and training sector to encourage people to move freely between the sectors with bridging programmes, or common systems of credit recognition and transfer?

Further, do the UGC-funded universities extend their academic and research community to include the OUHK, the Academy for Performing Arts (APA) and private institutions like Shue Yan? This inclusion could, perhaps, promote and reward interdisciplinary and group activities by offering incentives for partnerships outside the institutional walls. But there appear to be few examples of partnering and accrediting other education provision in private sector enterprises, where valuable learning and application experiences can be offered. Nor are there examples of assessors working off-campus to verify learning where it is happening, for example, in IT workplaces, engineering design or in private laboratories.

A similar set of questions can be asked about institutional operations. Can students complete degrees in 18 months, rather than the standard 36 months, acknowledging that teaching does not equate to learning? Is the provision for learning structured so that different learning abilities are recognised and addressed? Are university programmes defined by outcomes, with that focus, external to the input hours of lectures and tutorials, directing the learning?

Again, the public can ask legitimately whether the governance of the universities is placing service to the public at the heart of their mission, reciprocating the compact with society that provides their mandate and funding? Is 'service' being activated in a meaningful manner, with targets and performance assessment linked to rewards and sanctions, so that it is as prominent as teaching and research?

The public can ask whether the universities recognise that they are public assets, from which the beneficial owners can expect a reasonable return. This translates into very practical questions of the efficient use of public money, for example, whether declining courses in the universities are being managed through inter-institutional amalgamations, or courses closed in view of alternative demand in other areas?

# Appendix C

## Consultations with Stakeholders

In July 2001, the UGC Secretariat wrote to the following major providers of post-secondary education, student bodies, teacher associations, and other stakeholders to invite views on the future development of higher education in Hong Kong. Over twenty written submissions were received from those stakeholders marked with an asterisk (\*).

### **UGC-funded institutions**

- \*City University of Hong Kong
- \*Hong Kong Baptist University
- \*Lingnan University
- \*The Chinese University of Hong Kong
- \*The Hong Kong Institute of Education
- \*The Hong Kong Polytechnic University
- \*The Hong Kong University of Science and Technology
- \*The University of Hong Kong

### **Other institutions**

- Hong Kong Academy for Performing Arts
- \*Open University of Hong Kong
- Hong Kong Shue Yan College
- \*Vocational Training Council
- School of Continuing and Professional Education, CityU
- School of Continuing Studies, CUHK
- School of Continuing Education, HKBU
- \*School of Professional and Continuing Education, HKU
- School of Professional Education and Executive Development, PolyU
- Office of Continuing and Professional Education, HKUST
- The Lingnan Institute of Further Education, LU
- Federation of Continuing Education of Tertiary Institutions

### **Student bodies**

- \*Hong Kong Federation of Students
- Hong Kong Young Tertiary Student Association

### **Education workers**

- Hong Kong Professional Teachers' Union
- \*Hong Kong Federation of Education Workers Limited
- Federation of Hong Kong Higher Education Staff Association
- \*Hong Kong Education Policy Concern Organisation
- \*Hong Kong Association for Continuing Education

### **Secondary education sector**

- Hong Kong Subsidised Secondary Schools Council
- Hong Kong Association of Heads of Secondary Schools

**Research**

Innovation and Technology Commission  
Applied Science and Technology Research Institute

**Employers**

Hong Kong General Chamber of Commerce  
\*The Chinese Manufacturers' Association  
\*Federation of Hong Kong Industries

**Other bodies**

\*Hong Kong Council of Academic Accreditation

**Individual submissions**

\*Professors H B Peng and D C Chang, Department of Biology, HKUST  
\*Academic staff from the College of Higher Vocational Studies, CityU  
\*Dr S S H Lo, Department of Politics and Public Administration, HKU  
\*Messrs Yu Wing-yat and Wan Kwok-fai (postgraduate research students), HKU

During his visits to Hong Kong from May to December 2001, Lord Sutherland held private discussions with particular groups or individuals. They included the Chairmen of the governing bodies of the UGC-funded institutions, Heads of the UGC-funded institutions, academic staff of the local institutions, Chairman and Executive Director of the Hong Kong Council for Academic Accreditation, Chairman of the Standing Committee of Language Education and Research, representatives of the Federation of Student Unions, members of the Hong Kong Education Policy Concern Organisation, Chairman and officials of the Hong Kong General Chamber of Commerce, Chairman of the Education Commission, individual members of the Legislative Council, and officials of the Education and Manpower Bureau.

In addition, an Open Forum on Higher Education Review was held on 23 October 2001 attended by over 350 individuals.

# Appendix D

## International Examples of Institutional Governance and Management

This appendix considers the lessons for governance of Hong Kong's universities that can be drawn from a comparison with examples of high performing universities overseas. Its purpose is to provide points for comparison and reflection, rather than slavish copying.

Five universities are used to provide the comparisons. They are the University of Pennsylvania (USA), the University of Wisconsin-Madison (USA), the University of Melbourne (Australia), the University of Warwick (UK) and Imperial College of Science, Technology and Medicine (UK). Other universities that are considered world class could have been used, and similarly, different examples of best practice could be found. It should also be noted that what is being presented is not a static picture: a characteristic of these universities is their responsiveness to change and they will continue to evolve at the time of this report.

A number of features of governance that characterise Hong Kong's universities are contrasted with the evolving practices in these institutions. The core question under examination is whether the governance arrangements of Hong Kong's universities are sufficient to allow them to manage the pressures and tensions of the modern world in which they participate as large, multi-billion dollar corporations, while continuing to be preminent learning and research institutions in society.

Universities worldwide are being caught in this dilemma, which contrasts their traditional governance, designed for a self-managing community of scholars operating in comparative isolation, with the governance demands of large public corporations. The tensions are summed up in the words *autonomy* and *accountability*.

The challenge for the universities is to strike the right balance between academic freedom and being responsive to the public good, including the provision of transparent accounts of their use of public monies and the outcomes they have achieved.

### Features of University Governance in Hong Kong

There are seven predominant features of university governance in Hong Kong which have been brought out in Chapter Three.

The first feature is that governance is *widely distributed* across the institution, and does not reside in either one level of a hierarchy, or in a purpose built body. In this, it differs from private sector practice where there is usually a single governance body, the Board of Directors.

The second feature is related to the first. Governance in Hong Kong's universities is a *collective responsibility*. Both of these features – distribution and collectivity - reflect the

historical evolution of universities from small, closed communities where each member had his (occasionally her) say in how the collective was run.

This leads to a third distinctive feature, which is the *large size* of the governing bodies. The governing bodies of universities generally have a membership with numbers which contrast starkly with the small size of decision-making bodies in most areas of private business.

A fourth feature is connected to this factor of size. It is the *composition* of the governing bodies. They have very wide representation of political, administrative, lay and academic members, including students and graduates.

A fifth feature is a factor of both size and composition, namely the *style of decision-making*. It is characterised by consultation, democracy and consensus.

A sixth feature is the *interleaving and interaction between advisory governance, executive governance and management*. For instance, the Head of Institution is a player at all three levels. The firm distinctions commonly drawn in the private sector between advice, governance and management are not as prevalent in the universities.

Finally, in the universities there is a deliberate *conjunction and intersection of academic and business management*. In practice, the skills involved and the roles that are played are different, and academic training does not necessarily equip someone with business skills.

### **Features of University Governance as it is Developing Overseas**

The first feature to note within the universities selected for comparison with Hong Kong is the growing differentiation of *governance* and *management*. For example, the University of Warwick and Imperial College both locate governance firmly with the Council of the institution. They have clear roles for the Council, focused on steering the institutions while ensuring good organisational leadership and management, and through establishing an appropriate management framework which the Council then monitor.

This role is sometimes expressed as ‘noses in, fingers out’ - to convey the responsibility of the governing body to be aware of and constructively question what the management do, but at the same time not to have their fingers in the operations.

This brings these institutions close to private sector practice. In commercial settings governance is usually located in one body, the Board of Directors, which is responsible for reporting to the shareholders, and seeking a broad mandate from them. There is normally a strong line drawn between the board and management. As their name implies, directors set the direction and hold the management accountable for achieving it.

By contrast, the governance roles in Hong Kong’s universities are not concentrated in one body but are typically distributed. The role is shared between a number of bodies. These bodies, the Court, the Council, the Convocation of Graduates, the Senate and the Academic and Faculty Boards, are collectively responsible for setting the strategic directions for the university. They operate together, reflecting the university as a unity, a ‘community of scholars’. This is a tradition with a long history, but its relevance is being questioned as

universities have evolved into large, multi-million dollar businesses using substantial public monies.

These bodies in Hong Kong are simultaneously hierarchical and not hierarchical. For instance, while the Senate normally has overall responsibility for academic matters and the relevant Ordinance and Statutes set out clear roles and responsibilities for it, the principle of academic freedom makes it doubtful whether the decisions of a Faculty Board could be overturned in practice by a Senate exercising 'line responsibilities', or indeed by the Council.

In the overseas universities which are being used for comparison, management is shifting from being a collective responsibility, distributed across the institution, to an activity located in a specific bodies and office holders. For instance, the University of Warwick has a senior management team. But this pattern for management is not always clear-cut. Until January 2001, Imperial College had two senior management committees – the College policy team and the administration team. These have been combined and replaced by an Executive Committee, comprised of key academic leaders and heads of administrative divisions, who are responsible for the day-to-day policy execution in running the College.

This differentiation between governance and management is also reflected in the growing *division between the academic and non-academic sides of a university* in the overseas examples. The academic element of the university, largely overseen by administrating academics in the faculties and departments, is concerned mainly with teaching and research, whereas the non-academic element of the university has a separate administration overseeing overall financial, budgeting and reporting issues. Perhaps the clearest examples are the Resource Centre Management system at the University of Pennsylvania, and the Finance Committee (which recently replaced the Committee for Financial Strategy) in Imperial College.

This is not manifested in centralisation of power, but rather its opposite. The universities used for comparison show a *clear trend to decentralising management* and increasing the autonomy and independence of faculties and departments and the people who run them (usually deans or heads of department). This puts important decisions such as funding and staffing in the hands of people who have an understanding of their own units. Money is spent wisely where it is needed and the faculty or department becomes vested within the University. With this goes increased clarity of management delegation and accountability.

The overseas universities also demonstrate a shift to *smaller governing bodies* designed to handle more important decisions. For example, Imperial College aims to make a smaller Council than its current 32 members, in line with the recommendations of the Dearing Report which recommended an optimal size of 25. In a similar fashion, the University of Melbourne has moved from a Council of 39 to 23 in 1997, and 23 to 21 in 1998.

By contrast, the decision-making bodies in Hong Kong remain very large, with an emphasis on consensus or democratic decision-making akin to a Parliament. While Hong Kong's approach has democratic strengths that confirm a very deliberate approach to decision-making, the institutions often move at the pace of the slowest ship in the convoy which does not promote rapid or 'hard' decisions (both a strength and a weakness). But it may be that being clear about the model of decision-making that is used is more important than choosing between models. For instance, if an institution falls between these different styles in response



to pressures, then it risks alienating the good will and participation of the large number of members who believe they are serving the public good.

The parliamentary nature of the Hong Kong universities is also reflected in the constitution of their Council membership, which lies mainly with ‘appointed and prestigious citizens’. Many university Ordinances stipulate the exact nature of membership. For instance, City University states that of the 18 external members of the Council, not less than 10 must come from commerce and industry. This suggests a desire for high levels of external members who, as lay members with loyalties lying neither to the Government or the institution itself, can independently advise the university.

However, in the overseas examples, the notion of lay membership is changing somewhat as the notion of ‘stakeholders’ takes hold. The term ‘stakeholder’ points to a shift in the roles assigned to those who participate in university decision-making – replacing the watching brief of the layman with an active duty incumbent on the stakeholder to help negotiate the university’s response to demands from particular quarters.

A further influential development overseas is the acceptance of greater management disciplines and incentives around *internal resourcing*, where departments or faculties have an increased amount of independence and autonomy.

In the University of Warwick and Imperial College, money has been allocated directly to separate departments. The departments then allocate it how they wish. Warwick does not work with faculties and hence there are no Deans. At Imperial, there have always been elected Deans of the constituent colleges (Royal College of Science, City and Guilds College and the Royal School of Mines) which historically make up the College, but although the Deans have a lot of influence they have not been delegated power or authority. While units in Warwick have to consult the centre before spending money on new staff, Imperial College has had no restrictions on departmental expenditure.

The new Rector of Imperial College has however, recently introduced a faculty structure, headed by appointed Faculty Principals who have executive powers that coexist with Deans. This was formally implemented on 1 August 2001.

In the two US universities and the University of Melbourne, money is allocated to faculties as opposed to departments. The faculty in turn distributes money to the separate departments.

In Melbourne, the Dean works with a faculty budget officer, a department business manager and the department heads to make decision about money allocation. Whereas Deans have authority over departments generally, department heads are responsible for day-to-day decisions. Within the two US universities, the faculty play a very active role within overall university governance (there are 3 core faculty committees within the University of Wisconsin-Madison) and they follow a ‘strong Dean model’ where there is increased autonomy in budgeting and staffing decisions.

This increased amount of autonomy also calls for *greater independence in retaining funds*. Departments or faculties are encouraged to ‘push’ for the money. For example, the University of Melbourne works with an incentive scheme where targets are given and there are financial penalties and rewards. At the University of Pennsylvania the schools are credited with revenues that they generate. At the University of Warwick, departments must report on

previous achievements and outcomes to bid for further resources. This approach leads to faculties/departments working harder to produce better results, so that in the future they will be credited with more money.

All of the overseas universities are seeking to *distance themselves from the Government in order to increase their autonomy and independence*. Hence they are looking for funding elsewhere. All have long-term policies outlining future plans to decrease dependency on the Government. The University of Warwick is building up links with industry and commerce in a bid to increase non-governmental income. The University of Wisconsin-Madison, frustrated at its lack of autonomy from the State, has forged a public-private partnership to secure US\$40 million. Imperial College wants to reduce its proportion of Government funding. It now has five other main sources of income. The University of Melbourne has implemented a strategic plan, part of which is to generate income outside of Government funding.

In line with decreased reliance on the Government, the two English universities are thinking about raising significant funds from donations. While this source of funding is limited in the UK, it is thriving in the US. With this in mind, the University of Warwick and Imperial College are looking at the US model of governance (particularly the roles of President and Provost) in an effort to increase chances of funding from donations.

A noticeable pattern is the emphasis given to internal audit. To provide checks and balances on the management of these autonomous institutions, governing bodies have established audit committees that are serviced by internal audit processes.

The common responsibilities of internal audit are to:

- provide advice/best practice for sound, robust financial accounting and operating systems and controls;
- assist external audits, typically by preparing documentation on compliance with Codes of Practice/good practice guidelines;
- detect fraud and violation of laws and regulations;
- safeguard assets and manage risks;
- provide the governing body and senior management with information for resource allocation within the university; and
- ensure accountability and value for money of public funds.

However, there is some variation in the mandate and reporting arrangements. The universities of Wisconsin-Madison and Warwick both have internal auditing reporting to management, whereas it is the governing body that mandates and receives the reports of internal audits in the other universities. In practice, the distinction may not be great, because in all cases the governing body holds final responsibility for properly audited accounts and annual reports on performance. That responsibility is either devolved to the Head of Institution and monitored, or more directly overseen by the governing body.

In all cases, internal audit is employed by the institutions to assist the responsive functioning of management, allowing a degree of autonomy while providing an account of management decisions and their results.

## **The University of Pennsylvania**

### *Governance and Organisation Structure*

The University of Pennsylvania is highly decentralised, with the individual schools having a great deal of fiscal and managerial autonomy. This decentralisation is tied closely to the University's resource allocation system, which is called Responsibility Centre Management (RCM).

The level of decentralisation works, however, only because of the application of appropriate centralised quality standards and oversight. At the University of Pennsylvania this oversight is provided largely through the Office of the Provost. For example, although the schools determine resource priorities and expenditures, the Provost's Office reviews the strategic plans of the various units and must approve all priorities and expenditures. In addition, a central provost committee, comprising Deans and faculty members from the various schools along with central administrators, provides final review of all promotion and tenure recommendations forwarded by the schools, before approval is granted by the President's Office

The Internal Audit Department measures and evaluates the effectiveness of the controls within the University's and the Medical Center's accounting, financial and operating systems. It reports through the Audit Committee to the Board of Trustees, assisting the Trustees in their governance responsibilities.

### *Responsibility Centre Management*

RCM, which was adopted over 25 years ago, is the managerial framework used to carry out all of the University's internal budgeting and financial reporting activities. It seeks to promote the broadest possible stewardship of financial resources, and to encourage and reward innovation, creativity and efficiency.

There are two basic types of Responsibility Centres (RCs) at the University of Pennsylvania: revenue-generating centres, and non-revenue generating centres. The primary revenue generating centres are the Schools. Resource Centres and the Auxiliary Enterprises are the other two categories of revenue-generating centres.

Under RCM, the Schools and other revenue generating RCs are credited with revenues that they generate. With those revenues, the Schools and revenue-generating centres are expected to fund the direct cost of their own operations; pay a pro-rated share of the University's central overhead costs; and maintain internal budget balance.

### *Some special provisions of RCM*

- *Subventions.* A portion of the operating revenues generated each year in the Schools and through the activities of the central University Administration is placed in a special pool of funds that is then allocated among the University's Schools and Resource Centres by the Provost. These centrally controlled funds are distributed to the Schools and RCs, and give the Provost a pool of resources for strategic investments in the various Schools and RCs and also, when necessary, deal with unanticipated financial difficulties.

- *Centrally determined policies.* In RCM, many policies are made on a decentralised basis. However, important policy decisions which affect the financial status of the Schools and other RCs are made by the President and the Provost, and the central University Administration, or must be approved by them. Some may even need the approval of Trustees. Policies which are decided centrally include:
  - the annual rate of growth in Undergraduate Tuition and other undergraduate charges;
  - the size of the Undergraduate Financial Aid budget;
  - the allocation of Subventions; and
  - the rate of growth permitted in the central Government costs to be allocated between the various Schools, Resource Centres and Auxiliaries.
- *Harmless budget variances.* The central University Administration guarantees each School's undergraduate tuition revenue, undergraduate financial aid expenses and its 'allocated cost' expenses. If actual undergraduate tuition revenue falls below the level of tuition guarantee, or if undergraduate financial aid expenses or central administrative costs come in at levels above the financial aid and 'allocated cost' guarantees, the differences must be made up out of the central University resources. The Schools are protected from budget variances.

#### *Supporting accounting and budgeting procedures*

For the system to work, the university's accounting and budgeting procedures have to be able to marry revenues to the activities that generate those revenue. For example, since students take many courses in Schools other than the one in which they are enrolled, the university must allocate tuition income, based on the number of students that a School is teaching, rather than simply forwarding tuition dollars to the School in which that student is enrolled.

The net cost of operating the university's administrative units which are not revenue generating, is shared among the University's revenue-generating units using methodologies that are accepted as reasonable and consistent. Such allocations are made based on two factors: services rendered and ability to pay (both of which need to be balanced).

#### *Strengths and weaknesses of the RCM system*

The strengths of RCM are that it:

- encourages units to conduct long term financial planning, budget analysis, and understand operating capital tradeoffs;
- encourages schools to generate revenues and reduce costs;
- encourages schools to be innovative;
- turns every unit administrator into a budget executive for the University;
- delivers few surprises;
- expands the number of people worrying about efficiencies and lowering costs, as well as the income side of the ledger;
- creates an incentive to teach and teach well, lest students take their student credit hours to another school; and
- requires a balance of trade among the schools e.g. between professional schools and arts and sciences.

Equally, RCM has weaknesses. It:

- encourages parochialism e.g. curriculum decisions that keep students enrolled in a particular school rather than encouraging students to select course in other programmes (a problem especially at the graduate level);
- stimulates disagreements over the level of taxation and the cost of support for centralised services;
- requires a complex set of rules for assigning incomes and expenses; and
- requires substantial, reliable and accurate information systems.

#### *Application of RCM to a publicly funded university*

Most of the American universities using the RCM system are private institutions. The most well known public university using RCM is Indiana University. There are different views on the applicability of RCM to a publicly funded university, but there is agreement that it is adaptable to a public setting if the centralised units give up certain levels of control, and further, that RCM applies best when income sources are many and diversified. There appears to be less need for RCM with a sole-source revenue stream such as Government funding.

### **The University of Wisconsin-Madison**

#### *Governance*

The University of Wisconsin-Madison (UWM) is part of a multi-campus system. The Madison campus receives its budget from the general administrator system of the University of Wisconsin. The Chancellor of the Madison campus is essentially the Chief Executive Officer of the campus, but he must work closely with, and report to, the President of the whole Wisconsin system.

Because UWM exists within a broader system of institutional governance, it is answerable to the University of Wisconsin's system administration and to an independent Board of Regents that acts under state mandate. As a consequence of that relationship, and with the experience of knowing what works well, and what does not, the university has adopted a variety of managerial processes that promote inclusive governance. It keeps internal and external constituencies well informed, and ensures that policies, procedures and proposals, before they are implemented, receive extensive comment and adhere to state laws and Regent mandates.

The members of the Board of Regents are the Superintendent of Public Instruction, the President (or by his/her designated member) of the Technical College Board system, 14 citizen members appointed for a staggered 7-year term, and a student. The latter must be enrolled at least half-time in an institution or centre within the University of Wisconsin system, be at least 18 years old, of good academic standing, and a resident of the State of Wisconsin for a 2-year term.

The overall objective of internal audit of UWM is to assist all members of management in the effective discharge of their responsibilities. The Internal Audit Department is directed by the Chancellor's Office, and focuses on accountability, compliance, and efficiency. Accountability ensures sound controls and management of internal resource allocation; compliance ensures all rules and regulations are followed; and efficiency provides

management and financial information to enable management to maximise its available resources.

The campus has historically been frustrated by its lack of autonomy from the University of Wisconsin System Office and the State. In 1999, however, UWM was successful at forging a private-public partnership to secure US\$40 million in additional discretionary funds from the state.

### *Institutional leadership*

The Chancellor of UWM has four direct reports. Two of these are academic positions at the level of Vice-Chancellors: the Provost who serves as the Chief Academic Officer, and the Vice President for Research. There are also two non-academic positions: the Vice-Chancellor for Administration who oversees all non-academic operations, and the Vice-Chancellor for Legal Operations who serves as the UWM's general counsel. UWM is organised into 11 schools and colleges, each headed by a Dean.

### *The University Hospital*

The hospital on campus recently shifted to public control. There is a semi-private board that governs the hospital outside of the UWM budget. Clinical income goes into a private foundation, which then redistributes the income to clinical faculty, based on the proportion of income they generated.

Medical school faculty and clinical faculty earn UWM salaries. The UWM is grappling with the question of how to incorporate clinical faculty into UWM governance. Currently, clinical faculty are not included in the Faculty Senate and are not subject to policies such as tenure review.

### *Committees*

The UWM has over 100 committees. Each department has a curriculum committee and a promotion committee. Most schools and divisions also have curriculum and promotion committees to ensure standards across units. There are also three core faculty committees: the Faculty Senate which establishes policies; the University Committee which serves an important advisory role to the Chancellor; and the Committee of Faculty Roles and Responsibilities which hears tenure and termination appeals.

- *The Faculty Senate:* The Faculty Senate is a representative body, each Faculty providing one representative for each 10 Faculty members. Departments vote for representatives proportional to the number of departments in the Faculty. The Senate meets 7 times per year. It appears that the current model of the Faculty Senate is not effective. Senior staff do not like to serve, and as a result, younger staff are appointed to serve. The University also hesitates to use this body in an advisory fashion, because its proceedings are a matter of public record. The senior Administration prefers to use the University Committee that provides a more private forum for deliberation.
- *The University Committee:* The University Committee is an elected Faculty body that works closely with the chief administrative officers. It is defined in state Government statutes. The University Committee consists of 6 members, 2 of which are elected each

year. Members serve 3-year terms. Rules stipulate that there cannot be any more than one person from a given department or more than 3 from a given school or division. The Chancellor calls this group ‘his internal Board of Regents’, and they advise on decisions, budgets, and policy and serve as a conduit of information to schools and departments.

### *Role of the Provost and the Dean*

The UWM operates under a ‘strong Provost’ and a ‘strong Dean’ model. This means that both the Provost and the Deans are given considerable autonomy in budgeting and staffing decisions. The UWM also operates a ‘weak Department Chair’ model in that the Executive Committee in each department makes tenure and budgeting decisions rather than the Chair. The strong Dean model is seen as a real advantage of the UWM. This model puts funding and policy decisions in the hands of people who understand their units, rather than creating an extensive administrative structure to oversee rules and compliance. Instead of imposing strict rules and audit structures, the UWM creates performance metrics against which Deans, Vice-Chancellors, and administrative directors are judged. Faculty have primary responsibility for personnel matters and for academic matters (definition of degrees and curricula), and consequently feel vested in the UWM.

### *Funding and budgeting*

In the past decade the cost of running the UWM has risen more quickly than the rate of inflation. There has been a decrease in the proportion of the UWM’s budget that comes from state funds from 33.9% in 1989-90 to 27.2% in 1998-00. Funds from student tuition and fees have remained relatively constant, and there has been a significant increase in the role of private funding.

Nearly 60% of UWM’s annual budget is devoted to instruction and research. These costs include salaries, benefits, lab equipment, overhead receipts, and other expenses associated with core teaching and research. Of the University’s US\$1.275 billion budget in FY’98-99, 49.5% was devoted to salaries and wages, 14.4% to fringe benefits, 24.9% to operating expenses, 8.0% to capital, and 3.2% to scholarships.

Of the US\$60.9 million in Federal Indirect Cost Reimbursements (Government money to support research infrastructure at institutions conducting federally supported research), US\$37.6 million was directed to support base budgets of Information technology, Libraries, and Facilities.

The UWM received over US\$17 million in 1999 from royalties from patents and licenses. The UWM’s Research Foundation is 75 years old, making it the oldest in the country. The foundation has an endowment of over \$1 billion. UWM’s US\$17 million in patent and license income is distributed to faculty via the Research Committee. Faculty can submit proposals for funds as insurance for outstanding proposals, and UWM will fund the best projects that do not receive external funds. UWM also uses a portion of this income for faculty fellowships, and to provide stipends 10% greater than standard rates for top PhD candidates. A further use for these funds is to assist faculty in starting-up research funds by investing in equipment and research infrastructure.

## **The University of Melbourne**

### *Governance*

Australian higher education operates within a complex legislative and policy structure. Universities are constituted under State legislation and governed by State regulation, yet they receive almost all of their public funding from the Commonwealth Government. Higher education policy is therefore largely a Commonwealth responsibility, while State Governments retain significant regulatory control. The few institutions established under Commonwealth legislation have unique funding regimes, reflecting their specific roles, functions and perceived financial needs, whereas the Commonwealth Department of Education, Training and Youth Affairs (DETYA) views the State universities as components of a more or less homogenous higher education sector.

The University of Melbourne consists of a Council, the Professors, other members of the academic staff, members of faculties, graduates, diplomates, undergraduates and members of the general staff designated by Council. In 1998 a restructured Council of 21 members took responsibility for the conduct of the University's affairs. Prior to that, the University was governed by a larger Council of 39 members.

The Vice-Chancellor is seen as the Chief Executive Officer of the University. The Chancellor acts like a non-executive Chairman of the Board, which is there to provide strategic direction in conjunction with management, mainly via the Vice-Chancellor. Policy development and strategic direction is iterative. It tends to come from the management within the University through the Vice-Chancellor, engaging the hearts and minds of the Council, who in turn provide advice and direction.

The Council membership structure is the Chancellor, Vice-Chancellor and the President of the Academic Board (ex-officio members); one person appointed by the Minister for Education; 6 persons appointed by the Governor in Council; 6 persons appointed by the Council; 3 persons elected by and from the staff of the University (1 representing the professors, 1 representing the academic staff other than professors, and 1 representing general staff members); and 2 persons elected by and from the students enrolled at the University.

The graduates collectively comprise the Convocation, which may make submissions on University matters to the Council. Convocation elects a Standing Committee to advise Council. The Committee's power to approve or amend University legislation made by Council was removed with effect from 1998.

Academic administration of the University is conducted by the various faculties, the Melbourne Business School and the Victorian College of the Arts, and is supervised by the Academic Board.

Internal audit is responsible to Audit Committee of the Council, which reports to the Council through the Finance Committee. The Audit Committee advises the Finance Committee and Council on the policy direction and effectiveness of both internal and external audit investigations and reviews, and on the effectiveness and efficiency of internal systems of control. Internal audit is expected to perform a watchdog role but also work proactively with Finance to improve the processes and procedures within the Management environment. The focus for Internal Audit is clearly on the improvement side.



The Council appoints six members to the Audit Committee, at least three of who are members of Council. All six members must be external members and not academics employed by the university. In making these appointments Council must ensure that at least one member is a member of the Finance Committee, and that any non-Council members are selected for their expertise in auditing.

### *Funding and budgeting*

The Planning and Budget Committee represented by the Vice-Chancellor, Deputy Vice-Chancellors and every Dean, all have an input into dividing up the total resources available. If any additional resources come in they have a say in how it is allocated.

More and more of the funding is moving to 'one line budget' with the Planning and Budget committee allocating dollars to each faculty. In general there is no dictation as to how to spend but guidelines are provided. Deans have considerable discretion and effectively all decisions lie out in the operating areas. For instance the board that manages tenders does not try to second guess the Dean's decisions, but to test their practical probability.

Most Deans have a faculty budget officer and most reasonably large departments have a Department Business Manager whose role is a mix of finance and direct administrative support to the department head. The University is focused on increasing their expertise in preparing adequate business plans, relating the plans to the corporate goals and objectives and the budget. The University's central finances are contributing towards this training.

The Heads of Departments can authorise expenditure up to Aus\$50,000 and they make their own HR and operating decisions. Responsibility is devolved down to Heads of Departments in terms of day-to-day operations. The Departments are provided with monthly reports. However, the University feels limited by the style of reporting, which is still oriented towards the Government, compared to the needs of the department. The university would prefer more a more commercial style of reporting to reflect the more competitive environment.

Incentives are used to guide the University in the direction that it wishes to go, and to assist with the achievement of operating and strategic goals, although the dollars involved are not great. Targets are set for each faculty to ensure they meet the DETYA profile for the number of new students to be taken in, DETYA subsidised students, and fee-paying students. If the faculty fails to meet targets on DETYA students there is a financial penalty. However, if the faculty exceed targets for fee-paying students they receive an incentive. Similarly, if they achieve outstanding research and PhD results they are provided with incentives.

Incentives are provided for changing the profile of a faculty. For example, if a faculty can get a Nobel Laureate on staff for 2 months per year for 3 years they get an extra Aus\$100,000. Medicine currently has 2 of these. The belief is that high calibre people rub off onto other staff and students.

Finance committee gets a report each month and is the first to ask questions if things go 'off the rails'. If funds decrease and the faculties cannot get into new income streams they are supported as long as they can produce a business plan illustrating how they will get out of trouble.

In the light of shrinking Government funding, the University is looking to other forms of raising revenue in order to provide a resource base to enable Melbourne University to be internationally competitive at the highest level. This has involved an entrepreneurial approach in recent years. The challenge to generate income outside of Government funding is a vital part of Melbourne's Strategic Plan. There is fierce competition for fee-paying students.

## **The University of Warwick**

### *Governance*

The external, lay dominated Council is the supreme governing body, providing the senior management team (SMT) with delegated executive authority. The Senate is the academic body which acts as a 'long-stop' or 'red light' if anything looks seriously wrong in academic matters. Otherwise the SMT acts in a full executive capacity.

The key principle that Warwick operates is that senior managers manage the University, with the Senate and Council acting more like groups of shareholders (and not like boards of directors) who keep watch, but are not actively involved in any detail. Warwick has operated in this way since the early 1980s and expects to continue to do so.

Warwick believes in strong, clear, visionary leadership; active generation of external non-Government income; freedom to earn and spend as the University thinks fit; and senior managers managing executively, with only limited involvement of collegiate type arrangements (such as Senate).

The Council has 25 lay members, 17 academics and 2 student members. The Council is a self-perpetuating body but soundings are taken about potential new candidates. Warwick (along with other similar universities in the UK) has recently taken steps to advertise for Council vacancies in the newspapers. The Council votes on new members. The Chairman and Treasurer of the Council are both senior businessmen.

The Finance Committee of Council has delegated authority from Council and ensures the financial health and financial wisdom of major decisions of the University. It also approves the overall annual budget and monitors financial performance.

Senate has 47 members. Both the Senate and the Finance Committee of Council have a Strategy Committee that thinks longer term. The other two key committees/groups are the Earned Income Group, chaired by the Registrar, which drives the income generation and is concerned with ensuring maximum effective income for the University, and the Estimates and Grants (EAG) group which is concerned with the academic side and the allocation of resources to the spending departments. The net income generators in the university accept the need for profit sharing/taxation to subsidise the net cost centres.

The Higher Education Funding Council of England (HEFCE) requires internal audit to be carried out and sets out a Code of Practice. In Warwick, internal audit is a service to management and evaluates the effectiveness of systems and procedures within the University. It reports to the Finance Officer who has the overall responsibility for the financial Government of the University.

## *Leadership*

Warwick's view is that leadership is central to its success. It considers that it is leadership which has got it to where it is, and not any particular governance arrangements, structures or processes: a university will only become world class if it has clear, strong, visionary leadership. Everything else is secondary. Consequently, succession planning is taken very seriously. The Vice-Chancellors have been the main leaders at Warwick, all appointed by the Council, all from outside Warwick, and one from outside the UK; all have been esteemed individuals, well-known in their own right before appointment. The previous Registrar (one person held the post for 25 years) has also been a key leader; he was appointed, in effect, by the Vice-Chancellor (through the legal organ of the Council).

There are close relationships within SMT and within the wider senior team. There is also a close link between Vice-Chancellor and Chairman of Council (up to ½ day per week involvement by Chairman). 3 or 4 other lay members of Council make significant contributions. By contrast, the full Council itself is almost a rubber stamp.

## *Funding and budgeting*

The national funding mechanism (currently) takes no account of an individual institution's mission (nor of its costs, on the whole) but the formula weights the funding by type of student and by course of study. However, the Funding Council does require that all institutions produce a strategic plan and an annual operating statement, which is, at least partly, a mechanism to prevent institutional mission drift. The teaching funds and block grant funds for research are allocated (to all English universities) through a series of formulae determined by the Funding Council. The final result is that each university receives a single block of funds, which it is entirely free to spend as it wishes, no matter how it was calculated. But each university is aware of the formulae and how they work and so knows which of its main activities run at a profit and which at a loss.

A key performance objective is to reduce the University's dependence on Government funding. After leadership, Warwick considers this to be the other major factor behind its success. Hence the central funding philosophy is to generate an ever-increasing proportion of total funds from non-Government sources. There is no Government clawback from – or even involvement in – such funds; they are entirely the responsibility of the University.

Warwick considers that it is critical for it to be totally free to generate its own income, without compromising its teaching and research mission, and that it should be able to retain all such income and be able to spend it in an unconstrained way as the university thinks fit. In the future, it believes UK universities may need to try to copy the US, and attempt to raise significant funds from donations (currently this is very limited in UK). This might lead to the need for a President/Provost split of roles, as in US. In the UK these roles are still combined in the Vice-Chancellor.

Warwick has very strong links with industry; the relationships are business ones and are on a commercial basis. These have been extremely effective in increasing non-Government income.

Undergraduates are charged a flat rate fee of £1,050 pa. For all other students (postgraduate and all non UK/EU), a market operates on fees; Warwick sets its own fee levels – which vary by subject, level, mode etc – and retains 100% of the income.

For research, some public funding comes as a block grant, the size of which is determined by a combination of the volume and quality of research as judged by the Funding Council. All other research funds (both public and private) are obtained competitively on a project basis. Contract negotiation is common, and decisions are taken on whether to undertake a project, how much overheads should be charged, etc. on balancing the arguments between the prestige of the project, and financial considerations. Other funds are raised from borrowing on the market, and a small amount from donations.

The role of Warwick's Council on funding, is to approve the strategic plan and the annual plans and budget; they also (nominally) approve the internal funding mechanisms, approve financial strategies, monitor investments, cash flows, projected deficits/surpluses, etc. In Warwick the internal resource allocation is direct to the (29) departments from the EAG group; this is done, mainly, by means of Warwick's own formula, but takes account of any departmental plans that require an increase (or reduction) in funds compared with the formula's estimates.

The funds available for allocation to departments are top sliced to pay for the central Administration activities; a formula is applied to the remainder to calculate the departmental allocations. Once a department receives its allocation, the funds are treated as a single block with no restrictions as to how they are spent. Thus a departmental budget will not have 'components' externally determined, it is for the department to determine its own split into components. The one exception is the filling of a new or vacant post within a department needs to have approval from the centre – even if the department can afford the post from within its budget.

Measures to check value for money, outcomes etc are all wrapped up in the planning cycle; each department reports on its previous achievements and outcomes, and then seeks to justify its bid for resources. Warwick faces a perpetual value for money squeeze in that the unit of resource for teaching has been steadily reduced by the Funding Council over the last 15 years.

## **Imperial College of Science, Technology and Medicine (IC)**

### *Governance*

An external, lay dominated Council is the supreme governing body. Originally very large, it was driven by a smaller governing body Executive Committee. In 1998, a new Charter was granted that sought to reflect both the mergers with medical schools, and to revamp the Council and Senate along the lines of the recommendations of the Dearing Report.

There is a clear, delegated authority to management for all executive matters (including finance), thereby allowing management to manage. The Council is responsible for the College's strategy – though in fact it debates and approves it rather than derives it. It also has a direct responsibility for audit matters (which are not just financial, but also management audits that seek to hold the executive to account) and for health and safety. The overall principle for the governance structure is to ensure propriety and adequate accountability.

The Council has 32 members. 12 are academics from IC, the rest are not IC academics (at one time, there was a lay Vice-Chancellor from another university as member), although there was a list of ‘constituencies’ that nominate members. Imperial College has tried to reduce this, and, under the new Charter, it is no longer true for the Council but remains true for the Court. There is a committee of Council concerned with financial strategy; while valuable it limits itself to high level issues. Council also has an Estates Committee.

There were two main senior managerial committees. One was on College policy, chaired by the Rector and the other consisted of the Administration team, chaired by the College Secretary. These two committees have now been replaced by a combined academic and administrative Executive Committee, chaired by the Rector. It meets informally every week, and once a month the meeting is formal.

Other senior management meetings are called by the Rector on an ad-hoc basis, often as frequently as once a week. In addition there are large (informal) meetings about 4-6 times a year, chaired by the Rector with the heads of administrative divisions, senior officers (Pro Rectors, College tutors, Deans and Principals) and all the heads of academic departments – a total of about 45. Twice a year this meeting is held as a residential weekend, to discuss and broadly agree future policy ideas for the College, while also taking the temperature about present and future concerns. The meetings help to secure ‘buy-in’ by the senior staff to new ideas and directions before they are formally presented.

The Rector is appointed by the Council as a result of a competitive search process which is world-wide. The Pro Rectors and the heads of department are all appointed by the Rector. Before making a head of department appointment, the Rector seeks confidential views about possible candidates, but then makes his decision. Pro Rectors are almost always appointed from inside Imperial College. Heads of department are often appointed from outside Imperial College.

The Rector plays a very visible leadership role, especially externally, almost like that of a President of a US university. The Deputy Rector operates a little like a US Provost, through close liaison with all the academic departments and heads of administrative divisions.

The College has total freedom to determine its own objectives. It does this by means of an iterative process upwards and downwards inside the College with the result that the final objectives are owned by the institution with all staff strongly engaged in actively pursuing them. There is no outside agency (e.g. Government) seeking to influence what Imperial College does: it is its own master and views this as a sine-qua-non to be a world-class university.

The other critical governance factor is the ability of the College to respond and change quickly (without any outside constraints e.g. from Government) so that they can adapt to changes in their markets, and follow new opportunities. This is assisted by a project management structure to deal with many strategic changes that have to be implemented. While not strictly a governance issue, Imperial College thinks a major contributing factor to its global reputation is its never-ending search for quality and excellence in every aspect of what it does. Imperial College consciously and explicitly pursues excellence, even to the extent of deciding not to do something rather than do it less than excellently; this penetrates everything the College does.

As with Warwick, the governing body must ensure that funds from HEFCE are used only for the purposes for which they have been given, and that there are appropriate financial and management controls for funds.

The Audit Committee acts on behalf of the governing body, and regularly reviews the effectiveness of the internal controls in the College and its subsidiaries. The governing body is responsible for keeping proper accounting records, which disclose with reasonable accuracy at any time the financial position of the College. The Audit Committee and the governing body approve strong internal controls and procedures for resource management for diverse academic departments.

### *Funding and budgeting*

Imperial College aims to continuously reduce its proportion of Government funds, and to diversify its funding sources. It currently has six main sources (Government is one of the six) and it actively pursues all six.

Internal resource allocation is broadly as for Warwick, except that departments are allowed to make new (or replacement) appointments without reference to the centre, as long as they can afford them from within their budget. Budgets are allocated direct to departments and each Department can then spend its received block as it thinks fit. Departmental units are also the planning units for the College.

Imperial considers the critical success factors for future funding are to maintain and enhance its *diversity* of funding sources, to obtain full freedom to charge market prices for what it provides (currently true in most areas except for mainstream UK undergraduates) and to build up significant endowment funds (a real challenge for UK universities compared with the US).



# Appendix E

## Proposed model for funding by credit units

The UGC has discussed the latest model for funding by credit units as follows.

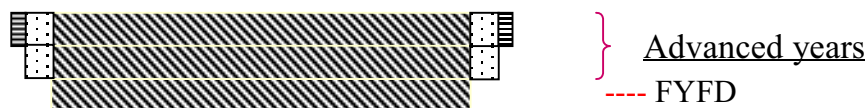
### The Student Base

Similar to the present arrangement, student number targets have to be determined by the UGC with reference to the Academic Development Proposals (ADPs) submitted by the institutions and by consultation with the Government on manpower requirements.

Under CATS, the base year student number will still have to be subject to the FYFD (first year first degree) target as set by the Government. Teaching in the institutions will be funded, however, with respect to a student base to be expressed in credit units, instead of FTE's (full time equivalent) over the different Academic Programme Categories (APCs). The conversion of FTE's to credit units will be achieved through a simple formula, such as one FTE equals to 30 credit units (assuming 90 credit units for a first degree). At the outset, all credit units within the student base will be fully funded, taking into account the relative cost weightings among APCs, but there can be later adjustments according to the actual state of consumption.

Subject to the availability of resources from the Government, institutions may propose in their ADPs a student base to make use of available credit units, giving it the shape of an 'inverted trapezium' possibly. That is, while the baseline would still be controlled by the FYFD numbers, at each of the advanced years there will be additional credit units to be provided for admission of newcomers from outside. Graphically, the student base can be something like:

Figure 1 Anticipated student population base



### Financial Rebalancing and the Concept of Marginal Cost

Financial rebalancing will be introduced to adjust teaching fund allocations to institutions in recognition of the change in enrolments in each of their APCs due to student transfers or reading for credit units across institutions.



The basic idea is that money will move with the students but application of the idea will be subject to the following rules :-

- The first is that recruitment into the approved student base will attract no top-up funding whereas recruitment outside the student base (i.e. over-recruitment) will, for the simple reason that anything within the student base has already been funded;
- The second is a 50% rule which means that for any top-up funding the amount will be discounted by 50%. This is to recognise that in normal situations, accepting an additional student at the fringes of the student base will only involve marginal costs and that, conversely, for the entity that is losing the student, the resultant 'savings' cannot be 100%, as part of the costs must have been 'sunk'; and
- The third rule is that top up funding will only be available in the case of movement of students already in the UGC-sector, although it would have been desirable if the same could apply to newcomers from the outside. There are two reasons for it. The main one is that in the new situation, additional places will have been created and funded for the newcomers as part of the inverted 'trapezium'. The other is that if we fund over-recruitment from the outside, the situation will be difficult to control and the amount of additional resources required cannot be quantified in advance, unless a quota system is imposed. The only exception to this rule is for institutions which have suffered net loss of students as a result of the inter-institutional transfers, they would be allowed to recruit students from the outside up to the boundary of their original student base, and have the funding accordingly restored.

Money-wise, financial rebalancing will take immediate effect, though actual re-adjustment of the accounts will only take place retroactively at the end of each financial year. An electronic notification system for institutions and an annual 'clearing' exercise by the UGC will have to be set up.

### **Strategic Rebalancing and Quality Assurance**

At the end of a triennium, there will be re-adjustment of the student bases for institutions by the UGC, having regard to the actual performance of individual programmes. The UGC will look into unusual cases if there is concern over the quality of programmes offered or student intake, and adherence to mission. By and large, programmes which recorded consistent over-subscription will get an increase in credit units while there will be cuts in opposite cases. However, it is to be stressed that strategic re-balancing will be judgmental, rather than mechanical, having due regard to quality and the overall level of resources then available.

Since strategic rebalancing will be done in a judgmental manner by the UGC, it should discourage distorted behaviour at the institutional level and prevent attempts to trade quality for quantity.

## **Strengthened Home Institution Rules**

In reality, we expect the implementation of CATS to be gradual and controlled, since the institutions can set 'home institution' rules, collectively and individually as the case may be, stipulating the following :

- each student can only register with one 'home institution', from which he/she gets his/her degree upon graduation and to which the tuition fee is paid, irrespective of where he/she might read for credit units or take examinations;
- the number of home-earned credit units required for the award of a degree;
- the maximum number of credit units a student can attempt in an institution within a year;
- the maximum number of years a student can spend in an institution to graduate; and
- the maximum validity period of credit units.

It is proposed that transfer of home institutions will not require consent by the releasing institution. The receiving institution will have full discretion as to the acceptance of previously acquired credit units. Cross-institutional reading of credit units however will require 'double approval' - the home institution should ensure that students study according to a plan that is both manageable and sensible, taking into account the quality and relevance of the study.

## **Coverage**

It is proposed that funding by credit units should, at least for the interim, cover only undergraduate studies but may be extended to Taught Postgraduate at a later stage. RPG and sub-degree students will be outside the system. In consultation with the Government, certain professional streams, e.g. medical and dentistry, should also be kept outside the operation of the system.

## **Financial Implications**

It is anticipated that additional resources will be required to support a student base with expanded number of credit units at advanced levels, assuming that FYFD places are not to be reduced. There will also be a need for additional resources for the whole UGC sector to accommodate 'extra' credit units studied but not required or recognised for graduation.

## Appendix F

### Major non-UGC/RGC funding streams for Research

<b>Funding body/scheme</b>	<b>Purpose</b>	<b>Funding criteria (in broad terms)</b>	<b>Funding</b>
Industry Department - Innovation and Technology Fund (ITF) [replacing the Industrial Support Fund]	To promote innovation and technology in industry under one of four categories of activities, with an aim to increase the added value, productivity and competitiveness of industries	Benefits to industrial sector, relevance and capabilities of project team	Capital investment: HK\$5 billion
<i>ITF Innovation and Technology Support Programme</i>	<i>To support midstream and downstream R&amp;D projects</i>		
<i>ITF University-Industry Collaboration Programme</i>	<i>To provide matching funding for joint R&amp;D projects between HEIs and private enterprises under one of 3 schemes: matching grant for joint research, teaching company scheme, and industrial research chair scheme</i>		
<i>ITF General Support Programme</i>	<i>To support conferences, exhibitions, promotions, training and applications for patent registration</i>		
<i>ITF Small Entrepreneur Research Assistance Programme</i>	<i>To support small technology-based enterprises to carry out pre-venture-capital stage R&amp;D activities on a commercial basis</i>		
Government – Applied Research Fund (ARF)	To invest in R&D technology ventures, and managed by three firms from the private sector	Strong local applied research and/or development content, product being commercially viable, and capabilities of project team	Capital investment: HK\$750 million
Government - Health Services Research Fund	To finance research on health care issues and the cost effectiveness of new technologies and treatment modalities	Originality, relevance to health services research, feasibility, and scientific content	Capital investment: HK\$50 million
Government – Health Care and Promotion Fund	To finance research on health care and health promotion issues	Originality, relevance to health care and promotion research, feasibility, and scientific content	Accrued interest income from a capital of HK\$80 million

<b>Funding body/scheme</b>	<b>Purpose</b>	<b>Funding criteria (in broad terms)</b>	<b>Funding</b>
S K Yee Medical Foundation	To provide medical education and medical services for the poor and sick	Feasibility, uniqueness, track record, potential achievements, relevance, timeliness, cost effectiveness, and contribution to academic development and knowledge	Between HK\$40 and 60 million per annum, depending on investment returns
Government - Quality Education Fund	To promote quality basic school education in Hong Kong	Innovation, teacher/school development and cost effectiveness and potential for wider application and implementation	Capital investment: HK\$5 billion
Government - Environment and Conservation Fund	To promote individual behavioural and lifestyle changes for protection of the environment, through community involvement campaigns and research projects (but academic and pure research projects are routinely rejected)	Contribution to overall environment of Hong Kong, benefits to local community, and non profit making	Capital investment: HK\$100 million
Croucher Foundation	To promote science, technology and medicine in Hong Kong through education and research-related activities (research grants programme to fund projects has discontinued)	Scientific excellence and cost effectiveness of the grant (e.g. possibility of seed money, syndicated funding)	At least HK\$40 million per annum

(The information is correct as supplied by the individual funding agents to the Research Grants Council in 1999-2000.)



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