The Provision of Analysis Supporting a Value for Market Risk Premium (MRP)

Dr Steven Bishop

Prepared for DBNGP (WA) Nominees Pty Ltd as trustee of the DBNGP WA Pipeline Trust and DBNGP (WA) Transmission Pty Limited

April 2011

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Contents

1. Background

My full name is Steven Ross Bishop. I reside at [redacted]n in the State of Victoria. I have been engaged by DBNGP (WA) Nominees Pty Ltd as trustee of the DBNGP WA Pipeline Trust and DBNGP (WA) Transmission Pty Limited, together "DBNGP", to provide support for a recommendation of a market risk premium ["MRP"] for use in the Capital Asset Pricing Model ["CAPM"] to estimate a cost of equity appropriate for the next regulatory period 1 January 2011 to 31 December 2015.

The Terms of Reference is provided in the next section.

I have been provided with a copy of the Federal Court Guidelines for Expert Witnesses. I have read and note the Guidelines. I declare that I have made all the inquiries that I believe are desirable and appropriate, within the timeframe permitted, and that no matters of significance that I regard as relevant have, to my knowledge, been withheld from this report.

I am an Executive Director and joint founder of Value Adviser Associates Pty Ltd, a firm that specialises in business valuations and in estimating the cost of capital. I am also a Visiting Fellow at the Macquarie University Applied Finance Centre where I teach Corporate Finance. I was a full-time academic for 15 years specialising in Corporate Finance and have spent the last 23 years working as a practitioner in valuation and cost of capital matters including the preparation of expert views on the market risk premium. Curriculum Vitae related to my cost of capital experience and expertise is attached.

I have been assisted by Professor Robert Officer in the preparation of this report. Professor Officer is highly regarded as an expert in this area and undertook the initial empirical research into the historical market risk premium in Australia. Curriculum Vitae for Professor Officer is also attached

2. Terms of Reference

I have been asked to:

> *"Provide an expert view as to the best estimate of the Market Risk Premium, which is to be used in determining the rate of return required for reference tariff setting in accordance with the National Gas Rules. The work should have particular regard to National Gas Rule 74 governing the derivation of forecasts and estimates. The expert report is to include detailed and current evidence substantiating the value recommended for MRP."*

3. Introduction

The market risk premium ["MRP"] is used to estimating the cost of equity under the Capital Asset Pricing Model ["CAPM"] as an input to an assessment of the weighted average cost of capital ["WACC"].

The WACC is an opportunity cost concept and should reflect market conditions prevailing at the time it is estimated.

I understand that the Economic Regulation Authority ["ERA"] recently set the MRP for the regulatory period 2011 to 2015 at 6.0%[1].

In my view the 'best' estimate of the MRP under current market conditions is 7%. This is based on:

- The historical average realised MRP adjusted to include an imputation tax yield;
- Recognising that the risk premium on debt is well above the historical average suggesting either a structural change or current economic conditions, as reflected in the capital market, have not yet returned to 'normal' conditions. I would expect the same phenomena as affecting the risk premium on debt to also affect the risk premium on equity i.e. I am of the view that the capital market for securities is integrated;
- An update of our approach to dealing with the current unusual economic circumstances arising from the global financial crisis ['GFC"].

I expand on the basis for this estimate below.

4. Historical based estimate of a forward MRP

I have updated the historical average MRP to include the actual outcome for the 2010 calendar year. The annual historical MRP by year from 1883 is presented in Figure 1. The impact of the crash attributed to the GFC is evident and it is the largest negative historical MRP in the data set.[2]

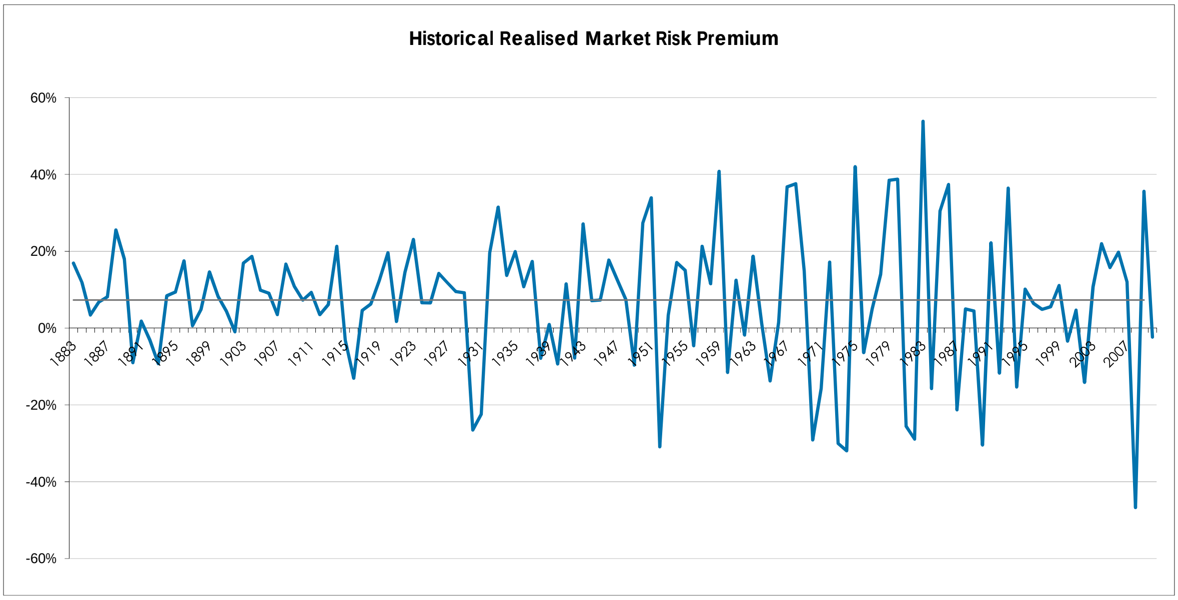
A negative relationship exists between the realised and forward MRP. For example, the higher risk during the GFC would manifest in a large forward required MRP thereby depressing the stock market and leading to a negative realised MRP. This, in turn, depresses the average MRP. This is a reason why it is important to use a long data series (as distinct from a short data series) to form a view about the average or an expected MRP based on historical performance otherwise the GFC (and other unusual events) would be overweighted in the average relative to its frequency of occurrence.

Figure 1 shows a highly variable series of actual MRP's over a long time period (128 years), the series would have to be variable otherwise there would be no risk and no risk premium. But more importantly, the series does not appear to exhibit a trend adding weight to the use of an average as a **long run** expected MRP. I illustrate further on (Section 5) how a **short run** expected MRP might be estimated.

[1] ERA, "Draft Decision on Proposed Revisions to the Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline, 14 March 2011

[2] The data series is a combination of the series reported by Officer (1989) to 1980 and updated to 2010 using the all ordinaries accumulation index and the yield on a 10 year maturing Commonwealth Treasury Bond. Brailsford et al (2006) report a lower MRP than Officer for the period 1883 to 1958.

Figure 1: Historical Annual MRP



The average MRP from 1958 to various years is shown in Figure 2. The graph commences with the average from 1958 to 1990 then shows how the average changes when an additional year is added. Also shown is the historical MRP with the imputation tax yield included at full value. There is debate about what average value to place on the franking tax yield consequently I have shown the extremes on the graph viz. the average with a value of 0 and a value of 1 placed in imputation tax benefits.[3]

Figure 3 is structured similarly however it uses 1883 as the commencement period with the period 1883 to 1957 derived from the Brailsford et al[4] paper. Subsequent data to 1980 is from Officer[5] with the later period data as described above.

The impact of the longer time period is evident in a comparison of the figures by the less volatile average and the smaller impact of the imputation tax yield arising from a much longer period without it.

3 The adjustment process is described in our prior report op cit.

4 Brailsford T, J Handley & K Maheswaran, "Re-examination of the historical equity risk premium in Australia," Accounting and Finance, 48, (2008) pp 73-97

5 Officer, R. R. (1989), 'Rates of Return to Shares, Bond Yields and Inflation Rates: An Historical Perspective', in Ray Ball, Philip Brown, Frank J. Finn and R. R. Officer(eds.), Share Markets and Portfolio Theory: Readings and Australian Evidence, University of Queensland Press

Figure 2: Historical MRP from 1958 to 1990 then adding an additional year

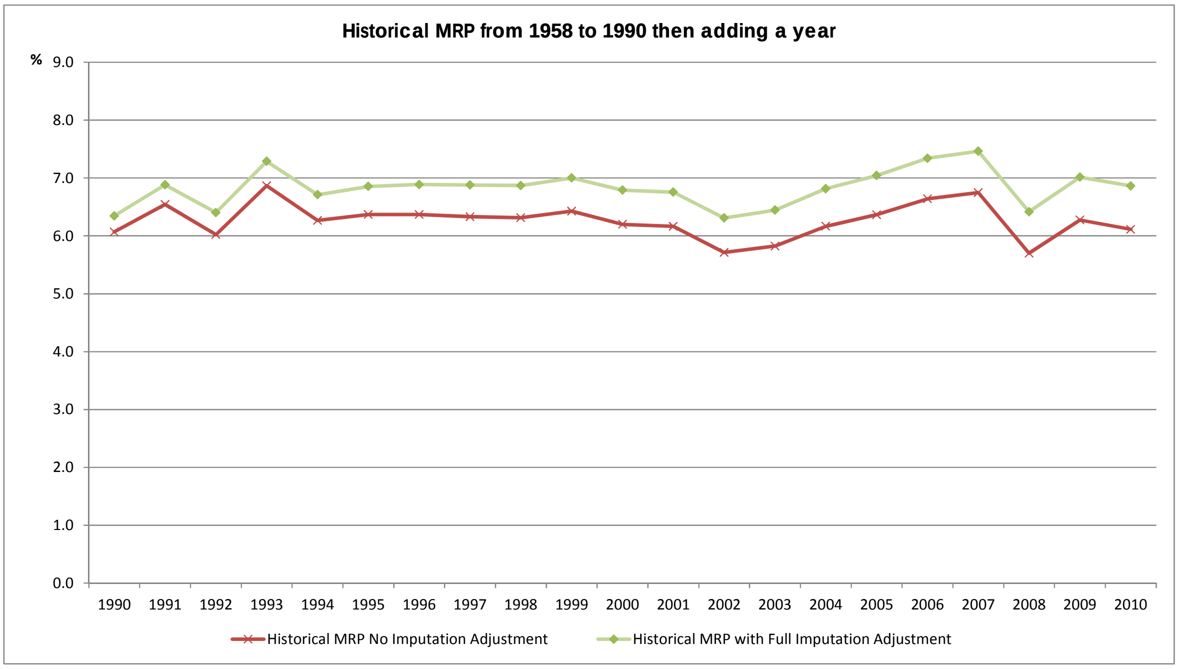
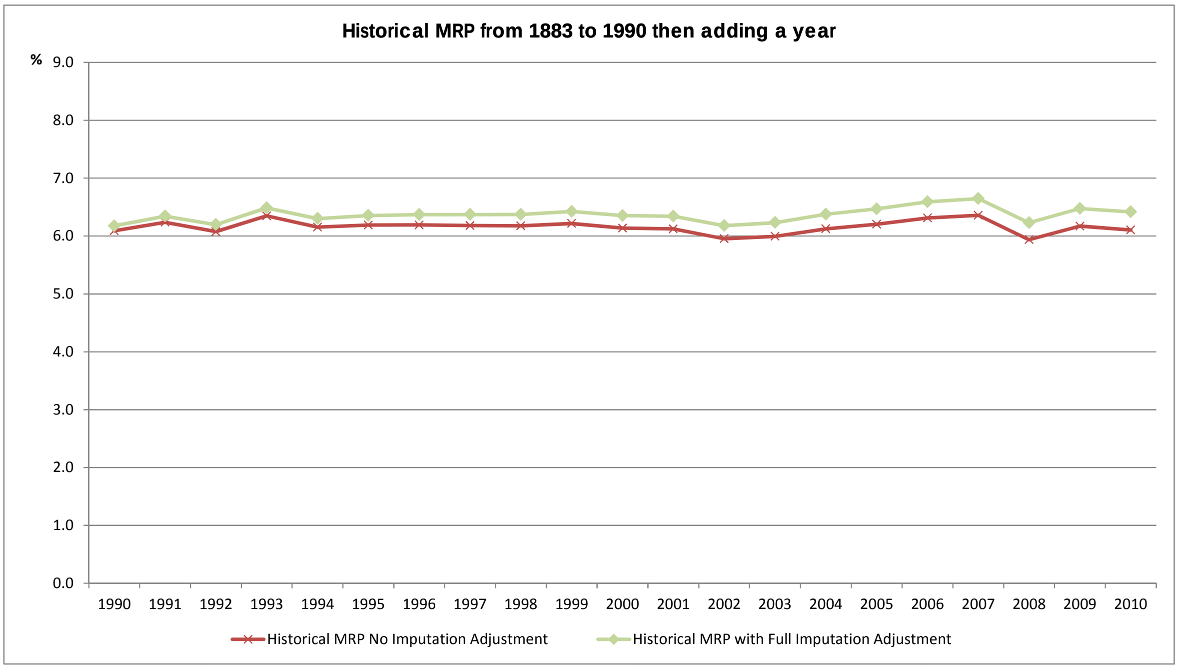


Figure 3: Historical MRP from 1883 to 1990 then adding an additional year



The impact of the GFC is evident as well. This relatively unusual event reduces the historical average MRP just as the prior boom years increased it.

It is evident from both graphs that the historical average risk premium generally falls within the range 6 – 7%.

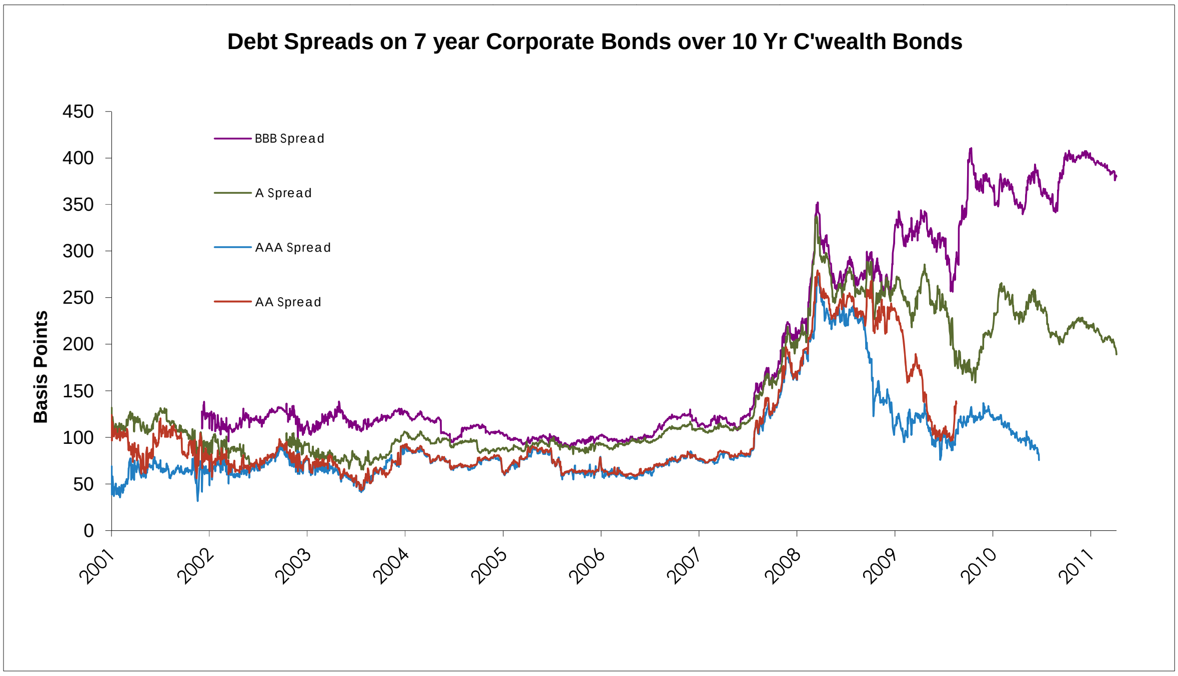
Officer and Bishop[6] have argued that 7% better represents this historical MRP when the imputation tax yield is explicitly included. One contributing consideration was that the MRP is best estimated without a decimal point because its use suggests greater accuracy in the estimate than is the case given the high standard error of the mean estimate. Nevertheless I note that the Australian Energy Regulator ["AER"] moved from use of 6% as the MRP to 6.5% in recognition of the GFC.

Given the current view that a forward view of risk is high in the debt market, particularly for BBB rated debt (closest to equity), there is a strong case to reflect this in the MRP. This reinforces 7% as an appropriate MRP to adopt for the regulatory period.

5. Inferring from evidence on debt risk premiums

Figure 4 shows the debt risk premium on 7 year maturing corporate bonds relative to the 10 year Commonwealth Treasury Bond rate from 1st January 2001 to 7 April 2011. Trading in longer term debt is sporadic which is why I show 7 year debt.

Figure 4: Debt Risk Spreads on Corporate Debt



The higher risk end of the investment grade debt (BBB and AA) are currently priced to provide risk spreads well above the more stable spreads prior to the GFC. The pre GFC average risk spread on BBB bond was approximately 120 basis points. The debt risk premium considered appropriate by the ERA for the gas pipeline in the March 2011 draft decision is 324.9 basis points. This is also well above the pre GFC average.

From an investment perspective there are no impediments in moving across debt and equity markets and therefore one would expect the MRP on equity to behave in a manner that mimics the debt market – the higher than average risk premium in the riskier end of the debt market should also be prevalent in the equity market.

6 Officer RR and SR Bishop, "Market Risk Premium: A Review Paper", Submission to AER, Value Adviser Associates, August 2008

Recognising the debt market perception of risk it is apparent that the MRP for equity expected to prevail over the regulatory period will also be above the historical average i.e. greater than 7.0%.

It is perhaps worth noting the analysis of Professor Bruce Grundy which suggests that under the benchmark gearing of 60% used by the AER and its predecessors in price determinations, the equity premium should be greater than or equal to 2.67 times the debt risk premium.[7]

If I adopted the Grundy proposition that the equity premium is at least 2.67 times that on debt of the same company then the ERA assessed risk premium of debt of 324.9 basis points suggests an equity market risk premium over the same maturity premium of debt of greater than 8.6%.

Figure 5 shows the equity market risk premium (assuming a beta of 1) less the debt risk premium for BBB corporate bonds using 6.0% as the MRP. The 6.0% is based on survey evidence that suggests many valuers use 6% as the MRP.[8] This is a conservative estimate in my view.

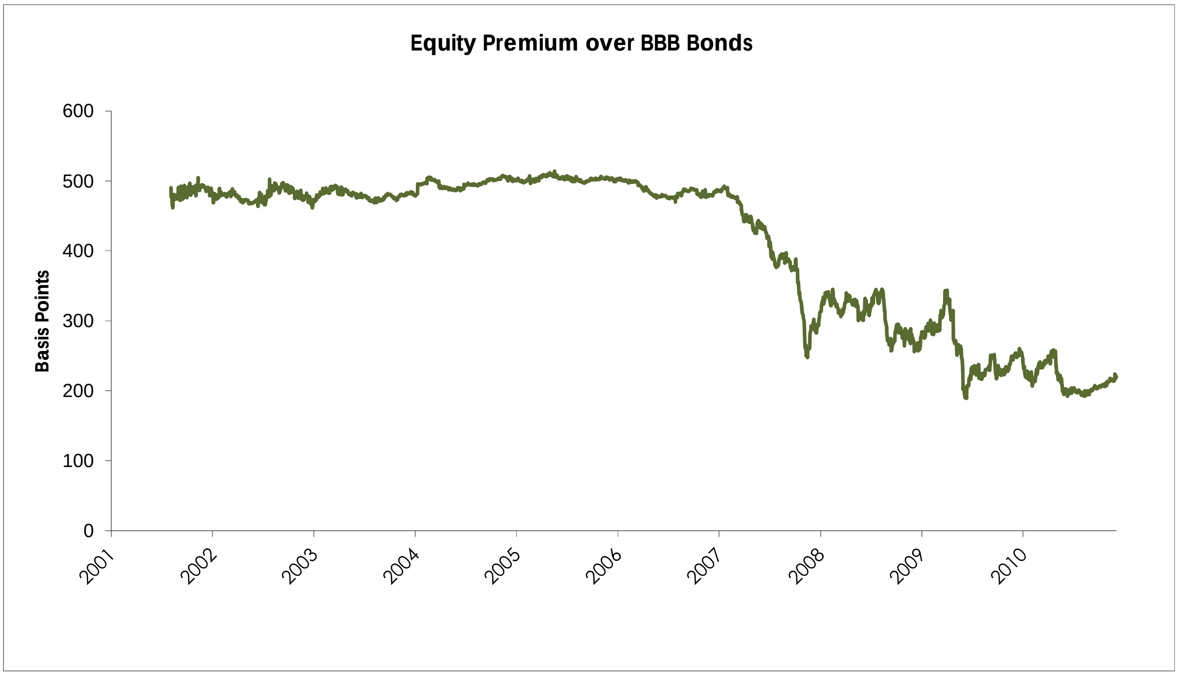
The average difference between the observed risk premium on debt on the BBB corporate bonds and an equity risk premium of 6% is 488 basis points over the period 4 December 2001 to 30 June 2007 (a pre GFC period). If this difference was maintained (i.e. a straight line was projected in figure 5 as the difference between the equity and debt premium) then the equity risk premium should be the debt premium of 324.9 plus 488 or 8.13%, say 8%.

The average debt risk premium over the period described above was 112 basis points. Consequently an equity risk premium of 600 basis points was 5.35 times the debt risk premium. This is consistent with the Grundy analysis which suggests the minimum multiple should be 2.67.

[7] AER op cit p 61 and Bruce Grundy, “The calculation of the cost of capital: A report for Envestra” 30 September 2010 p 17-18

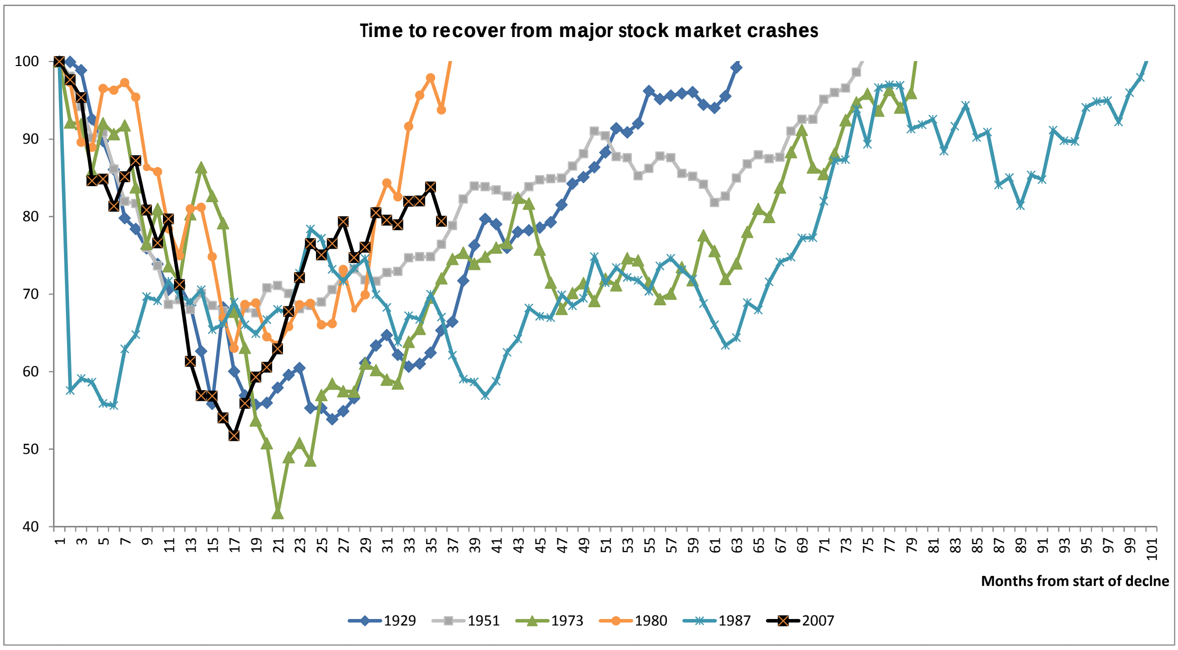
[8] See for example Truong G, G Partington & M Peat, “Cost of Capital Estimation and Capital Budgeting Practices in Australia” Australian Journal of Management, Vol. 33, No. 1 June 2008

Figure 5: Equity risk premium at 6% less debt risk premium



I also note that the stock market has not returned to pre GFC levels. The current situation can be contrasted with prior crashes. Figure 6 shows the current status of the market relative to the level pre-crash relative to other stock market crashes in Australia. As at the end of February 2010, it had recovered to approximately 80% of the pre-crash level. By this analysis there remains some time to pass before the market has recovered from the crash.

Figure 6: Time to recovery of index from pre-crash levels



I note that the ERA turn to the IMF, OECD and RBA for views on whether the economy has stabilised post GFC. These views are important input to the current view of the future however it is feasible that stability is returning to the broader economy however the capital markets, which set the WACC, may still require a higher risk premium than the historical average. This is evident in the debt markets where the current risk premium on debt remains well above historical levels.

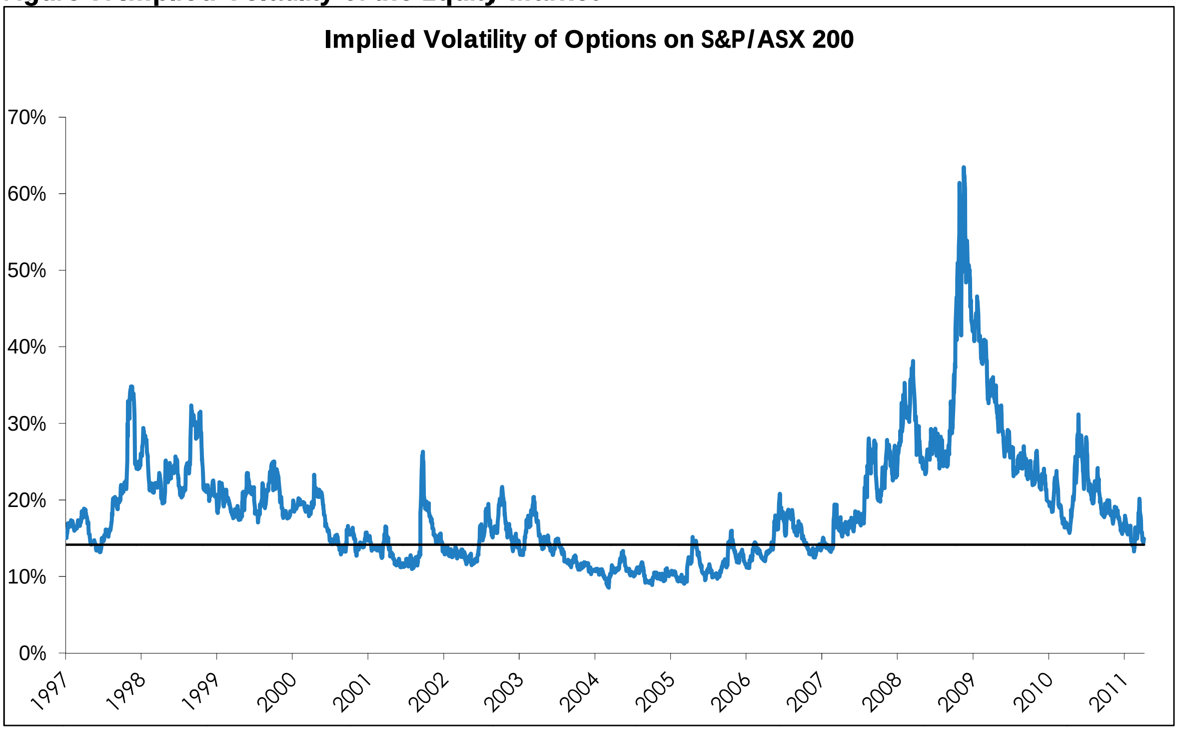
I also note that the risk apparent in implied volatility in options on the S&P/ASX 200 index around the time the IMF, OECD and RBA comments were written was above the historical average and 'spiked' up again in March 2011 suggesting perhaps that this measure of a forward view of risk was not factored into their analysis.

6. Implied Volatility assessment

The approach I follow to recognise the impact of the GFC on the MRP and to better align the MRP and DRP is to use the implied volatility of traded options on the S&P/ASX 200 index. This provides a market based forward view of the risk of the equity market. To this I apply a constant market risk premium per unit risk calculated from an estimate of the long term MRP and long term risk. The approach is described in our submission to the AER.[9]

Figure 7 shows the implied volatility of options on the S&P/ASX 200 index for the longest data series available to us. Also plotted on Figure 7 is the long term average market volatility of 14% that I derived from the long term historical volatility of the market.[10] These data suggest that the volatility does appear to be returning to the longer term average, despite a recent upward spike.

Figure 7: Implied Volatility of the Equity Market



By way of contrast, I note that there has been strong correlation between a forward view of risk across Australia, UK and USA. This is apparent in Figure 8 which shows implied volatility in each of these markets. Of particular note is the upward spike in the US on the

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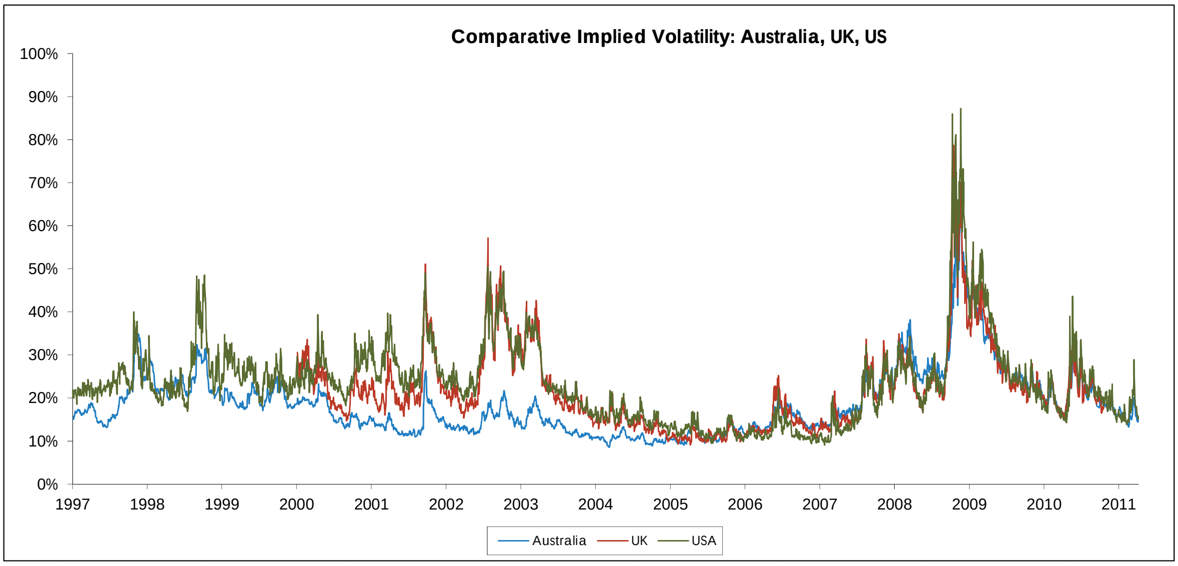
[9] Officer RR and SR Bishop, "Market Risk Premium: A Review Paper", Submission to AER, Value Adviser Associates, August 2008

[10] We found high correlation between the historically based volatility and the forward looking volatility and we also found the pre-crash average forward volatility was also around 14% -14% is the average of the annualised 90 day standard deviation of the ASA30 daily index from 1980 to end December 2009. The average volatility of the 12 month call option on the index prior to the crash was 13.6%.

far right of the graph in contrast to a decline in Australia. This suggests more than average uncertainty remains in the US and it may affect the Australian forward view of risk.

Figure 8: Forward view of risk: Australia; United Kingdom, United States of America



At this time I would be uncomfortable assuming normality had fully returned given the evidence from debt markets; the market remaining below its pre peak level (see Figure 6) and the recent upsurge in the forward view of risk in the US.

7. Conclusion

In our view the 'best' estimate of the MRP under current market conditions is 7%. This is based on:

- The historical average realised MRP adjusted to include an imputation tax yield. This generally falls in the range 6-7%;
- The risk premium on debt being above the historical average suggesting either a structural change or that current economic conditions as reflected in the capital market have not yet returned to 'normal' conditions. It is too early to assess whether a structural change has occurred. I would expect the same phenomena that has affected the risk premium on debt to also affect the risk premium on equity i.e. I am of the view that the capital market for securities is integrated;
- The stock market has not yet returned to its pre GFC level and data from other crashes suggests there is still some time to go to reach normality;
- An update of our approach to dealing with the current unusual economic circumstances arising from the global financial crisis which suggests normality is returning however there is concern over a recent spike in the US given the high correlation across countries and there is further concern arising for the matters raised above.

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8. References

Brailsford T, J Handley & K Maheswaran, "Re-examination of the historical equity risk premium in Australia," Accounting and Finance, 48, (2008) pp 73-97

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Grundy B, "The calculation of the cost of capital: A report for Envestra" 30 September 2010

Handley J, "Peer Review of Draft Report by Davis on the Cost of Equity", memo to Kenny Yap, AR, 18 January 2011

Handley J, "An Estimate of the Historical Equity Risk Premium for the Period 1883 to 2010: A Report for the Australian Energy Regulator", 25 January 2011

Officer, R. R. (1989), 'Rates of Return to Shares, Bond Yields and Inflation Rates: An Historical Perspective', in Ray Ball, Philip Brown, Frank J. Finn and R. R. Officer(eds.), Share Markets and Portfolio Theory: Readings and Australian Evidence, University of Queensland Press

Officer RR and SR Bishop, "Market Risk Premium: A Review Paper", Submission to AER, Value Adviser Associates, August 2008

Officer and Bishop, "Market Risk Premium: Estimate for January 2010 – June 2014", December 2009, prepared for WA Gas Networks.

Truong G, G Partington & M Peat, "Cost of Capital Estimation and Capital Budgeting Practices in Australia" Australian Journal of Management, Vol. 33, No. 1 June 2008

9. Curriculum Vitae

Steven Ross Bishop

QUALIFICATIONS:

1970	Monash University	B Ec
1980	University of NSW	M Com (Hons)
1988	AGSM, University of NSW	PhD

Dr Bishop is also a Fellow of CPA Australia and a Fellow of Finsia.

CURRENT EMPLOYMENT

Executive Director and Chairman, Value Adviser Associates Pty Ltd
Director Education and Management Consulting Services Pty Ltd;
Visiting Fellow, Macquarie Applied Finance Centre, Macquarie University.

Value Adviser Associates is a specialist business valuation firm. It undertakes valuations for business decision making, compliance and transactions. Assessing a required rate of return is an essential component of this work. Its' work includes the valuation of direct infrastructure investments for superannuation funds, valuations for regulatory authorities (ATO and State Revenue Offices) and for listed and unlisted corporations.

Steve Bishop is a management consultant, valuer and educator. His primary interest and consulting focus is around the application of financial economics to business decisions. He has guided the implementation of an explicit focus on improving business value ("Value-Based Management" or "VBM") in a number of large and medium sized firms. VBM uses a focus on shareholder value to integrate strategy development, strategy implementation, organisational design and operational excellence.

A core skill in developing strategies that drive value creation is a deep understanding of how economic conditions and relative competitive position affect the strategy of the business and therefore business value. This, plus a deep understanding of valuation principles and practices lies at the heart of VBM and Steve's consulting. Steve's assignments have also included business valuations, cost of capital estimation, merger and acquisition advice, development of corporate and business unit strategic and implementation plans, strategy advice. Additionally he has worked with government and privately owned enterprises on issues of pricing, asset valuation, rates of return and regulation.

Since co-founded Value Adviser Associates in 2008 he has been engaged in valuation related assignments for regulatory authorities, Superannuation Funds and Corporations. An integral part of this work is cost of capital estimation.

Steve's experience in consulting covers a range of industries, including Agrifoods, Chemical, Computer, Electricity (Distribution, Retail, Transmission), Financial Services, Food Manufacture, Gas Distribution and Transmission, Mining & Minerals, Paper, Packaging, Property, Rail, Retailing, Shipping and Transportation, Telecommunications and Wastewater.

He has prepared numerous expert reports for regulatory determinations since the commenced in Australia in 1998.

Selected relevant cost of capital related assignments include:

- Preparation of expert reports on Market Risk Premium, Term of the Risk Free Rate for Electricity Distribution and Transmission companies in a submissions to the Australian Energy Regulator (with Professor Bob Officer)
- Preparation of an expert report on the Weighted Average Cost of Capital for Australia Post in submissions to the ACCC (with Professor Bob Officer)
- Preparation of expert report on rate of return for Rail Access Infrastructure as part of Queensland Rail's submission to Queensland Competition Authority
- Expert advisor on cost of capital to Queensland Treasury Corporation for response to ACCC Draft Decision on the Queensland Transmission Network Revenue Cap
- Writing papers comparing and contrasting the post personal tax CAPM with the Sharpe-Lintner version and assessing the appropriate numerical values for the parameters to be used for pricing of New Zealand Electricity Transmission services
- Review and preparation of Board reports on the cost of capital for New Zealand Electricity Transmission business
- Review of procedures for assessing the Optimised Deprival Value of a large electricity transmission business. Much of the focus was on dealing with issues associated with the applying the ODV concept in practice
- Estimation of betas for 14 different business areas of interest to a diversified mining company. The work involved examination of using an international as well as a domestic market index
- Advising on issues in the implementation of sub-firm costs of capital for a large telecommunications company
- Advising on aspects of risk treatment, cost of capital determination, working capital and growth evaluation for Review of Gas Access Arrangement in Victoria
- Estimation of the cost of capital for an electricity retailer in Victoria
- Advising on aspects of estimation of the cost of capital for a Victorian Electricity Distribution business as part of a response to Draft Decisions by the Office of the Regulator General
- Estimation of the cost of capital for a number of business units of a State-based Rail company
- Estimating the cost of capital for Asian Property, Power and Coal companies for local and cross country investments in emerging markets
- Full implementation of Value Based Management, from strategy development to implementation in a several Banks, a division of a Telecommunications Company, Diversified Property Company and a Coal and Power Company in Thailand
- Evaluating a major investment opportunity for a large telecommunications company
- Research and preparation of a document on the state of the art in capital structure choice for an investment Bank
- Publication of a chapter on the capital structure decision in an internationally published handbook on risk management by the Professional Risk Management International Association (PRMIA)
- Development and implementation of a value and strategy based capital expenditure evaluation and approval system for a large Bank
- Strategy development with a Victorian Electricity Distribution Business including customer profitability assessment and pricing, activity based costing linking activities with the financial outcomes, development of key value drivers and key

performance indicators, capital expenditure policy development and manual preparation, cost of capital estimation

- Audit of economic cost reflective model in Melbourne Water's waste water business in the context of a pricing review of charges to the corporatised water distribution businesses
- Developing and evaluating alternative capital expenditure options (new, upgrade and replacement) in light of the business's domestic and international strategic position for a large capital intensive business that had neglected capital expenditure for many years
- Advising Victorian Gas Distribution company on the NPV of expanding the gas distribution network to regional towns the consequent subsidies or price arrangements necessary to meet economic cost
- Ongoing advisory role to a listed gas and electricity distribution business on many aspects of regulated pricing including efficiency carry over mechanisms, alternative regulated asset base measures and the treatment of inflation, cost of capital, imputation tax effects, ensuring appropriate compensation for both systematic and unsystematic risks
- Designing a framework for evaluating and prioritising 'enabling' and 'strategic' infrastructure projects for a State owned rail business
- Updating Market Risk Premium data and commenting on other research dealing with an appropriate MRP for regulatory price determinations. A paper was prepared for a distribution company.

Prior to his current role, Dr Bishop was an executive director of Capital Value Pty Ltd, and Mainsheet Corporate Pty Ltd and was a partner in L.E.K. Consulting, a worldwide management consulting firm. Prior to that he worked for Marakon Associates, a consulting firm specialising in Value Based Management, and also for the Strategic Services group in Andersen Consulting.

Before undertaking a consulting career in 1988, he was an academic specialising in Corporate Finance at the Australian Graduate School of Management, at Monash University (Associate Professor) at the University of NSW and at Melbourne Business School. His full time academic career covered approximately 14 years.

Steve is lecturing Corporate Finance in the Master of Applied Finance program offered by the Macquarie University Applied Finance Centre. He has presented to a number of academic and professional organisations including the Institute of Directors, the Institute of Chartered Accountants, the Securities Institute of Australia and the Melbourne Business School.

His academic studies focused on Finance and Economics. He is a Fellow of the Society of Certified Practising Accountants and co-author of "Corporate Finance" by Bishop, Faff, Oliver & Twite - a textbook now in its 5th Edition used for MBA, Masters and Undergraduate courses and "Takeovers – The Australian Evidence" by Bishop, Dodd and Officer.

Robert Rupert Officer

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AREAS OF EXPERTISE:

- Consulted to a large number of public, private and government organisations on topics encompassing economics and finance generally.
- Specific areas include corporate and international finance, valuation and investment appraisal, foreign exchange management, capital markets, industrial organization, takeovers, and anti-trust.
- Has appeared as an expert witness before the Federal Court, Arbitration Commission, Supreme Court, Trade Practices Tribunal, and a number of other bodies of enquiry or arbitration.

POSITIONS HELD:

2003 -	Self employed Professor Emeritus, University of Melbourne Honorary Professor University of Queensland
1986 - 2002	Professor, Chair of Finance and Deputy Director Melbourne Business School, University of Melbourne
1993/4	Visiting Professor The Wharton School of the University of Pennsylvania
1989	Visiting Professor, Graduate School of Business Stanford University
1976-86	Professor, Department of Accounting and Finance Monash University
1971-76	Senior Lecturer then Reader Department of Management University of Queensland
1967-71	Graduate Student University of Chicago
1964-67	Teaching Fellow Department of Farm Management, U.N.E.
1962-64	Advisory Officer Victorian Department of Agriculture

QUALIFICATIONS:

1962	University of Melbourne	BAgSc
1967	University of New England	MAgEc
1969	University of Chicago	MBA
1971	University of Chicago	PhD

AWARDS:

1958 - 1961	Commonwealth Scholarship
1967	Australian Agricultural Economic Thesis Prize
1970	Beta Gamma Sigma Fraternity (Top 5% of MBA class)
1967 - 1970	Australian Meat Research Committee, Overseas Fellowship
1970 - 1971	General Electric Fellow, University of Chicago
1988	Elected a Fellow of the Academy of the Social Sciences in Australia
1990	Appointed a Fellow of the Australian Society of Corporate Treasurers
1991	Honorary Life Member, Accounting Association of Australia and New Zealand
1999	Elected a Fellow of the Securities Institute of Australia, now Senior Fellow FINSIA
2003	Awarded Centenary Medal for services to the public sector.

OTHER RELEVANT POSITIONS HELD:

From		To	
Aug.2009			Melbourne University Publishing (MUP) – Board Member
Sep.2008			Australian and New Zealand School of Government, Investment Committee
Oct.2008			Surf Life Saving Foundation, member Investment Committee
2006			Nonprofit Australia Ltd., Board Member
Oct. 2006			Transport Accident Commission of Victoria, Director
2006			Personal Injury Education Foundation, Chair
2006			JF Capital Partners Funds Manager(≈$4b under management), Chairman
2005			Pentacle Property Funds Management Group Ltd, Chairman
2004		Aug 2006	Deputy Chair Investment Committee and Alternate Board Member, UniSuper
2003		2007	Over Fifty Group Ltd., Board member.
2003		2009	Babcock & Brown Direct Investment Fund, Board Member
2001	-		Tactical Global Management Limited (TAA Funds Manager), Deputy Chairman
Mar 1997	-	Apr 1998	Transport Accident Commission of Victoria, Director
May 1996	-	Mar 1997	Inner & Eastern Health Care Network, Board Member
Mar 1996	-	Jun 1996	National Commission of Audit, Chairman
1999	-		Acorn Ltd (funds manager of microcaps), Chairman
1999	-	2001	MEAC, Securities Institute of Australia, Chairman
2001	-	2005	Securities Institute of Australia National Council, Councillor, Chair 2004/05
1996	-		Colonial Foundation, Director
1996	-	1999	Appeal Panel Member, Victorian Office of the Regulator-General
1995	-	2005	Collins Associates Limited, Chairman
1995	-	2009	William Buckland Foundation, Trustee
1997	-	2003	Member, Strategic Research Development Committee, NHMRC
1998	-	1999	Member, Merit Protection and Review Agency
1995	-	May 2006	Victorian Funds Management Corporation, Chairman (2002-2006), Deputy Chairman (1995-2001), (≈$37b under management)
1995	-	2006	Editorial Board Pacific Basin Finance Journal
Jul 1995	-	May 1996	Member of Eastern Health Care Network Board

1993	- Feb. 2006	Victorian WorkCover Authority, Board of Management, Chairman from 1/12/97 to 2/01, Acting CEO 1/1/00to1/5/00,
Nov. 1992	- May 1993	Chairman, Victorian Commission of Audit
1993	- 1998	Bank of Melbourne, Board Member
1993	- 1997	Member of Advisory Board, School of Business, Bond University
1989	- 2006	Editorial Board of ABACUS
1988	- 2003	Associate Editor of Journal of Banking & Finance
1989	- Jul 1998	Member of the Council of Janet Clarke Hall
1988	- 2008	Member of the Council, Institute of Public Affairs Limited
1987	- Jul 1998	Member of the Council of International House
1986		University of Melbourne's Investment Committee
1986	- 1988	Victorian Committee of Commercial Law Association
1986	- 1987	President of the Accounting Association of Australia & New Zealand
1985	- 1987	Member of the Executive of Australian Society of Corporate Treasurers (Victorian Chapter)
1984	-	Member of Advisory Council, Centre for Independent Studies
1984	- 1987	Member of the Australian Government's Industrial Property Advisory Committee
1977	- 1985	Editor of Accounting and Finance

PUBLICATIONS:

Officer, R.R. [2004] "Public or Private: Where Government Should Draw the Line" Australian Accounting Review, Issue 33, Vol. 14 No. 2, pp.22-26.

Officer, R.R. [1999], "Privatisation: Efficiency or Fallacy? Two Perspectives" CEDA Information Paper No. 61, May 1999 [opposing view given by John Quiggin]

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