

Centre for International Finance
and Regulation

Submission on ‘Boosting the commercial returns from research’

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Foreword

The Centre for International Finance and Regulation (CIFR) is pleased to provide input to the Inquiry titled “Boosting the commercial returns from research.”

CIFR represents a strategic link between academia, financial regulators, policy makers and industry, promoting financial sector vibrancy, resiliency and integrity, through leading research and education. CIFR receives funding and support from both the Commonwealth and NSW Governments, and its industry, university and research centre partners.

CIFR has extensive experience in bridging the gaps between academia, regulators and the private sector in the financial domain, both domestically and internationally.

CIFR has a core competency in engaging scholars to collaborate with financial regulators and business to achieve outcomes to meet prioritised needs determined under a highly targeted program of investment that it administers. Since 2012 CIFR has funded 63 research projects, involving over 100 researchers, with combined cash and in-kind funding from CIFR and its consortium members of around \$19 million.

This Inquiry is timely. In this Submission, we have drawn on CIFR’s experience to provide evidence, observations and recommendations on how the Commonwealth Government can best pursue its Industry Innovation and Competitiveness Agenda and related ambitions for the benefit of society.

1. Introduction and Summary

The Government has invited submissions on its Consultation Paper about how it might best achieve improved outcomes from its public investment in research activities.

The Centre for International Finance and Regulation (CIFR) is funded by the Commonwealth Treasury and the NSW Government and it serves the national interest by providing independent research and promoting financial sector vibrancy, resiliency and integrity, through policy-oriented research and education.

CIFR is an intermediary of the kind referred to in the Consultation Paper.¹ It brings together leading universities, research centres and the private sector to assist government, regulators and other industry participants to meet challenges and pursue opportunities in the financial system. Our university partners are UNSW Australia, Macquarie University, The University of Sydney, University of Technology, Sydney, Australian National University and The University of Melbourne. The Capital Markets Cooperative Research Centre (CRC) Limited and Sirca Limited are research centres we collaborate with, and private sector partners include Commonwealth Bank, KPMG, King & Wood Mallesons and Macquarie Group. CIFR works closely with Commonwealth Treasury and key regulators the Australian Securities and Investment Commission, Australian Prudential Regulatory Authority and the Reserve Bank of Australia.

In 2014, CIFR has supported the Financial System Inquiry and the Competition Policy Review by conducting public conferences to facilitate consultation with industry, and by completing targeted research and data analytics assignments.²

This submission focuses on the financial system and the financial services sector ('Financial Services'). It is acknowledged that certain sectors, such as health and medical sciences, rightly command greater attention in relation to commercialisation of research and very significant funding. Nevertheless, CIFR submits there has been *inadequate* attention given to the public funding of activities that would accelerate development in Financial Services.

The Government's Industry Innovation and Competitiveness Agenda (the 'Agenda') seeks to make the most of Australia's strengths and business opportunities. The focus of the Consultation Paper is on translation of research into commercial outcomes, to drive innovation, grow businesses and research capacity, and boost productivity and exports.

The first-listed ambition under the Agenda is to achieve 'a lower cost, business friendly environment with *less regulation*, lower taxes and *more competitive markets*'³ (emphasis added) (the 'Ambition').

¹ 'Boosting the Commercial Returns from Research', Department of Education and Department of Industry Discussion Paper, 2014, p6 (the 'Consultation Paper').

² CIFR's role is acknowledged in the Financial System Inquiry Final Report, 7 December 2014, at p xii.

³ Consultation Paper, p2.

At the outset, we express our broad agreement with the Departments' assessment of the system of incentives within which Universities operate. It serves a purpose, and certainly motivates behavior, but it does not sufficiently promote good collaboration and activities that directly contribute to achievement of the desirable outcomes identified in the Consultation Paper. We elaborate on our views in this submission.

This submission serves to:

- review evidence regarding the value of public investment in research-oriented institutions/agencies and the R&D tax concession;
- outline a collaborative model for consideration, focused on improving the targeting of public investment in research and the implementation of reform necessary to accelerate development of the sector; and
- provide recommendations on the proposals in the Consultation Paper.

Our recommendations reflect CIFR's experience in 2013-2014 as an intermediary focused on strengthening collaboration and improving the targeting of public investment in research and solutions.

The recommendations relate to the proposals in the Consultation Paper as they apply to Financial Services. They are detailed in Section 8 of this submission and are restated in brief here:

Proposal: creating stronger incentives for research-industry collaboration

1. *Take into account recent research by Fox and Elnasri (2014) in considering efficacy of programs to fund research and allocate funding (their paper is titled: 'The Contribution of Research and Innovation to Productivity and Economic Growth').*
2. *Further examine relative merits of directly funding research and the R&D tax concession in light of evidence that directly funding research is more effective.*
3. *In considering how best to strengthen collaboration, adopt a broad definition of what needs to be addressed to encompass challenges, problems and, importantly, tasks and outcomes required to implement regulatory change.*
4. *Consider adopting a collaborative governance model to facilitate more effective collaboration and implementation of change, such as the model outlined in Figure 2 (page 17).*
5. *Revisit incentive-setting for Universities including by considering creation of an organisation / initiative to allow the pooling of academic talent and capacity from across the University sector for deployment on projects under a prioritised and targeted program agenda.*
6. *Consider a number of ideas we put forward to better incentivise Universities to encourage academics to be involved in collaborative initiatives with business.*

Proposal: supporting research infrastructure

7. *Reassess existing research infrastructure provision and requirements and examine the models outlined in this submission (refer to Figures 1 and 2 on page 13 and 17).*

Proposal: providing better access to research

8. *Consider the relative merit of research funding and the R&D tax concession as regards pursuit of the goal of providing industry and other end-users with better access to research.*

Proposal: increasing industry relevant research training

9. *Consider incentivising training organisations to draw on talent from business in delivering programs and concentrating on Universities and other dedicated training organisations as the primary channel for industry-relevant programs.*

Proposal: measurement of outcomes

10. *Consider a number of ideas we provide for better measuring outcomes from public investment in research.*

Proposal: capitalising on the Medical Research Future Fund

11. *Consider best practices from across sectors (for example, governance arrangements) in devising how best to achieve the Agenda and Ambition in Financial Services.*

2. Significance of Financial Services

Financial Services is a large, and growing, sector. A snapshot of it can be found in the 'State of the Industry 2014' report produced by the Financial Services Council and UBS Global Asset Management ('FSC State of the Industry Report')⁴. It states that the sector contributes:

- over \$130 billion to the nation's GDP each year
- 11.15% of the Gross State Product for New South Wales
- employment for over 400,000 people
- more tax than any other sector – c. \$20 billion per annum⁵

⁴ Report available at:
http://www.fsc.org.au/downloads/file/ResearchReportsFile/2014_1117_FSCUBSStateoftheIndustryReport2014LR.pdf

⁵ FSC State of the Industry Report, 2014 Infographic.

An account of the role of Financial Services in contributing to the wellbeing of society is available in the Executive Summary of the Financial System Inquiry (FSI) Interim Report⁶ and the Overview in the FSI Final Report.⁷

The report 'Building Australia's Comparative Advantages'⁸ prepared by the Business Council of Australia in conjunction with McKinsey, adopted particular measures to assess competitiveness of sectors: '...(the) measures (used) seek to identify the efficiency with which a sector produces outputs, and any cost advantages or disadvantages due to the costs of inputs from other sectors'.⁹ The report indicates that, under the adopted methodology, only three of 12 industry sectors are competitive – agriculture, mining (including LNG), and finance. This evidence supports the contention that Financial Services represents a real strength for the nation.

In recent years there has been much discussion about the opportunity for Australia to become a leading provider of financial services on the international scene.¹⁰ For example, in 2014 the NSW Government has been very active in pursuit of its ambition to expand the sector and raise Sydney's standing as a global financial centre. Such ambitions and related initiatives appear to be incongruent with the level of public funding and attention that the sector receives.

Given the significance of Financial Services to the domestic economy, it is notable that the export of services remains low in relative and absolute terms. In 2013, exports of financial and insurance services represented only 5.4% of the total of the country's services exports.¹¹ An example of a sub-sector with good export growth prospects is funds management, being services related to investment management of assets within and outside the superannuation system. A Deloitte Access Economics report¹² states that, of a total of \$2.3 trillion in funds under management as at December 2013, only \$79.1 billion, or 3.5% of the total, represents funds managed by Australian investment managers on behalf of overseas investors (data referenced was from the Australian Bureau of Statistics). This level is surprisingly low given that Australia has the third largest pool of investment fund assets in the world.¹³ Reasons for this include issues with tax legislation and regulation of managed investment schemes.

Opportunities in the funds management and other sub-sectors were articulated in the report commissioned by the Government 'Australia as a Financial Centre – Building on Our Strengths', by the Australian Financial Centre Forum, November 2009 ('Johnson Report'). The Johnson Report identified a number of policy initiatives

⁶ <http://fsi.gov.au/publications/interim-report/executive-summary/>

⁷ FSI Final Report, pp1-8 <http://fsi.gov.au/publications/final-report/>

⁸ <http://www.bca.com.au/publications/building-australias-comparative-advantages>

⁹ Ibid, p23.

¹⁰ Refer to the Johnson Report and submissions to the Financial System Inquiry by ANZ, AT Kearney, CPA & Macquarie Group.

¹¹ FSC State of the Industry Report, p17.

¹² 'The Economic Impact of Increasing Australian Funds Management Exports', Deloitte Access Economics and the Financial Services Council, May 2014.

http://www.fsc.org.au/downloads/file/ResearchReportsFile/2014_0806_EconomicimpactofincreasingAustralianfundsmangementexports_e64a.pdf

¹³ See Investment Company Institute (ICI), *Worldwide Mutual Fund Assets and Flows*, ICI, Washington DC, second quarter 2014, accessed 8 December 2014, <http://www.ici.org/research/stats/worldwide>

which would assist Australia's financial services sector to become the premier financial services sector within the Asia-Pacific region. The main opportunities identified were:

- Increasing the size of the market e.g. via offshore banking units and improvement to the managed investment scheme regime and regulation;
- Improving access to capital e.g. by removing withholding tax on offshore borrowing and removing the LIBOR cap;
- Enhancing competition and efficiency using a range of initiatives to lower costs and increase choice for consumers and businesses;
- Maintaining best practice regulation;
- Promoting Australia as a financial centre;
- Strengthening government - business partnership through the creation of a Financial Centre Task Force.

Regarding the opportunity to export funds management services, an increase in investment by overseas investors in Australian investment schemes expands domestically operated businesses and so helps to generate employment and tax revenue. Although there is evidence of growth, there remain regulatory impediments impeding expansion.¹⁴

To take advantage of opportunities in Financial Services requires collaborative effort between the government and private sectors including by implementing the necessary regulatory reform. Performance in this regard is widely regarded to have been poor.

3. R&D in Financial Services

As noted in the Consultation Paper, countries use a variety of measures to promote entrepreneurial activity and innovation.¹⁵ In broad terms, public funding assistance to promote R&D can be categorized as:

- direct funding, such as funding of research-oriented organisations ('Research Funding')
- the R&D Tax Incentive available to the private sector ('R&D Tax Incentive')

The R&D Tax Incentive is, according to the Consultation Paper, the *only* 'business innovation program' of significant size¹⁶. The Paper notes that publicly funded research agencies mostly focus on medical and health sciences, engineering and biological sciences (together, representing 45% of the funding).¹⁷ Following the same computation approach to that used in the Consultation Paper, it is determined

¹⁴ Research has found that funds flowing into Australian trusts from other countries have doubled since January 2010. Refer 2014 Australian Investment Managers Cross-Border Flows Report', commissioned by the Financial Services Council and Perpetual.

http://www.perpetual.com.au/pdf/2014_Australian_Investment_Managers_Cross_Border_Report.pdf

¹⁵ Consultation Paper, p.7

¹⁶ Consultation Paper, p17

¹⁷ Consultation Paper, p9

that the field of Research, 'Commerce, Management, Tourism and Services', which comprises Financial Services, receives only 3% of public funding¹⁸. It is unclear exactly what the level of publicly funded research is in the Financial Services sub-division; however it is believed to be very low in absolute and relative terms. For example, the Australian Research Council received \$879m (32%) of Higher Education funding in 2012-13, of which only 0.12% was awarded to projects relating to Banking, Finance and Investment.

The Consultation Paper also refers to the government's CRC program. Currently there are 36 active CRCs within four industries: Agriculture, Forestry and Fishing; Mining; Manufacturing; Services. In 2012-13 CRCs received \$155.6m in funding, equivalent to only 1.6% of total support for research and innovation spending.

There is only one CRC in Financial Services - the Capital Markets CRC ('CMCRC'). The CMCRC focuses on the quality and integrity of financial markets and recently has expanded into examining the health market. The CMCRC is widely regarded as being one of the most successful CRCs.¹⁹

The Consultation Paper refers to the financial and insurance services sector being one of the largest contributors to business R&D expenditure in 2011/2012.²⁰ Various studies confirm the positive impact of business R&D on productivity, such as those by Griliches (1998) and Nadiri (1993), however to our knowledge no study has been carried out in Australia with a focus on Financial Services.²¹

4. What is the evidence as to the efficacy of Research Funding and the R&D Tax Incentive?

In evaluating policy settings, evidence of the efficacy of the existing funding mechanisms ought to be fully considered.

A comprehensive study has been undertaken in 2014 to examine this topic. Academics Kevin Fox and Amani Elnasri of UNSW Australia completed a study titled 'The Contribution of Research and Innovation to Productivity and Economic Growth'²² (the 'Fox and Elnasri Paper') as part of a program of work undertaken by the Australian Council of the Learned Academies to examine 'The Role of Science, Research and Technology in Lifting Australia's Productivity'²³ The authors relied on

¹⁸ ABS Research and Experimental Development Government and Private Non-Profit Organisations Funding 2012-13 combined with Higher Education Organisations Funding 2012

¹⁹ <http://www.business.gov.au/grants-and-assistance/Collaboration/CRC/CaseStudiesandNews/Pages/case-study-capital-markets-crc.aspx>

²⁰ Ibid., p9.

²¹ Cited p. 4 in 'The Contribution of Research and Innovation to Productivity and Economic Growth', UNSW Australian School of Business Research Paper No. 2014-08 by Amani Elnasri and Kevin Fox, 2014. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2398732

²² UNSW Australia is the lead member of the Consortium operating CIFR.

²³ 'The Contribution of Research and Innovation to Productivity and Economic Growth', UNSW Australian School of Business Research Paper No. 2014-08 by Amani Elnasri and Kevin Fox, 2014 (Elnasri and Fox, 2014). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2398732

data on intangible investment provided by the Productivity Commission and the Melbourne Institute.

Fox and Elnasri examined the role of public support for research and innovation and concluded that:

- there is empirical evidence indicating that there are significant benefits to productivity from public spending on research agencies and higher education (Elnasri and Fox use the term ‘research agencies’ to mean public sector research agencies such as the CSIRO); and
- no evidence was found to indicate that there are significant benefits from the R&D Tax Incentive.

The authors also examined the evidence available in relation to the United Kingdom and concluded that it suggests that ‘...for maximum productivity impact in the U.K., government innovation policy should support direct spending on research councils rather than tax breaks, such as the R&D tax credit, to firms.’²⁴

The authors note that ‘whether or not public support for research and innovation should focus on direct spending on public research institutions...funding of higher education...or provide indirect support to the business sector...is crucial to informing and designing effective policy.’²⁵

Whilst we acknowledge that it is challenging to assess the efficacy of a funding program / mechanism, the evidence does point to Research Funding having a much greater impact on productivity than the R&D Tax Incentive.

Further, in our experience in the private sector, the R&D Tax Incentive is not effective as a stimulant or driver of desirable activity that generates productivity and other benefits. This is because it is typical in the professional services sector for commercial self-interest to be the driver of R&D activity and the tax concession to be regarded as an incidental benefit available to be claimed.

5. Incentives in Universities

The Consultation Paper includes an assessment of the incentives that motivate behaviour in the University sector, and it is an assessment CIFR agrees with.

CIFR endorses the view expressed that ‘...the best minds from across research, industry and government should formulate a set of high level priorities and corresponding important research challenges...(and that)...these challenges should be practical problems that capture the imagination of our research and business communities.’²⁶

Issues impeding effective collaboration between the academic and private sectors include:

²⁴ Elnasri and Fox, 2014, *ibid.*, p3.

²⁵ Elnasri and Fox, 2014, *ibid.*, p3.

²⁶ Consultation Paper, p21.

- The existing system of measuring performances and contributions of Universities has its positive attributes, however it does not capture any assessment of the extent of, or value of, collaboration by academics and business and progress towards achievement of the desirable outcomes articulated in the Consultation Paper.
- The system results in emphasis on performances in league tables and in Tier 1 journal publications, and neither includes any incentive for an academic to combine with business to deliver an outcome that serves to make progress on priority projects.
- Having 39 Universities, each endeavoring to promote its own interest, and representative bodies such as Universities Australia and the Go8, has resulted in a diffusion of the research talent and funding budgets available in Australia – we have, in many areas including Financial Services, sub-scale capabilities that are inefficient and largely operating independently.
- Universities have not demonstrated an ability to overcome sectional interests to achieve a critical mass of expertise and scale that would be in the best interest of all stakeholders. For example, the joint venture between UNSW Australia and The University of Sydney to operate the Australian Graduate School of Management ceased in 2005.

CIFR has elaborated on its views on incentives as they relate to academe and business collaboration in the article contained in Appendix 1.

CIFR supports the revisiting of incentive-setting for Universities to encourage them to better collaborate with both the private sector and other key industry participants such as the regulators.

6. Research in Financial Services: is there a problem to be addressed?

The Consultation Paper refers to Australia suffering from poor engagement between researchers and business, particularly regarding transmission of ideas and insights and application of them in the commercial context. The Consultation Paper also refers to the question of whether research activities are sufficiently focused on, and responsive to, the most pressing questions including Australia's economic imperatives.²⁷

The current ecosystem of relevant organisations operating in Financial Services is depicted below:

²⁷ Consultation Paper, p10.

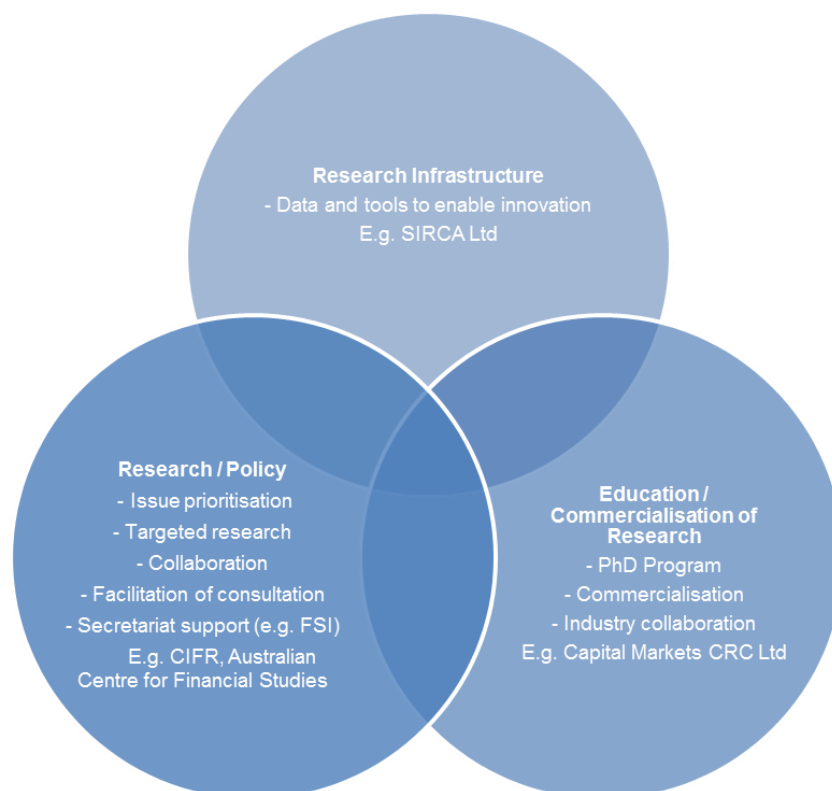


Figure 1: Ecosystem in Financial Services

The above diagram shows the three types of organisations that exist today. Each has valuable capabilities and these capabilities are complementary.

Research Infrastructure²⁸

It is essential to have the data resources and information technology tools necessary to allow insightful analysis to be undertaken which leads to innovation. For example, through the discovery of new knowledge/ideas, more efficient examination of existing interactions, and development of better products, services, processes/systems.

Education / Commercialisation of Research²⁹

Education is crucial to ensure that there is a constant stream of individuals entering the community (academe/industry) with a high level of academic skill (i.e. PhD qualification) resulting in rigorous analysis of critical issues impacting industry, government, regulators and scholars. It is essential that these researchers interact and collaborate with industry so that the research undertaken has real-world applicability. It follows that the preeminent research solutions developed will have commercial potential given their development with industry engagement.

Research / Public Policy³⁰

It is important to engage academics in targeted research projects to contribute to public policy, as their analysis is independent of the political agenda and typically of high scholarly quality. Additionally, it is important that researchers across all types of

²⁸ <http://www.sirca.org.au/>

²⁹ <http://www.cmcrc.com/>

³⁰ <http://www.cifr.edu.au/> and <http://www.australiancentre.com.au/>

organisations (i.e. industry, academe, government/regulatory) engage with each other, through events such as conferences, symposiums and seminars.

The three types of organisation have a synergistic relationship as they each can draw from the others' resources. For example, a research/public policy focused organisation gaining access to data for a project through a research infrastructure organisation and then having PhD students from the education/commercialisation entity undertake the analysis in consultation with industry.

In Financial Services, the challenges and barriers to achievement of the Agenda frequently lie in navigating regulatory complexity and prosecuting programs of regulatory reform. In the past there have been cases of consensus about the merit of reform, for example on simplification of investment product disclosure and removal of tax and other regulatory problems which inhibit the efficient management of product portfolios and represent a considerable burden borne by providers and consumers. However, there are barriers to implementation and there is no concerted effort to overcome the barriers and make the required progress.

Research by itself is necessary but not sufficient to make progress under a regulatory reform agenda aimed at objectives such as lowering costs, improving competitiveness and creation of an environment more conducive to innovation and pursuit of opportunities. To be of lasting value, research must be well-targeted and translated or otherwise capable of being used to make tangible progress. This is, fundamentally, an execution or implementation challenge for all parties interested in strengthening the sector – government, regulators, beneficiaries of good policy implementation, and the private sector.

7. A Collaborative Model in Financial Services

The Consultation Paper rightly identifies that it is critical to target research effort and associated spending, to maximise the value of public investment. The use of the Commonwealth Science Council to examine and prioritise research needs is an example of a collaborative model that has intuitive appeal and potential to serve to make difficult prioritisation recommendations/decisions, and associated progress, on a well-informed basis.³¹

In Financial Services, a collaborative model also makes sense. Whilst bodies such as CIFR play a part in connecting research and business, and directing research effort to the most pressing problems, no formal collaborative model currently exists.

In 2009 the Johnson Report recommended the establishment of a Financial Centre Task Force (established for a brief period then disbanded) and expressed the view that:

“The Forum sees a central role for an ongoing body focused on ensuring that policy measures directed at achieving the Government’s objective of

³¹ Consultation Paper, p11.

establishing Australia as a leading financial centre are effectively implemented; on monitoring policy developments in overseas financial centres; and on providing advice on future policy measures that may be necessary in the light of evolving domestic and international developments, including reviews or updates of existing policies.”³²

Recently, Mark Johnson, in reflecting on decades of experience in endeavours to effect policy change, argued that any material policy reform program requires a permanent secretariat capability to maintain momentum. He made the following observations:

“There should be a taskforce composed of people from industry – not CEOs, but people at a senior operational level.

It ought to have a senior person from Treasury and a ministerial office representative, because...the politicians...determine priorities.

It must have a secretariat. It doesn't need to be big... these people must come from the private sector. They should not be representatives of Treasury...

It should be funded on a user-pays basis...by the industry itself.

There should be a formal requirement for a report that is tabled in Parliament every six months or 12 months.

The treasurer or assistant treasurer should meet with the committee whenever appropriate...the bulk of the work will be done by the secretariat.”³³

There is currently no collaborative governance structure or capability that has a mandate to serve the national interest by focusing on tasks to be accomplished to implement programs of change.

We outline a model for research agency-industry-government collaboration in the Financial Services sector, overleaf.

This model has the following characteristics:

- Similar to the Commonwealth Science Council, it institutionalises the involvement of a group of experts well placed to bring a diversity of high quality thinking to bear on critical questions such as how to prioritise needs and how best to proceed to address them;
- The relationship between the oversight body and the Office of Financial Research and Solutions serves to institutionalise a capability to make:
 - well-informed decisions and recommendations; and
 - progress on implementation consistent with agreed priorities.

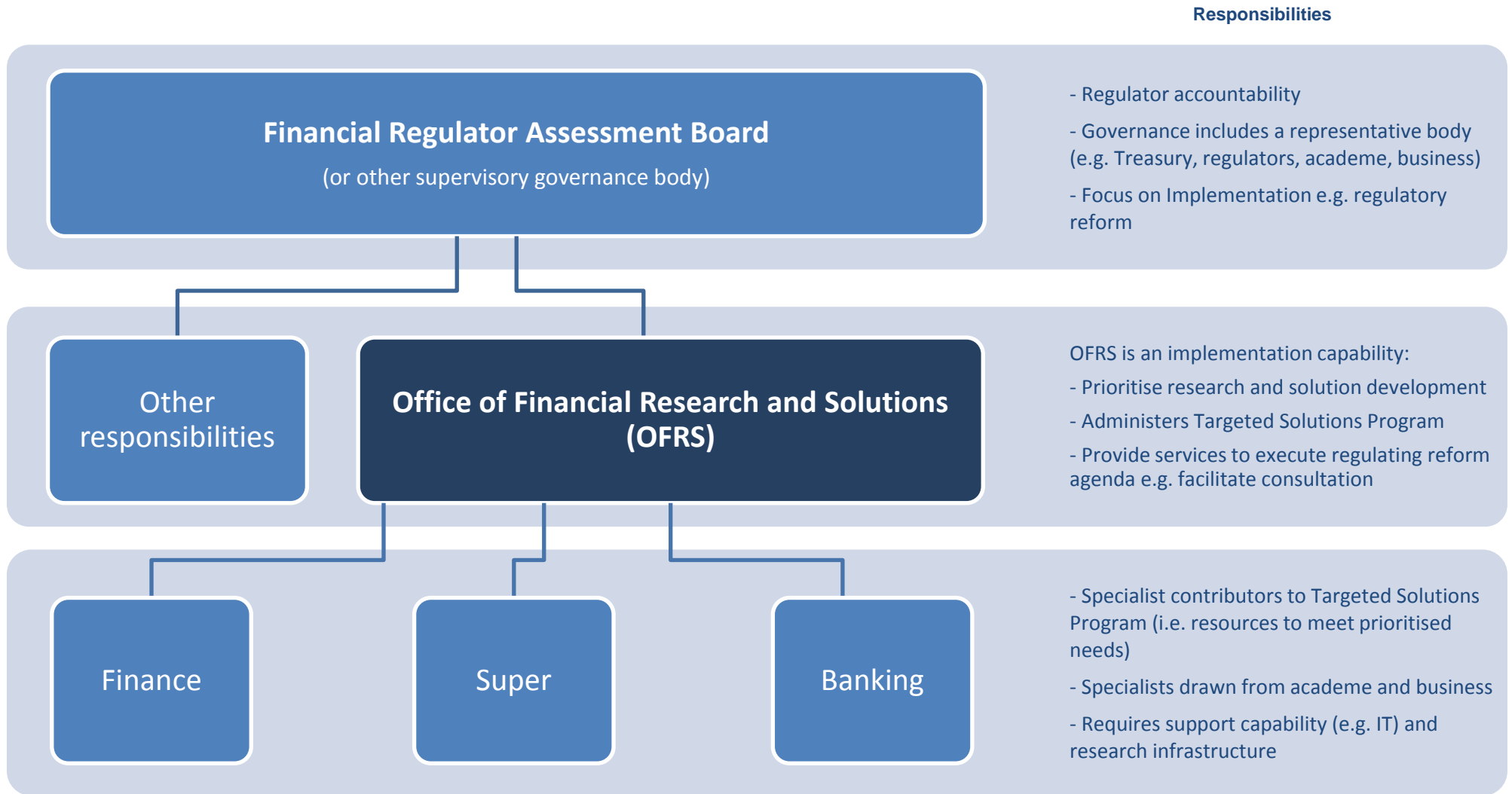
³² 'Australia as a Financial Centre – Building on Our Strengths', the report by Australian Financial Centre Forum, November 2009. <http://www.fex.com.au/media/AFCF.pdf>

³³ Johnson, Mark. Presentation at CIFR's FSI Workshop II, 21 August 2014

- It has some similarity with the establishment in the United States of the Office of Financial Research, which is funded by U.S. Treasury and serves the Financial Stability Oversight Council, its member agencies, and the national interest by ‘...improving the quality, transparency, and accessibility of financial data and information; by conducting and sponsoring research related to financial stability; and by promoting best practices in risk management.’³⁴

³⁴ Refer: <http://www.treasury.gov/initiatives/ofr/Pages/default.aspx>

Figure 2: Research & Related Solutions in Financial Services



8. Recommendations on Proposals set out in the Consultation Paper

We set out below CIFR's recommendations on the proposals in section 5 of the Consultation Paper. All recommendations refer to the proposals as they apply to Financial Services.

Proposal: creating stronger incentives for research-industry collaboration

1. The findings of the Fox and Elnasri Paper support Research Funding as being more effective than the R & D Tax Incentive, and should be taken into account in the Government's consideration of the efficacy of its programs to fund research and its funding allocation decisions.
2. The Government should closely examine the relative merits of Research Funding and the R&D Tax Incentive mechanisms, to inform its views on the case for adjustment of policy settings that impact the sector.
3. In considering how best to strengthen collaboration between research and business communities, we recommend the Government interpret 'challenges' and 'practical problems' to be solved in a broad sense so as to capture tasks and outcomes that are required to implement regulatory change.
4. The Government should consider whether there is sufficient weight placed on, and funding available for, pursuit of research and collaborative implementation efforts to accelerate development of the sector.

In particular, the Government should consider adopting, a collaborative governance model in Financial Services. For example, the Government could consider funding a model such as that proposed in this submission (Figure 2) to facilitate collaboration and deliver the following:

- a) timely generation of research and related solutions to inform development of policy and regulation;
- b) timely opportunities for consultation and engagement to help with development of well-informed and considered policy and regulation;
- c) improved coordination and quality of execution of regulatory reform programs through better leveraging the strengths, commitment and capacity available in the private sector;
- d) facilitation of regulators and industry working together to prioritise solution needs, and direct collaborative effort accordingly; and
- e) augment the efforts of staff in the government and regulators at a time when pressures appear to run the risk of limiting their capacity to prosecute reform programs.

CIFR has contributed in most of the above areas.

5. CIFR supports the revisiting of incentive-setting for Universities to encourage them to better collaborate with the private sector and other key industry participants. If the existing incentive system is to remain in substantially the same form, we recommend creation of an additional organisation or initiative that allows the pooling of academic talent and capacity from across all Universities to participate for deployment on projects under a prioritised and targeted program agenda. It would be important that such an organisation or initiative did not threaten the ability of Universities to perform in the system of incentives as it currently stands, otherwise it is unlikely Universities would make the desired contributions.

An example of an organisation that has successfully operated in this manner is the National Bureau of Economic Research ('NBER') in the United States.³⁵ Notwithstanding the commitments of academics to their host Universities, NBER has demonstrated (since 1920) that it can successfully identify priorities and gain the participation of top academics from across the sector to work on research projects targeted under the program NBER administers.

6. CIFR suggests the Government considers the following ideas for improving incentive-setting for Universities:
- a) incentivise Universities to encourage academics to be involved in collaborative initiatives and spend time working with businesses. For example:
 - give credit for participation of academics in work that contributes towards making progress on explicitly identified priorities
 - require an academic, with host University support, to participate in collaborative initiatives with business
 - encourage Universities to review employment terms to build in an expectation that an academic will contribute to collaborative initiatives
 - sabbaticals ought to be considered as opportunities for academics to spend time working directly with business
 - promote to business the advantages of calling on talent from the University sector to contribute to projects (e.g. the breadth of talent available at all levels of seniority and the fact that participation may be cost-effective due to Universities bearing the employment cost of its staff)
 - b) revisit the policy regarding ownership and management of intellectual property rights in light of international experience
 - c) drive consolidation in the University sector, to help address the fragmentation of talent and capacity across so many institutions

Proposal: supporting research infrastructure

7. We recommend that the Government reassess existing research infrastructure provision and requirements including the models outlined in this submission (refer Figures 1 and 2 on pages 13 and 17).

³⁵ <http://www.nber.org>

Proposal: providing better access to research

8. Publicly-funded research generated in, and on, the Financial Services sector is generally made available via public websites such as the Financial Economics Network hosted by the Social Science Research Network and ResearchGate.³⁶ There is a strong culture of sharing research and intellectual property to help stimulate idea generation right across the sector, well exemplified by the operating imperative adopted by many research-oriented agencies and institutions including CMCRC, SIRCA and CIFR. Research reports and papers generated by such organisations are also made available on their respective websites.

Research created within the private sector, regardless of whether the expense is claimed under the R&D tax concession, is proprietary and typically used exclusively for the benefit of the company that commissioned the work.

The Government should consider the relative merit of Research Funding and the R&D Tax Incentive as regards pursuit of its goal of providing industry and other end-users with better access to research.

Proposal: Increasing industry relevant research training

9. We suggest consideration be given to:
- a) use training as a means by which collaboration in Financial Services is promoted, for example by incentivising training organisations to draw on talent from business in delivery of programs; and
 - b) concentration of effort on making Universities and other dedicated training organisations the primary channel for industry-relevant training programs

Proposal: Measurement of outcomes

10. CIFR recommends consideration be given to:
- a) analysis of the impediments to strengthening the sector (e.g. cost and regulatory barriers affecting firms' performance);
 - b) use of a collaborative model to determine priorities and direct effort towards research and generation of related solutions to meet the prioritised needs;
 - c) development of a means by which progress on the agreed prioritised needs can be assessed and measured; and
 - d) having regard to the objective of incentivising activity that clearly aligns to pursuit of the Agenda and Ambition, when developing the measurement system.

³⁶ <http://www.ssrn.com/en/index.cfm/fen/> and <http://www.researchgate.net/>

Proposal: Capitalising on the Medical Research Future Fund

11. We note that the challenges associated with maximising the utility of public investment in research activity transcend sectors, and there would be benefit in the Government further drawing on experience across the sectors to assess the best practices to adopt (for example, governance models). A prime example is the collaborative model adopted in the field of science, elements of which are reflected in the collaborative model for Financial Services outlined in this submission.

9. Conclusion

There is strong evidence that public investment in research-oriented institutions is more effective a use of public funds than the R & D Tax Incentive.

The Consultation Paper refers to the Government's intent to consult with stakeholders to set national priorities for research, and ensure that each priority will be supported by practical research challenges that will be developed in consultation with experts.

Our recommendations are designed to assist the Departments to further examine how best to accelerate progress in Financial Services, including by more effectively implementing change to improve regulation and tackle barriers that impede desirable development. We would welcome further engagement.

Appendix 1: Academic Representation on Boards

Academics in the Boardroom – The Importance of Engagement

Academics are a rare breed in the boardrooms of Australia. Former NSW premier and Australian Graduate School of Management distinguished visitor Nick Greiner highlighted this point in a recent article, in which he pointed to the limited number of active academics currently serving on the boards of the top 100 ASX companies.

It may be open to debate as to whether the ASX 100 is fully reflective of the true contribution of academics to the broader Australian business sector, but Mr Greiner's point is nevertheless well made. He also correctly urges universities to engage more actively with the business community.

Perhaps the impetus for increased academic engagement with the business sector lies in reviewing the incentives that govern academics' participation in the roles they fulfil. In general, Australian academics are professionally evaluated according to three criteria or key performance indicators (KPIs). These are: the quality and quantity of their research (including competitively awarded research funding); their teaching contribution; and their administrative service and contribution to their faculty and the wider university.

It follows that academics seeking to advance their careers will naturally concentrate on these three key measures. Perhaps unsurprisingly, research output is typically a point of particular focus. It is the most visible and quantifiable, and has the most immediate impact in terms of raising the public profile of both the individual academic and the university they represent. Indeed, it could be argued that publication of research is the sole area in which Australian academics are incentivised to perform. This is because the reputation of universities, and their all-important share of government funding, is largely determined by the success that their academics achieve in having their research published in leading scholarly journals.

Recognising the need to foster closer ties with business, UNSW Australia now applies a fourth performance indicator that requires its business academics to engage more closely with the commercial sector. This is an important development, which should encourage academics to be mindful of the potential benefits to society when prioritising their work.

Encouraging greater engagement by academics necessitates universities providing added incentives, specifically in terms of promotion criteria and performance-based remuneration, otherwise known as salary supplementation.

Comparing the Australian environment with the US reveals an interesting and significant difference in the recognition and reward of academic achievement. In Australia, universities typically retain exclusive beneficial ownership of intellectual property rights that may result from the work of academics they employ. In contrast, among leading US universities the emphasis appears to be more on a 'fair share' of the commercial benefits flowing from intellectual property. Accordingly, US academics are more incentivised to bring a greater commercial perspective to their

work, which, in turn, is conducive to a greater degree of interaction between academe and the business sector.

While any requirement for Australian academics to become more closely involved with the business sector is laudable in theory, there may be practical considerations that make it difficult to achieve. Physical locality is one such consideration. The head office and control functions of the business sector tend to be concentrated in the CBD areas of the major capital cities. Although electronic communications have brought the world closer together, face-to-face contact remains a critically important element of successful business relationships. This creates a significant integration hurdle for academics located in Australia's many regional universities.

Notwithstanding the potential challenges of physical location, there are several institutions that specifically serve to foster and promote the involvement of academics in the business sector.

The Centre for International Finance and Regulation (CIFR) is one such body. CIFR is a centre for research and public policy development in the financial sector. It brings together leading Australian universities, research centres and financial organisations to assist the financial sector, government and regulators in meeting emerging challenges and opportunities locally, regionally and internationally. Sponsored by the Commonwealth and NSW Governments, and comprising a consortium of universities and associates, CIFR focuses on financial market developments and financial system regulation. CIFR is located in Sydney's CBD, in close proximity to many industry and regulatory stakeholders, with whom it seeks to collaborate on a variety of scholarly and public-policy focused research initiatives.

The Australian Research Council (ARC), a statutory agency within the Australian Government, is another research-oriented body. The ARC's mission is to deliver policy and programs that advance Australian research and innovation globally, and that benefit the community. Pursuant to its mission, the ARC provides advice to the Government on research issues, manages the National Competitive Grants Program (NCGP), and administers the system that evaluates the quality of research conducted at Australian universities. One of the ARC research programs is the *Linkage Projects* scheme, which provides funding for academics and business to collaborate on research activities that are scholarly, and also innovative for business.

It is important to recognise that a deeper engagement between academics and the business sector can deliver tangible benefits to both parties. Greater academic representation on company boards can create a decision-making process in which the existing wisdom of business insight and experience is supplemented by a strong academic and theoretical perspective. For their part, academics would be in a position to potentially raise the standard of their research by having access to data that would perhaps not otherwise be available to them.

Academic consultancy services can also take the form of specialist advisory panels. The increasingly complex business environment makes ever greater demands on company boards, such that the number of board members required to achieve the necessary range of skill sets may become excessive. Instead, an advisory panel, specifically created to address a particular issue, may be a more cost effective and efficient means of accessing the required specialist skills. Moreover, the external

credibility of specialist academic advisors, for example when addressing presentations and seminars, is likely to be correspondingly greater than that of other board members. This can be particularly valuable for a company seeking to promote its message in relation to technological or complicated issues such as environmental impact or governance.

Deeper engagement between the business and university sectors clearly offers potential all-round benefits. It remains for academic institutions to think further about how engagement with industry can be developed, and how the diverse skills and strengths of scholars can more deeply benefit all aspects of Australian society.