RESPONSE TO THE SPARK INFRASTRUCTURE SUBMISSION ON THE AER'S PRELIMINARY POSITION PAPER

Shaun P. Vahey

December 7, 2017

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Author's Background

This report has been prepared by Professor Shaun P. Vahey. I am an academic macroeconomist and have published many research papers in empirical macroeconomics. I have extensive experience as a researcher and research director at central banks, with a particular expertise in measuring inflation, expectations and real-time forecasting of inflation. My curriculum vitae can be found in Appendix 2. I have read the document "Expert witnesses in proceedings in the Federal Court of Australia" which is attached as Appendix 3. This report has been prepared in accordance with those guidelines. An expert witness compliance declaration can be found following the reference list at the end of the report.

CONTEXT OF THE REPORT

As described in the Terms of Reference (see Appendix 1), various stakeholders requested a reconsideration of the AER's approach to estimating expected inflation. In April 2017, the AER published a discussion paper. This was followed by submissions by stakeholders, with a consultant report supplied by Professor Shaun Vahey, referred to hereafter as the "Vahey Report", and then the AER's Preliminary Position paper was released.

The AER has requested a response to the submission received from Spark Infrastructure in response to the AER's Preliminary Position paper, as part of the AER's Review of Expected Inflation 2017.

The specific suggestions from Spark Infrastructure, dated 9 November 2017, were as follows:

A. Forecast inflation errors are large and asymmetrical, as demonstrated in the Vahey Report.

B. It is unlikely that inflation expectations will remain anchored to the mid-point of the RBA's target band for inflation.

C. The AER's current method is likely to produce asymmetrical errors.

AER'S PRELIMINARY POSITION PAPER

The AER Preliminary Position (AER PP, October 2017) paper proposes that the existing method for constructing the "best" estimate of expected inflation is used in the future. The current approach follows the suggestions outlined in the AER Discussion Paper (AER DP). An important input into this was the ACCC/AER Working Paper No. 11 (ACCC/AER WP).

Submissions from the stakeholders focused on: (i) the methodology for estimating expected inflation; and, (ii) whether the current revenue and pricing model provides an efficient risk allocation. The Vahey Report is concerned only with the first aspect. In the AER PP, this is covered in Section 2.3 "Issue 1: What method should we use to estimate expected inflation?".

The approach is described on page 12 of the AER PP as follows.
"The approach we currently use is relatively simple and transparent and has been employed in all of our decisions since 2008. We use forecasts of inflation published by the Reserve Bank of Australia (RBA) for the next two years, which is the limit of this forecast series. We combine these two values with the midpoint of the RBA's target band for inflation (currently 2.5 per cent) to extend the series out to ten years. The estimate of expected annual inflation is then the average of these ten yearly figures. We adopted this approach in 2008 after service providers proposed it as the best method for estimating inflation."

The AER PP discusses a number of alternatives, drawing on the analysis in the earlier ACCC/AER WP. In particular, estimates based on
1. The current approach – often referred to as the RBA method;

2. Inflation linked bonds – sometimes known as the bond breakeven inflation rate (BBIR) approach;

3. Swaps; and,

4. Surveys.

Noting that all approaches have strengths and weaknesses, and that no single estimate of expected inflation will be correct all of the time, the AER PP argues that the current approach is the best available. Particular strengths include the transparency, simplicity and replicability of the calculations. The Vahey Report supports the choice explicitly as follows: "Correctly in my view, the AER DP argues that this is the most appealing of the approaches, based on the selection criteria".

Section 3.2 of the AER PP discusses the "Best Estimate of Expected Inflation" in greater detail. It notes that discrepancies can arise between the mean, the median and the mode in short samples of inflation realisations. That characteristic is noted too in the Vahey Report. That report also emphasises that over the whole inflation targeting sample, the mean, the median and the mode coincide at the centre of the RBA's inflation target band.

The Vahey Report notes that the conventional and widely accepted interpretation of expected inflation concerns a point estimate of the *future* path of inflation over the relevant horizon. In this case, ten years. There is no reason to think that the *historical* distribution of inflation since the onset of inflation targeting will be exactly repeated in the next ten years. Nor is there any theoretical or empirical justification to believe that the historical distribution of realisations over any particular subsample will be exactly replicated in the future. However, the entire history of the inflation targeting period does utilise a large sample and provides an unbiased "long-run" point forecast of inflation, provided the RBA's inflation targeting regime is credible.

The subsequent section of this report goes through the most recent submission from Spark Infrastructure, dated November 2017. However, to cut to the chase, no new substantive issues are raised in that submission on how to best estimate expected inflation.

My view is still that the AER's current approach represents the most appealing of the existing options.

RESPONSE TO SUBMISSION BY SPARK INFRASTRUCUTRE

Background

The submission from Spark Infrastructure in November 2017 focuses on the scope for skew in the distribution for Australian inflation. As the Vahey Report discusses, at a conceptual level there is an (unknown) distribution of inflation expectations, and agents will differ in their expectations. All existing academic studies of Australian inflation limit consideration to symmetric inflation risks. Then, the three well-known measures of the central tendency, the mean, the median and the mode, are equal.

With this as background, the remainder of this section discusses specific suggestions in the Spark Infrastructure submission.

Forecast inflation errors are large and asymmetrical

The Vahey Report shows that the historical distribution of inflation realisations since the introduction of inflation targeting exhibits a minor degree of skew. The mean, the median and the mode since the introduction of inflation targeting have been approximately equal and centred on 2.5 percent, the mid-point of the RBA's inflation band. In terms of the central tendency in the unconditional historical distribution, the skew is insignificant.

If the focus is restricted to the last ten years of data, there is some evidence the central tendency of the distribution differs from the unconditional mean of the full sample of inflation targeting data. Nevertheless, as the Vahey Report notes, the mean of the

historical inflation realisations over that period is very close to the midpoint of the target band, at 2.4 percent. Moreover, in any particular ten-year window, the ex post mean of inflation will typically differ from the unconditional mean. To illustrate this, inflation data were downloaded from the RBA's website for the CPI (excluding adjustments for tax and interest charges) for the ten years spanning 2002Q3 to 2012Q2. The sample mean of the inflation realisations for this window of data was greater than the midpoint of the RBA's target band, at approximately 2.8 percent.

There are, of course, many ten-year rolling windows of data that could be sampled. None of them, individually, provide a reliable estimate of expected future inflation, over the next ten years, or beyond. For example, no central bank uses that approach to assess inflation expectations. Such an approach would yield a biased estimate of the unconditional mean of the unknown inflation distribution.

The key issue here is whether Australian inflation is expected to be skewed in the future. There is no evidence in the Vahey Report that this is the case and I know of no academic studies that support this view.

It is worth emphasising too that fluctuations outside the inflation target band are usual in Australia. The Vahey Report notes this. However, no evidence is presented in the Vahey Report to suggest that forecast errors have been "unusually" large since the introduction of inflation targeting, over the last ten years, or that they will be in the future. I know of no existing academic studies making this claim based on Australian inflation data.

Inflation expectations may not be anchored to the mid-point of the RBA's target

The current approach relies in the longer term on the RBA's target band for inflation, using the midpoint of that band, 2.5 percent. This midpoint is at least as good as comparable forecasts from professional economists and financial markets in terms of (point) accuracy over the relevant time horizon. I have seen no Australian studies that indicate a more accurate forecast exists over the ten-year horizon in terms of conventional performance metrics, such as root mean squared forecast error.

It is important to emphasise again that the RBA's target is defined in terms of the "medium-term" average, so the target doesn't commit the RBA to keeping inflation within the target band with a certain probability. Short-term inflation fluctuations outside the target band have been common and will be in the future.

As the Vahey Report emphasises, a loss of credibility by an independent RBA only seems plausible if nominal interest rates are effectively zero in Australia and the economy faces persistent deflationary pressures. Several of the original submissions drew attention to the likelihood of low inflation in the future, given that nominal interest rates are at historically low levels by Australian standards (although not zero). There is some anxiety that weak aggregate demand in the Australian economy will persist somewhat in the future. But, there are also good reasons to think that in the future aggregate demand will be unexpectedly strong, periodically. I have seen no academic studies indicating that the RBA will fail to anchor inflation in the future, or that they have in the past.

The methodology used to extract the best estimate of expected inflation should balance the RBA's assessment of inflation risks, on both the upside and the downside, to ensure that the public trust the methodology. The credibility of the RBA underwrites the current methodology.

The current approach is likely to produce asymmetrical errors

The Vahey Report shows that during the RBA's inflation targeting regime, the sample mean, the mode and the median are all at (approximately) 2.5 percent. The midpoint of the inflation target band coincides with the centre of the estimated unconditional mean of Australian inflation and there is no deviation between the various measures of the central tendency.

This does not guarantee that in the future the forecast errors over any particular ten-year horizon will be mean zero. Over fairly short (40 quarterly observations) samples of inflation data, short-term macroeconomic fluctuations will happen and cause inflation realisations to be periodically above and periodically below the best estimate of expected inflation. The existence of asymmetrical forecast errors over a relatively short window of sample data does not imply that the current methodology is flawed.

The key question is whether the current methodology will produce a biased estimate of expected inflation in the future. No theoretical or credible empirical evidence has been presented to support that view.

I conclude, therefore, that the current methodology (in part, based on the mid-point of the RBA's target band) is the best according to the criteria used by the AER.

References

AER (AER PP) "Regulatory Treatment of Inflation: Preliminary Position", October 2017

AER Discussion Paper (AER DP) "Regulatory Treatment of Inflation", April 2017

ACCC/AER (ACCC/AER WP) "Best Estimates of Expected Inflation: A Comparative Assessment of Four Methods", Working Paper No. 11, February 2017

Vahey, Shaun P. (Vahey Report) "Report to the AER on Estimating Expected Inflation", September 2017

Spark Infrastructure "Submission on the AER's Preliminary Position on the Regulatory Treatment of Inflation", November 2017.

Expert Witness Compliance Declaration

I have read "Expert witnesses in proceedings in the Federal Court of Australia" which are attached as Appendix 3. This report has been prepared in accordance with those guidelines. As required by the guidelines, I have made all the inquiries that I believe are desirable and appropriate and no matters of significance that I regard as relevant have, to my knowledge, been withheld from the Court.

Professor Shaun P. Vahey

Warwick University

December 7, 2017

Contract Annexure 1 – Supplementary Information

Terms of Reference

Recently, the AER's method for estimating expected inflation has been the subject of debate in our regulatory determinations. In December 2016 the AER published an update on its asset base Roll Forward Model (RFM). In the process of updating the RFM, stakeholders requested us to reconsider our method for estimating expected inflation and its implications. Consequently, on 18 April 2017, the AER published its Discussion Paper – Regulatory treatment of inflation.1 After consulting and evaluation submissions received on the Discussion Paper, the AER published its Preliminary position paper2.

Stakeholders have made submissions on the Preliminary position paper. In particular, the Spark Infrastructure submission has commented on the Consultant's advice to the AER published along with the Preliminary position paper.

Services required

Expert advice is sought to assist the project team in understanding and analysing Spark Infrastructure's submission. In particular, their comments based on the Consultant's advice, to suggest that the errors and impacts of forecasting inflation are not small and symmetrical.

The Consultant's advice should be provided in the form of a publishable report to the standard of the Federal Court requirements for expert reports. The advice required, without in any manner directing the Consultant, should include responses to the following suggestions from Spark Infrastructure:

- Forecast inflation errors aren't small and symmetrical: Vahey presents evidence inflation outside RBA band 55% of time, and skew is more pronounced in last 10yrs

- It is unlikely to remain appropriate for inflation expectations to remain 'anchored' to the mid-point of the RBA's target band when inflation has remained below the target band for four years.

- AER current method of placing 80% weight on midpoint is likely to produce asymmetrical errors

The consultant's advice should be provided following consideration of:
- The AER Preliminary position paper published on 13 October 2017.
- Spark Infrastructure submissions dated 9 November 2017.[3]

APPENDIX 2 Curriculum vitae of author

Shaun P. Vahey

Experience

2013 – Current, Warwick Business School, University of Warwick

Professor

Centre for Applied Macroeconomic Analysis, Australian National University

Research Associate

2010 – 2013, Research School of Economics, Australian National University

Professor

Centre for Applied Macroeconomic Analysis, Director (2010 – 2012)

2008 – 2009, Melbourne Business School, University of Melbourne

Associate Professor

2004 – 2007, Reserve Bank of New Zealand

Nowcasting Manager and Special Adviser, Norges Bank (secondment, 2006 – 2007)

Research Manager (acting, 2004 – 2005)

Senior Research Adviser (from 2005)

Research Adviser

1995 – 2003, University of Cambridge

Senior Assistant in Research, Faculty of Economics and Politics

College Lecturer, Christ's College (1995 – 2002)

1991 – 1995, Bank of England

Bank Official (from March 1995)

Economist

Education

1987 – 1995 PhD Economics, University of British Columbia (UBC), Canada

1986 – 1987 MA Economics, University of Essex, UK

1983 – 1986 BA (Hons) Economics, University of Essex, UK

Journal publications

 "Density Forecasting of U.S. Macroeconomic Variables Using a Gaussian Copula Model of Cross-sectional and Serial Dependence", with M. Smith, Journal of Business and Economic Statistics, 2016

"Measuring Output Gap Nowcast Uncertainty", with A. Garratt and J. Mitchell, International Journal of Forecasting, April–June 2014

"Forecast Densities for Economic Aggregates from Disaggregate Ensembles", with F. Ravazzolo, Studies in Nonlinear Dynamics and Econometrics, September 2014

"UK World War I and Interwar Data for Business Cycle and Growth Analysis", with J.M. Nason, Climoetrica, January 2012

"Combining VAR and DSGE Forecast Densities", with I.W. Bache, A.S. Jore and J. Mitchell, Journal of Economic Dynamics and Control, October 2011

"Real-time Inflation Forecast Densities from Ensemble Phillips Curves" with A. Garratt, J. Mitchell, and E. Wakerly, North American Journal of Economics and Finance, January 2011

"Combining Forecast Densities from VARS with Uncertain Instabilities", with A.S. Jore and J. Mitchell, Journal of Applied Econometrics, February 2010

"RBCs and DSGEs: The Computational Approach to Business Cycle Theory and Evidence" with O. Karagedlikli, T. Matheson and C. Smith, Journal of Economic Surveys, February 2010

"Real-time Prediction with UK Monetary Aggregates in the Presence of Model Uncertainty", with A. Garratt, E. Mise and G. Koop, Journal of Business and Economic Statistics, October 2009

"Real-time Probability Forecasts of UK Macroeconomic Events", with A. Garratt and K. Lee, National Institute Economic Review, January 2008

"Forecasting Substantial Data Revisions in the Presence of Model Uncertainty" with A. Garratt and G. Koop, Economic Journal, July 2008

"The McKenna Rule and UK World War I Finance", with J.M. Nason, American Economic Review, Papers and Proceedings, May 2007

"UK Real-time Macro Data Characteristics", with A. Garratt, Economic Journal, February 2006

"Debt and Budget Surpluses with a Tax Habit and Balanced Budget Hawks", with E. Loukoianova, Public Finance and Management, March 2006

"The Cost Effectiveness of the UK's Sovereign Debt Portfolio", with P. Coe and M.H. Pesaran, Oxford Bulletin of Economics and Statistics, August 2005

"Signalling Ability to Pay and Rent Sharing Dynamics", Journal of Economic Dynamics and Control, October 2004

"'Keep it Real': A Real-time UK Macro Data Set", with A. Pick and D.M. Egginton, Economics Letters, September 2002

"The Great Canadian Training Robbery: Evidence on the Returns to Educational Mismatch", Economics of Education Review, April 2000

"Measuring Core Inflation", with D.T. Quah, Economic Journal, September 1995

Completed research papers

"Probabilistic Interest Rate Setting With A Shadow Board: A Description of The Pilot Project", with T. Henckel and E. Wakerly, CAMA Working Papers 2011-27, Australian National University, Centre for Applied Macroeconomic Analysis.

Work in progress

"Over the Top! WWI and its Aftermath", with J. Nason

"Predicting US Federal Debt Crises and the Policy Responses", with A. Garratt and E. Wakerly

"Assessing the Economic Value of a Probabilistic Forecast for Inflation in the Presence of an Inflation Target", with C. McDonald, C. Thamotheram and E.Wakerly

Other completed papers

"Lessons From Down Under for the Bank of England", with A. Garratt and E. Wakerly, letter to Financial Times, February 13, 2014

"Uncertainty Helps Communicate Risk", with J. Mitchell, letter to Financial Times, August 19, 2013

"Probabilistic Forecast Paths in Economics and Finance", with E. Wakerly, paper prepared for the World Statistical Congress, April 2013

"Moving Towards Probability Forecasting", with E. Wakerly, Globalisation and Inflation Dynamics in Asia and the Pacific, BIS Paper No. 70b, February 2013

"Nowcasting and Model Combination", with K. Lees, editorial for North American Journal of Economics and Finance, special issue, January 2011

"Measuring Core Inflation in Australia with Disaggregate Ensembles", with F. Ravazzolo, Reserve Bank of Australia Conference Volume 2010

"Macro Modelling with Many Models" with I.W. Bache, J. Mitchell, and F. Ravazzolo, Norges Bank Working Paper 2009/15, Norges Bank Conference Volume 2009

"Model Uncertainty and Macroeconomics" with S.N. Durlauf, editorial for Journal of Applied Econometrics, special issue, January 2010

"'Last Quarter's GDP Growth Rate Revised Up by O.3pp: A Typical Revision?" with A. Garratt, in J. Mitchell "Revisions to Economic Statistics", Statistics Commission Report 17, April 2004

"A Real Time Tax Smoothing Based Fiscal Policy Rule" with E. Loukoianova and E.C. Wakerly, Department of Applied Economics Working Paper 0235, September 2002

"The Transparency and Accountability of UK Debt Management: A Proposal", with P. Coe and E.C. Wakerly, Department of Applied Economics Working Paper 0028, University of Cambridge, November 2000

"Transparent and Accountable Debt Management? A Look at the UK DMO's Cost and Risk Objectives", in The Treasury Committee Report on Government's Cash and Debt Management, Appendix 20, House of Commons, The Stationery Office, London, May 2000

"Some Thoughts on the Neutral Counterfactual Technique", in The Treasury Committee Report on Government's Cash and Debt Management, Appendix 21, House of Commons, The Stationery Office, London, May 2000

Grants

"Probability Forecasting with Macro Variables", Chief Investigator (with Partner Investigator E. Wakerly), Warwick Business School, funded jointly with Norges Bank and the Bank of England, January 2014 to December 2014, £80k.

"Helping Central Banks Measure Unobserved Variables with Real-time Forecasts", Chief Investigator (with Partner Investigators, A. Garratt, J. Mitchell and F. Ravazzolo), LP0991098, July 2009 to June 2011, Australian Research Council (ARC) Linkage Grant, ARC AUD 176k,

"Producing Robust Density Forecasts: Applications to Monetary Policy", A. Garratt, S. Hall, and J. Mitchell, international collaborator, RES-062-23-1753, July 2009 to June 2011, £240k

"Real-time Data and Monetary Policy", A. Garratt and G. Koop, international collaborator, ESRC RES-000-22-1342, June 2005 to May 2007, £42k

"Tax Smoothing, Gladstonian Orthodoxy and UK Fiscal Policy", Principal Investigator (with J. Nason as international collaborator), ESRC RES-000-23-0413, awarded June 2003, declined, £44k

"Debt Management and the Evolving Macroeconomy", Award holder and Principal Investigator, ESRC Award L38251021, April 2000 to July 2002, £100k

Seminars, conference presentations and discussions (from 2005)

2017 North Carolina State, FRB Cleveland, FRB Richmond, Norges Bank, Reserve Bank of New Zealand, Warwick University

2016 CFE meetings Seville, CAMA (Australian National University), University of Melbourne

2015 CFE meetings London, Warwick University, Reserve Bank of New Zealand, CAMA (ANU), CIRANO Data Revisions Workshop (Montreal), Bank of Canada

2014 Norges Bank, European Central Bank, Bank of England, University of Glasgow, Narodowy Bank Polski

2013 CIRANO Data Revisions Workshop (Montreal), European Central Bank, Norges Bank, Reserve Bank of New Zealand, Carleton University, Bank of Canada, World Statistics Congress, Joint Statistical Meetings (Montreal), Australian Macro Workshop (Canberra), Probability Forecasting Institute Nowcasting Workshop (Birkbeck, London)

2012 Heidelberg University, European Central Bank, Deutsche Bundesbank, Bank of England, Reserve Bank of Australia, Reserve Bank of New Zealand, Norges Bank, Society for Non-linear Dynamics and Econometrics meetings (Istanbul), Australian National University, University of New South Wales, Sydney University, Bank of International Settlements (BIS)

2011 Reserve Bank of New Zealand, Australian Macro Workshop (Hobart), Bank of England, Deakin University, Sveriges Riksbank, Royal Economic Society meetings (Royal Holloway, University of London),

2010 Joint Statistical Meetings (Vancouver), University of Melbourne, Norges Bank, Reserve Bank of New Zealand, Money Macro and Finance Annual Meeting (Cyprus), Bank of England, University of Adelaide Workshop in Quantitative Macro

2009 Reserve Bank of Australia, European Central Bank, Norges Bank Inflation Targeting Conference, University of Manchester Growth and Business Cycle Workshop, Reserve Bank of New Zealand, Annual Reserve Bank of Australia Conference, City University, University of Adelaide

2008 Reserve Bank of Australia, BIS and Bank Indonesia DSGE Workshop, Reserve Bank of New Zealand, Econometric Society Australasian Meeting (Wellington), Money, Macro and Finance Conference (London), CIRANO Data Revisions Workshop (Montreal)

2007 North American Economic Association Winter Meeting (Chicago), Melbourne Business School, Australian National University, Reserve Bank of New Zealand, FRB Philadelphia Real-time Data Conference, Society for Computational Economics Meetings (Montreal), Macro Modelling Workshop (Norges Bank), ECB Forecasting Workshop, RBA Workshop on Monetary Policy in Open Economies

2006 North American Econometric Society Summer Meeting (Minneapolis), Australasian Macro Workshop (Sydney), University of Melbourne, Norges Bank, Bank of England, FRB San Francisco

2005 CIRANO Data Revisions Workshop, Society for Computational Economics Meetings (Washington DC), Summer Workshop in Macro (Auckland), Australasian Macro Workshop (Melbourne), Australian National University, University of New South Wales, University of Sydney, University of Otago, University of Canterbury, Claremont McKenna College, Reserve Bank of New Zealand, Norges Bank

Conference and workshop organisation

"Macroeconomic Forecasting, Analysis and Policy with Data Revision", workshop organizing committee member, Bank of Spain, Madrid, October 2017

"Computational and Financial Econometrics International Conference", session organiser and chair, Seville, December 2016

"Macroeconomic Forecasting, Analysis and Policy with Data Revision", workshop organizing committee member, FRB Philadelphia, October 2016

"The Economic Value of Macroeconomic Forecasts with Big Data", Monash-Warwick Alliance Workshop, organizing committee member, June 2015

"Macroeconomic Forecasting, Analysis and Policy with Data Revision", workshop organizing committee member, CIRANO Montreal, October 2015

"Macroeconomic Forecasting, Analysis and Policy with Data Revision", workshop organizing committee member, FRB Philadelphia, October 2014

"Macroeconomic Forecasting, Analysis and Policy with Data Revision", workshop organizing committee member, CIRANO Montreal, October 2013

"Probability Forecasting Institute Nowcasting Workshop", Birkbeck, University of London, conference organizer, January 2013

"Society for Nonlinear Dynamics and Econometrics Annual Symposium", Istanbul, program committee member, March 2012

"Quantitative Macro Workshop", program committee member, Reserve Bank of Australia, 2011

Royal Economic Society Annual Conference, Special Session on "Probability Forecasts and Monetary Policy Communication", session organiser, April 2011

Bank of England and CAMA workshop on "Probability Forecasts and Monetary Policy Communication", program committee member, April 2011

"Society for Nonlinear Dynamics and Econometrics Annual Symposium", Washington DC, program committee member, March 2011

"University of Adelaide Workshop in Quantitative Macro", organizer and program committee member, December 2010

"Nowcasting with forecast combination", workshop co-organizer, Reserve Bank of New Zealand, December 2008, forthcoming North American Journal of Economics and Finance special issue, 2010

"Prediction and monetary policy in the presence of model uncertainty", workshop organizer and session chair, Norges Bank, June 2007

"Real-time forecasting", and "Monetary policy in real time", session proposals for the Society for Computational Economics meeting, Montreal, June 2007

"Wars, finance and war finance", session organiser and chair, North American Economic Association Winter Meeting, Chicago, January 2007, session published in American Economic Review, Papers and Proceedings, May 2007

"Macroeconomic forecasting, analysis and policy with data revision", workshop organizing committee member, CIRANO Montreal and FRB Philadelphia, 2007-2011

"Macroeconometrics and model uncertainty", conference organiser and session chair, Reserve Bank of New Zealand, June 2006, forthcoming Journal of Applied Econometrics, special issue, 2010

"Dynamic stochastic general equilibrium models", conference organiser and session chair, Reserve Bank of New Zealand, August 2005

Refereeing experience

Journal of Econometrics, Annals of Applied Statistics, Journal of the Society for Nonlinear Dynamics and Econometrics, Review of Economics and Statistics, International Journal of Central Banking, Journal of Economic Surveys, Journal of Money Credit and Banking, North American Journal of Economics and Finance, Journal of Business and Economic Statistics, Economic Journal, Journal of Applied

Econometrics, Oxford Bulletin of Economics and Statistics, Economics of Education Review, Public Finance and Management, European Journal of Finance, Economics Record, New Zealand Economic Papers, IMF Staff Papers, Oxford University Press, ESRC, Bank of England Working Papers, Reserve Bank of New Zealand Working Papers

Journal editorial experience

Associate editor Journal of Business and Economic Statistics, 2015-2017.

Guest editor, North American Journal of Economics and Finance, special issue on "Nowcasting with forecast combination", 2012.

Guest editor, Journal of Applied Econometrics, special issue on "Macroeconometrics and model uncertainty", 2010.

FEDERAL COURT OF AUSTRALIA

Practice Note CM 7

EXPERT WITNESSES IN PROCEEDINGS IN THE

FEDERAL COURT OF AUSTRALIA

Practice Note CM 7 issued on 1 August 2011 is revoked with effect from midnight on 3 June 2013 and the following Practice Note is substituted.

Commencement

1. This Practice Note commences on 4 June 2013.

Introduction

2. Rule 23.12 of the Federal Court Rules 2011 requires a party to give a copy of the following guidelines to any witness they propose to retain for the purpose of preparing a report or giving evidence in a proceeding as to an opinion held by the witness that is wholly or substantially based on the specialised knowledge of the witness (see Part 3.3 - Opinion of the *Evidence Act 1995* (Cth)).

3. The guidelines are not intended to address all aspects of an expert witness's duties, but are intended to facilitate the admission of opinion evidence[75], and to assist experts to understand in general terms what the Court expects of them. Additionally, it is hoped that the guidelines will assist individual expert witnesses to avoid the criticism that is sometimes made (whether rightly or wrongly) that expert witnesses lack objectivity, or have coloured their evidence in favour of the party calling them.

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[75] As to the distinction between expert opinion evidence and expert assistance see *Evans Deakin Pty Ltd v Sebel Furniture Ltd* [2003] FCA 171 per Allsop J at [676].

<u>Guidelines</u>

1.   General Duty to the Court[76]

1.1   An expert witness has an overriding duty to assist the Court on matters relevant to the expert's area of expertise.

1.2   An expert witness is not an advocate for a party even when giving testimony that is necessarily evaluative rather than inferential.

1.3   An expert witness's paramount duty is to the Court and not to the person retaining the expert.

2.   The Form of the Expert's Report[77]

2.1   An expert's written report must comply with Rule 23.13 and therefore must

(a)   be signed by the expert who prepared the report; and

(b)   contain an acknowledgement at the beginning of the report that the expert has read, understood and complied with the Practice Note; and

(c)   contain particulars of the training, study or experience by which the expert has acquired specialised knowledge; and

(d)   identify the questions that the expert was asked to address; and

(e)   set out separately each of the factual findings or assumptions on which the expert's opinion is based; and

(f)   set out separately from the factual findings or assumptions each of the expert's opinions; and

(g)   set out the reasons for each of the expert's opinions; and

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[76] The "Ikarian Reefer" (1993) 20 FSR 563 at 565-566.
[77] Rule 23.13

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(ga) contain an acknowledgment that the expert's opinions are based wholly or substantially on the specialised knowledge mentioned in paragraph (c) above[78]; and

(h) comply with the Practice Note.

2.2 At the end of the report the expert should declare that "[the expert] has *made all the inquiries that* [the expert] *believes are desirable and appropriate and that no matters of significance that* [the expert] *regards as relevant have, to* [the expert's] *knowledge, been withheld from the Court."*

2.3 There should be included in or attached to the report the documents and other materials that the expert has been instructed to consider.

2.4 If, after exchange of reports or at any other stage, an expert witness changes the expert's opinion, having read another expert's report or for any other reason, the change should be communicated as soon as practicable (through the party's lawyers) to each party to whom the expert witness's report has been provided and, when appropriate, to the Court[79].

2.5 If an expert's opinion is not fully researched because the expert considers that insufficient data are available, or for any other reason, this must be stated with an indication that the opinion is no more than a provisional one. Where an expert witness who has prepared a report believes that it may be incomplete or inaccurate without some qualification, that qualification must be stated in the report.

2.6 The expert should make it clear if a particular question or issue falls outside the relevant field of expertise.

2.7 Where an expert's report refers to photographs, plans, calculations, analyses, measurements, survey reports or other extrinsic matter, these must be provided to the opposite party at the same time as the exchange of reports[80].

[78] See also *Dasreef Pty Limited v Nawaf Hawchar* [2011] HCA 21.
[79] The "*Ikarian Reefer*" [1993] 20 FSR 563 at 565
[80] The "*Ikarian Reefer*" [1993] 20 FSR 563 at 565-566. See also Ormrod "*Scientific Evidence in Court*" [1968] Crim LR 240

3.   **Experts' Conference**

3.1   If experts retained by the parties meet at the direction of the Court, it would be improper for an expert to be given, or to accept, instructions not to reach agreement.   If, at a meeting directed by the Court, the experts cannot reach agreement about matters of expert opinion, they should specify their reasons for being unable to do so.

J L B ALLSOP

Chief Justice

4 June 2013