CHAPTER 6

University Grants Committee Secretariat

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Funding of academic research projects
by Research Grants Council

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FUNDING OF ACADEMIC RESEARCH PROJECTS BY RESEARCH GRANTS COUNCIL

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FUNDING OF ACADEMIC RESEARCH PROJECTS BY RESEARCH GRANTS COUNCIL

Executive Summary

1.　　In Hong Kong, there are eight universities funded by the University Grants Committee (UGC) (all universities mentioned hereinafter refer to UGC-funded universities).　Hong Kong adopts a dual funding system for research at the universities.　The Research Portion of the UGC's recurrent grants is disbursed to the universities as infrastructure funding to enable the universities to provide the human capital and the facilities necessary to carry out research, as well as to fund a certain level of research.　The universities would also seek funding from the Research Grants Council (RGC) for the conduct of research projects on a competitive basis.　In academic year 2015/16 (all years mentioned hereinafter refer to academic years), the amount of funds granted under RGC funding schemes was $1,288.5 million.

2.　　The RGC was established in 1991. It operates under the aegis of the UGC and functions as a non-statutory advisory body on research matters.　The RGC has established 10 committees and 18 panels to assist its work.　The RGC administers 19 funding schemes.　Of the 19 schemes, 16 are targeted for the eight universities while three are for the 13 local self-financing degree-awarding institutions.　Of the 19 schemes, two schemes are funded by the UGC's recurrent grants and the remaining 17 are funded by the Research Endowment Fund (REF), which was set up by the Government in 2009 to provide stable funding to support research in the universities with an endowment of $18 billion and a further injection in 2012 of $5 billion.　The Audit Commission (Audit) has recently conducted a review of funding of academic research projects by the RGC.

Governance and management issues

3.   *Appointment of Council members.* The Government has promulgated the six-year rule to ensure a healthy turnover of members of advisory and statutory bodies. Audit reviewed the tenures of 48 members appointed in the period 2011/12 to 2015/16 and noted that up to the end of their tenures, eight (16.7%) members had served (or would have served) the Council continuously for more than six years (ranging from 7.5 to 12 years) (paras. 2.4 and 2.5).

4.   *Matters related to Council/committee/panel meetings.* Audit examination of RGC Council/committee/panel records revealed that: (a) the RGC had not promulgated rules of procedure governing the conduct of meetings for the Council, its 10 committees and 18 panels; (b) due to the tight time schedules between the finalisation of committee/panel reports and the date of Council meetings, committee/panel reports and committee/panel funding recommendation summaries were only issued to Council members shortly before the Council meetings or only issued at the meetings; and (c) in the period 2013/14 to 2015/16, 8 of the 10 committees and 13 of the 18 panels had held meetings. There were no minutes of meetings for 5 of the 8 committees and 10 of the 13 panels (para. 2.10).

5.   *Awards of research project grants.* One of the terms of reference of the RGC is to approve awards from funds for research. Audit reviewed the records of processing funding applications for 19 research funding schemes and noted that for eight funding schemes, there was no documentary evidence showing that the Council had reviewed or approved individual projects. When a Council meeting was held to approve the projects, the total number of the projects to be approved and the total amount of funding to be approved were submitted to the Council. For six of the eight schemes, there was no documentary evidence showing that the Council had been provided with any information on individual projects to be approved (paras. 2.16 and 2.17).

6.   ***Management of conflicts of interest.***   The RGC adopts a two-tier reporting system for the declarations of interests.   Regarding the first-tier declarations, Audit reviewed the record of submission or update of Register of Interests Forms of Council/committee members in the period 2011/12 to 2015/16 and noted that: (a) a Council member did not submit (or update) the annual Form throughout the period 2011/12 to 2015/16; (b) some Forms for 2011/12 and 2012/13 could not be located; and (c) the ex-officio member of the Steering Committee on Competitive Research Funding for the Self-financing Degree Sector had not been required to submit the Form since his appointment in July 2014.   Audit also reviewed the records of the submission (or update) of the Forms by 211 panel members for individual research schemes for 2015/16 and found that 179 (85%) of the 211 panel members submitted (or updated) the Forms late.   The delays ranged from 4 to 190 days (averaging 53 days).   Audit noted that the panel members for Joint Research Schemes were requested to submit their Forms only upon their appointment but not upon re-appointment and on an annual basis.   Audit also noted that 13 (35%) of 37 panel members for the Joint Research Schemes had not submitted the Forms upon their re-appointments in 2016.   Regarding the second-tier declarations, Audit reviewed the 3,314 projects of three funding schemes approved in the period 2013/14 to 2015/16 and noted that for six projects, the principal investigators were four Council members.   However, no documentation was available showing that declarations of interests had been made before or during the meetings at which funding was awarded (paras. 2.20 to 2.23 and 2.26).

7.   ***Other management issues.***   The REF is expected to generate an annual return at around 5% on a long-term basis at the time of its establishment in 2009. From 2017 to 2019, the average annual return on investment was forecasted in December 2015 to be around 4%.   At this lower rate of return, the investment income alone would be insufficient to cover the 2016/17 budget of $1,251 million of the 17 funding schemes funded by the REF.   The UGC Secretariat forecasted that from 2023/24 onwards, the investment income and the reserve would be insufficient to cover the provision of funding.   The shortfall would have to be met by depleting the principal of the REF (para. 2.31).

Executive Summary

Project management

8.   ***Administration of RGC funding schemes.***   The UGC considers that, to drive excellence, there is a need to aggregate and concentrate funding, collaborate and select according to strength as identified, and pool the resources across disciplines. However, the majority of RGC funding was allocated to a large number of small projects. The General Research Fund accounted for almost half (46.3%) of the 2015/16 funding, with an average funding size of $0.63 million per project. The normative unit cost for each subject panel is one of the factors in determining the indicative allocation of funding to the five subject panels each year. The same set of normative unit costs had been adopted for ten years since 2006/07. In the past ten years, there had been a lot of changes in the RGC funding schemes which made it necessary to conduct a review of the appropriateness of this fixed set of normative unit costs. The Hong Kong PhD Fellowship Scheme provides each awardee with a conference and research-related travel allowance of $10,000 per year for a period up to three years. After the completion of the three-year fellowship period, the universities are required to return the unspent travel allowance to the RGC. The UGC Secretariat does not have readily available information on the number of awardees with unspent allowance that should be refunded and the amount involved. Audit reviewed the records relating to six awardees who had completed or withdrawn from the fellowship in the period from 2013/14 to 2015/16 and found that three awardees had unspent balance not yet refunded (paras. 3.4, 3.8, 3.10, 3.12, 3.18 and 3.21).

9.   ***Monitoring of funded projects.***   Universities are required to submit project reports, namely progress reports, and completion reports or concluding reports. The RGC monitors and assesses the progress and performance of funded projects by assessment of project reports. The RGC did not set target completion dates for committee/panel members' assessment for completion and concluding reports. As at 31 May 2016, there had been 973 completion/concluding reports received but not assessed and 678 (69.7%) of these reports had been received for over one year but not yet assessed. In extreme cases, four reports were submitted more than nine years ago but still pending assessment. In the period 2011/12 to 2015/16, 87 projects were terminated before completion (on average 17 terminated projects per year). Audit examined 10 terminated projects approved in the period 2009/10 to 2014/15 and found that, for seven projects, the principal investigators did not submit the concluding reports (paras. 3.26, 3.27, 3.32 to 3.34 and 3.39).

10.   ***Handling of alleged misconduct cases.***   The Disciplinary Committee completed the investigation of five misconduct cases (e.g. plagiarism) discovered during the processing of the funding applications for the 2015/16 exercise and made a recommendation to the RGC for approval in December 2015.   However, since the RGC decided in June 2015 to separate the role of investigating allegations from the role of imposing penalties for substantiated cases, the recommendation on penalties for these five substantiated cases was left to the newly formed Disciplinary Committee (Penalty).   Consequently, up to August 2016, the five substantiated misconduct cases were still pending determination of the level of penalty.   Audit examined 26 alleged misconduct cases and noted that the time taken from the discovery of the suspected misconduct cases to the notification of investigation results and the penalty to the universities concerned ranged from one to four years (averaging 1.5 years).   Audit noted that there is room for expediting the process in handling alleged misconduct cases (paras. 3.49, 3.52, 3.54 and 3.55).

Research output and way forward

11.   ***Research output of universities.***   The UGC collates and compiles statistical data from the universities.   For each project funded by the RGC, the principal investigator is required to provide in the completion report the research performance (e.g. research outcome and research output) for monitoring and assessment.   Audit observed that the RGC did not use the research performance reported in the completion reports submitted under individual funding schemes to monitor the effectiveness of the respective funding schemes.   Audit analysed the information on the research outputs of research projects and noted that: (a) the total number of research outputs of the universities dropped slightly by 2.6% from 27,019 in 2010/11 to 26,317 in 2014/15 whereas research funding provided by the UGC and the RGC increased by 26% in the same period; and (b) the overall research output per academic staff for the eight universities decreased by 9% from 5.91 in 2010/11 to 5.40 in 2014/15.   Audit also analysed two categories of research outputs relating to commercialisation, and noted the relatively small percentage of research outputs relating to commercialisation versus that relating to publication as well as the decreasing number of research outputs relating to commercialisation (paras. 4.3 to 4.5, 4.7, 4.8, 4.12 and 4.15).

12.   *Way forward.*   To facilitate the commercialisation of research and development results and technology transfer, efforts should be stepped up to strengthen the linkages among various stakeholders (i.e. Government, industry, academic and research sectors). Audit noted that: (a) in the period 2010/11 to 2014/15, the industry sector only financed 3% of the total research expenditure of the universities, as compared to 11% in Korea, 9% in Taiwan and 7% in Singapore; and (b) measures for forging a closer link between the funding programmes of the Innovation and Technology Fund and the RGC were only applicable to the collaborative funding schemes, but not the individual funding schemes (i.e. General Research Fund and Early Career Scheme) (paras. 4.18 to 4.21 and 4.23).

Audit recommendations

13.   **Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in the Executive Summary. Audit has *recommended* that the Secretary-General, University Grants Committee, in consultation with the RGC, should:**

Governance and management issues

(a)   **promulgate rules of procedure for Council/committee/panel meetings (para. 2.11(a));**

(b)   **issue meeting papers in advance of Council meetings to ensure that members are provided with all the information that they need to properly consider and discuss well before the meetings (para. 2.11(b));**

(c)   **prepare minutes for those committee/panel meetings which currently do not have minutes (para. 2.11(c));**

(d)   **ensure that applications for project grants are approved by the proper authority and the approvals are properly documented (para. 2.18);**

(e)   take measures to ensure that all Council/committee/panel members make the required first-tier declarations of interests in a timely manner and make second-tier declarations of interests when they see a reason to do so (para. 2.27(a) and (d));

(f)   take measures to ensure the safe keeping of Register of Interests Forms (para. 2.27(e)) ;

(g)   keep in view the decreasing investment return of the REF amidst volatile market conditions, and draw up an action plan to address the issue (para. 2.39(a));

Project management

(h)   take measures to improve the portfolio balance of the funding schemes and the calculation of the normative unit costs for the subject panels (para. 3.22(a));

(i)   review the records of all the Hong Kong PhD Fellowship Scheme awardees who have completed or withdrawn from their fellowship in the past years to ensure that all unspent allowance had been refunded (para. 3.22(c));

(j)   take effective measures to clear as soon as practicable the backlog of the assessment of project reports received (para. 3.47(b));

(k)   review the process of handling alleged misconduct cases (para. 3.56(b));

Research output and way forward

(l)   collate adequate management information on research output and devise suitable performance measures for the evaluation of the research performance of the universities, and disclose the information on its website (para. 4.16(a));

(m) **work with the Innovation and Technology Bureau to facilitate the commercialisation of the universities' research results (para. 4.16(c));**

(n) **enhance measures to foster the university-industry collaboration (para. 4.27(a)); and**

(o) **extend the measures applicable to the collaborative funding schemes to individual funding schemes with a view to enhancing a closer link with the Innovation and Technology Fund (para. 4.27(b)).**

14. **Audit has also *recommended* that the Secretary for Education should monitor the tenure of the Council members to ensure a healthy turnover as far as practicable in the appointment and re-appointment of Council members (para. 2.8).**

Response from the Government

15. The Government agrees with the audit recommendations.

PART 1: INTRODUCTION

1.1   This PART describes the background to the audit and outlines the audit objectives and scope.

Background

1.2   In Hong Kong, there are eight universities funded by the University Grants Committee (UGC) (all universities mentioned hereinafter refer to UGC-funded universities — Note 1). Hong Kong adopts a dual funding system for research at the universities. The Research Portion of the UGC's recurrent grants (details can be found in a separate audit report on the UGC (Note 2)) is disbursed to the universities as infrastructure funding to enable the universities to provide the human capital and the facilities (e.g. accommodation and equipment) necessary to carry out research, as well as to fund a certain level of research. The universities have the autonomy in deciding how the resources available are put to use. The universities would also seek funding from the Research Grants Council (RGC) for the conduct of research projects on a competitive basis. In academic year 2015/16 (all years mentioned hereinafter refer to academic years), the amount of funds granted under RGC funding schemes was $1,288.5 million.

Note 1:   *The eight universities are: (a) City University of Hong Kong; (b) Hong Kong Baptist University; (c) Lingnan University; (d) The Chinese University of Hong Kong; (e) The Education University of Hong Kong; (f) The Hong Kong Polytechnic University; (g) The Hong Kong University of Science and Technology; and (h) The University of Hong Kong.*

Note 2:   *See Chapter 2 of the Director of Audit's Report No. 67: Funding of universities by University Grants Committee.*

Introduction

Research Grants Council

1.3   The RGC was established in 1991. It operates under the aegis of the UGC and functions as a non-statutory advisory body on research matters. The RGC's terms of reference are:

   (a)   to advise the Government, through the UGC, on the needs of the institutions of higher education in Hong Kong in the field of academic research, including the identification of priority areas, in order that a research base adequate for the maintenance of academic vigour and pertinent to the needs of Hong Kong may be developed; and

   (b)   to invite and receive, through the institutions of higher education, applications for research grants from academic staff and for the award of studentships and post-doctoral fellowships; to approve awards and other disbursements from funds made available by the Government through the UGC for research; to monitor the implementation of such grants and to report at least annually to the Government through the UGC.

Organisation structure of RGC

1.4   The RGC's members are appointed by the Secretary for Education under the delegated authority of the Chief Executive of the Hong Kong Special Administrative Region. The RGC meets two times a year. As at 30 June 2016, the RGC comprised a Chairman and 24 members (12 non-local academics, 10 local academics, 2 local lay persons and an ex-officio member).

1.5   The RGC has established 10 committees and 18 panels to assist its work in (i) overseeing the policies of the research funding schemes; (ii) evaluating the research funding applications under various funding schemes; (iii) monitoring and assessing the on-going and completed projects; and (iv) handling the alleged misconduct cases. According to its terms of reference, the RGC is the authority for approving research funding applications. The committees and panels are:

Overseeing the policies of research funding schemes

(a)   Major Projects Steering Committee;

(b)   Hong Kong PhD Fellowship Scheme (HKPFS) Steering Committee;

(c)   Steering Committee on Competitive Research Funding for the Self-financing Degree Sector;

Evaluating research funding applications

(d)   Areas of Excellence (AoE) Scheme Selection Panel;

(e)   Theme-based Research Scheme (TRS) Selection Panel;

(f)   Collaborative Research Fund Committee;

(g)   one pool of five subject panels for individual research schemes and another pool of five subject panels for Joint Research Schemes (JRSs). Each pool of subject panels include:

   (i)   Biology and Medicine Panels;

   (ii)   Business Studies Panels;

   (iii)   Engineering Panels;

   (iv)   Humanities and Social Sciences Panels; and

   (v)   Physical Sciences Panels;

(h)   Humanities and Social Sciences Prestigious Fellowship Scheme (HSSPFS) Selection Committee;

(i)   two selection panels for the HKPFS. The panels are:

          (i)   Humanities, Social Sciences and Business Studies Selection Panel; and

          (ii)   Science, Medicine, Engineering and Technology Selection Panel;

(j)   Selection Committee for the National Natural Science Foundation of China (NSFC)/RGC JRS;

(k)   Assessment Panel for Competitive Research Funding Schemes for the Local Self-financing Degree Sector;

(l)   Selection Committee for the State Natural Science Award (Note 3);

Monitoring and assessing the on-going and completed projects

(m)   Monitoring and Assessment Panels for the AoE Scheme;

(n)   Monitoring and Assessment Panels for the TRS;

(o)   Monitoring and Assessment Panel for Competitive Research Funding Schemes for the Local Self-financing Degree Sector;

Handling the alleged misconduct cases

(p)   Disciplinary Committee (Investigation) (DC (Investigation));

(q)   DC (Penalty); and

(r)   DC (Appeal).

Note 3:   *At the invitation of the Education Bureau (EDB), the RGC assists in the annual preliminary content assessment of the State Natural Science Award applications and makes recommendations to the EDB for submission to the National Office for Science and Technology Awards.*

As at 30 June 2016, committee/panel members comprised 259 local academics, 367 non-local academics, 4 local lay members and 1 ex-officio member (a person may serve as a member of more than one committee/panel). The composition of individual committee/panel members as at 30 June 2016 is shown at Appendix A.

1.6   The RGC, its committees and panels are supported by the UGC Secretariat, which is headed by the Secretary-General, UGC. The Secretariat also serves the UGC on research matters (Note 4). An organisation chart of the UGC Secretariat as at 30 June 2016 is shown at Appendix B.

Funding schemes of RGC

1.7   The RGC administers 19 funding schemes. Of the 19 schemes, 16 are targeted for the eight universities while three are for the 13 local self-financing degree-awarding institutions. Appendix C lists out these universities/institutions as at 30 June 2016.

1.8   The 19 funding schemes are:

Project grants — individual research

(a)   *General Research Fund (GRF).* This Fund supplements the universities' research support to researchers who have achieved or have the potential to achieve excellence;

(b)   *Early Career Scheme (ECS).* This Scheme nurtures junior academics and prepares them for a career in education and research;

Note 4:   *As at 30 June 2016, the UGC Secretariat had a staff establishment of 30 (21 civil service posts and 9 non-civil service contract posts) in the Research Section serving the RGC and the UGC on research related matters. For financial year 2016-17, the estimated operating expenditure related to the operation of the RGC was $67.1 million.*

Introduction

Project grants — group research

(c)   ***AoE Scheme.***   This Scheme supports the universities in building upon their existing strengths and develop the strengths into areas of excellence;

(d)   ***TRS.***   This Scheme supports research efforts on themes of strategic importance (e.g. "Developing a sustainable environment") to the long-term development of Hong Kong;

(e)   ***Collaborative Research Fund.***   This Fund provides funding for the procurement of major research facilities and equipment as well as library collections to support collaborative research involving two or more universities or group research activities that operate across disciplines and/or normal institutional boundaries;

(f)   ***four JRSs.***   Eight JRSs are established in collaboration with research bodies in the Mainland and overseas and are meant to promote and further encourage research co-operation and exchanges.   Four JRSs provide funding for actual research expenses in addition to passage and subsistence (see (i) and (k) for the other four JRSs).   The four JRSs are:

(i)   NSFC/RGC JRS;

(ii)   The French National Research Agency/RGC JRS;

(iii)   Scottish Funding Council/RGC JRS; and

(iv)   European Commission/RGC Collaboration Scheme (Note 5);

Note 5:   *Applications for the European Commission/RGC Collaborative Scheme was first invited in November 2015. The Scheme was launched in 2016/17.*

Fellowship

(g)   ***HKPFS.*** This Scheme enhances the quality of PhD students, strengthens the training of academic researchers and improves the overall research capability of the universities by attracting research students who demonstrate outstanding qualities of academic performance, research ability/potential, communication and interpersonal skills as well as leadership abilities, to pursue their research-based PhD programmes in the universities;

(h)   ***HSSPFS.*** This Scheme grants time-off and supporting funds to the outstanding investigators under the subject panel of Humanities and Social Sciences to enable them to focus on research work and writing;

(i)   ***two JRSs.*** Two JRSs provide funding to support Hong Kong scholars to undertake research work in the partner region, including passage and subsistence costs. The two JRSs are:

   (i)   Fulbright — RGC Hong Kong Senior Research Scholar/Research Scholar Award Programmes; and

   (ii)   Hong Kong — Scotland Partners in Post Doctoral Research;

Travel/Conference grants

(j)   ***Postgraduate Students Conference/Seminar Grants.*** These grants support conferences/seminars organised by or for research students in order to encourage research students of the same discipline of different universities to come together and share their experiences and research results;

(k)   ***two JRSs.*** Two JRSs provide funding for passage and subsistence costs for Hong Kong researchers to visit collaborators, or sponsor passage and subsistence costs of guest speakers and direct organising costs of conferences/workshops held in Hong Kong. The two JRSs are:

       (i)   Germany/Hong Kong JRS; and

       (ii)   PROCORE-France/Hong Kong JRS;

Competitive research funding schemes for the local self-financing degree sector

(l)   ***Faculty Development Scheme.*** This Scheme develops the research capability of academic staff in the local self-financing degree-awarding institutions so that they can transfer their research experiences and new knowledge into teaching and learning;

(m)   ***Institutional Development Scheme.*** This Scheme builds up the research capacity of local self-financing degree-awarding institutions in their strategic areas; and

(n)   ***Inter-Institutional Development Scheme.*** This Scheme enhances academics' research capability in the local self-financing degree-awarding institutions and keeps them abreast of new developments and challenging research topics in relevant fields.

1.9   An organisation chart showing the 19 funding schemes and the committees/panels of the RGC as at 30 June 2016 is at Appendix D.

1.10   Table 1 and Table 2 show the amount of funds granted and the number of projects approved/awardees (for the HKPFS) respectively under the RGC funding schemes for the five years from 2011/12 to 2015/16.

Table 1

**Amount of funds granted under RGC funding schemes
(2011/12 to 2015/16)**

Scheme	2011/12 ($ million)	2012/13 ($ million)	2013/14 ($ million)	2014/15 ($ million)	2015/16 ($ million)
Project grants — individual research					
(a) GRF	641.1 (Note 11)	523.8	560.6	594.9	596.5
(b) ECS	Nil (Note 1) & (Note 11)	102.1	97.8	94.1	91.9
Sub-total	*641.1*	*625.8*	*658.5*	*689.0*	*688.4*
Project grants — group research					
(c) AoE Scheme (Note 2)	Nil		144.0	Nil	
(d) TRS	247.7	203.0	176.3	205.0	202.8
(e) Collaborative Research Fund	64.7 (Note 11)	80.0	94.9	165.1	110.0
(f) NSFC/RGC JRS	19.4 (Note 11)	21.3	23.6	23.2	26.3
(g) The French National Research Agency/RGC JRS	Nil (Note 3)	9.3	8.3	11.0	7.1
(h) Scottish Funding Council/RGC JRS	Nil (Note 4)			1.6	Nil (Note 5)
(i) Economic and Social Research Council of the UK/RGC JRS	2.9 (Note 11)	2.6	Nil (Note 6)		
(j) Specialised Research Fund for the Doctoral Program of Higher Education and RGC Earmarked Research Grants JRS (Note 7)	Nil	4.2	4.8	Nil	
Sub-total	*334.8*	*320.3*	*452.0*	*405.9*	*346.2*
Fellowship					
(k) HKPFS	93.8	123.8	138.8	167.3	162.0
(l) HSSPFS	Nil (Note 1)	5.0	4.9	5.3	1.5
(m) Fulbright-RGC Hong Kong Senior Research Scholar/Research Scholar Award Programmes	1.4	1.2	1.1	1.2	1.2
(n) Hong Kong-Scotland Partners in Post Doctoral Research (Note 8)	Nil	0.3	0.2	Nil	0.3
Sub-total	*95.1*	*130.2*	*144.9*	*173.7*	*164.5*

Introduction

Table 1 (Cont'd)

Scheme	2011/12 ($ million)	2012/13 ($ million)	2013/14 ($ million)	2014/15 ($ million)	2015/16 ($ million)
Travel/Conference grants					
(o) Postgraduate Students Conference/Seminar Grants	0.8	0.6	0.8	0.8	0.7
(p) Germany/Hong Kong JRS	1.0	1.0	0.9	1.0	1.0
(q) PROCORE-France/Hong Kong JRS	0.8	0.6	0.9	0.7	0.9
(r) The Netherlands Organisation for Scientific Research/RGC JRS	0.4	0.1	Nil (Note 6)		
(s) Spanish National Research Council/RGC JRS	0.3	0.2	Nil (Note 9)		
Sub-total	*3.3*	*2.6*	*2.6*	*2.6*	*2.6*
Competitive research funding schemes for the local self-financing degree sector					
(t) Faculty Development Scheme	Nil (Note 10)			32.5	30.6
(u) Institutional Development Scheme				68.0	52.8
(v) Inter-Institutional Development Scheme				2.5	2.9
Sub-total				*103.0*	*86.3*
Total	1,074.3	1,078.9	1,258.0	1,374.1	1,288.5

Source: RGC records

Note 1:   Applications for the ECS and the HSSPFS were first invited in August 2011 and September 2011 respectively.

Note 2:   As at 30 June 2016, the AoE Scheme had conducted six rounds of granting exercises and granted a total of $1,086 million for 18 projects. The last round (i.e. the Sixth Round) was completed in 2013/14. The Seventh Round (2016/17) is underway.

Note 3:   The French National Research Agency/RGC JRS was first launched in 2012/13.

Note 4:   A framework agreement was signed in November 2013 between the Scottish Funding Council and the RGC to explore collaborative research opportunities between the two parties.

Note 5:   The Scottish Funding Council/RGC JRS was being reviewed and no funding exercise was conducted for 2015/16.

Table 1 (Cont'd)

Note 6: *The Economic and Social Research Council of the UK/RGC JRS, and the Netherlands Organisation for Scientific Research/RGC JRS were ceased in December 2014.*

Note 7: *The Specialised Research Fund for the Doctoral Program of Higher Education and RGC Earmarked Research Grants JRS was first launched in 2012/13. The Scheme was ceased in December 2014.*

Note 8: *The Hong Kong-Scotland Partners in Post Doctoral Research was first launched in 2012/13. The Scheme was under review and no funding exercise was conducted in 2014/15.*

Note 9: *The Spanish National Research Council/RGC JRS was ceased in 2012.*

Note 10: *Applications for funding schemes for local self-financing degree-awarding institutions were first invited in December 2013.*

Note 11: *Amounts of funds granted in 2011/12 under the GRF, ECS, Collaborative Research Fund, NSFC/RGC JRS and Economic and Social Research Council of the UK/RGC JRS were inclusive of 15% of on-costs. Starting from 2012/13, on-costs have been allocated on a competitive basis through the Research Portion of the Block Grant.*

Remarks: *Figures may not add up due to rounding.*

Introduction

Table 2

Number of projects approved under RGC funding schemes
(2011/12 to 2015/16)

Scheme	2011/12 (No.)	2012/13 (No.)	2013/14 (No.)	2014/15 (No.)	2015/16 (No.)
Project grants — individual research					
(a) GRF	801	770	920	972	949
(b) ECS	Nil (Note 1)	131	151	154	151
Sub-total	*801*	*901*	*1,071*	*1,126*	*1,100*
Project grants — group research					
(c) AoE Scheme (Note 2)	Nil		3	Nil	
(d) TRS	6	5	3	4	5
(e) Collaborative Research Fund	12	12	14	30	18
(f) NSFC/RGC JRS	21	23	23	22	23
(g) The French National Research Agency/RGC JRS	Nil (Note 3)	4	3	5	3
(h) Scottish Funding Council/RGC JRS	Nil (Note 4)			13	Nil (Note 5)
(i) Economic and Social Research Council of the UK/RGC JRS	8	8	Nil (Note 6)		
(j) Specialised Research Fund for the Doctoral Program of Higher Education and RGC Earmarked Research Grants JRS (Note 7)	Nil	11	13	Nil	
Sub-total	*47*	*63*	*59*	*74*	*49*
Fellowship					
(k) HKPFS (number of awardees)	125	165	185	223	216
(l) HSSPFS	Nil (Note 1)	8	7	7	3
(m) Fulbright-RGC Hong Kong Senior Research Scholar/Research Scholar Award Programmes	8	8	6	6	6
(n) Hong Kong-Scotland Partners in Post Doctoral Research (Note 8)	Nil	3	3	Nil	4
Sub-total	*133*	*184*	*201*	*236*	*229*
Travel/Conference grants					
(o) Postgraduate Students Conference/ Seminar Grants	18	14	18	18	16
(p) Germany/Hong Kong JRS	20	14	12	13	15
(q) PROCORE-France/Hong Kong JRS	13	10	12	10	15
(r) The Netherlands Organisation for Scientific Research/RGC JRS	7	2	Nil (Note 6)		
(s) Spanish National Research Council/RGC JRS	5	5	Nil (Note 9)		
Sub-total	*63*	*45*	*42*	*41*	*46*

Table 2 (Cont'd)

Scheme	2011/12 (No.)	2012/13 (No.)	2013/14 (No.)	2014/15 (No.)	2015/16 (No.)
Competitive research funding schemes for the local self-financing degree sector					
(t) Faculty Development Scheme				54	47
(u) Institutional Development Scheme		Nil (Note 10)		6	7
(v) Inter-Institutional Development Scheme				6	6
Sub-total				*66*	*60*
Total	1,044	1,193	1,373	1,543	1,484

Source: RGC records

Notes 1 to 10:   See Notes 1 to 10 of Table 1.

Research Endowment Fund

1.11   Of the 19 funding schemes administered by the RGC, two schemes, namely the AoE Scheme and the HKPFS, are funded by the UGC's recurrent grants and the remaining 17 are funded by the Research Endowment Fund (REF).

1.12   In 2009, to provide stable funding to support research in the universities, the Government set up the REF with an endowment of $18 billion.   In 2012, the Government injected $5 billion into the REF bringing the endowment to $23 billion and extended the funding scope to include the local self-financing degree-awarding institutions.   Of the $23 billion, $20 billion is designated for the universities while $3 billion is designated for the local self-financing degree-awarding institutions. Incomes from the investment of $20 billion and $3 billion are disbursed as research grants to the universities and institutions respectively.

1.13   The REF was set up as a trust under the Permanent Secretary for Education Incorporated (the Trustee).   The UGC advises the Trustee on the policies and procedures governing the operation, development and investment of the REF. The REF's endowment is invested through placements with the Exchange Fund managed by the Hong Kong Monetary Authority.

Audit review

1.14   In April 2016, the Audit Commission (Audit) commenced a review of funding of academic research projects by the RGC. The review has focused on the following areas:

(a)   governance and management issues (PART 2);

(b)   project management (PART 3); and

(c)   research output and way forward (PART 4).

Audit has found room for improvement in the above areas and has made a number of recommendations to address the issues.

General response from the Government

1.15   The Secretary-General, University Grants Committee agrees with the audit recommendations. He has also thanked Audit for providing constructive recommendations to the RGC's work.

Acknowledgement

1.16   Audit would like to acknowledge with gratitude the full cooperation of the staff of the UGC Secretariat during the course of the audit review.

PART 2: GOVERNANCE AND MANAGEMENT ISSUES

2.1   This PART examines governance and management issues of the RGC. Audit found room for improvement in the following areas:

   (a)   appointment of Council members (paras. 2.3 to 2.9);

   (b)   matters related to Council/committee/panel meetings (paras. 2.10 to 2.12);

   (c)   awards of research project grants (paras. 2.13 to 2.19);

   (d)   management of conflicts of interest (paras. 2.20 to 2.28); and

   (e)   other management issues (paras. 2.29 to 2.40).

2.2   Under the RGC, there are 10 committees and 18 panels. As at 30 June 2016, committee/panel members comprised 259 local academics, 367 non-local academics, 4 local lay members and 1 ex-officio member (a person may serve as a member of more than one committee/panel). They are responsible for overseeing the policies of the research funding schemes, evaluating the research funding applications submitted under various funding schemes, monitoring and assessing the on-going and completed projects, and handling the alleged misconduct cases.

Appointment of Council members

2.3   When necessary, the Secretary-General, UGC recommends and seeks the approval of the Secretary for Education on the appointments of new Council members and re-appointments of existing ones. The authority of appointments and re-appointments of the committee members and panel members rests with the Chairman of the RGC.

Need to monitor the tenure to ensure healthy turnover of Council members

2.4   The Government has promulgated the six-year rule to ensure a healthy turnover of members of advisory and statutory bodies. According to the rule:

(a)   a non-official member of an advisory or statutory body should, as a general rule, not serve on the same body in any one capacity for more than six years;

(b)   government bureaux and departments are required to vigorously enforce the six-year rule in respect of the boards and committees under their respective purview;

(c)   non-compliance with the six-year rule should only be allowed in special circumstances; and

(d)   any exception to this rule should be reasonable and proportionate to the special circumstances of the case and the appointing authority should be provided with full justifications for any such departure.

2.5   Audit reviewed the tenures of 48 members appointed in the period 2011/12 to 2015/16 and noted that up to the end of their tenures, eight (16.7%) members had served (or would have served) the Council continuously for more than six years (ranging from 7.5 to 12 years) (see Table 3).

Table 3

**Council members appointed in the period 2011/12 to 2015/16
with continuous tenures exceeding 6 years**

Member	No. of years up to expiry of tenure
A	7.5
B	8
C	8
D	10
E	8
F	8
G	8
H	12

Source: Audit analysis of RGC records

2.6   In response to Audit enquiry in September 2016, the Secretary for Education said that the EDB was satisfied that all these cases of departure from six-year rule were fully justified. He also said that seven of the eight members were non-local members, and it was simply not easy to identify non-local academics of high standing who were willing to commit to serving Hong Kong. Moreover, non-local members naturally take more time to fully familiarise themselves with the local higher education landscape before they are ready to make significant contributions to the RGC.

2.7   While recognising the difficulties in appointing individuals who are competent and experienced to meet the specific needs of the RGC, Audit considers that the Secretary for Education needs to monitor the tenure of Council members to ensure a healthy turnover by injecting new blood, and provide opportunities for more people to serve the RGC as far as practicable in the appointment and re-appointment of Council members.

Audit recommendation

2.8   **Audit has *recommended* that the Secretary for Education should monitor the tenure of Council members to ensure a healthy turnover as far as practicable in the appointment and re-appointment of Council members.**

Response from the Government

2.9   The Secretary for Education agrees with the audit recommendations. He has said that:

(a)   all identified cases of departure from the six-year rule were fully justified; and

(b)   the EDB will continue to ensure a healthy turnover of Council members as far as practicable.

Matters related to Council/committee/panel meetings

2.10   Audit examination of Council/committee/panel records revealed that:

(a)   *No rules of procedure promulgated.* The RGC had not promulgated rules of procedure governing the conduct of meetings (e.g. frequency and quorum of meetings, and voting requirements) for the Council, its 10 committees and 18 panels (see para. 1.5);

(b)   *Committee/panel reports were only issued to Council members shortly before the Council meetings or only issued at the meetings.* Due to the tight time schedules between the finalisation of committee/panel reports and the date of Council meetings, committee/panel reports and committee/panel funding recommendation summaries were only issued to Council members shortly before the Council meetings or only issued at the meetings. Audit considers that it is important to distribute committee/panel reports early to ensure that Council members are provided well before the meetings with all the information that they need to properly consider and discuss; and

(c)   *No minutes of meetings for 5 committees and 10 panels.*   In the period 2013/14 to 2015/16, 8 of the 10 committees and 13 of the 18 panels had held meetings.   There were no minutes of meetings for 5 of the 8 committees and 10 of the 13 panels.   According to the UGC, the deliberations regarding policy issues, attendance of members, declarations of interest and assessment remarks were recorded in other forms of documents (e.g. "Chairman's Brief", "assessment forms/summary", "feedback on research proposals" and "summary table").

Audit recommendations

2.11   **Audit has** *recommended* **that the Secretary-General, University Grants Committee, in consultation with the RGC, should:**

(a)   **promulgate rules of procedure for Council/committee/panel meetings (e.g. frequency and quorum of meetings, and voting requirements);**

(b)   **issue meeting papers in advance of Council meetings to ensure that members are provided with all the information that they need to properly consider and discuss well before the meetings; and**

(c)   **prepare minutes for those committee/panel meetings which currently do not have minutes.**

Response from the Government

2.12   The Secretary-General, University Grants Committee agrees with the audit recommendations. He has said that:

(a)   based on the prevailing rules of procedure for Council/committee/panel meetings, the UGC Secretariat will consult the RGC on the arrangements for promulgating formal sets of rules of procedure for Council/committee/panel meetings taking into account their respective roles and functions. The Review of the RGC (Phase II) (see para. 2.36) will examine, amongst others, the assessment and monitoring processes. It will provide further insight to facilitate the RGC in promulgating the formal sets of rules;

(b)   meeting papers containing background of funding schemes are issued to members about one week before the meeting. The UGC Secretariat will publish the pledge regarding the issue of meeting papers to members; and

(c)   the Council, the three committees overseeing policies of funding schemes and three panels record the deliberation of meetings in the form of "minutes of meeting". The UGC Secretariat will refine the arrangements in notes-recording for the committees/panels mentioned in paragraph 2.10(c) by consolidating the information which used to be recorded in various forms of documents and presenting it in the form of "minutes of meeting" in future.

Awards of research project grants

2.13   The RGC operates under the aegis of the UGC and functions as a non-statutory advisory body (Note 6) on research matters within the organisational structure of the UGC. One of the terms of reference is "to approve awards and other disbursements from funds made available by the Government through the UGC for research".

Note 6:   *According to the Home Affairs Bureau, non-statutory advisory bodies are set up to provide expert advice in particular areas or subjects, or advise on the development of government policies or on the delivery of public services.*

2.14   The REF was established by a declaration of trust made on 6 February 2009 by the Permanent Secretary for Education Incorporated (the Trustee). The REF provides stable research funding to the universities and local self-financing degree-awarding institutions. Under the declaration of trust, the UGC may, directly or via the UGC Secretariat, advise the Trustee on the provision of grant from the REF for distribution to the universities/institutions for the purpose of supporting research or other activities reasonably incidental thereto undertaken by the universities/institutions. Before the start of an academic year, based on the advice via UGC Secretariat, the Trustee approves allocation from the investment income of the REF as an annual provision for research funding to the RGC for the coming academic year. The UGC Secretariat then allocates research grants to universities/institutions as endorsed by the RGC accordingly. However, the awards of grants to projects are not approved by the Trustee or the Secretary-General, UGC.

2.15   In October 2016, the Financial Services and the Treasury Bureau informed Audit that:

(a)   Controlling Officers, not a steering, management or advisory committee, are ultimately responsible and accountable for the proper use of funds under their control pursuant to the Public Finance Ordinance (Cap. 2). Irrespective of how public funds are disbursed, Controlling Officers should satisfy themselves that an appropriate system of cost control or monitoring is in place, having regard to economy, efficiency and effectiveness in the delivery of public service and use of the public funds. Hence, Secretary-General, UGC, as the Controlling Officer of recurrent grants provided by the UGC and the Permanent Secretary for Education Incorporated as the Trustee of the REF, has the duty to ensure the grants are disbursed in a way in line with the requirements under the Public Finance Ordinance and other relevant statutes/legal documents as well as government regulations and circulars;

(b)   the ultimate approving authority for provision of grants from the REF to the UGC for the purpose of supporting research rests with the Permanent Secretary for Education Incorporated. Respective roles and responsibilities of the Permanent Secretary for Education Incorporated, the UGC and the Secretary-General, UGC have been enshrined in the Trust Deed. In exercising its power, the Permanent

Secretary for Education Incorporated can seek supplementary information/clarification from the UGC, which is answerable to and responsible for its advice to the Permanent Secretary for Education Incorporated on the level of funding. The Permanent Secretary for Education Incorporated may decline to follow the UGC's advice and the UGC may disclose to the public those instances or decisions according to the Trust Deed. An annual report on the operation of REF would be submitted to the Permanent Secretary for Education Incorporated and detailed accounts of the REF would have to be tabled at the Legislative Council; and

(c)   at the operational level, the UGC is entrusted with the authority to control and monitor the use of grants paid to institutions (through the vehicle of RGC). Members of the UGC and RGC are appointed by the Chief Executive and Secretary for Education respectively. The Trust Deed specifies that while any member of UGC/UGC Secretariat shall not be liable for loss of the REF, it states that any wilful fraud, wrongdoing or omission on the part of the Trustee, any member of the UGC, the Secretary-General, UGC, or any member of UGC Secretariat who is sought to be made liable. There are also guidelines on code of conduct for compliance by RGC members. The RGC is required to submit its annual report to the UGC.

Applications for research project grants not properly approved by RGC

2.16   One of the terms of reference of the RGC is to approve awards and other disbursements from funds made available by the Government through the UGC for research.

2.17   Under the existing arrangement adopted by the RGC, applications for research funding are evaluated by the committees and panels. Committee/panel meetings are held to discuss which applications and the amounts of funding that should be approved. Audit reviewed the records of processing funding applications for 19 research funding schemes and noted that:

(a)   for ten schemes, namely the HKPFS, 8 JRSs and Postgraduate Student Conference/Seminar Grants, the authority of approving applications for research funding was delegated to the RGC Chairman, the Joint Selection Committees/Boards, and the UGC Secretariat respectively; and

(b)   for eight of the remaining nine funding schemes, there was no documentary evidence showing that the Council had reviewed or approved individual projects. When a Council meeting was held to approve the projects, the total number of the projects to be approved and the total amount of funding to be approved were submitted to the Council. The eight funding schemes were GRF, ECS, AoE Scheme, TRS, Collaborative Research Fund, HSSPFS, Faculty Development Scheme and Inter-Institutional Development Scheme. Audit further noted that, for six of the eight schemes, there was no documentary evidence showing that the Council had been provided with any information on individual projects to be approved, e.g. the project title, project objectives, or amount of project funding (Note 7).

Audit recommendation

2.18   **Audit has *recommended* that the Secretary-General, University Grants Committee, in consultation with the RGC, should ensure that applications for project grants are approved by the proper authority and the approvals are properly documented.**

Response from the Government

2.19   The Secretary-General, University Grants Committee agrees with the audit recommendation. He has said that:

Note 7:   *For the Collaborative Research Fund, the Council was provided (by projecting on-screen) with the project title and the recommended amount of funding for each project in the Council meeting. For the TRS, before June 2016, the Council was not provided with any information on individual projects. In June 2016, the Council was provided (by projecting on-screen) with the theme, project title and the recommended amount of funding for each project in the Council meeting.*

(a)   all research funding applications are approved in accordance with prevailing rules and funding approvals are properly documented. Under the peer review mechanism for individual and collaborative funding schemes, applications are assessed by at least two external reviewers and two to three committee/panel members who are experts in the fields of the applications before they are submitted to committee/panel meetings for final rating. Committees'/panels' recommendations to the Council are the considered judgement of the whole committee/panel; and

(b)   for research funding schemes for individual principal investigators (PIs) such as GRF, ECS, HSSPFS, Faculty Development Scheme and Inter-Institutional Development Scheme, the UGC Secretariat will consult the RGC to consider appropriate measures for providing more details regarding the recommended projects for members' scrutiny and approval. Given the large number of recommended projects under some of the research funding schemes (such as the GRF and the ECS which have over 1,000 recommended projects per exercise), the more details on the recommended projects to be provided at the Council meeting, the more complicated the second-tier declarations will have to be managed and the longer the meeting will take. A reasonable balance is required to be struck among the objectives of providing detailed list of recommended projects to the Council, the level of details on the recommended projects to be provided, the integrity of the declaration of interest procedures and the efficiency of Council meetings. The Review of the RGC (Phase II) (see para. 2.36) will examine, amongst others, the assessment and monitoring processes, and the arrangement guarding against conflicts of interest. It will provide further insight to facilitate the RGC in considering the matter.

Management of conflicts of interest

2.20   The RGC promulgated the Code of Conduct and Guidelines on Handling Conflicts of Interest During Proposal Evaluation Process setting out the requirements related to management of conflicts of interest in respect of the Council/committee/panel members/external reviewers. The RGC adopts a two-tier reporting system for the declarations of interests. The pertinent requirements stipulated in the Code and the Guidelines are:

(a)   at the first tier, Council/committee/panel members are required to declare fully their direct personal interests in the Register of Interests Form on first appointment, re-appointment or significant change of circumstances.   Subsequently, members are required to submit (or update) the Register of Interests Form to the UGC Secretariat on an annual basis;

(b)   at the second tier, members should declare interests whenever they see a reason to, on a case-by-case basis;

(c)   when a conflict of interest is declared and in case there is a meeting to be convened to discuss the matter, the respective Chairman shall decide on whether the member may speak or vote on the matter, remain in the meeting as an observer or withdraw from the meeting altogether; and

(d)   members should not assess applications when there are major conflicts of interest.

Need to improve first-tier declarations

2.21   *Council/committee members.*   Audit reviewed the record of submission or update of Register of Interests Forms of Council/committee members in the period 2011/12 to 2015/16 and noted that:

(a)   a Council member did not submit (or update) the annual Register of Interests Form throughout the period 2011/12 to 2015/16 despite reminders were sent to him.   Further review of the member's submission record revealed that this member had only submitted the Form once on first appointment in 2009;

(b)   some Register of Interests Forms for 2011/12 and 2012/13 could not be located.   Up to August 2016, the UGC Secretariat was only able to locate the Forms of 9 of the 29 Council members in 2011/12 and 14 of the 27 Council members in 2012/13; and

(c)   the ex-officio member of the Council has submitted the Register of Interests Form.   However, the ex-officio member of the Steering Committee on Competitive Research Funding for the Self-financing Degree Sector had not been required to submit the Register of Interests Form since his appointment in July 2014.

2.22   *Panel members for individual research schemes.*   Panel members for individual research schemes are required to submit (or update) the Register of Interests Forms in December every year.   Funding applications and the relevant supporting information will be distributed to panel members in early February every year for their consideration before the panel meetings are held in June to discuss the applications.   In deciding whether the distribution to individual panel members should be withheld, the UGC Secretariat will make reference to the Register of Interests Forms.   If the Form from a particular member has not been received before the distribution (i.e. end of January), the member may receive applications that should not have been distributed to him (Note 8).   Audit reviewed the records of the submission (or update) of Register of Interests Forms by 211 panel members for individual research schemes for 2015/16 and found that:

(a)   32 (15%) of the 211 panel members submitted the Forms on time, but 179 (85%) submitted (or updated) late.   The delays ranged from 4 to 190 days (averaging 53 days);

(b)   of the 179 panel members in (a) above, 91 (51%) members only submitted (or updated) the Forms in or after February 2016 (i.e. after the funding applications had been distributed to them for consideration); and

(c)   of the 179 panel members, 16 (9%) members only submitted (or updated) the Forms 15 to 26 days (averaging 17 days) after the panel meetings were held on 13 to 15 June 2016 for deciding which funding applications should be recommended for Council's approval.

Note 8:   *Members are reminded to decline receiving the relevant papers of applications that they may have conflicts of interest.*

2.23   ***Panel members for JRSs.***   The panels for the JRSs were set up in February 2012 and members were first appointed in February 2012 for evaluation of applications submitted under the JRSs. Audit noted that the panel members for JRSs were requested to submit their Register of Interests Forms only upon their appointment but not upon re-appointment and on an annual basis. Audit noted that panel members of the JRSs are requested to indicate interests on proposals distributed to them in early March. If the Form from a particular member has not been updated before the distribution (i.e. end of February), the member may receive applications that should not have been distributed to him. Upon enquiry, the RGC informed Audit in August 2016 that formal updating of Register of Interests Forms was not requested upon re-appointments of the JRS members until June 2016. Audit also noted that 13 (35%) of 37 panel members had not submitted the Register of Interests Forms upon their re-appointments in 2016. Audit further reviewed the record of these 13 members and found that nine (69%) of them had also not submitted the Register of Interests Forms upon their re-appointments in 2014.

Need to improve second-tier declarations

2.24   According to the Code of Conduct, members and reviewers should not take part in the assessment of applications in which they are in any way associated, such as applications from:

(a)   themselves/colleagues in their departments/universities; or

(b)   universities that they have served within two years; or

(c)   universities that they have been invited for pre-review.

2.25   In order to prevent the public perception of the members using their capacity to obtain financial benefits from the RGC, the member concerned will be requested to be excused from the discussion when his/her own application is considered.   Failure to avoid, declare, disclose or report such conflict in particular with the applicants or comment on proposals from applicants with affiliation without permission may give rise to the perception and criticisms of favouritism, abuse of authority or even allegations of corruption.   In this connection, members or reviewers should declare upfront any conflicts of interest situation to the Secretariat where appropriate.

2.26   Audit reviewed the 3,314 GRF, ECS and HSSPFS projects approved in the period 2013/14 to 2015/16 and noted that for six projects, the PIs were Council members. In the wording of the Code of Conduct, these six projects were "applications from themselves". Four Council members were involved in these six projects. However, no documentation was available showing that declarations of interests had been made before or during the meetings at which funding was awarded.

Audit recommendations

2.27   **Audit has *recommended* that the Secretary-General, University Grants Committee, in consultation with the RGC, should:**

    (a)   **take measures to ensure that all Council/committee/panel members make the required first-tier declarations of interests in a timely manner by:**

          (i)   **submitting the Register of Interests Form on first appointment, re-appointment or significant change of circumstances; and**

          (ii)   **submitting or updating the Form annually;**

    (b)   **consider, in consultation with the Home Affairs Bureau, whether it is necessary for ex-officio Council/committee/panel members to make first-tier declarations of interests by:**

          (i)   **submitting the Register of Interests Form on first appointment, re-appointment or significant change of circumstances; and**

          (ii)   **submitting or updating the Form annually;**

    (c)   **ensure that the panel members of JRSs submit or update the Register of Interests Form on an annual basis;**

    (d)   **ensure that Council/committee/panel members make second-tier declarations of interests when they see a reason to do so;**

(e)   **take measures to ensure the safe keeping of Register of Interests Forms;**

(f)   **take measures to ensure that all declarations of conflicts of interest made before or during meetings by the Council/committee/panel members are properly documented; and**

(g)   **take measures to ensure that Council/committee/panel members do not take part in the assessment of applications in which they are in any way associated.**

Response from the Government

2.28   The Secretary-General, University Grants Committee agrees with the audit recommendations. He has said that:

(a)   notwithstanding the room for improvement in the timeliness in making the first-tier declarations of interests by submission of the Register of Interests Forms, the UGC Secretariat has all along ensured the timeliness in making the second-tier declarations. The second-tier declarations are made before or at the assessment stage of each funding exercise to ensure that committee/panel members do not take part in the assessment of the applications in which they have major conflicts of interests. The UGC Secretariat will enhance measures to closely monitor the timely submission of Register of Interests Forms in the first-tier declarations of interests;

(b)   the UGC Secretariat will consider, in consultation with the Home Affairs Bureau, whether it is necessary for an ex-officio committee member, who is a government official and whose appointment to the committee is post-tied, to make first-tier declaration of interests;

(c)   starting from June 2016, the following improvements have already been made regarding subject panel members' making the first-tier and second-tier declarations:

    (i)   panel members of JRSs have been required to submit or update their Register of Interests Forms on an annual basis; and

(ii)   there is a statement in the Chairman's Brief inviting the Panel Chairmen to remind Panel members of the GRF, ECS and HSSPFS to seek the former's permission before expressing their opinions at meetings. Panel members are also required to fill in declaration of interests forms when they declare interests during the meetings for record purposes;

(d)   starting from June 2015, in view of Council members' increasing awareness of the need to guard against any possible perceived conflicts of interest, while the practice of masking the identity of applicants under the funding schemes for individual research projects still remains intact, improvements have been made to invite any Council members whose applications are under consideration at the time, to leave the conference room and not to take part in the discussion of the item. The Review of the RGC (Phase II) will examine, amongst others, the arrangement guarding against conflicts of interest. It will provide further insight to facilitate the RGC in refining the arrangement in making declarations of interests during meetings; and

(e)   the UGC Secretariat will further improve the filing of documents concerning the declarations of interests by members.

Other management issues

Decreasing return on investment of REF

2.29   According to the Finance Committee paper on the establishment of the REF, the Government expected to maintain a steady flow of research funding for the universities. The investment income of the REF should in general be able to fully cover the cash flow requirements for funding research as well as the disbursements incidental to its administration on an ongoing basis.

2.30   Currently, the REF invests its endowment through the three placements with the Exchange Fund managed by the Hong Kong Monetary Authority. The UGC advises the Trustee on the policies and procedures governing the operation, development and investment of the REF, and the provision of grants from the REF for distribution to the universities/institutions for the purpose of conducting, promoting and assisting research.

2.31   The REF is expected to generate an annual return at around 5% on a long-term basis at the time of its establishment in 2009. The average annual rate of return on investment from 2009 to 2016 was 5.3%. However, from 2017 to 2019, the average annual return on investment was forecasted in December 2015 to be around 4%, which would be 1.3 percentage points lower than the 5.3% for the period 2009 to 2016. At this lower rate of return, the investment income alone would be insufficient to cover the 2016/17 budget of $1,251 million of the 17 funding schemes funded by the REF. The projected deficit of $239 million for 2016/17 will be absorbed by the reserve of the REF. Assuming an average annual return of 4% in the medium term and the same budget as that in 2015/16, the UGC Secretariat forecasted that from 2023/24 onwards, the investment income and the reserve would be insufficient to cover the provision of funding. The shortfall would have to be met by depleting the principal of the REF. According to the latest figures forecasted by the UGC Secretariat in June 2016, the projected annual return on investment for 2016/17 would further decrease to 3.3% and the projected deficit for 2016/17 would increase to $508 million.

2.32   At an RGC meeting held in December 2015, members expressed concern on the decreasing investment return of the REF. Members said that as there was a need to increase the amount of research funding in the long run, the RGC should consider seeking further injection into the REF in the future. Members also suggested that the assessment panels might consider tightening up the success rates so that approved projects would be more fully funded. The meeting concluded that the RGC should keep a close watch of the funding position of the REF in the future. Audit considers that the RGC needs to draw up an action plan to address this issue.

Need to improve the timeliness in the submission of annual report to EDB

2.33   As stated in the terms of reference of the RGC, the RGC should report at least annually to the Government through the UGC. In March 1999, the then Secretary for Education and Manpower requested the RGC to publish its annual report in the year immediately following the report period (i.e. within 12 months) after noting that the annual report for 1997 was only published in 1999 (Note 9).

2.34   Audit examined the submission of annual reports for the period 2005 to 2014/15 by the RGC to the EDB and found that, except for the most recent two reports for 2013/14 and 2014/15, the RGC submitted the annual reports within 12 months after year end, ranging from three to nine months. However, the report for 2013/14 was submitted 15 months after the year end. Up to 31 August 2016, the annual report for 2014/15 had not been submitted (i.e. 14 months after the year end date of 30 June 2015).

2.35   In response to Audit enquiry in September 2016, the UGC Secretariat informed Audit that in view of the advancement of technology, the RGC had improved the transparency and timeliness in disseminating information. The full range of information and data concerning the RGC funding schemes and activities are now uploaded onto the RGC website once such information is available. The annual audited financial statements of the REF have been laid upon the table of the Legislative Council every year since the establishment of the Fund in 2009. The Annual Report on the Operation of the REF has been submitted to the Trustee of the REF, i.e. the Permanent Secretary for Education Incorporated, every year. The RGC will consider whether there is added value in producing the Annual Report in its current form given the present circumstances and whether the financial and operation reports on the REF, with suitable adjustment, submitted to the EDB annually can already meet the reporting requirement as stated in the terms of reference of the RGC.

Note 9:   *Before 2012/13, the RGC annual report covered a calendar year.*

Need to closely monitor the implementation of RGC Review

2.36   In 2014, the RGC started work on planning a review of the RGC. The original objective of the review was to examine the RGC's operation, but the scope was later expanded to cover the portfolio balance of its research funding schemes, its structure, and standard and good practice in other comparable jurisdictions after taking into consideration the concerns of the universities. The RGC decided at the meeting held in December 2015 that the RGC Review would be conducted in two phases:

   (a)   *Phase I.* To cover macro issues such as the portfolio balance of the RGC research funding schemes, the RGC and the assessment panels'/ committees' structure, and good practice in overseas funding agencies; and

   (b)   *Phase II.* To cover micro issues such as the quality of the assessment and monitoring processes, the means of communication among members of the panels/committees, the timeline of research funding schemes and the arrangement guarding against conflicts of interest in the assessment process.

2.37   To safeguard the independence and credibility of the RGC Review, in April 2016, the UGC decided to set up the Task Force on the Review of the RGC (Phase I) under the Research Group of the UGC to oversee the implementation of Phase I Review. The findings and recommendations of Phase I Review are expected to be available in mid 2017. The Phase II Review will be conducted after the Phase I Review.

2.38   According to the timetable proposed in October 2015 for the engagement of consultant, the consultancy brief and the invitation for quotations from potential consultants would be issued in December 2015, the consultancy proposal would be received in January 2016 and the consultancy agreement would be signed in April 2016. The UGC issued the consultancy brief in early August 2016 and received the consultancy proposal in mid August 2016. An external consultant was appointed in late August 2016. Audit noted that there was a change in the plan due to the need to address the independence and credibility issues of the expanded scope of the RGC Review. The Task Force on the Review of the RGC (Phase I) was established by the UGC in July 2016. The

Task Force convened the first meeting with the Consultant in early September 2016. Detailed milestones of the consultancy study have been endorsed by the UGC. In order to ensure the timely completion of the Phase I Review, the UGC needs to closely monitor the implementation of the RGC Review.

Audit recommendations

2.39   **Audit has *recommended* that the Secretary-General, University Grants Committee, in consultation with the RGC, should:**

(a)   **keep in view the decreasing investment return of the REF amidst volatile market conditions, and draw up an action plan to address the issue;**

(b)   **take measures to ensure that the RGC annual reports are submitted to the Government and uploaded onto its website in a timely manner; and**

(c)   **take measures to closely monitor the implementation of the RGC Review to ensure its timely completion.**

Response from the Government

2.40   The Secretary-General, University Grants Committee generally agrees with the audit recommendations. He has said that:

(a)   the UGC Secretariat has been exercising prudence in advising the UGC on investment strategy and portfolio, taking into account the objective of the REF. Given the volatility in the global financial markets, the UGC carefully considered and decided in 2014 to continue placing the two trenches of funds with the Hong Kong Monetary Authority in order to generate a steady return on investment. The UGC also agreed to explore with the Hong Kong Monetary Authority an alternative investment model which might yield a higher return for adoption for the third trench of funds upon its expiry in June 2018;

(b)   the UGC Secretariat will continue to provide full support to the UGC in considering investment(s) which is/are expected to generate a steady return on investment and, in the event that the significant decrease in investment return of the REF persists for a long period of time in future, considering other alternatives;

(c)   the UGC Secretariat will, in consultation with the Education Bureau, review whether there is added value in producing the RGC annual report in its present form in addition to the financial and operation reports on the REF submitted annually to the EDB. Subject to the outcome of the review, the report in its present form or a new agreed form will be submitted to the Government and uploaded on the RGC website in a timely manner; and

(d)   the UGC Secretariat will continue to provide full support to the Task Force on the Review of the RGC (Phase I) in closely monitoring the progress of the review for timely completion.

PART 3: PROJECT MANAGEMENT

3.1   This PART examines issues relating to project management, focusing on the following areas:

   (a)   administration of RGC funding schemes (paras. 3.2 to 3.25);

   (b)   monitoring of funded projects (paras. 3.26 to 3.48); and

   (c)   handling of alleged misconduct cases (paras. 3.49 to 3.57).

Administration of RGC funding schemes

3.2   Seventeen of the 19 funding schemes administered by the RGC are funded by the REF. The remaining two funding schemes, namely the AoE Scheme and the HKPFS, are funded by the UGC. Every year, the RGC approves a "Strategic Plan and Budget" prepared by the UGC Secretariat to allocate funding for individual funding schemes.

3.3   In the report "Aspirations for the Higher Education System in Hong Kong" issued by the UGC in December 2010 (hereinafter referred to as the 2010 Report), it was stated that given the limited funding that could receive support from public purse, Hong Kong's research efforts needed to be focused to achieve critical mass and be at the leading edge internationally. Following the issue of the 2010 Report, the UGC and the universities agreed that resources should be pooled together and expertise be shared to bring in more cross-disciplinary and cross-institutional collaboration and to maximise research capacity to build up critical mass.

3.4   The UGC believes that outstanding research drives innovation and made contributions to society and the economy. The UGC considers that:

   (a)   given finite resources, it is essential to allocate research funding in ways that drive excellence; and

(b)   to drive excellence, there is a need to aggregate and concentrate funding, collaborate and select according to strength as identified, and pool the resources across disciplines.

3.5   The RGC has expressed concern on whether the existing mix of small and large projects was the right balance. At a meeting of the Working Group on the Preparation of the RGC Review held in November 2015, members commented that:

(a)   the majority of the RGC funding was for small grants with relatively high success rates;

(b)   such amount was not sufficient for supporting students; and

(c)   there were too many small scale JRSs on travel grants.

The RGC members agreed that the portfolio balance of the RGC funding schemes should be examined by the RGC Review with an aim of increasing the effective and efficient use of the RGC funding to maintain academic vigour and to meet the needs of Hong Kong.

Majority of RGC funding is allocated to small projects

3.6   Audit analysed the number of approved projects and amount of funds granted under RGC funding schemes in 2015/16. The result is shown in Table 4. In the analysis, Audit classified the approved projects according to the amount of approved funding:

(a)   large projects (funding of more than $10 million per project);

(b)   medium-sized projects (funding from $2 million to $10 million per project); and

(c)   small projects (funding below $2 million per project).

Table 4

Analysis of approved RGC research projects
(2015/16)

| Item No. | Scheme | Approved project | | | Average funding per project ($ million) |
		No.	Funding ($ million)	Percentage of total funding (%)	
Large projects					
1	TRS	5	202.8	15.7	40.57
	Overall for large projects	*5*	*202.8*	*15.7*	*40.57*
Medium-sized projects					
2	Institutional Development Scheme	7	52.8	4.1	7.54
3	Collaborative Research Fund	18	110.0	8.5	6.11
4	The French National Research Agency/RGC JRS	3	7.1	0.6	2.38
	Overall for medium-sized projects	*28*	*169.9*	*13.2*	*6.07*
Small projects					
5	NSFC/RGC JRS	23	26.3	2.0	1.14
6	HKPFS (number of awardees)	216	162.0	12.6	0.75
7	Faculty Development Scheme	47	30.6	2.4	0.65
8	GRF	949	596.5	46.3	0.63
9	ECS	151	91.9	7.1	0.61
10	HSSPFS	3	1.5	0.1	0.50
11	Inter-Institutional Development Scheme	6	2.9	0.2	0.49
12	Fulbright - RGC Hong Kong Senior Research Scholar Programme	6	1.2	0.1	0.19
13	Hong Kong-Scotland Partners in Post Doctoral Research	4	0.3	0.0	0.07
14	Germany/Hong Kong JRS	15	1.0	0.1	0.07
15	PROCORE-France/Hong Kong JRS	15	0.9	0.1	0.06
16	Postgraduate Students Conference/Seminar Grants	16	0.7	0.1	0.04
	Overall for small projects	*1,451*	*915.7*	*71.1*	*0.63*
	Overall	1,484	1,288.5	100.0	0.87

Source: Audit analysis of RGC records

Remarks: 1. Three of the 19 funding schemes were not included in this analysis.   No application exercises were undertaken in 2015/16 for two schemes, namely the AoE Scheme and Scottish Funding Council/RGC JRS.   The third scheme, European Commission/RGC Collaboration Scheme, was newly introduced in 2016/17.

2. Figures may not add up due to rounding.

3.7   Table 4 shows that in 2015/16, small projects dominated the funding provided by the funding schemes both in terms of number of projects and amount of funding:

(a)   of the total 1,484 projects funded by the schemes, 1,451 (97.8%) were small projects;

(b)   small projects accounted for $915.7 million (71.1%) of the total funding of $1,288.5 million of the schemes, while large projects and medium-sized projects accounted for 15.7% and 13.2% respectively of the total funding; and

(c)   on average, each small project received $0.63 million per project.   In particular, each project under the three conference/travel grants received only $40,000 to $70,000.

3.8   The majority of RGC funding was allocated to a large number of small projects.   The GRF, which is the scheme with the largest share of RGC funding allocation, accounted for almost half (46.3%) of the 2015/16 funding, with an average funding size of $0.63 million per project.

3.9   While the RGC strives to allocate research funding in ways that drive excellence, the RGC Review (Phase I) will provide an excellent opportunity to examine the portfolio balance of the RGC funding schemes and help direct the distribution of funding that would better augment and align with the government's efforts to meet the needs of Hong Kong in the 21st century. Audit considers that the RGC needs to keep in view the results of the RGC Review, and take measures to implement the recommendations of the Review on the portfolio balance of the funding schemes.

Need to review the normative unit cost for each subject panel

3.10   The RGC adopts a formula in determining the indicative allocation of funding of the GRF and the ECS to the five subject panels each year. The formula incorporates the following four factors:

(a)   the normative unit cost for each panel, i.e. a fixed set of values based on the historical relative costs of the projects sought by the applicants of each panel in the three years from 2003/04 to 2005/06 (see para. 3.11);

(b)   the quality of proposals, i.e. the proportion of proposals of each panel that meets the minimum quality threshold (with an average score of external assessments at 4.0 or above out of full score at 5.0);

(c)   the proportion of proposals submitted to each panel against the total number of proposals submitted to the GRF/ECS in the current exercise and the immediate last exercise; and

(d)   policy adjustment where required.

3.11   The values of the factor on the quality of proposals (see para. 3.10(b)) and the factor on the number of proposals submitted to each panel (see para. 3.10(c)) are adjusted annually. However, the set of values on normative unit cost (see para. 3.10(a)) has been frozen and has remained unchanged since 2006/07 (Note 10).

Note 10:   *In June 2005, the RGC expressed concern that if PIs in a discipline collectively exaggerated their funding needs, it was possible for that panel to be allocated a much larger share than it would otherwise deserve. Therefore, the RGC decided that the unit cost factor would be set at a fixed set of normative values based on the historical relative costs of the GRF projects sought by the applicants of the then existing four panels in the past three years from 2003/04 to 2005/06.*

3.12   The same set of normative unit costs had been adopted for ten years since 2006/07. In Audit's view, in the past ten years, there had been a lot of changes in the RGC funding schemes which made it necessary to conduct a review of the appropriateness of this fixed set of normative unit costs. For instance:

(a)   a new Business Studies Panel was established in 2011/12 to consider the Business Studies proposals which were previously submitted under the Humanities, Social Sciences and Business Studies Panel. The RGC did not review the normative unit cost of each panel and assigned the same normative unit cost of Humanities, Social Sciences and Business Studies Panel to the Business Studies Panel. The normative unit cost for the Business Studies Panel may not be the same as that for the Humanities, Social Sciences and Business Studies Panel;

(b)   the total amount of funding for the GRF and the ECS increased by 70% from $404.6 million in 2005/06 to $688.4 million in 2015/16 and the number of applications for the GRF and the ECS increased by 59% from 1,947 in 2005/06 to 3,088 in 2015/16. These increases may have affected the normative unit costs; and

(c)   the funding allocation for each panel would be different if the normative unit cost was calculated using the average unit costs based on the cost of projects in a three-year period in the recent past, say 2013/14 to 2015/16, instead of the three-year period 2003/04 to 2005/06 (see Table 5).

Table 5

Average unit costs of GRF project proposals
(2003/04 to 2005/06 and 2013/14 to 2015/16)

Panel	Average unit cost		Increase/ (decrease) in average unit cost (Percentage difference)
	From 2003/04 to 2005/06 ($'000)	From 2013/14 to 2015/16 ($'000)	
Biology and Medicine	1,278	1,448	+170 (+13%)
Business Studies	700 (Note)	523	−177 (−25%)
Engineering	846	1,124	+278 (+33%)
Humanities and Social Sciences	700 (Note)	762	+62 (+9%)
Physical Sciences	914	1,276	+362 (+40%)

Source: Audit analysis of RGC records

Note: Before the establishment of the Business Studies Panel in 2011/12, Business Studies was a sub-panel under the Humanities, Social Sciences and Business Studies Panel.

3.13   In response to Audit enquiry in September 2016, the UGC Secretariat informed Audit that in formulating the scope of the RGC Review, the UGC had identified that there was a need to review the formula for allocating budget across subject panels to reflect the updated demand of funding in different disciplines. Audit considers that, in the light of the results of the RGC Review, the RGC needs to take measures to improve the calculation of the normative unit costs for the subject panels, and conduct periodic reviews on the normative unit costs for the Panels.

Decreasing number of applications under TRS

3.14   The investment income derived from $4 billion, out of the $18 billion of
the REF set up in January 2009 (i.e. approximately $200 million per annum, based
on a 5% return assumption), was deployed to support the projects under the TRS.
The TRS was first launched in September 2010 to provide funding for research
projects on specific themes with project duration of a maximum of five years and a
maximum funding of $75 million for each project. The objective of the TRS is to
focus academic research efforts of universities on themes of strategic importance to
the long-term development of Hong Kong. A Steering Committee was set up in
June 2009 to advise the Government on the selection of research themes, the
framework and policy issues concerning the TRS. The Steering Committee would
advise the Government on selection of appropriate themes in accordance with a
number of major principles, including: (i) once selected, a theme would normally be
valid for three to five years; and (ii) the number of themes selected should be
limited to no more than five or six for each exercise and such exercise be conducted
once in about every three years.

3.15   There were four themes under the 2016/17 exercise. Three themes were
introduced in 2011/12, namely "Promoting Good Health", "Developing a
Sustainable Environment" and "Enhancing Hong Kong's Strategic Position as a
Regional and International Business Centre". The fourth theme was first introduced
in the 2016/17 funding exercise, i.e. "Advancing Emerging Research and
Innovations Important to Hong Kong".

3.16   In the 2010 Report issued by the UGC, it was stated that the establishment
of the TRS would encourage the creation of critical mass and collaboration between
academics/universities, and also spur work on issues of particular relevance to Hong
Kong. Audit noted that except for the new theme introduced in the 2016/17
exercise (i.e. "Advancing Emerging Research and Innovations Important to Hong
Kong"), the number of applications for TRS for the remaining three themes was
generally decreasing (see Table 6):

(a)   the number of applications received under the theme "Promoting Good
Health" decreased by 41% from 39 in 2011/12 to 23 in 2016/17;

(b)   the number of applications received under the theme "Developing a
Sustainable Environment" decreased by 59% from 27 in 2011/12 to 11 in
2016/17; and

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(c)   for the theme of "Enhancing Hong Kong's Strategic Position as a Regional and International Business Centre", the number of applications dropped from 23 in 2011/12 to nil in 2016/17.

The total number of applications decreased from 89 in 2011/12 to 28 in 2015/16. Although the total number increased to 55 with the introduction of a new theme in 2016/17, the total number in 2016/17 was only 62% of that in 2011/12.

Table 6

**Number of applications under each theme of TRS
(2011/12 to 2016/17)**

Year	Theme				Total
	Promoting Good Health **(No.)**	**Developing a Sustainable Environment** **(No.)**	**Enhancing Hong Kong's Strategic Position as a Regional and International Business Centre** **(No.)**	**Advancing Emerging Research and Innovations Important to Hong Kong (Note)** **(No.)**	**(No.)**
2011/12	39	27	23		89
2012/13	20	18	8		46
2013/14	15	19	8	N/A	42
2014/15	18	16	3		37
2015/16	15	10	3		28
2016/17	23	11	0	21	55

Source: Audit analysis of RGC records

Note: The theme was introduced in 2016/17.

3.17   According to the paper submitted to the Finance Committee of the Legislative Council in January 2009 on the establishment of the REF, the review exercise on selection of themes for TRS was to be conducted once in about every three years. Audit noted that the EDB started planning a review exercise in late 2013. In early 2015, on the recommendation of the Steering Committee, the EDB approved the proposal to maintain the first three themes and promulgate a new theme. The RGC then conducted a review on the grand challenges topics under the existing three themes and the new theme. The review was completed in June 2015, and the new theme and the new/revised grand challenge topics were implemented in July 2015. Audit considers that in view of the declining number of applications for the three themes introduced since 2011/12, the EDB needs to closely monitor the number of applications under the TRS and, in consultation with the RGC and the universities, consider an appropriate timing to initiate the next review on the themes under the TRS.

Need to improve mechanism to monitor the refund of allowance under HKPFS

3.18   The HKPFS was established in 2009. The HKPFS provides each awardee with an annual stipend of $240,000 and a conference and research-related travel allowance of $10,000 per year for a period up to three years. Unspent allowance is allowed to be carried forward within the three-year fellowship period. After the completion of the fellowship period, the universities are required to return the unspent allowance to the RGC.

3.19   Audit noted that the RGC relies on the universities to report and refund the unspent conference and research-related travel allowance. Every year, the RGC requests the universities to provide a return on unspent amount of awardees ending the three-year fellowship period by 31 December and refund the unspent amount. Based on the information provided by the universities to the UGC Secretariat, about 40% of the awardees had unspent allowance and the average unspent allowance per awardee was about $6,500 (i.e. 21.7% of the $30,000 travel allowance per awardee). The estimated unspent amount for the awardees of the first three cohorts of the HKPFS (i.e. 2010/11, 2011/12 and 2012/13 intakes) accounted for 7.5% of the total conference and research-related travel allowance and 0.3% of the total grant for these awardees under the HKPFS. For the last three financial years 2013-14 to 2015-16, three universities refunded a total of unspent amount of $213,639 for 21 awardees (see Table 7).

Table 7

**Refund of unspent conference and
research-related travel allowance under the HKPFS
(financial years 2013-14 to 2015-16)**

Financial Year	No. of universities with unspent allowance refunded	No. of awardees with unspent allowance	Amount of refund ($)
2013-14	3	8	69,912
2014-15	3	7	68,393
2015-16	1	6	75,334
Total		21	213,639

Source: Audit analysis of RGC records

3.20   Before June 2016, the awardees of the HKPFS are required to report the amount of conference and research-related travel allowance spent each year and the details of their participation in research-related activities in the annual progress report.   Since June 2016, in addition to the annual progress report, the HKPFS awardees have also been required to report the spent amount of the travel allowance in the graduate report upon graduation.   The RGC can make use of the annual progress report and the graduate report to ascertain if there was any unspent amount and ensure that the amount was refunded by the universities.

3.21   The UGC Secretariat does not have readily available information on the number of awardees with unspent allowance that should be refunded to the UGC Secretariat and the amount involved.   Audit reviewed the records relating to six awardees of five universities who had completed or withdrawn from the fellowship in the period from 2013/14 to 2015/16.   Audit found that five awardees had unspent amounts of conference and research-related travel allowance after completion totalling $32,848 (on average $6,570 per awardee — 21.9% of the $30,000 allowance) (see Table 8).   Of the five awardees, only the unspent amount of two awardees were refunded by the two universities.   No refund of the unspent amount has been made for the remaining three awardees by three universities.   In particular, one of the three awardees had withdrawn from the fellowship in

August 2013 (i.e. three years up to August 2016). While the RGC has requested universities to expedite the process in refunding the unspent allowance under the HKPFS to the RGC, Audit considers that the RGC needs to take measures to ensure that the universities refund the unspent allowance under the HKPFS in a timely manner after the completion of or withdrawal from the fellowship period.

Table 8

Status of refund for awardees with unspent amount
of conference and research-related travel allowance
(15 August 2016)

Awardee	End date of fellowship	Unspent amount ($)	Date of refund
A	31.8.2013	799	January 2014
B	31.8.2014	8,402	Not yet refunded
C	16.12.2015	2,294	Not yet refunded
D	31.8.2015	12,186	February 2016
E	28.8.2013	9,167	Not yet refunded
Total		32,848	

Source: Audit analysis of RGC records

Audit recommendations

3.22   **Audit has *recommended* that the Secretary-General, University Grants Committee, in consultation with the RGC, should:**

(a)   **in the light of the results of the RGC Review, take measures to improve the portfolio balance of the funding schemes and the calculation of the normative unit costs for the subject panels;**

(b) **consider conducting periodic reviews on the portfolio balance of the funding schemes and the normative unit costs for the subject panels;**

(c) **review the records of all the HKPFS awardees who have completed or withdrawn from their fellowship in the past years to ensure that all unspent allowance had been refunded; and**

(d) **take measures to ensure that in future the universities refund the unspent allowance under the HKPFS in a timely manner after the completion or termination of the fellowship period.**

3.23 **Audit has *recommended* that the Secretary for Education should:**

(a) **closely monitor the number of applications under the TRS; and**

(b) **when necessary, consider initiating a review on the themes under the TRS.**

Response from the Government

3.24 The Secretary-General, University Grants Committee generally accepts the audit recommendations. He has said that:

(a) the Review of the RGC (Phase I) is currently being conducted to examine, amongst others, the portfolio balance of funding schemes and the normative unit costs for Panels. In the light of the results of the review, the UGC Secretariat will provide full support to the RGC in considering appropriate measures for further improvement and conducting periodic reviews in these two areas; and

(b)   the UGC Secretariat has regularly asked the universities to return the unspent allowance under the HKPFS in a timely manner. The UGC Secretariat will consolidate and review the existing information reported in the annual progress reports and the graduate reports of all awardees who have completed the fellowship to ensure that all unspent allowance is refunded. The UGC Secretariat will also continue to provide full support to the RGC in considering appropriate measures to enhance the refund process.

3.25   The Secretary for Education agrees with the audit recommendations.

Monitoring of funded projects

3.26   The RGC has put in place mechanisms to monitor and assess the progress and performance of funded projects for all funding schemes, including:

(a)   issue of monitoring guidelines (Note 11) for compliance by universities; and

(b)   assessment of project progress reported in the progress reports and/or on-site inspections, and assessments of project performance reported in the completion reports and concluding reports by a panel or a member.

Backlog in assessments of project progress and performance

3.27   Universities are required to submit project reports, namely progress reports, and completion reports or concluding reports. PIs are required to submit annual progress reports or mid-term progress reports on all on-going projects through their universities to the RGC. On completion of a project, the university is

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Note 11:   *The "Disbursement, Accounting and Monitoring Arrangements for Funding Schemes Administered by the Research Grants Council" (DAMA) sets out the rules and requirements on the accounting and monitoring of funded projects under the Earmarked Research Grants. For the AoE Scheme, the TRS and the three funding schemes for the local self-financing degree sector, separate sets of guidelines are issued. The guidelines follow the principles of DAMA with particular requirements for monitoring the projects of the concerned funding schemes.*

required to submit a completion report to the RGC within 12 months of the completion date. On termination of a project, the university is required to submit a concluding report to the RGC within six months of the project termination date. Any unspent balance of project fund should be returned to the RGC together with a statement of accounts within six months of the project completion or termination date.

3.28   The progress reports, completion reports and concluding reports of approved projects will be reviewed by the responsible committee/panel members to ensure that the UGC grants are used appropriately and reasonably within the approved scope and timeframe. In accordance with the RGC procedures, the summary of assessment of the completion reports and concluding reports will be presented for formal endorsement by the RGC. For projects which have been provisionally rated as "barely satisfactory" or "unsatisfactory", written representations will be invited from the PIs before the relevant panels decide on the final ratings.

3.29   If a progress report or completion report remains overdue after the two-month grace period from the due date for submission of the report, the RGC would consider terminating the project and rate it as "unsatisfactory". The PIs concerned will be debarred from applying for UGC/RGC grants in any capacities for two academic years. Those who fail to submit the outstanding report within two years after the due date will be debarred from submitting new applications until the report is submitted.

3.30   Timely assessment of the project reports is important. Delays in assessment not only affect the monitoring of projects, but also the subsequent disbursement of funding. Prior to 2015/16, the approved project funds for individual research projects (but not joint research projects and group research projects) will be released to the universities in one or two instalments at designated time regardless of the assessment results of their progress reports. Starting from 2015/16, the release of the instalments of project funds other than the first instalment will be subject to satisfactory assessment result of the progress report. Therefore, the delay in submission and assessment of progress report may affect the cashflow of the projects.

3.31   As at 31 May 2016, four concluding reports were overdue and were rated "unsatisfactory" by the RGC at its meeting in June 2016.   Regarding progress reports and completion reports, there were 707 progress reports and 222 completion reports due for submission on 30 June 2016.   Fifty-six (7.9%) of 707 progress reports and 19 (8.6%) of 222 completion reports were submitted late (see Table 9). As at 29 August 2016, 1 (0.1%) progress report and 3 (1.4%) completion reports had still not been submitted.

Table 9

Submission of progress reports and completion reports
(29 August 2016)

Submission of reports	No. of reports due for submission on 30.6.2016	
	Progress report	**Completion report**
Submitted on/before due date	650 (92.0%)	200 (90.0%)
Submitted after due date	56 (7.9%)	19 (8.6%)
Not yet submitted	1 (0.1%)	3 (1.4%)
Total	707 (100%)	222 (100%)

Source: Audit analysis of RGC records

3.32   For progress reports, panel members had been alerted of the change in payment arrangement for the individual research projects approved starting from 2015/16 and advised that they should complete the assessment of progress reports in one month's time.   For completion and concluding reports, the RGC did not set target completion dates for committee/panel members' assessment. According to the record of the RGC, as at 31 May 2016, there had been 973 completion/concluding reports received but not assessed and 678 (69.7%) of 973 reports had been received for over one year but not yet assessed (see Table 10). In extreme cases, 4 (0.4%) reports were submitted more than nine years ago but still pending assessment.

Table 10

Ageing analysis of the 973 completion/concluding reports received but not assessed (May 2016)

Time elapsed since report receipt date	No. of reports	Percentage	
≤1 year	295	30.3%	
>1 year to 3 years	288	29.6%	
>3 years to 5 years	216	22.2%	
>5 years to 7 years	140	14.4%	678 (69.7%)
>7 years to 9 years	30	3.1%	
>9 years	4	0.4%	
Total	973	100.0%	

Source: Audit analysis of RGC records

3.33   Audit reviewed the records of 30 projects (5 on-going projects, 15 completed projects and 10 terminated projects) approved in the period 2009/10 to 2014/15.   Audit found that the PIs of these 30 projects were required to submit a total of 58 project reports (33 progress reports, 15 completion reports and 10 concluding reports).   Audit noted that out of these 58 reports:

(a)   7 (12%) concluding reports were not yet submitted and had been overdue. In response to Audit enquiry in September 2016, the UGC Secretariat informed Audit that all the PIs of the 7 projects had left the universities concerned and would unlikely submit the reports which were overdue. The PIs concerned had been barred from applying for RGC grants until they submitted the outstanding reports;

(b)   for the remaining 51 (88%) reports submitted, 39 were assessed and 12 were not yet assessed:

(i)   for 8 (21%) (6 progress reports, 1 completion report and 1 concluding report) of the 39 reports assessed, it took more than one year for the panel members to complete the assessment after the receipt of reports (see Table 11).   The longest case took 49.2 months; and

Table 11

**Time elapsed between the receipt and the completion of assessment
of project reports for 30 projects**

Time elapsed	No. of reports	
≤ 6 months	28	
> 6 months to 1 year	3	
> 1 year to 2 years	3	⎫
> 2 years to 3 years	2	⎬ 8 (21%)
> 3 years to 4 years	2	
> 4 years	1	⎭
Total	39	

Source: Audit analysis of RGC records

(ii)   for the 12 reports not yet assessed, as at 30 June 2016, the
assessment of 9 (75%) reports (8 progress reports and
1 completion report) had been pending for more than one year,
ranging from 13.8 to 50.6 months (averaging 37.5 months)
(see Table 12).

Table 12

**Analysis of the reports pending assessment
(30 June 2016)**

Time elapsed since report receipt date	No. of reports	
≤ 6 months	1	
> 6 months to 1 year	2	
> 1 year to 2 years	2	⎫
> 2 years to 3 years	1	⎬ 9 (75%)
> 3 years to 4 years	3	
> 4 years	3	⎭
Total	12	

Source: Audit analysis of RGC records

Need to closely monitor terminated research projects

3.34 In the period 2011/12 to 2015/16, 87 projects were terminated before completion (averaging 17 terminated projects per year) (see Table 13).

Table 13

Analysis of projects terminated
(2011/12 to 2015/16)

Year of termination	No. of terminated projects	Total no. of projects approved	Total no. of on-going projects	Funds paid to universities for terminated projects ($ million)
2011/12	13	1,044	4,469	9.2
2012/13	15	1,193	4,923	9.6
2013/14	12	1,373	5,240	6.4
2014/15	19	1,543	5,600	9.3
2015/16	28	1,484	6,011	15.8
Total	87	—	—	50.3 (Note)

Source: Audit analysis of RGC records

Note: Up to 30 June 2016, $15.7 million had been returned to the RGC.

3.35 Audit analysed the reasons for termination of the 87 projects. In 66 (76%) of 87 projects, the major reason for termination of projects was the departure of the PIs from the universities (see Table 14).

Table 14

**Major reasons for termination of 87 terminated projects
(2011/12 to 2015/16)**

Major reason	No. of projects	Percentage
Departure of the PIs from universities	66	76%
Progress reports overdue	8	9%
PI retired	5	6%
PI passed away	4	5%
Change of eligibility status of PIs	3	3%
Family obligations and other research obligations	1	1%
Total	87	100%

Source: Audit analysis of RGC records

3.36   At the time of application for a project, the university concerned is required to state that it is satisfied that the PI will complete the project. The RGC requires the universities to confirm at the time of application that if the PI is not a permanent staff, the employment contract will cover at least the first year of the project's duration.

3.37   Audit analysed the time the PIs had been involved in the projects before leaving the universities. Audit found that for 23 (35%) of the 66 projects, the PIs left the universities 12 months or less after the commencement of the projects (see Table 15).

Table 15

PIs' leaving the universities after commencement of project

Duration after commencement of project	No. of projects	
≤ 6 months	2 (3%)	⎫
> 6 months to 12 months	21 (32%)	⎬ 23 (35%)
> 12 months	43 (65%)	⎭
Total	66 (100%)	

Source: Audit analysis of RGC records

Project management

3.38   According to the DAMA, universities should notify the RGC as soon as the PI's departure has been confirmed and the project account should be frozen at the same time. Universities are required to identify a suitable Co-Investigator who has been involved in the project since commencement to take over the role of the PI for RGC's approval. Universities are also required to, within six months from the termination date:

   (a)   return the unspent project funding together with a Statement of Accounts; and

   (b)   submit a concluding report to the RGC.

3.39   Audit examination of 10 terminated projects (see para. 3.33) found that:

   (a)   ***PI's departure not promptly reported.*** In one project, the university only notified the RGC on the early departure of the PI four months after the PI's departure;

   (b)   ***Progress report not assessed by RGC.*** For seven projects, seven progress reports were submitted in the period July 2011 to June 2015, but three reports were not yet assessed and rated by panel members as at 30 June 2016. For the remaining three projects, the projects were terminated before submission of any progress reports; and

   (c)   ***Concluding reports not submitted or not assessed.*** For seven projects, the PIs did not submit the concluding reports. For the other three projects where the concluding reports were submitted, one concluding report was assessed and rated by the responsible panel member in May 2016, 17 months after it was submitted in December 2014.

3.40   Although the number of and the percentage of terminated projects were not large, Audit noted that there had been an increasing trend in the number of terminated projects since 2013/14. To safeguard the proper use of public money, Audit considers that the RGC needs to closely monitor the number of terminated projects and reasons for the termination. Furthermore, the RGC needs to take measures to ensure that the universities submit the concluding reports in a timely manner, and ensure the timely assessment of progress reports and concluding reports for the terminated projects.

Need to keep in view projects rated as "unsatisfactory" or "barely satisfactory"

3.41   After assessment by the committees/panels, the completed projects will be rated as "satisfactory", "barely satisfactory" or "unsatisfactory". The project will be rated as "unsatisfactory" or "barely satisfactory" because of poor research quality or non-submission and overdue submission of progress reports and completion reports. Previous records of RGC funded projects rated "unsatisfactory" or "barely satisfactory" may be taken into account when a PI's new funding application is considered. The overall grading of the PI's funding application submitted to the new funding exercises may be downgraded. Normally, the "unsatisfactory" and "barely satisfactory" records of more than three years ago would be disregarded in the assessment of new applications of the PI.

3.42   Audit examined the rating of the completed projects for the GRF and ECS approved in the period 2007/08 to 2012/13 (Note 12) and noted that the proportion of the completed projects rated as "unsatisfactory" or "barely satisfactory" ranged from 3.2% to 5.7% (see Table 16). The RGC needs to keep in view the number of completed projects being rated as "unsatisfactory" or "barely satisfactory" and take measures to address the issue if there is a further increase in the number of such projects.

Note 12:   *Projects are assessed based on the information in the completion report. As the duration of a project is normally three years and the completion report is required to be submitted within 12 months of the completion date, the completion reports of the projects approved in 2013/14 are only required to be submitted by June 2017. Therefore, the most recent assessment was on completed projects approved in 2012/13.*

Table 16

Rating of completed GRF and ECS projects
(24 August 2016)

Year of approval	Total no. of projects rated (a)	No. of projects rated as		Percentage of projects rated as "barely satisfactory" or "unsatisfactory" (d) = (c)/(a) ×100%
		"satisfactory" (b)	"barely satisfactory" or "unsatisfactory" (c)	
2007/08	647	625	22	3.4%
2008/09	745	721	24	3.2%
2009/10	666	640	26	3.9%
2010/11	630	594	36	5.7%
2011/12	564	539	25	4.4%

Source: RGC records

Remarks: Most of the completion reports for projects approved in 2012/13 have not been submitted by the PIs. For the 177 projects with completion reports submitted and rated, 11 (6.2%) were rated as "barely satisfactory" or "unsatisfactory".

Need to expedite the planned extension of on-site inspections to medium-scale schemes and small-scale schemes

3.43   Apart from assessment of project reports submitted by the PIs, on-site inspection of achievements can help the panel members evaluate the effectiveness of the funded projects. Arrangement for on-site inspections of achievements that are stated in completion reports is in place for large-scale projects (i.e. projects under the TRS and AoE). To step up efforts in evaluating the effectiveness of funded projects, the RGC decided in June 2015 that a manageable number of projects, say about 80 projects per year for the medium-scale and small-scale research schemes (except for travel/conference grants, fellowships and some small-scale JRSs), would be selected for on-site inspections. An inspection panel comprising around 2 to 3 local members would be drawn from each subject panels. One or two half-day inspections to each university would be arranged once a year. The RGC decided that this measure would be implemented starting from the 2015/16 funding cycle. The UGC Secretariat undertook to work out the implementation details in

consultation with the universities.   However, the implementation details of the extension of on-site inspections were still in the final drafting stage by 31 August 2016.

Need to expedite the procurement of a new Electronic System

3.44   An Electronic System was launched in July 2002 to process the funding applications of the GRF.   The System has been extended to process the HKPFS and the ECS.   The Electronic System has the following functions:

(a)   the management of the records on the external reviewers (e.g. their expertise);

(b)   the assignment of proposals to the reviewers; and

(c)   the monitoring of the receipt of reviews and issuance of reminders, and assessment and assignment of scores by panel members.

In order to enhance efficiency in processing applications, the UGC Secretariat informed the RGC in December 2013 that it would progressively expand the capability of the Electronic System so that applications in paper mode could eventually be processed electronically.   The Electronic System was subsequently extended to process applications of the HSSPFS and the Collaborative Research Fund.

3.45   Audit noted that only 5 (26%) of the 19 funding schemes allow electronic submission of applications and electronic assessment by committees/ panels through the Electronic System.   The remaining 14 (74%) funding schemes are still processed in paper mode in both submission and assessment stages.

3.46   Since the Electronic System was developed over ten years ago, it does not meet the present operational needs fully (e.g. limited capacity, outdated functions, inability to generate some management reports, etc.).   In June 2015, the UGC Secretariat planned to develop a new Electronic System to replace the existing one. As at August 2016, the Secretariat had prepared a draft work assignment brief for issuing to government contractors to outsource the development of a new Electronic System.

Audit recommendations

3.47   **Audit has *recommended* that the Secretary-General, University Grants Committee, in consultation with the RGC, should:**

(a)   **set a target completion date for the assessment of project reports;**

(b)   **take effective measures to clear as soon as practicable the backlog of the assessment of project reports received;**

(c)   **closely monitor the number of terminated projects and reasons for the termination and take measures to address the issue if there is a further increase in such projects;**

(d)   **monitor the submission of concluding reports for terminated projects and where practicable, urge the PIs to submit the concluding reports in a timely manner;**

(e)   **take measures to ensure that progress reports and concluding reports of terminated projects are assessed in a timely manner;**

(f)   **keep in view the number of completed projects rated as "unsatisfactory" or "barely satisfactory" and take measures to address the issue if there is a further increase in such projects;**

(g)   **expedite the implementation of conducting on-site inspections to the medium-scale projects and small-scale projects; and**

(h)   **expedite the development of a new Electronic System so that the system will be extended to cover other funding schemes operated in paper mode.**

Response from the Government

3.48   The Secretary-General, University Grants Committee generally agrees with the audit recommendations. He has said that:

(a)   the UGC Secretariat will consult the RGC to consider setting target completion dates for panel members' assessment of progress, completion and concluding reports as well as strengthening measures, other than the current arrangements of issuing repeated reminders to the panel members (mostly retired members) or re-assigning the monitoring and assessment duties to other members, to clear the backlog and enhance timely assessment of reports by panel members. The Review of the RGC (Phase II) will examine, amongst others, the assessment and monitoring processes. It will provide further insight to facilitate the RGC in considering enhanced measures to clear backlog and ensure members' timely assessment of reports;

(b)   the UGC Secretariat will continue to provide full support to the RGC in keeping in view the number of terminated projects and reasons for the termination and considering appropriate measures to address the issue if there is a substantial increase in the number in future;

(c)   the existing policy in governing the timely submission of progress and completion reports is effective as evidenced by the very small number of late submission of progress and completion reports beyond the grace period. For concluding reports, as the PIs in most cases have left the universities, they will unlikely submit the concluding reports which may remain overdue. The UGC Secretariat will continue to work closely with the universities to ensure PIs' submission of reports in a timely manner;

(d)   the UGC Secretariat will continue to provide full support to the RGC in keeping in view of the number of completed projects rated as "unsatisfactory" or "barely satisfactory" and considering appropriate measures to address the issue if there is a substantial increase in the number in future;

(e)   the UGC Secretariat is actively working on the plan to conduct on-site inspections to the medium-scale projects and small-scale projects in the last quarter of 2016; and

(f)   the UGC Secretariat is actively working on the development of a new Electronic System.

Handling of alleged misconduct cases

3.49   The DC was set up under the RGC in December 2013 to handle alleged misconduct cases related to RGC funded projects and those discovered during the processing of the funding applications.   The DC helps maintain consistency and equity among assessment committees/subject panels in imposing penalties for substantiated cases.   Examples of misconduct cases include:

(a)   non-disclosure of similar or related projects by the applicant;

(b)   non-disclosure of relationship with the nominated reviewers by the applicant; and

(c)   plagiarism.

3.50   At the meeting held in June 2015, the RGC considered that the roles of investigating alleged misconduct cases and recommending the level of penalty for substantiated cases should be separated.   The RGC thus decided that the DC(Penalty) (see para. 1.5(q)) should be set up to formulate guiding principles for determining the level of penalty and to recommend the level of penalty for substantiated cases starting from the 2015/16 funding exercise.   The existing DC should take up the role of investigating alleged cases and was renamed DC(Investigation) (see para. 1.5(p)).

3.51   In addition to the DC(Investigation) and the DC(Penalty), it was approved at the RGC meeting held in June 2016 that the DC(Appeal) (see para. 1.5(r)) should be set up to handle appeal cases to address the concern on independence of authority for making decisions on alleged misconduct cases and appeal cases.   The terms of reference of the DC(Investigation), the DC(Penalty) and the DC(Appeal) and the membership of the DC(Investigation) and DC(Penalty) were approved at the same meeting.   Members of the DC(Appeal) were formally appointed on 15 August 2016.

Need to expedite determination of penalty for substantiated misconduct cases

3.52   The DC completed the investigation of five misconduct cases discovered during the processing of the funding applications for the 2015/16 exercise and made a recommendation to the RGC for approval in December 2015. However, since the RGC decided in June 2015 to separate the role of investigating allegations from the role of imposing penalties for substantiated cases, the recommendation on penalties for these five substantiated cases was left to the newly formed DC(Penalty), the membership of which was approved by the RGC in June 2016. Up to August 2016, no meeting had been held by the DC(Penalty). Consequently, up to August 2016, the five substantiated misconduct cases were still pending determination of the level of penalty. The results of the funding applications for the 2015/16 and 2016/17 exercises involving the PIs concerned were pending until the decision on the penalties was approved by the RGC. Prompt announcement of results of funding applications is required in order not to affect the renewal of the employment contracts between the PIs and the universities concerned, and the planning of the research projects by the universities.

Need to expedite the process of handling alleged misconduct cases

3.53   For each alleged misconduct case, an Investigation Working Group (IWG) is appointed by the DC(Investigation) (or the DC before DC(Investigation) was formed).   The IWG comprises the Chairman of the relevant committee/subject panels concerned and two committee/panel members to examine the institutional investigation report and give views to the DC(Investigation) (or DC).   The IWG submits the investigation report to the DC(Investigation) (or DC) for consideration. Up to 31 August 2016, the DC(Investigation) (or DC) had completed the handling of 35 alleged misconduct cases. The analysis of the 35 alleged misconduct cases is at Table 17.

Table 17

Alleged misconduct cases handled by the DC(Investigation) (or DC)
(31 August 2016)

Nature	No. of cases		
	Substantiated	Not substantiated	Total
Non-disclosure of similar/related projects in the application form	6	1	7
Non-disclosure of relationship with nominated reviewers	10	15	25
Plagiarism	3	—	3
Total	19	16	35

Source: Audit analysis of RGC records

3.54   Audit examined 26 of the 35 cases and noted that the time taken from the discovery of the suspected misconduct cases to the notification of investigation results and the penalty, if any, to the universities concerned ranged from one to four years (1.5 years on average). It is desirable to shorten the time taken because the PIs involved in the misconduct cases will not be awarded RGC funding for those proposals recommended for funding by the relevant committee/ subject panels until the RGC has a decision on the alleged misconduct cases. This may affect the employment contract renewal of the PIs and the planning of research projects by the universities.

3.55   Audit noted that there is room for expediting the process in handling alleged misconduct cases (see Case 1):

   (a)   the UGC Secretariat should approach the committee/panel members for advice promptly after the misconduct case has come to light;

(b)   each case should be handled and referred to the DC on its own instead of waiting for other cases for referral in one go; and

(c)   the notification letter on the decision of the RGC should be issued to the university concerned promptly after the endorsement of the decision by the RGC.

Case 1

Room for expediting the process in handling an alleged misconduct case (October 2013 to October 2015)

1.   The UGC Secretariat received an anonymous complaint in October 2013 regarding the alleged misconduct of a GRF project approved in the 2013/14 funding exercise. In November 2013, the UGC Secretariat consulted the Panel Chairman on the handling of the case. In April 2014 (i.e. five months after receipt of the complaint), the UGC Secretariat approached the other two Panel members for their views as to whether there was sufficient prima facie evidence to support the allegations. After receiving the views, the UGC Secretariat then requested the university concerned to conduct an internal investigation on the case in May 2014. The university submitted the investigation report to the Secretariat in June 2014.

2.   Eight months after the university's submission of the investigation report, in February 2015, the UGC Secretariat submitted a list of membership of the IWG for this case together with that of the IWGs for 25 other alleged misconduct cases to the Chairman of the DC for endorsement and appointment. The IWG completed the investigation and the report from the IWG was submitted to the DC for consideration in April 2015. In June 2015, the DC's report on investigation of the alleged misconduct cases including this case was tabled at the RGC meeting for endorsement.

3.   Four months after RGC's endorsement, in October 2015, the UGC Secretariat conveyed the decision of the RGC concerning the case to the university.

Audit comments

4.   It took two years (from October 2013 to October 2015) for the RGC to complete the handling of the alleged misconduct case. The time required to handle this alleged misconduct case could have been substantially reduced if the handling process had been streamlined (see para. 3.55).

Source: Audit analysis of RGC records

Audit recommendations

3.56   **Audit has *recommended* that the Secretary-General, University Grants Committee, in consultation with the RGC, should:**

(a)   **determine the level of penalty for substantiated cases as soon as practicable;**

(b)   **review the process of handling alleged misconduct cases; and**

(c)   **in the light of the results of the review, take action to streamline the process of handling alleged misconduct cases with a view to shortening the time taken to inform the universities of the RGC's decision on the cases.**

Response from the Government

3.57   The Secretary-General, University Grants Committee agrees with the audit recommendations. He has said that:

(a)   since the setting up of the DC in December 2013, the RGC reviewed the structure of the DC and the investigation procedures from time to time with a view to ensuring that each alleged misconduct case would be thoroughly deliberated before a decision was made.   The new procedures/arrangements introduced after each review applied not only to the new alleged misconduct cases but also the cases in process which, to a certain extent, lengthened the process of individual cases;

(b)   the UGC Secretariat will continue to provide full support to the DC(Penalty) and the RGC respectively, in making recommendations and decisions on the level of penalty for substantiated cases as soon as practicable; and

(c)   the Review of the RGC (Phase I) is currently being conducted to examine, amongst others, the structure of the DC. In the light of the results of the review, the UGC Secretariat will provide full support to the RGC in considering appropriate measures to further streamline the process of handling alleged misconduct cases.

PART 4: RESEARCH OUTPUT AND WAY FORWARD

4.1   This PART examines the research output of the universities and explores the way forward for the RGC.

Research output of universities

4.2   Research is often a key part of a university's institutional identity and integral to its programme of teaching, talent development, and community service. It plays an important role in knowledge transfer (KT) to society. Although funding for research in Hong Kong comes from various sources, the UGC and the RGC are the main public funding bodies for academic research in Hong Kong (see Figure 2 in para. 4.19).   In 2014/15, the total research expenditure (Note 13) of the universities amounted to $8,631.8 million, which was equivalent to about 0.37% of the Gross Domestic Product of Hong Kong in the same period.

4.3   The UGC collates and compiles statistical data from the universities for the purpose of planning and monitoring the performance of the higher education sector. The data is uploaded onto the UGC website for public information. The UGC Secretariat reviews the content of the data in consultation with the universities to ensure that the data collected from the universities serves the intended purpose. The UGC Secretariat collates information from the universities on research outputs in the following six categories:

   (a)   conference papers;

   (b)   journal publications;

   (c)   scholarly books, monographs and chapters;

   (d)   creative and literary works, consulting reports and cases studies;

   (e)   patents, agreements, assignments and companies; and

   (f)   all other research-related outputs.

Note 13:   *Research expenditure is the amount of expenditure on research allocated to the academic departments of the universities (i.e. departmental expenditure on research).*

4.4   For each project funded by the RGC, the PI is required to provide in the completion report:

(a)   the financial statement;

(b)   achievement of project objectives;

(c)   major findings and research outcome;

(d)   layman's summary; and

(e)   research output (e.g. journal publications, conference papers, students trained and patents/technology transfer)

for the monitoring and assessment of PIs' achievements in their approved projects and for sharing of the research outputs of the individual funded projects on the RGC website.

Need to analyse information on research output according to RGC funding schemes

4.5   Audit observed that the RGC did not use the research performance (e.g. research outcome and research output) reported in the completion reports submitted under individual funding schemes to monitor the effectiveness of the respective funding schemes. This was not conducive to the RGC's monitoring of the achievements of projects funded by RGC funding schemes, and forming a view on whether the funding schemes have achieved their intended objectives.

Need to collate suitable management information on research performance

4.6   Based on the statistical data collated from the universities (see para. 4.3), the following statistical information on research output is submitted to UGC members by the UGC Secretariat annually:

(a)   the total number of research outputs (with breakdown by universities and categories);

(b)   the total number of refereed research outputs (Note 14) (with breakdown by universities); and

(c)   the total number of research outputs per academic staff (Note 15) (with breakdown by universities).

The statistics on the total number of research outputs (see para. 4.6(a)) and the total number of refereed research outputs (see para. 4.6(b)) are uploaded on the UGC website. The information on the total number of research outputs per academic staff (see para. 4.6(c)) can be calculated by using the information on the number of research outputs and the number of academic staff, which are uploaded on the UGC website.

4.7   *Analysis of research output.* Quality and impact of some research are not always measurable or immediately apparent. Some research increases society's understanding of the world and allows application of that improved knowledge over time. In the absence of readily available information on research output of research projects funded by the RGC, Audit analysed the information on the research outputs of research projects reported by the UGC Secretariat to the UGC. Audit noted that the total number of research outputs of the universities dropped slightly by 2.6% from 27,019 in 2010/11 to 26,317 in 2014/15 (see Figure 1). Of the total, 19,143 were refereed in 2014/15 compared with 19,956 in 2010/11. The share of refereed outputs in total research outputs was 72.7% in 2014/15, representing a slight decrease from 73.9% in 2010/11. In the same period, research funding provided by the UGC recurrent grants and the RGC funding schemes increased by 26% from $5,124 million in 2010/11 to $6,462 million in 2014/15 (Note 16).

Note 14: *Refereed research output means an academic research output that has been reviewed for merit by a group of professionals ("peers"), a substantial number of whom should be from outside the institution. The academic research peer review should be performed by a group of people with the capacity to judge quality at a high level, operating at arm's length with respect to the researcher and his/her department.*

Note 15: *This includes senior academic staff and junior academic staff with salary wholly funded from recurrent grants and other income of the universities (except income for specific purposes) in full-time equivalent terms.*

Note 16: *There is a lagging effect on the relationship between research funding and research output. As duration of research projects varies, it is difficult to quantify the lagging effect. On a longer timeframe, the research funding increased by 11.2% from $5,093 million in 2008/09 to $5,664 million in 2012/13.*

Figure 1

**Analysis of research output
(2010/11 to 2014/15)**
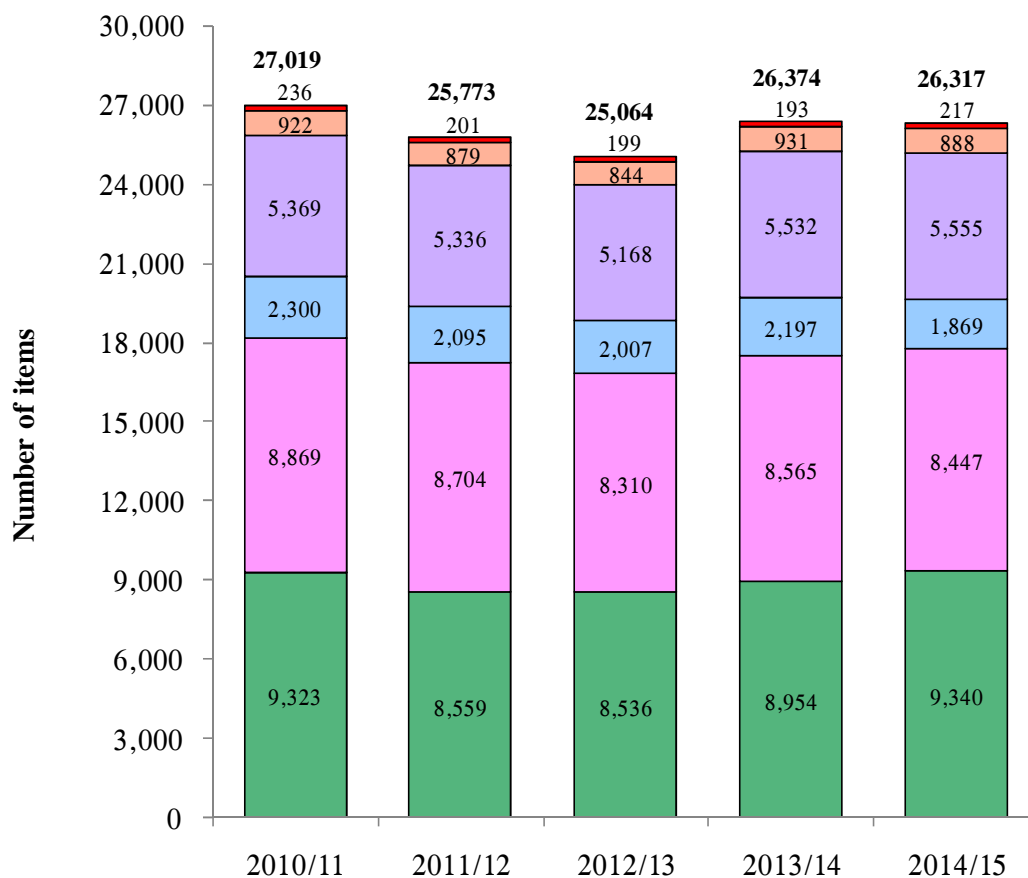
Legend:	(a)	Conference papers
(b)	Journal publications
(c)	Scholarly books, monographs and chapters
(d)	Creative and literary works, consulting reports and case studies
(e)	Patents, agreements, assignments and companies
(f)	All other research-related outputs

Source: *UGC records*

Remarks: *Figures may not add up due to rounding.*

4.8   ***Research output per academic staff.***   Audit analysed the statistics on research output per academic staff from 2010/11 to 2014/15 submitted by the UGC Secretariat to the UGC.   Audit found that the overall research output per academic staff for the eight universities decreased by 9% from 5.91 in 2010/11 to 5.40 in 2014/15 (see Table 18).

Table 18

**Research output per academic staff
(2010/11 to 2014/15)**

Year	Research output per academic staff
2010/11	5.91
2011/12	5.62
2012/13	5.21
2013/14	5.45
2014/15	5.40

Source: Audit analysis of UGC records

4.9   In response to Audit enquiry, the UGC Secretariat informed Audit that the number of research outputs should not be taken as the sole performance indicator of research funding.   As the RGC competitive funding constitutes only about 10% of the total expenditure on research of the universities, one cannot draw meaningful conclusion from an analysis of changes in research funding vis-a-vis changes in the number of research outputs.   The UGC Secretariat also said that the use and effectiveness of this analysis on research output per academic staff as an indicator of universities' research productivity was extremely crude and unreliable.   It only measures quantity but totally neglects quality which was a much more important criterion in assessing research output.   A more sophisticated, comprehensive and appropriate assessment is in the Research Assessment Exercise (RAE) (Note 17) which covered, amongst others, the number of eligible staff in cost centres.

Note 17:   *Since 2000, RAEs were conducted in 2006 and 2014 to assess the research quality of the universities and encourage world-class research.   In conducting the RAE in 2014, the basis of assessment comprised the research outputs (accounted for 80% of the weighting) and research inputs and esteem measures (accounted for 20% of the weighting).*

Furthermore, the number of research outputs per academic staff is only one amongst the many quantitative indicators which are generally considered inadequate by themselves to capture the nuanced judgements that the research assessment process currently provides.

4.10   Noting that the information on the number of research outputs and the number of research outputs per academic staff are submitted to the UGC members for their assessment and monitoring of the research performance of the universities, and the limitations of such information in evaluating research performance of the universities (see para. 4.9), the UGC Secretariat needs to provide more suitable statistics and/or other relevant information on performance of the RGC funded projects to the UGC members and on its website, and to provide suitable guidance notes to help the users interpret the information.

Need to encourage more efforts in commercialisation of research results

4.11   According to the 2016 Policy Address, Hong Kong's scientific research efforts are concentrated in universities. A key issue concerning the development of our innovation and technology industry is how the research results of universities can be commercialised. In a paper issued in March 2015 by the Commission on Strategic Development (Note 18), it was stated that:

(a)   recognition of KT had a lower priority than academic research paper publishing.   Therefore, there was a gap between the academically generated intellectual property rights and full commercialisation; and

(b)   consideration should be given to providing incentives to encourage academics to recognise and to put in efforts on the commercialisation of research results.

Note 18:   *The Commission on Strategic Development was established in 1998 to explore the way forward for Hong Kong's long-term development strategies.   The Commission is chaired by the Chief Executive.   There are three ex-officio members (the Chief Secretary for Administration, the Financial Secretary and the Head of the Central Policy Unit) and 32 non-official members.   The Central Policy Unit provides secretariat and research support to the Commission.*

4.12   Among the six categories of research outputs, two categories are related to commercialisation.   Audit analysed these two categories of research outputs:

    (a)   patents, agreements, assignments and companies; and

    (b)   creative and literary works, consulting reports and case studies.

4.13   Audit noted that in the period 2010/11 to 2014/15, about 0.8% of research outputs were related to "patents, agreements, assignments and companies" (see Figure 1 in para. 4.7), and the sum of the percentage of the other three categories of research outputs related to publication was about 75%.   In the period 2010/11 to 2014/15, the total number of research output relating to "patents, agreements, assignments and companies" for the universities averaged 209 per year (see Table 19).

Table 19

**Research output on "patents, agreements, assignments and companies"
(2010/11 to 2014/15)**

Year	No. of research output
2010/11	236
2011/12	201
2012/13	199
2013/14	193
2014/15	217
Average	209

Source: Audit analysis of UGC records

*Remarks: For an invention with patents granted in multiple places/countries, it
        is counted as one patent granted.*

4.14   In the period 2010/11 to 2014/15, research output on "creative and literary works, consulting reports and case studies" accounted for about 3.4% of the total research output (see Figure 1 in para. 4.7).   The total number of research output relating to "creative and literary works, consulting reports and case studies" for the universities averaged 893 per year (see Table 20).

Table 20

Research output on "creative and literary works, consulting reports and case studies" (2010/11 to 2014/15)

Year	No. of research output
2010/11	922
2011/12	879
2012/13	844
2013/14	931
2014/15	888
Average	893

Source: Audit analysis of UGC records

4.15   Audit noted:

(a)   the relatively small percentage of research outputs relating to commercialisation versus that relating to publication; and

(b)   the decreasing number of research outputs relating to commercialisation.

Audit considers that the RGC needs to work with Innovation and Technology Bureau (ITB) to facilitate the commercialisation of the universities' research results.

Audit recommendations

4.16   Audit has *recommended* that the Secretary-General, University Grants Committee, in consultation with the RGC, should:

(a)   **collate adequate management information on research output and devise suitable performance measures for the evaluation of the research performance of the universities, and disclose the information on its website;**

(b)   **provide guidance notes to help the information user in the interpretation of the information on research output; and**

(c)   **work with the ITB to facilitate the commercialisation of the universities' research results.**

Response from the Government

4.17   The Secretary-General, University Grants Committee agrees with the audit recommendations. He has said that:

(a)   universities have always been a major cradle of research. Investment in research is long term proposition. Research outcomes may not necessarily be quantified and measured merely in monetary terms or in terms of cost-effectiveness. Apart from producing tangible research outputs, research has intangible value. For example, research enhances our understanding, mastery and application of new knowledge and discoveries for the betterment and well-being of the society. As stated in the 2010 Report, "rather than the occasional spectacular development of a commercial product, it is the continuing flow of research ideas and applications from universities into the economy (together with innovative graduates) that cumulatively provides renewal and advantage";

(b)   research output is one of the various indicators for evaluation of research performance. The RAE 2014 assessed the research quality of universities by using international benchmarks and sharpened measures. In the RAE 2014, 46% of the research submissions were assessed as "world leading" or "internationally excellent". The RGC has been collecting information including research output and other management information of individual approved projects. The Review of the RGC (Phase I) examines, amongst others, the effectiveness of the current RGC funding schemes. Performance indicators will be developed to evaluate performance of funding schemes. Guidance notes will also be formulated to help the information user in the interpretation of the research-related information. The UGC Secretariat will provide full support to the RGC in considering the performance indicators and guidance notes;

(c)   there were examples of other indicators apart from research output. For instance, the Times Higher Education World University Rankings uses a few performance indicators apart from research output including: research (volume, income and reputation), citations (research influence) and industry income (KT). Five universities were ranked in the top 200 of the Times Higher Education World University Rankings and Quacquarelli Symonds World University Rankings 2016-17. These demonstrate that the Hong Kong higher education sector has made great strides and flourished in research; and

(d)   KT includes a wide spectrum of activities, and is not confined to the narrow scope of commercialisation of research results. The UGC is mindful that all universities have distinctive roles and missions, areas of priorities and strengths, and there is no single KT model or KT activity/ies that fit(s) all. Therefore, the UGC encourages universities to interpret KT in a way that fits the universities' context, and focus on KT activities that are in line with their respective roles. The UGC has also observed that by now, all the universities have declared KT to be one of the core components or pillars to help fulfil their roles and missions, and have given high-level recognition and importance to KT. KT culture has already been fully embedded in all of the universities' strategies and operations. The UGC has begun to take measures since 2009/10 to facilitate the universities in enhancing KT, including commercialisation by

providing an additional stream of recurrent funding earmarked for the universities. The UGC will continue with this endeavour. In the 2016-19 triennium, a KT funding of $62.5 million per year is available for allocation to the universities. The UGC Secretariat has been working and will continue to work closely with the ITB on the facilitation of KT activities, including the commercialisation of research results, of the universities.

Way forward

4.18   According to a paper issued by the Commission on Strategic Development in March 2015:

(a)   one of the main obstacles in innovation and technology development in Hong Kong stemmed from the difficulties in the collaboration among stakeholders, i.e. Government, industry, academic and research sectors;

(b)   to facilitate the commercialisation of research and development (R&D) results and technology transfer, efforts should be stepped up to strengthen the linkages among these stakeholders; and

(c)   consideration should be given to providing incentives to encourage academics to recognise and to put in more efforts on the commercialisation of R&D results.

Need to foster university-industry collaboration

4.19   It is recognised in many other countries that academic and industry collaboration is an invaluable component of the innovation chain. However, Audit noted that in the period 2010/11 to 2014/15, the industry sector only financed 3% of the total research expenditure of the universities. The research expenditure of the universities analysed by source of funding for 2014/15 is shown at Figure 2.

Figure 2

**Research expenditure of universities analysed
by source of funding
(2014/15)**

Industry sector:
$224.1 million (3%)

Non-Hong Kong:
$189.5 million (2%)

Other government funds:
$724.5 million (8%)

Other private funds:
$1,032.1 million (12%)

UGC/RGC:
$6,461.6 million (75%)

Total: $8,631.8 million
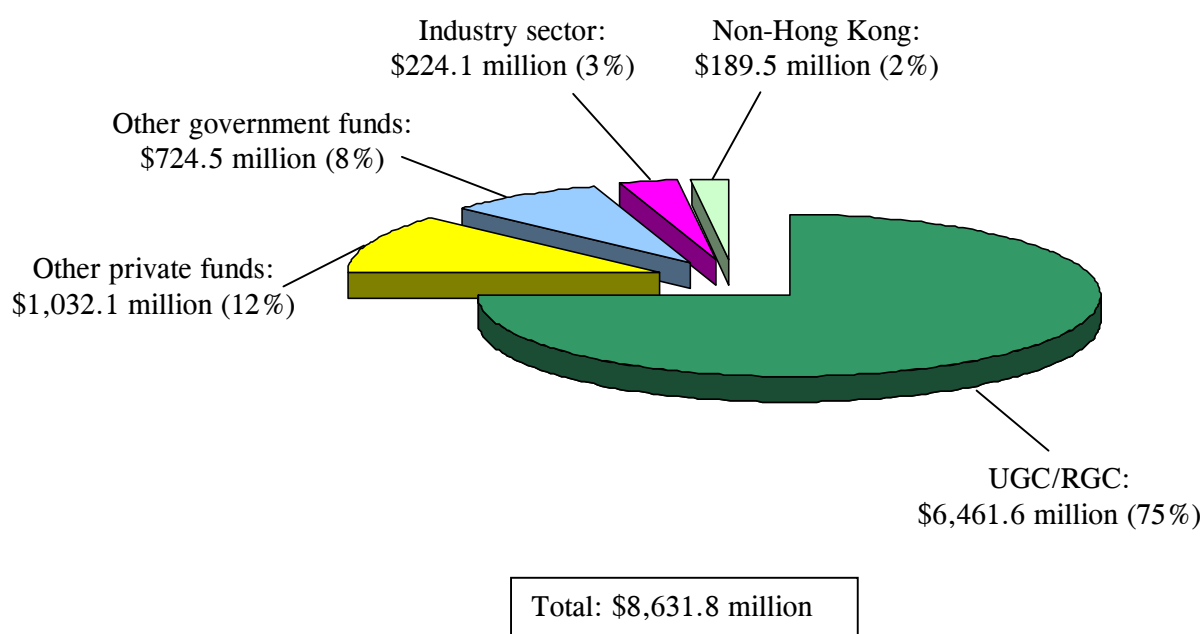
Source: UGC records

4.20   Audit compared the percentage of research expenditure of universities financed by the industry sector in Hong Kong to the percentage of research expenditure financed by the industry in higher education sector in other countries/regions, namely Korea, Taiwan, Singapore, the United States, the United Kingdom and Japan in 2014 (see Figure 3). Audit noted that Hong Kong was one of the countries/regions with the lowest percentage of research expenditure in higher education sector financed by the industry. The percentage of Hong Kong was 3% in 2014, as compared to 11% in Korea, 9% in Taiwan and 7% in Singapore. It was stated in the 2010 Report that "Hong Kong lacks a vibrant private R&D sector: it seems that businessmen in Hong Kong are not as keen as their overseas counterparts to invest in R&D".

Figure 3

**Percentage of research expenditure financed by the industry sector
in higher education sector
(2014)**
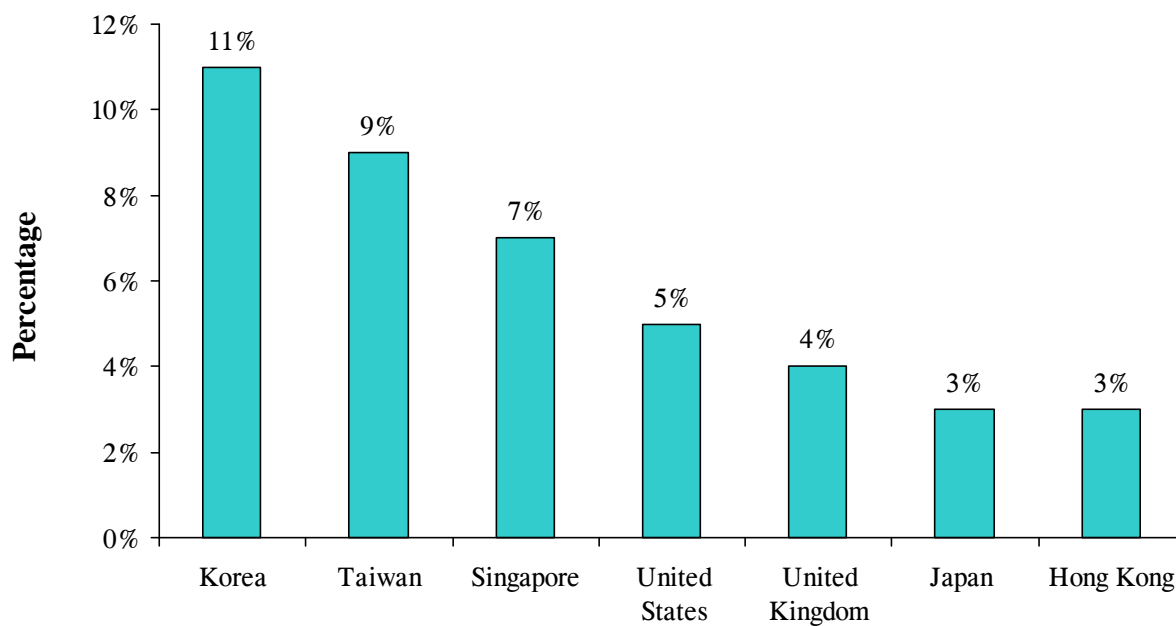
Need to enhance collaboration with
Innovation and Technology Commission

4.21   The RGC provides support to academic research including basic and applied research, whereas the Innovation and Technology Fund (ITF) administered by the Innovation and Technology Commission (ITC) supports applied R&D and promotes technology transfer and commercialisation activities. Measures have been taken to forge a closer link between the funding programmes of the ITF and the RGC. Applicants of the RGC's collaborative funding schemes (i.e. TRS, AoE Scheme and Collaborative Research Fund) are asked to provide an optional technology transfer plan in their funding applications, which serves for the ITC's advance information. Once these applications have been approved for UGC/RGC funding, the ITC will be invited to keep in view these projects and their progress. For projects with potential to proceed to the applied R&D phase, the project teams will be encouraged to apply for the ITF such that their projects may receive funding support from the ITF on successful completion of the RGC-funded projects. These measures can encourage university research staff to include applied R&D components in RGC supported projects at an early stage and provide funding support to the RGC projects for continuation to applied R&D to bring research outputs to applications in industry or community.

4.22   According to the ITC, of the 2,560 applications for the Innovation and Technology Support Programme during the period of 2012 to 2016 (up to June), 302 (12%) were related to RGC-funded projects. Of these 302 applications, 103 (34%) were approved by the ITC with a total approved funding of about $238 million.

4.23   There was an increasing trend in the proportion of applied research project under the GRF and the ECS (see Table 21). The proportion increased from 35% in 2012/13 to 39% in 2015/16. The RGC needs to consider extending the measures applicable to the collaborative funding schemes to individual funding schemes (i.e. the GRF and the ECS), with a view to encouraging more RGC applied research projects to apply for the ITF and enhancing a closer collaboration between the RGC projects and the ITF projects.

Table 21

**Proportion of funded applied research projects under GRF and ECS
(2012/13 to 2015/16)**

Year	No. of funded research projects (a)	No. of funded applied research projects (b)	Proportion of funded applied research projects (c) = (b) ÷ (a) × 100%
2012/13	901	318	35%
2013/14	1,071	362	34%
2014/15	1,126	387	34%
2015/16	1,100	430	39%

Source: Audit analysis of UGC records

4.24   Audit notes that the Government has proposed to inject an additional $2 billion to the ITF to set up a new funding programme (Midstream Research Programme) for universities funded by the UGC. The programme, which is to be managed by the ITC, aims to encourage the universities to carry out more midstream and translational theme-based R&D projects in key technology areas. Audit also notes that the UGC Secretariat has been working with the ITC in developing the proposed programme. The RGC needs to keep in view the implementation of the new programme, and work closely with the ITC to see how best to forge a closer link between this new funding programme of the ITF and the research funding schemes of the RGC.

Need to ascertain achievements of funding schemes

4.25   In the past years, reviews on various aspects of the funding schemes were conducted:

(a)   the RGC conducted reviews on two of the JRSs (i.e. NSFC/RGC JRS and PROCORE-France/Hong Kong JRS) by questionnaire surveys in 2008 and 2010 respectively;

(b)   in 2013, the RGC conducted a review on the effectiveness of the AoE Scheme by questionnaire survey to ascertain whether the funding objectives of the scheme had been met;

(c)   the RGC conducted graduate surveys to obtain data on the first and second cohorts of the graduates under the HKPFS in August 2015; and

(d)   the following internal reviews for other funding schemes, such as the GRF, ECS and Collaborative Research Fund, were conducted:

(i)   *GRF.*   The RGC reviewed the longer-term research arrangement in 2009, and the support for young researchers and Humanities and Social Sciences academics in 2011;

(ii)   *ECS.*   The RGC reviewed the objective of the scheme after its first year of operation in 2012;

(iii)   *Collaborative Research Fund.*   The RGC reviewed its effectiveness in 2012 and decided to increase the budget by 25%; and

(iv)   *JRSs.*   The RGC reviewed and updated the principles in developing new JRSs in 2006 and 2014.

4.26   In September 2016, the UGC Secretariat informed Audit that the RGC Review (Phase I) was intended to address in more detail, among other things, the effectiveness of current RGC funding schemes. Audit considers that the RGC needs to monitor the progress of the RGC Review and ensure that it adequately examines the effectiveness of individual RGC research funding schemes to ascertain whether the funding objectives of these schemes are met.

Audit recommendations

4.27   **Audit has *recommended* that the Secretary-General, University Grants Committee, in consultation with the RGC, should:**

(a)   **enhance measures to foster the university-industry collaboration;**

(b)   **extend the measures applicable to the collaborative funding schemes to individual funding schemes (i.e. the GRF and the ECS) with a view to enhancing a closer link with the ITF;**

(c)   **keep in view the implementation of the new Midstream Research Programme for universities, and work closely with the ITC to see how best to forge a closer link between this new programme of the ITF and the funding programmes of the RGC; and**

(d)   **monitor the progress of the RGC Review and ensure that it adequately examines the effectiveness of individual RGC research funding schemes to ascertain whether the funding objectives of these schemes are met.**

Response from the Government

4.28   The Secretary-General, University Grants Committee agrees with the audit recommendations. He has said that:

(a)   the UGC has made vigorous efforts in fostering university-industry collaboration through, for instance, organising discussion forums with Heads of Universities, and meeting with leaders of the universities and stakeholders in the commercial and industrial sectors over the past years. The UGC Secretariat will continue to provide full support to the UGC in further enhancing university-industry collaboration in consultation with the ITB as far as practicable;

(b)   the UGC has been working closely with the ITC in developing the new Midstream Research Programme for universities, while the RGC has implemented arrangements to provide better interface between its collaborative research funding schemes and the ITF.   The UGC Secretariat will continue to provide full support to the UGC and the RGC to continue to work closely with the ITB and ITC in forging closer links between the various research funding schemes of the ITF and RGC; and

(c)   the Review of the RGC (Phase I) is currently being conducted to examine, amongst others, whether the funding schemes have achieved their intended objectives.   The UGC Secretariat will continue to support the Task Force on the Review of the RGC (Phase I) in closely monitoring the progress of the review for timely completion.

Composition of RGC committee/panel members
(30 June 2016)

Committee/Panel		Number of members				
		Local Academic	Non-local Academic	Local Lay	Ex-officio	Total
Overseeing the policies of research funding schemes						
(a)	Major Projects Steering Committee	—	7	—	—	7
(b)	HKPFS Steering Committee	10	—	—	—	10
(c)	Steering Committee on Competitive Research Funding for the Self-financing Degree Sector	6	—	—	1	7
Evaluating research funding applications						
(d)	AoE Scheme Selection Panel	—	24	—	—	24
(e)	TRS Selection Panel	—	21	1	—	22
(f)	Collaborative Research Fund Committee	—	72	—	—	72
(g)	Five subject panels for individual research schemes					
	(i) Biology and Medicine Panel	11	27	—	—	38
	(ii) Business Studies Panel	9	17	—	—	26
	(iii) Engineering Panel	50	18	—	—	68
	(iv) Humanities and Social Sciences Panel	20	32	—	—	52

Committee/Panel		Number of members				
		Local Academic	Non-local Academic	Local Lay	Ex-officio	Total
	(v) Physical Sciences Panel	13	14	—	—	27
	Five subject panels for JRSs					
	(i) Biology and Medicine Panel	11	3	—	—	14
	(ii) Business Studies Panel	5	3	—	—	8
	(iii) Engineering Panel	11	6	—	—	17
	(iv) Humanities and Social Sciences Panel	7	3	—	—	10
	(v) Physical Sciences Panel	6	4	—	—	10
(h)	HSSPFS Selection Committee	—	21	—	—	21
(i)	Two selection panels for the HKPFS					
	(i) Humanities, Social Sciences and Business Studies Selection Panel	8	12	—	—	20
	(ii) Science, Medicine, Engineering and Technology Selection Panel	14	15	—	—	29

Committee/Panel		Number of members				
		Local Academic	Non-local Academic	Local Lay	Ex-officio	Total
(j)	Selection Committee for the NSFC/RGC JRS	32	—	—	—	32
(k)	Assessment Panel for Competitive Research Funding Schemes for the Local Self-financing Degree Sector	32	—	—	—	32
(l)	Selection Committee for the State Natural Science Award	3	3	—	—	6
Monitoring and assessing the on-going and completed projects						
(m)	Monitoring and Assessment Panels for AoE Scheme	—	23	1	—	24
(n)	Monitoring and Assessment Panels for TRS	—	27	2	—	29
(o)	Monitoring and Assessment Panel for Competitive Research Funding Schemes for the Local Self-financing Degree Sector	11	—	—	—	11
Handling the alleged misconduct cases						
(p)	DC(Investigation)	—	5	—	—	5
(q)	DC(Penalty)	—	5	—	—	5
(r)	DC(Appeal)	—	5	—	—	5
	Total	259	367	4	1	631

Source: RGC records

UGC Secretariat: Organisation chart
(30 June 2016)

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                    │    Secretary-General     │
                    └─────────────────────────┘
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              ┌──────────────────┴──────────────────┐
   ┌──────────────────────┐          ┌──────────────────────┐
   │ Deputy Secretary-General │      │ Deputy Secretary-General │
   └──────────────────────┘          └──────────────────────┘
              │                                  │
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1 Assistant Secretary-General (Capital)	1 Assistant Secretary-General (Development)
1 Assistant Secretary-General (Finance)	3 Assistant Secretaries-General (Research)
1 Assistant Secretary-General (Policy)	
1 Assistant Secretary-General (Quality Assurance)	
1 Departmental Secretary	
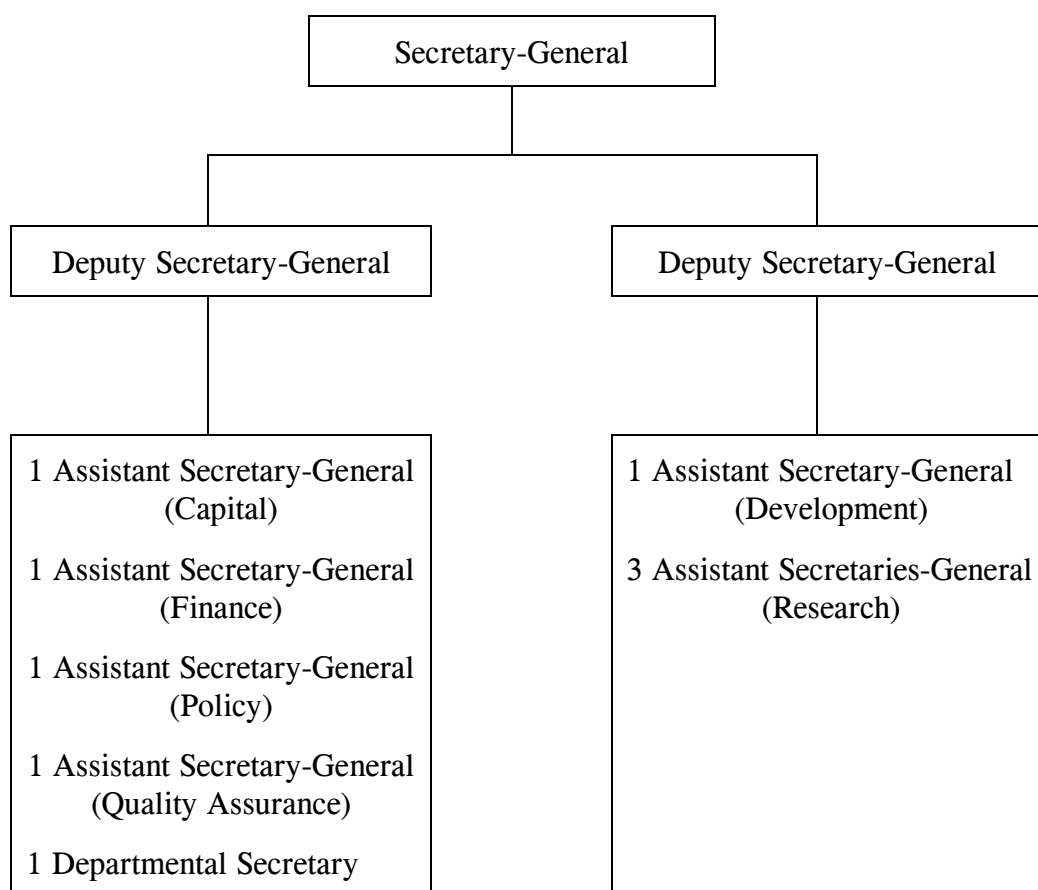
Source: UGC records

**Universities/Institutions eligible for funding schemes administered by RGC
(30 June 2016)**

Universities
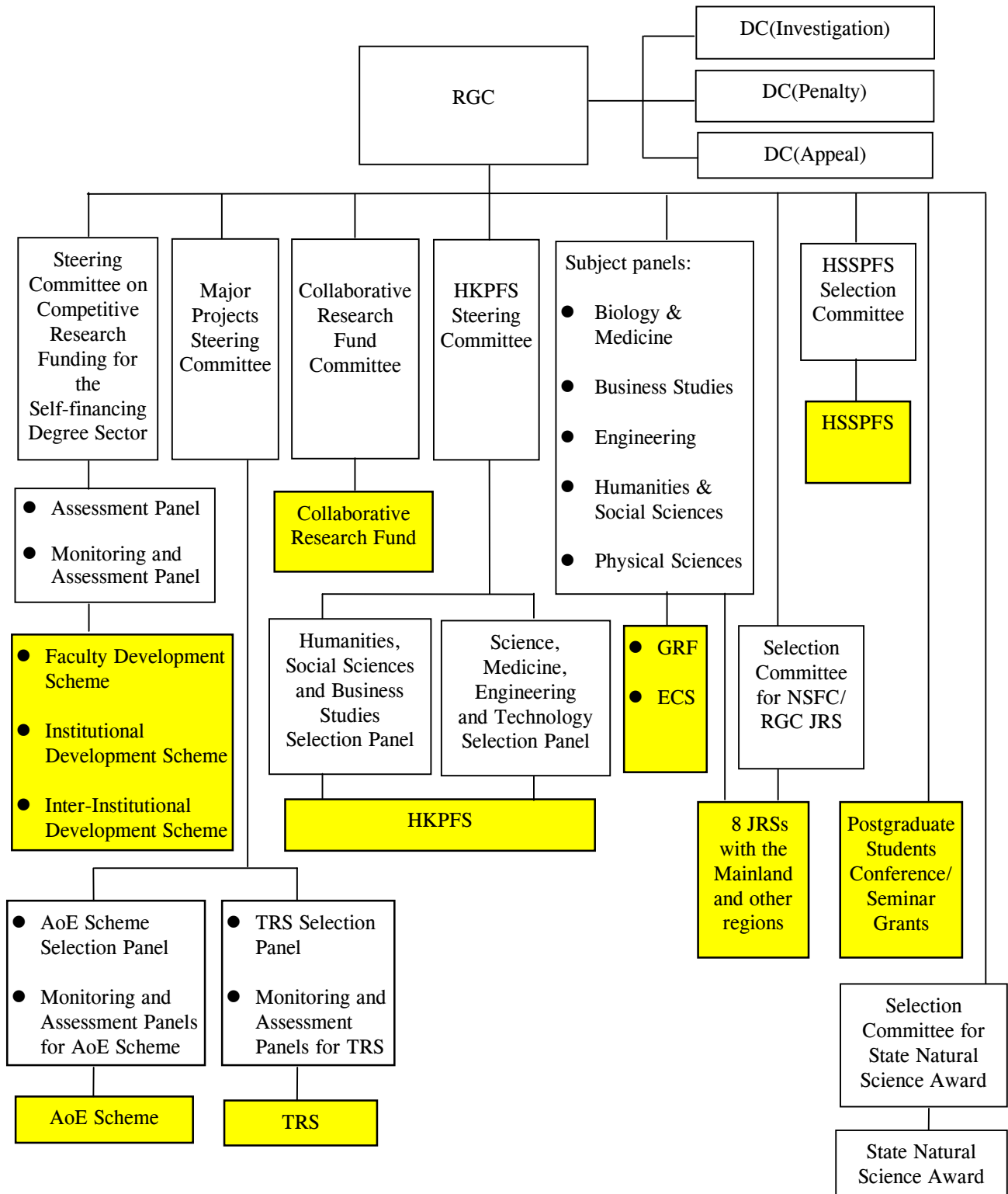
(a)   City University of Hong Kong

(b)   Hong Kong Baptist University

(c)   Lingnan University

(d)   The Chinese University of Hong Kong

(e)   The Education University of Hong Kong

(f)   The Hong Kong Polytechnic University

(g)   The Hong Kong University of Science and Technology

(h)   The University of Hong Kong

Local self-financing degree-awarding institutions

(a)   Caritas Institute of Higher Education

(b)   Centennial College (the management of the Centennial College was taken over by the HKU School of Professional and Continuing Education in May 2016)

(c)   Chu Hai College of Higher Education

(d)   Gratia Christian College

(e)   Hang Seng Management College

(f)   HKCT Institute of Higher Education

(g)   Hong Kong Nang Yan College of Higher Education

(h)   Hong Kong Shue Yan University

(i)   School of Continuing Education, Hong Kong Baptist University

(j)   School of Professional Education and Executive Development, The Hong Kong Polytechnic University

(k)   Technological and Higher Education Institute of Hong Kong

(l)   The Open University of Hong Kong

(m)   Tung Wah College

Source: RGC records

RGC: Organisation chart
(30 June 2016)

RGC

DC(Investigation)

DC(Penalty)

DC(Appeal)

Steering Committee on Competitive Research Funding for the Self-financing Degree Sector

Major Projects Steering Committee

Collaborative Research Fund Committee

HKPFS Steering Committee

Subject panels:
- Biology & Medicine
- Business Studies
- Engineering
- Humanities & Social Sciences
- Physical Sciences

HSSPFS Selection Committee

HSSPFS

- Assessment Panel
- Monitoring and Assessment Panel

Collaborative Research Fund

- Faculty Development Scheme
- Institutional Development Scheme
- Inter-Institutional Development Scheme

Humanities, Social Sciences and Business Studies Selection Panel

Science, Medicine, Engineering and Technology Selection Panel

- GRF
- ECS

Selection Committee for NSFC/RGC JRS

HKPFS

8 JRSs with the Mainland and other regions

Postgraduate Students Conference/ Seminar Grants

- AoE Scheme Selection Panel
- Monitoring and Assessment Panels for AoE Scheme

- TRS Selection Panel
- Monitoring and Assessment Panels for TRS

Selection Committee for State Natural Science Award

AoE Scheme

TRS

State Natural Science Award

Legend: ▢ 19 funding schemes administered by the RGC

Source: RGC records

Acronyms and abbreviations

AoE	Areas of Excellence
Audit	Audit Commission
DAMA	Disbursement, Accounting and Monitoring Arrangements for Funding Schemes Administered by the Research Grants Council
DC	Disciplinary Committee
ECS	Early Career Scheme
EDB	Education Bureau
GRF	General Research Fund
HKPFS	Hong Kong PhD Fellowship Scheme
HSSPFS	Humanities and Social Sciences Prestigious Fellowship Scheme
ITB	Innovation and Technology Bureau
ITC	Innovation and Technology Commission
ITF	Innovation and Technology Fund
IWG	Investigation Working Group
JRS	Joint Research Scheme
KT	Knowledge transfer
NSFC	National Natural Science Foundation of China
PI	Principal Investigator
R&D	research and development
RAE	Research Assessment Exercise
REF	Research Endowment Fund
RGC	Research Grants Council
TRS	Theme-based Research Scheme
UGC	University Grants Committee