THE FUTURE OF MONETARY AND FINANCIAL INTEGRATION IN THE EU

PROGRESS REPORT ON YEAR 1 FOR WORK PACKAGE 1B UNDER THE EU CENTRES NETWORK NEW ZEALAND GRANT FOR 2014-8 AT THE UNIVERSITY OF AUCKLAND

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Introduction

The purpose of this research theme is to consider the likely impact of the changes in the European Union (EU) on monetary and financial stability, fiscal stability, and society at large. By following a deliberately multidisciplinary approach it seeks to offer practical advice on the development of banking union and other steps in the deeper monetary and financial integration of the EU over the future and also an understanding of the strains that this process imposes on society so that these can be ameliorated to help in achieving a more harmonious approach than is revealed in the current divisions. It draws on the lessons that can be learnt from the experience of Australia and New Zealand in integrating in the same field.

Project team

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Progress in Year 1

In the first year (1 November 2014 to 31 October 2015) the project has focused on the practicalities of the process of monetary and financial integration, concentrating on four areas:

- Banking union in the EU
- Lessons from Australia and New Zealand
- Living wills
- Early warning systems

In the course of this work, the project has produced a book, seven academic articles and a teaching module, in addition to organising a symposium in the UK, a workshop in Australia and a workshop in New Zealand. These delivered outputs against the required outputs are listed in Table A.1 in the appendix and described in more detail below. The team have also presented the work in progress in conferences in Europe, the United States, Australia and New Zealand as described below.

All the outputs are available through the project's webpage http://www.europe.auckland.ac.nz/en/research-projects.html.

Overview

In the period after the global financial crisis (GFC) in 2008-9, the EU was very active with further steps in both Economic and Monetary Union (EMU) and financial integration, principally what has been labelled ‘banking union’, which was launched and agreed remarkably quickly between 2012 and 2014, although more remains to be done. Our focus in the first year of this project has been on ‘banking union’. Years 2 and 3 will focus on the evolution of EMU under the stresses placed on the Member States to resolve the sovereign debt crisis, which emerged in 2010. The stresses in EMU have emphasised that the hope of getting a more symmetric process of adjustment than would be the case without EMU, whereby both losers and gainers share the burden, has been both difficult and elusive. It is still the case that those running excess deficits and reaching the limits of their borrowing capacity have no alternative but to try to adjust dramatically so that in future their debt is not just stabilised but will actually be run down substantially. Moreover, they have to make these changes at the worst possible time in the economic cycle, thereby exacerbating what is already an unpleasant recession. Being inside EMU has made that adjustment process more difficult as they no longer have the ability to allow their exchange rate to depreciate or to follow a monetary policy that addresses their specific needs. Member States not facing these constraints, not merely have the option of running a softer fiscal policy, which allows them to spread the costs of adjustment over a longer period, but they have no matching compulsion to expand their economies faster than they would wish for domestic purposes in order to help their constrained partners.

As a result, the EU has become more divided not simply between those who have the sovereign debt problems within the euro area and those who do not but also between the euro area members and the rest of the EU. There is now a much stronger incentive for non-members to retain their independence because the costs of adjustment have been noticeably lower with the ability to allow the exchange rate to move. Ironically, the measures that have been introduced to try to make sure that euro area exits from its current problems and that a system with some more support from the stronger to the weaker can be implemented in the future is itself emphasising the divisions as it entails more constraints on fiscal policy and macroeconomic policy to be proposed by the European Commission and agreed by the Council. Thus, while the measures under the labels ‘six-pack’ and ‘two pack’ may well help through the ‘European semester’, the Treaty on Stability, Coordination and Governance has not been signed by all of the Member States. The UK, in particular, is proceeding with a commitment to renegotiate the Treaties and have a referendum on whether to remain within the EU.

These divisions have been emphasised by ‘banking union’, part of which only applies to the euro area countries, although others may participate but not as full members. This rather defeats the point of a banking union, which is to address the potential distress or failure of the largest cross-border banks in the EU, the resolution of which might be daunting for their home state to handle, especially, when that State simultaneously has a sovereign debt constraint.

Banking Union

While banking union has a clear meaning in terms of banking across a set of countries having roughly the same properties as banking within a single country, that is not really what constitutes 'banking union' in the EU. 'Banking union' is the label that the EU has applied to three main measures:

- An attempt to introduce a 'single rulebook' which will harmonise many aspects of prudential supervision across not just the whole of the EU but also across the European Economic Area (EEA);
- The creation of a Single Supervisory Mechanism (SSM), which gives the European Central Bank (ECB) responsibility for supervising banks in the euro area (and in any other Member State which opts to participate);
- The adoption of a Directive (the Bank Recovery and Resolution Directive, BRRD), which provides all the tools necessary for the authorities across the whole EU/EEA to resolve problems in banks without causing large banks to cease operating and without using any taxpayers' money.

In order to implement the BRRD effectively in the euro area, the EU has created a Single Resolution Mechanism (SRM) to be implemented by a new Single Resolution Board (SRB) based in Brussels, which will be able to coordinate the resolution of large banks that run across borders. To assist in the meeting the costs of these resolutions each Member State has to build up a resolution fund, which in the case of the euro area will be progressively pooled into a Single Resolution Fund (SRF) between now and 2024.

'Banking union' even as outlined above is not complete and has not as yet included measures to separate out riskier from traditional banking activities as proposed by a High –level Group chaired by Erkki Liikanen the Governor of Suomen Pankki. These new measures are completely untried and will pose a variety of problems and opportunities for the EU in ensuring a more stable and effective banking system in the future. Our research has addressed these issues.

We have, therefore, taken the following main steps:

- We have developed a teaching module which explains exactly what a banking union is and the main issues that it faces (see section A below);
- We organised a symposium in Europe (at the University of Buckingham) under the title 'European Banking Union: Prospects and Challenges', inviting the leading experts from round the world to address the issues. The papers from this conference have been edited and together with a digest of the issues have been published in a book with the same title by Routledge (see section B below);
- We have worked specifically on some of the major issues that the banking union in the EU has thrown up. Those issues relate to:
  - Living wills – the ability to specify in advance a plausible plan that could be followed through in the event of a serious problem in a large bank (see section

C below). If it is not possible to produce such plans then inevitably the taxpayer will still be called upon to help solve the problem;
    - Early warning – the ability to construct indicators that enable the authorities and the bank itself to take corrective measures before the problems become too great (see section D below). While such models have been constructed in the past they did not prevent many bank problems, which came as a surprise during the GFC. We explore whether, with the benefit of experience, the outcome could plausibly be better in future;
    - Contingent convertibles (CoCos) – bonds which convert into equity to help provide capital for banks automatically should they get into serious difficulty (see section E below).
- We have assessed the mutual lessons that can be learned from the experience in financial integration in the EU and in Australia and New Zealand (see section F below);
- We have encouraged the debate on the topic and in particular have organised a PhD seminar and other meetings in four countries (see section G below);

  We have produced additional papers beyond what was required under the grant and disseminated the research results widely (see Section H below).

A A Teaching module on banking union in Europe

With the help of Lyn Collie from the Innovative Learning Team at the University of Auckland Business School, Prof. David G. Mayes and Dr Giannoula Karamichailidou put together a module, which explains the banking union arrangements in the EU. In a series of five videos, the module explains what a banking union is, why it was created by the EU and the problems it faces. However, it offers more than just videos and is a complete package that can be used by an individual alone or by an instructor as part of a class. All these materials are available from our website without charge for personal use and for use in teaching provided no fee is levied.

While the module is primarily aimed at third year students who are studying banking and wish to know more about what is happening in the EU and at students who are studying European integration and wish to know more about banking, it does not assume any special background in either finance or EU studies. It is, therefore, also suitable for anyone interested outside a higher education institution.

The module consists of:

- Five short videos, whose streaming addresses are provided on the project's webpage http://www.europe.auckland.ac.nz/en/research-projects.html;
- A set of slides to accompany the videos;
- A bibliography, which lists:
    - Reading which should be undertaken before watching the videos;

    - Links to the EU legislation which embodies the banking union in the EU;
    - Links to a wide range of articles and other references that have been published in the last few years relating to the banking union in the EU.

- Transcripts of the videos;
- A set of questions for discussion –shown in both the videos and the slides;
- A set of teaching aids:
    - A slide presentation to help class discussion of the questions;
    - A set of points that might be made in the discussions.

B European banking union: Prospects and challenges

The major activity and publication from the first year of this project is the book *European Banking Union: Prospects and Challenges*, edited by Juan E. Castañeda, David G. Mayes and Geoffrey Wood and published by Routledge at the end of 2015, ISBN: 978-1-138-90650-1, whose chapters were presented and discussed at a symposium in the University of Buckingham on 21-22 November 2014.

This book whose contents page and preface are reproduced below assesses the measures implementing banking union in the EU from the perspectives of law, economics, and finance. The authors, who are drawn from Cyprus, Germany, Greece, Ireland, Italy, New Zealand, Spain, Sweden, the UK and the US, are a mixture of academics and practitioners. The contributors benefitted from comments in the presentation from regulators drawn from central banks and the European Commission.

Contents

Preface

Simply managing to get all the measures thus far involved in banking union in the EU into law is a remarkable achievement, as is the creation of the new institutions that are involved in its implementation. It is of particular satisfaction as between us we have been involved for nearly 20 years in a campaign to address the problems of supervising cross-border banks and the orderly resolution of banks without the need for bail-outs by the taxpayer and its associated moral hazard and unfairness. Until the GFC, it had not been possible to make any significant headway. Politicians did not regard the issues as important enough to consider for the legislative agenda, and regulators tended to be convinced that their systems would work well in practice despite their obvious limitations.

There are some honourable exceptions, with the Reserve Bank of New Zealand (RBNZ) investigating resolution mechanisms carefully and then starting to implement a new scheme that addressed both the cross-border issue and the need to bail in rather than bail out by 2005. The Swedish authorities got as far as a draft law, but it was not presented to parliament. The Bank of Finland also pursued these issues and Peik Granlund, Liisa Halme, Aarno Liuksila and Jukka Vesala have been co-authors in this, Aarno Liuksila in particular being an energetic proponent of the reorganisation of both assets and liabilities of a failing bank, using early intervention under a lex specialis. The successive deputy governors responsible for financial stability, Esko Ollila, Matti Louekoski and Pentti Hakkarainen, helped push the programme forward. Jon Sigurdson from the Nordic Investment Bank pointed out the impossibility of rescuing the Icelandic banking system a full five years before it failed, leading to the development of the concept of ‘too big to save’.

Despite our accolade to the EU for achieving so much in a short period, this does not mean that what has been achieved is perfect, and our purpose in writing this book is to draw attention to the actual and potential difficulties in order to help the authorities and the participants in the financial system tackle them over the future. While some of the deficiencies can be simply ascribed to the problems of achieving agreement among 28 countries, others reflect what we regard as misperceptions of the problems and the ways the solutions that have been adopted are likely to play out in practice in the future.

In particular, we think it is a delusion to believe that taxpayers are off the hook or that they ever could be in the event of the threat of a widespread crisis. We remain cautious that without substantial reorganisation the largest complex banking institutions could be resolved rapidly, except perhaps by the home supervisor resolving the group where it has a holding company structure as is prevalent in the US. We also feel that, despite being early supporters of bailing in, the concept has been oversold. A large bail-in will still have substantial real effects and spillovers to the economy at large. It is simply that they will be distributed differently from those in the traditional bail-out.

The individual authors in this book have contributed their analysis of the various parts of the problem, looking both forward and backward. While they do not necessarily subscribe to what each other says, we hope that the constructive criticism provided in the book will be of value in helping the new banking union mature into a stable, yet vibrant, financial system that encourages the growth of economic activity and the efficient allocation of resources. Progress is being made on two fronts: the reduction of fragility in the system and the ability to handle problems and, in particular, to permit exit without endangering the stability of the rest of the system.

C Living wills

'Plausible recovery and resolution plans for cross-border financial institutions', Giannoula Karamichailidou and David G. Mayes, Chapter 3 in J Castaneda, D G Mayes and G Wood, *European Banking Union: Prospects and Challenges*, Abingdon: Routledge, 2015.

Abstract

The purpose of this chapter is to consider the problems posed by recovery and resolution plans (living wills) for cross-border financial institutions in the light of three different approaches to implementation applied in the US and the UK, the European Union, and Australia and New Zealand and suggest ways forward, particularly in the EU. It concludes that, while these plans will help in facilitating both recovery and resolution, there are many other issues still to be addressed, particularly restructuring. Even with greater legal harmonisation and coordination it is unlikely that it will be possible to resolve many such institutions without some use of taxpayers' money.

D Early warning

'Can Financial Cycle Dynamics Predict Bank Distress?', Giannoula Karamichailidou, David G. Mayes (Europe Institute, University of Auckland) and Hanno Stremmel (WHU, Otto Beisheim School of Business, Vallendar, Germany).

Abstract

The global financial crisis has emphasised the importance of the financial cycle in contributing to bank failures. In this paper, we consider how far it is possible to anticipate problems in banks by using early-warning indicators available from published information on the financial cycle in the economy. We use a traditional z-score model that incorporates

bank-specific, banking structure and macroeconomic variables to which we add financial cycle indicators. We test these models on an unbalanced panel of 2,239 European banks over the period 1999-2014. We find that the financial cycle adds noticeably to the ability to predict bank distress up to two years into the future.

E Contingent convertibles

One of the tasks of the project was to organise a meeting of the Australia and New Zealand Shadow Financial Regulatory Committee, which took place in Melbourne on 27-8 August 2015. This meeting focused on the issue of bailing in and particularly the idea of contingent convertible securities (CoCos) where the bonds' contracts enable them to be converted into equity should the bank's capital decline far enough to reach a predetermined trigger point. Bailing in is the key feature of the EU's Bank Recovery and Resolution Directive (BRRD) that enables the authorities to use creditors' liabilities instead of taxpayers' funds to cover the losses and recapitalise the bank. This method has only been tried in the case of a few small banks and remains untried for the large banks at which this feature of the BRRD is aimed. It is, therefore, debatable how well this tool will work in practice until it is actually tried. The Committee debated these possible outcomes and concluded by issuing a public statement (whose link is provided below) which cautioned about the scope of its use and concluded that it was unlikely in the case of large banks that the taxpayer would avoid some degree of exposure.[1]

F The mutual lessons that can be learned from the experience in financial integration in the EU and in Australia and New Zealand

This activity took the form of a workshop on the mutual lessons that can be learned from financial integration in Australasia and Europe following the GFC, which was held on 28 August 2015 at FINSIA Boardroom, level 46 Rialto South Tower, 525 Collins St., Melbourne, and a paper by David Mayes that has been published.

'Closer Financial Integration between Australia and New Zealand? Lessons from the EU' David G. Mayes *JASSA*, December 2015.

Abstract

This paper offers a critical review of the measures that have been put in place for the resolution of the four major banks that are common to Australia and New Zealand and considers their implications for the success of the new measures applied in the EU as part of 'banking union'. These are of particular interest because the countries have decided to look after resolution independently rather than jointly, which requires 'ex ante ring-fencing' and because New Zealand is implementing Open Bank Resolution (OBR), which is a form of compulsory bail-in. There is also a clear reverse lesson. New Zealand has elected not to have

[1] Australia and New Zealand Shadow Financial Regulatory Committee Statement No. 13, *Bail In: Not a panacea*, 28 August 2015, Melbourne, available at http://australiancentre.com.au/sites/default/files/Bail%20In%20Not%20a%20Panacea.pdf.

either deposit insurance or depositor preference and hence its form of bailing in is likely to increase the chance of bank runs and systemic instability, which has been avoided in the EU.

The workshop consisted of five presentations by New Zealand and Australian scholars – the programme is listed below (see Table 1) – followed by an extended discussion. The meeting was organised with the Australia and New Zealand Shadow Financial Regulatory Committee, whose members participated throughout, and with the rest of the participants drawn from Australian EU Research Centres, practitioners and the Australian Prudential Regulation Authority.

The EU has responded to the cross-border problems exposed by the global financial crisis by a vigorous attempt to increase financial integration, particularly in the banking sector, where they have implemented what they describe as banking union, which involves much closer harmonisation of national regulation, the construction of a SSM run by the ECB and SRM, involving a new Resolution Board and the pooling of funds to be accumulated for the purpose. Australia and New Zealand on the other hand have drawn no such conclusion for greater integration despite their systems being much closer in many respects. Indeed, if anything they have moved away from each other with the implementation of OBR in New Zealand. However, the recent Financial System Inquiry (FSI) in Australia has advocated immediate action on improving the framework for the resolution of banks.

The EU has now moved on to securities markets and has proposed the creation of a ‘Capital Markets Union’, although the exact details of how this might be constituted are to be established, following the publication of a consultative Green Paper. It is interesting that while the UK was unenthusiastic about the SSM and declined to participate it seems to be supporting a single securities market. Again this is an area where progress in Australasia has been limited despite the large number of common companies, assisted of course by differences in tax systems.

Progress on insurance and pensions/superannuation has been more muted but also represents an area of mutual interest especially following the FSI in Australia.

The purpose of this workshop was to explore why these responses are so different and to ask questions, such as, whether the Australasian response might not reflect a more practical view about what can be achieved across borders and whether the EU approach might not suggest that there is a lot more that could beneficially be done to improve financial stability in the region, particularly in the face of a significant shock to one of the four main banks.

As a generality the participants did not feel there were many mutual lessons to be learned. The presentations are available on the project’s website and David Mayes’s paper.

Table 1 Workshop Programme

Presenter	Topic
David Mayes	Closer financial integration between Australia and New Zealand? Lessons from the EU
David Tripe	How can the Australian experience enlighten thinking about banking in the European Union?
Jennifer Corbett	Financial mapping of the Asia Pacific region including Australia and NZ, with comparison with Europe
Andrew Worthington	Measuring Economic and Financial Integration between Australia and New Zealand
Andrew Walter	Policy Responses to Financial Crises: A Long Run Perspective
Discussion	

G PhD Seminar: Contemporary issues in Finance

The contemporary issues in finance that were discussed, in a meeting held on October 25, 2015, in Auckland, covered two main topics. One related to the ability of the new tools that are being implemented actually to perform their task in absorbing financial shocks and the other examining one of the more likely sources of shocks that might next affect the world economy.

The first topic focused on Contingent Convertibles. Questions that were discussed are: What are Contingent Convertibles (CoCos)? Why were they introduced? What are the characteristics of CoCos? What are the problems associated with those financial instruments? What solutions have been proposed? And, will CoCos prevent a systemic financial crisis? The difference between a bail-in as a statutory resolution tool and CoCos was also analysed and, lastly, the possibility of using CoCos in Islamic banking was reviewed. The general conclusion was that CoCos are a very useful addition to banks' ability to absorb adverse shocks but that they were not, to quote the Shadow Financial Regulatory Committee, a panacea. A systemic bank which got into so much trouble that it triggered CoCos would be viewed very unfavourably by the market and indeed depositors. Indeed, unless the problems were very clearly in that bank alone it is quite likely that their triggering would lead to a broader crisis, quite probably requiring the explicit intervention of the state, however much the BRRD and other legislation would like to avoid it. Such a switch in sentiment seems especially likely as the low price for CoCos in some markets implies that the risk is under-rated by the purchasers.

The second topic related to China and the consequences of any further slowing down in its rate of growth. This was divided into three parts. The first part covered the shadow banking in China. The questions that were discussed are: What does shadow banking in China include? The rationale of shadow banking in China; How big is shadow banking China? Is it a threat to the economy and financial stability? And, how do the authorities regulate shadow banking? The second part focused on the financial asset management companies and non-performing assets in China from the perspective of corporate law and governance. It provided a brief introduction to the financial asset management companies and the non-performing assets in China and then compared and contrasted the current regulation on financial asset management companies. Lastly, it covered the legal impediments to better performance management. The last part provided some insights into the correlation between the Chinese stock market movements and policy reforms and announcements. Additionally, the potential impact of the problems in the Chinese economy on New Zealand were discussed.

In general, it was concluded that some financial problems in the Chinese economy had been covered up, especially those related to non-performing loans. However, while there might be some vulnerability in shadow banking through loans to the property market, some of the rapid rises and falls in stock market might be more explicable in terms of changes in government policy rather than a clear downward revision to views about the economic prospects for Chinese companies. In so far as there was a threat to New Zealand it would tend to come through the real economy with a change in the demand for New Zealand products rather than through contagion from problems in the Chinese financial system.

The presentations and contributions to the seminar are listed below and are available on the project's webpage http://www.europe.auckland.ac.nz/en/research-projects.html.:

- "Contingent Convertibles" by David G. Mayes (Professor of Banking and Financial Institutions, The University of Auckland) and Giannoula Karamichailidou (Research Fellow in the Europe Institute, The University of Auckland);
- "Islamic banking and shock absorbers" Faisal Alqahtani (PhD Candidate, The University of Auckland);
- "Shadow Banking in China and its potential risk" by Aria Zhang (PhD Candidate, The University of Auckland);
- "Non-performing assets in China: What next?" by Wei Feng (PhD Candidate, The University of Auckland);
  "Chinese stock market & policy announcements" by Chris Zhang (PhD Candidate, The University of Auckland).

H Other publications and activities

1. 'Bank Structure and Resolution', David G. Mayes, *Journal of International Banking and Financial Law*, December 2014.

This paper offers a brief assessment of the issues being faced by the authorities in trying to alter the structure of the financial system, and large financial groups in particular, so as to make it easier to keep vital functions, such as taking deposits and lending to households and enterprises, going without interruption and without using taxpayers' money and to minimise the cost on the economy of resolving problems.

Key Points

- Separating out risky from vital functions of banks that must be continued even if the bank fails is a core part of the current reform of financial regulation but there is no clear consensus on how it should be done;
- Large diversified financial groups have advantages and disadvantages but one advantage they offer is the ability to absorb losses within the group before they have to be passed on to the wider economy;
- Crises occur when problems are not foreseen, hence, it is likely that future problems will occur outside narrow banking and hence more functions and institutions will contribute to financial instability than is perceived at present;
- The current focus on minimising the role of the taxpayer is only likely to be partly successful in future, as preventing contagion and restoring confidence will require intervention beyond the main institutions in trouble.

2. ‘The Funding of Bank Resolution’, David G. Mayes, forthcoming in Jens-Hinrich Binder and Dalvinder Singh, *Bank Resolution: The European Perspective,* Oxford University Press, 2015.

Abstract

The Bank Recovery and Resolution Directive and the associated Single Resolution Regulation put emphasis on the financing of a resolution coming from the private sector and those that have knowingly taken on the risks rather than on the taxpayer through a bail-out, which has been the recent experience. This chapter appraises the likely sources of financing should a large cross-border bank fail, particularly those that might be bailed in. It suggests that if the intention is to achieve a balance between the ‘fairness’ of the incidence and the minimizing of the impact on the real economy then a careful appraisal of the way the resolution tools are applied will be needed.

3. ‘Top-Down Restructuring of Markets and Institutions: The Nordic Banking Crises’ David G. Mayes, submitted to the *Journal of Banking Regulation*, October 2015.

Abstract

This paper explores the lessons that can be learned for the future resolvability and successful reorganization of problem banks from the experience of successful resolutions in Denmark, Finland, Iceland, Norway and Sweden over the last 25 years. The Nordic countries used all of the new tools that will be available following the passing of the Bank Recovery and Resolution Directive. There were difficulties with them, which will provide valuable experience, but it is likely they will work well in the future. Experience with bailing in is limited but suggested problems of valuation in writing down and larger writedowns than might be anticipated. While the current drive to ensure that only private sector money is used, the predilection for the continuation operation of most banks other than smallest and the extent to which public funds were committed, suggest that taxpayer is likely to be involved in

strategic cases in the future. In particular, the guarantee funds available were insufficient and had to be topped up by the state. Hence, the new resolution funds in the EU may similarly need augmenting in a crisis. However, almost all the main banks involved in the Nordic resolutions were primarily national and retail. Where they involved cross-border operations, as in Iceland the results were very messy. While many were national SIFIs they only became regional SIFIs as a result of the reorganization after the resolutions. Whether the resolutions could be performed so smoothly for these new larger international banks is not readily verifiable from the Nordic experience.

APPENDIX

Table A.1 Delivery of outputs against required outputs

	Required deliverables	**Partner**	**Month**
1	1 Article on Living Wills	David G. Mayes and Postdoc	7 (January 2015)
2	1 Article on Australia/New Zealand banking integration	David G. Mayes	10 (April 2015)
3	1 Article on Banking Union (delivered a book)	David G. Mayes and Postdoc	13 (July 2015)
4	1 Article on Early Warning Systems	David G. Mayes and Postdoc	16 (October 2015)
5	1 Teaching module on banking union in Europe	David G. Mayes and Postdoc	16 (October 2015)
6	1 PhD Seminar: Contemporary issues in Finance	David G. Mayes and Postdoc	13-16 (July - October 2015)
7	1 Joint conference and meeting of the Australia and New Zealand Shadow Financial Regulatory Committee	David G. Mayes and Postdoc	14 (August 2015)
	Additional deliverables		
+1	JASSA article	David G. Mayes	18 (December 2015)
+2	Nordic crises paper	David G. Mayes	16 (October 2015)
+3	International Banking and Financial Law article	David G. Mayes	6 (December 2014)
+4	Chapter on the Funding of Bank Resolution	David G. Mayes	16 (October 2015)