13 April 2011

Committee Secretary
Senate Standing Committee on Finance and Public Administration
PO Box 6100, Parliament House
CANBERRA ACT 2600

Dear Senators,

# Senate Inquiry into the funding of the 'Defence Force Retirement and Death Benefits Amendment (Fair Indexation) Bill 2010'

### INTRODUCTION

Thank you for the opportunity to make a submission to this very important Senate Inquiry, because whilst it only deals specifically with the DFRDB Bill in question, it nevertheless exposes the matter of proper indexation for all current and future public sector retirees with eligibility to Commonwealth provided defined benefit superannuation.

As you may be aware, I recently wrote to all Senators and Members of Parliament providing them with my critical review of the recently released Department of Finance & Deregulation (Finance) 'Update' to the 2008 Matthews' Review<sup>1</sup>. Whilst is not my expressed wish to regurgitate comments from that paper within the body of this specific submission, it is nevertheless extremely important (I believe) that the Committee read that analysis to fully understand and comprehend the severity of the imprecise data, false assumptions and ill conceived ideas that underpin the policy advice that has been tendered to the Parliament. In order to assist the Committee in this respect I have attached my paper at Annex A.<sup>2</sup>

This submission aims to introduce a new paradigm to analyse the Commonwealth's superannuation liabilities with DFRDB being the focal point. It will also demonstrate how the Parliament can negate jeopardising the current Government's program agenda (i.e. by not imposing resource restrictions on DMO as proposed by the Opposition) or to levy a quota against the Resource Rent Tax as suggested by Senator Brown. Instead, I will demonstrate how the Commonwealth can utilise its own organic assets to not only provide new indexation for all DFRDB members but to save an estimated \$5.3Billion over the next 10 years.

I fully expect that this new perspective and paradigm together with other recommendations will set in place a solid foundation for the Parliament to seriously consider and to finally ameliorate the retirement pay indexation issue for not only DFRDB members but for all public sector retirees.

<sup>&</sup>lt;sup>1</sup> Thornton's email broadcast to Senators and MPs with attached file name 'Thornton's Final Response to Finance Estimates Update - dated 30 Mar 2011.docx', transmission dated 31 March 2011.

<sup>&</sup>lt;sup>2</sup> The attached document is an amendment to what was originally transmitted; amendments that aim primarily to improve cross referencing with the document and back to Finance's 'Update'. Amendment dated 5 April 2011.

### **GENERAL**

### A New Paradigm - Liability Projections That Everybody Will Be Able To Understand

Experience has taught me that human nature tends to make things more complex than is normally necessary and this would certainly seem to be true when we look back over the historical entrails of Finance/Treasury estimates regarding Commonwealth superannuation liabilities. After careful investigation, I believe there is a more holistic and exacting approach in calculating and projecting the forward estimates that everybody will be able to understand.

Without further ado, one thing that we know for certain (and that we can have complete confidence in) is that the annual appropriations from Consolidated Revenue as stated by COMSUPER in their year to year annual reports would be reasonably accurate.<sup>3</sup> The reason: because this figure is not tainted by data errors, false assumptions or ill-conceived ideas; it instead represents the sum of all known components that make up the scheme from year to year.

So that it is clear, the sum of all known components includes things like (not least):

- the CPI indexation that has been applied and credited (or not) each year and any compounding effects;
- the replacement of primary member benefits with reversionary member benefits (i.e. pension benefit reduction to 62.5% of the original primary benefit);
- the exits and any re-entries to the scheme;
- wage increases (i.e. that are reflected in the final crystallised benefit of those retiring); and
- the fact that the scheme has been closed for nearly 20 years and that its primary membership has been exhibiting diminishing returns since 2004-2005 whilst reversionary recipients continue to rise<sup>4</sup>.

The 'Annual Pensions Paid' (APP) data from COMSUPER now provides us with a valid foundation stone on which simplified forward projections can be made with confidence and without introducing other extraneous parameters into the fray.

With this in mind, and to set up our analysis, the APP column in the top part of Table 1 below (i.e. the bright yellow column) has been extracted from Table 1 of Annex A to this document: data which in part was compiled directly from 40 years of DFRDB Scheme annual reports.<sup>5</sup>

From this column we proceed to calculate the annual rate of change of the APP; the results of which are contained in the light blue column to the right. With these *'annual rate of change'* calculations we can now calculate the *'average rate of change'* over the <u>last</u> 10 years (resulting in a factor of 0.0356 or 3.56%) that can then be used to project the estimated cost that the scheme is likely to exhibit over the <u>next</u> 10 years (with all things being relatively equal of course).<sup>6</sup>

<sup>&</sup>lt;sup>3</sup> The data set I am referring to here is the 'Total Annual Pensions Paid' from their annual reports.

<sup>&</sup>lt;sup>4</sup> For further information regarding "diminishing returns", please refer to pages 22-23 of Annex A to this document.

<sup>&</sup>lt;sup>5</sup> I would like to acknowledge the kind assistance of the Defence Force Welfare Association (DFWA) in providing me with hard copies of older reports and rare documents that would have been difficult to obtain otherwise.

<sup>&</sup>lt;sup>6</sup> We know (based upon my analysis in Annex A) that Primary Membership is in decline so if there are no major and sustained changes in underlying parameters then the projected 'average rate of change' will tend to be on the conservative side.

YEAR		ANNUAL RATE OF CHANGE					
1999-2000	\$889,949,000				•		
2000-2001	\$899,125,000	0.0102					
2001-2002	\$974,878,000	0.0777					
2002-2003	\$1,015,868,000	0.0403					
2003-2004	\$1,052,283,000	0.0346					
2004-2005	\$1,085,048,000	0.0302					
2005-2006	\$1,123,653,000	0.0344					
2006-2007	\$1,170,997,868	0.0404					
2007-2008	\$1,202,874,000	0.0265					
2008-2009	\$1,260,072,000	0.0454					
2009-2010	\$1,285,458,533	0.0197					
	And the second s		10 YEAR	PROJECTIO	ON		
PROJECTED YEARS	ANNUAL PENSION PROJECTION AFTER 'AVG RATE OF CHANGE' APPLIED (BASE 2010)	10 YEAR AVG RATE OF CHANGE TO BE APPLIED TO PENSIONS	NEW INDEXATION RATE OF CHANGE (2% WAGE COMPONENT ADDED)	NEW ANNUAL PENSION PROJECTION (WITH WAGE COMPONENT ADDED)	DIFFERENCE BETWEEN BASE RATE AND UPPER LIMIT PENSION INCREASES	ARIA STARTING CAPITAL APPROPRIATED FROM FUTURE FUND TO EXTINGUISH PROJECTED \$302M COST	RESULTANT ANNUAL DRAWDOWN O ARIA CAPITAL AFTER 6% EARNINGS LESS NEW PENSION DIFFERENCE
2010-2011	\$1,331,669,788	0.0359	0.0559	\$1,357,315,665	\$25,645,877	220,000,000	\$207,554,1
2011-2012	\$1,379,542,303	0.0359	0.0559	\$1,406,110,129	\$26,567,826		\$193,439,5
2012-2013	\$1,429,135,798	0.0359	0.0559	\$1,456,658,718	\$27,522,920		\$177,522,9
2013-2014	\$1,480,512,142	0.0359	0.0559	\$1,509,024,489	\$28,512,348		\$159,662,0
2014-2015	\$1,533,735,426	0.0359	0.0559	\$1,563,272,770	\$29,537,345		\$139,704,4
2015-2016	\$1,588,872,046	0.0359	0.0559	\$1,619,471,236	\$30,599,190		\$117,487,4
2013-2010	\$1,645,990,786	0.0359	0.0559	\$1,677,689,994	\$31,699,207		\$92,837,5
		0.0350	0.0559	\$1,738,001,671	\$32,838,770		\$65,569,0
2016-2017	\$1,705,162,901	0.0359	0.0559				
2016-2017	\$1,705,162,901 \$1,766,462,209	The second secon	0.0559	AND REAL PROPERTY OF THE PARTY	\$34,019,299		\$35,483,8

Table 1

In the bottom part of Table 1 you will see in the third column where the 'average rate of change' for the last 10 years has been inserted and where this average change has been applied to the starting base APP (i.e. the 2010 annual pensions paid) to project forward the total annual pensions over the next 10 years (i.e. the green column).

Given that the current average rate of change includes CPI indexation then we can assume (as Finance does) that any indexation that would occur due to wage inflation as represented by Male Total Average Weekly Earnings (MTAWE) would only be approximately 2% points higher. Based upon our 10 year average this would reflect a higher indexation factor of 0.0559, which is reflected in the white column. This higher factor is then applied to the 2010 base to calculate the indexation that might occur if MATWE was consistently higher than CPI over the projected period, as represented by the figures in the purple column.

Now that we have both of these estimated annual pension projections (i.e. annual projections based upon current arrangements or the higher projection based upon wages being always higher) we can then proceed to derive the difference between the two, which is represented by the figures in the orange column. Once we have these differences we can then calculate the total estimated projected cost over the next 10 years. As can be seen this estimate amounts to approximately \$302Million.

Even though my calculation for new indexation is for the entire DFRDB scheme and not just for those over age 55 (which I don't have the demographic data for); the calculation of \$302Million seems relatively consistent with that of the Opposition's pre-election calculations. However, these two independently derived projections are widely divergent to the advice that has been tended by the Australian Government Actuary and

Department of Finance through their respective Ministers (i.e. an unexplainable "\$1.7Billion fiscal cost to introduce new indexation over the next four years" (??)).<sup>7</sup>

Given that the Establishment's figure is a fivefold increase over my estimate; perhaps the Senate Inquiry should query Finance / Treasury with the old political catch cry of "Please explain!?"

### A Proposed Cost Reduction Strategy

Now that we have derived the likely estimated projected cost of a full increase in indexation for all members of the DFRB / DFRDB scheme over the next 10 years, the question now arises: is there a way to effectively reduce this cost for the Commonwealth over the longer term? I believe the answer is a resounding YES!

<u>I propose and recommend</u> that the Parliament approve either a year by year annual appropriation from the Future Fund or alternatively a once off lump sum appropriation from the Future Fund to be transferred to ARIA, where in turn, these funds are then drawn down by COMSUPER to pay for the additional pension increases under new indexation.

Given that both the Future Fund / ARIA have returned earnings well above their respective mandates in recent times (and this is likely to continue into the future); then this presents the Commonwealth with a viable avenue to utilise earnings to offset implementation cost.

Whilst I have previously proposed this solution as per my 'Net Cost Analysis' as at Annex B to this document, I have for the purposes of this submission, made calculations utilising a very conservative earnings rate to estimate the likely starting capital needed to fund new indexation. As such, and with an earnings rate of just 6% pa, the estimated starting capital would be \$220Million for payments over a 10 year period.

The starting capital and the annual draw down on that capital is shown in the bottom right hand columns of Table 1 above (i.e. the annual draw down of pension payments after earnings applied to the starting capital).

This proposed strategy would not impact on the current Government's program agenda (i.e. no resource reductions on the DMO as proposed by the Opposition) and/or no levy drawn against the future Resource Rent Tax as suggested by the Greens. Instead, the strategy would leverage off the continued earnings of the Future Fund and/or ARIA over time resulting in an approximate net reduction of the total estimated cost (before earnings) of \$82Million.

Whilst the foregoing commentary is a lengthy dissertation (and perhaps a "suck eggs" exercise for some), I am not apologetic because I feel that it is important to show that this is not rocket science (I know because I have studied rocket science) and that you don't necessarily need (in this circumstance) a degree in Finance to make a reasonable forecast estimate of the future.

<sup>&</sup>lt;sup>7</sup> The Opposition suggested prior to the last election that it would cost \$98M over a 4-5year period for all those over age 55. The \$1.7B figure is the figure explicitly stated by the Minister for Finance in the Senate on the 24<sup>th</sup> of March 2011.

<sup>&</sup>lt;sup>8</sup> All Policy Makers should be concerned about artificially inflated estimates because they tend to negate the equitable deployment of funds for debt reduction or for other worthy Commonwealth programs (i.e. if the Government is hoodwinked into falsely putting aside \$1.7B as opposed to just \$302M then this limits where real excess funds could be deployed).

<sup>&</sup>lt;sup>9</sup> By comparison, if an average earnings return was estimated to be 8%, then this would reduce the starting capital to \$200Million.

# The Proposed Cost Reduction Strategy - Extended

Whilst I have dealt with the specific requirement to provide the Senate Inquiry with perhaps .. can I say ... the "Thornton Estimate" and a funding strategy for the DRFB/DFRDB in the foregoing; there is yet another more potentially explosive strategy that could not only save the Commonwealth at least 30% in its liability costs, but also free up approximately \$16Billion Dollars over the next 10 years.

To explain, and using the same parameters that were used to underpin the analysis in Table 1 and referring to Table 2 below: if the Parliament was to legislate and authorise COMSUPER to redirect its full appropriation for the payment of total annual pensions for DFRB / DFRDB away from Consolidated Revenue and in turn derive those funds directly from the Future Fund, then the Commonwealth not only stands to realise savings of approximately \$5.342Billion but it would also free up approximately \$16Billion of Consolidated Revenue funds over a 10 year period. These Funds could then be / should be redeployed to help reduce the Commonwealth's current debt, and in the longer term, provide additional funds to other mandated programs such as improved health services, age care etc. 10

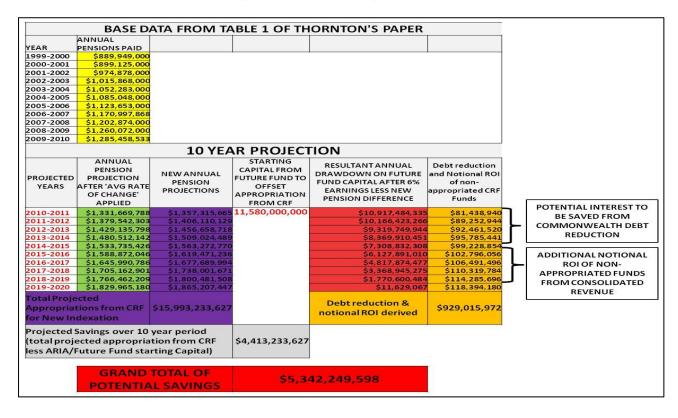


Table 2

Whilst I accept that there is some political aversion to access the Future Fund until 2020, it is perhaps prudent to ask: *At what cost is that aversion sensible or appropriate?* 

<sup>&</sup>lt;sup>10</sup> The cost reduction of the DFRDB scheme alone is \$4,413,233,627 (i.e. \$15,993,233,627 – \$11,580,000,000) but there is an additional multiplier in that the funds that are not appropriated from Consolidated Revenue can then be used to reduce the interest payable on current debt (i.e. assuming that debt is attracting interest at the current long term bond rate of 6%) and other notional returns on investment (ROI) that would be derived if the CR funds were redeployed elsewhere (e.g. improved funding for health services that increases and improves work participation, which in turn contributes directly towards "national productivity"). This additional multiplier amounts to approx. \$929M

# Another Consideration for Cost Savings and Prospective Legislative Reengineering

In addition to the foregoing, there is yet another potential cost saving strategy that the Parliament should investigate, and this is specific to the CSS, PSS and MSBS Schemes.<sup>11</sup>

To explain: when a final retirement benefit for a CSS / PSS / MSBS member is crystallised, these crystallised funds (i.e. specifically the employee contributions with interest and the employer productivity contributions with interest) are packaged up by COMSUPER and transferred into Consolidated Revenue.<sup>12</sup> In turn, COMSUPER then draws a full appropriation each year from Consolidated Revenue (CR) to pay the annual pensions of members.

If the components specified were not sent to CR but were instead left in ARIA to continue to earn interest then these additional earnings would help to reduce and offset the Commonwealth's longer term liabilities. The Commonwealth could delay appropriations by instructing COMSUPER to draw down on ARIA funds first before seeking a CR appropriation.

However with this strategy in mind, it is recommended that a full cost / benefit analysis be undertaken because the Parliament would need to assess and consider the opportunity cost of not having those funds being deposited into the CR (subjectively, I believe the cost will be minimal by comparison to the longer term benefit).

### **CONCLUSION**

Recommendation 1: Reject complexity and adopt a simplified approach to assess and actively manage superannuation liabilities. Funds like DFRDB have a track record that you can use to reasonably estimate and forecast the future.

**Recommendation 2**: Approve and initiate fair indexation for all members of the DFRB / DFRDB scheme irrespective of age. This is especially for those who have been forced into early retirement due to invalidity and for the widows, war widows and orphans that are doing it tough.

**Recommendation 3**: Approve and initiate fair indexation for all other public sector retirees (and their beneficiaries) who have a defined benefit superannuation entitlement. You have now been shown the yellow brick road to savings so there should be no excuse!

Recommendation 4: Approve and implement an indexation mechanism that reflects the CPI, PBLCI or MATWE, which is the higher. Our super is not welfare, and as such, it should be afforded better treatment.

Recommendation 5: Go the full hog! Save \$5.3Billion dollars over the next 10 years for the DFRB / DFRDB alone and redeploy the non-appropriated \$16Billion to help reduce Commonwealth debt and once debt has been arrested, redeploy additional funds to improve the productive capacity of the country.

**Recommendation 6**: Commission a cost / benefit analysis to determine the likelihood of any further potential savings that could be derived by not transferring the crystallised benefit of the employee and employer

<sup>&</sup>lt;sup>11</sup> I have already alluded to this strategy on pages 12-14 of my research paper at Annex A to this document.

<sup>&</sup>lt;sup>12</sup> So it is clear, the crystallised benefit is in fact: the employee contributions with interest; the employer productivity contributions with interest; and the notional unfunded employer contributions with CPI crediting.

productivity components into Consolidated Revenue (CR). The opportunity cost of those funds not being subsumed into the CR should also be considered.

I would be happy to receive calls or exchange email to clarify any points made here or for those who feel they could benefit from further explanation on related matters that may not be explicit within these pages.

Yours sincerely

Electronically signed and submitted via Senate Online Submission Facility

### PETER THORNTON

DipEng (Electronics & Comms), BEc, GradCert (Telecom Mgt)

# ANNEX A TO THORNTON SUBMISSION

Thornton's Response to Finance 'Update' (Rev1) - dated 5 April 2011

The imprecise data and flawed assumptions of the Department of Finance now revealed- Revision 1

By Peter Thornton 4/13/2011

This paper provides a critical analysis of the latest Finance "Update" to the Matthews Review regarding proposed new indexation arrangements for Commonwealth and Military Defined Benefit Superannuation Schemes. Policy Makers, Representative Organisations and individuals alike, will quickly come to recognise that the estimates generated under the Matthews' Review (and now in this latest Finance Update) can only be treated with extreme caution and scepticism because of the Establishment's use of imprecise data, flawed assumptions and ill conceived ideas.

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# REVISION 1 AMENDMENTS TO FIRST PUBLICATION RELEASED ON 30 MARCH 2011

- A1. Amendment page added.
- A2. Various headings with broken hyperlinks to Department of Finance's website 'Update' document now fixed.
- A3. Cross-reference to authors comments regarding Q & A 17 inserted at second last paragraph on page 8.
- A4. "Log R Square" comments on Page 20 have been removed because the use of this statistic was in error in the context of the comments being made.

### **GLOSSARY AND ACKOWLDEGEMENTS**

1922 Scheme Commonwealth Superannuation Act 1922

ABS Australian Bureau of Statistics

ACPSRO Australian Council of Public Sector Retiree Organisations

AGA Australian Government Actuary

CPI Consumer Price Index

CSS Commonwealth Superannuation Scheme, 1976

DFRB Defence Forces Retirement Benefits Scheme

DFRDB Defence Force Retirement and Death Benefits Scheme

DFWA Defence Force Welfare Association

Finance Department of Finance and Deregulation

LTCR Long Term Cost Report

Mercer (Australia) Proprietary Limited

MSBS Military Superannuation and Benefits Scheme

MTAWE Male Total Average Weekly Earnings

TAL Future Fund Target Asset Level

SCOA Superannuated Commonwealth Officer's Association

# **Acknowledgements:**

Whilst this paper remains substantially the work of the Author, it would certainly not have been refined to its current state without the critical review and sound suggestions from key executives of SCOA, DFWA and ACPSRO. Their identities (and that of a lone Actuary) will remain secret to protect the innocent .... but they know who they are .... THANKS!

Also, whilst the Author is somewhat critical of COMSUPER in the first section of this paper, he would nevertheless like to express his sincere appreciation to the staff of COMSUPER for their continued professionalism and support in the provision of data and advice that underpins the Author's analysis.

Finally, this report is dedicated to all those pensioners who have been forced into early retirement because of injury or illness and it is equally dedicated to the war widows, widows and orphans of those who have fallen; all of whom are suffering from the indignation of paltry income streams because of inadequate and broken indexation.

### INTRODUCTION & EXECUTIVE SUMMARY

The following research paper provides Policy Makers, Representative Organisations and Individuals alike, a critical analysis and detailed response to items that have been raised by the Department of Finance (Finance) in their 'Update' to the 2008 Matthews' Review<sup>1</sup>, dated the 18 Feb 2011 (found here 'Pension Indexation Update')<sup>2</sup>.

The purpose of this paper is to highlight, principally to Policy Makers, that they have been, and continue to be, misled by DoFD inter alia because their estimates lack precision both in terms of the data quality that has been used and also because of flawed assumptions and ill conceived ideas that have prevailed since the Matthews' Review.

### This report details:

- How Finance has failed to apply basic quality checks in the use of external (and its own generation of) data in the calculation of averages under Matthews and in this latest Update.
   The reader will see firsthand errors on 'annual average pensions' for DFRDB, and by Finance's own hand, how DFRDB pensions have on average eroded by at least 26%.
- How Finance, its commercial consultants and the Australian Government Acutary (AGA) have grossly overstated the estimates by using the flawed assumption of "increased pension take up rates". This assumption which fails historical scrutiny could easily account for a \$10Billion error in the liability estimates of the PSS and MSBS schemes alone.
- How Finance has not disclosed by its own hand the real message of the independent actuarial
  firm (Cumpston Sarjeant) who stated that they were 'not asked to review the appropriateness
  of base assumptions' and that they considered the "take up rate assumptions" to be
  'reasonable but highly uncertain'.
- How the use of the Notional Employer Contribution Rates (NECR) by Finance fails to tell the
  whole story behind the design of Defined Benefit Schemes with the DFRDB being analysed in
  detail.
- How Finance is not compliant with the Australian Standard by only presenting the "fire and brimstone" side of the balance sheet by not accounting for other contingent assets / offsets in their estimates; such as the revised clawback of 30%, the \$71.6Billion and \$22Billion in funds under management within the Future Fund and ARIA respectfully. They continue to fail in not providing policy makers with the real "net cost"!
- How Finance has, through its Red Book and in this latest update, continue to artificially inflate
  and misinform Policy Makers (i.e. in the context of Commonwealth and Military Super) by
  overstating the unfunded liabilities by approximately \$25Billion.

By the end of this paper the reader should be under no illusion that the estimates generated by Finance and its subsidiaries have failed even basic arithmetic at the expense of 600,000 eligible recipients of Commonwealth and Military Defined Benefits Superannuation Schemes.

<sup>&</sup>lt;sup>1</sup> 'Review of Pension Indexation Arrangements in Australian Government Civilian and Military Superannuation Schemes', Trevor Matthews, December 2008.

<sup>&</sup>lt;sup>2</sup> The structure of this response matches the Finance Update and some headings throughout this response will link the reader directly back to the corresponding dialogue in the Finance Update.

### THE ANALYSIS

# **Overview and First Impressions**

On review of the draft Finance Update and now the published document (Finance link is here), one gets the distinct impression that a "shot gun" approach is being applied by Finance to try and dilute and defray concerns and specific questions that have been raised and explicitly asked; particularly unanswered questions on notice in the Senate by Senator Humphries<sup>3</sup>.

Representative Organisations and Policy Makers should insist that the original and any subsequent questions be directly and explicitly answered in considerable analytical detail, because the estimates of this latest Update lack considerable depth and transparency<sup>4</sup>.

### **Updated Cost Estimates (Finance link is here)**

On review of the cost estimates cited, the fact remains that Finance, Treasury, Mercer and now presumably (by implication) Cumpston Sarjeant, would all appear to have continued to perpetuate cost estimates on a foundation of flawed assumptions, imprecise data and ill conceived ideas.

To illustrate this point on the basis of imprecise data, the following observations are offered:

Dates	Contributions		Commutatio	Transfer Values (Out)	Contrib	Retirem ent Pay Recipien	y Pay Recipien	Spouse Recipien	# of Orphan Recipien	ancy	Total # of Pensioners as calc by	Av Retiremen t Pay as	reporte d by COMSU	CPI creditin
1995-1996	\$50,078,000	\$709,898,000	\$111,234,000	\$864,000	20,485	38,839	2,999	4,701	0	0		\$15,253.83		
1996-1997	\$48,026,000	\$772,949,000	\$115,125,000	\$518,000	18,732	39,729	2,990	6,756	0	0	49,475	\$15,623.02	\$15,623	1.3
1997-1998	\$45,541,000	\$798,643,000	\$148,648,000	\$478,000	16,880	40,630	2,979	6,333	627	0	50,569	\$15,793.13	\$15,955	0.0
1998-1999	\$42,034,134	\$825,676,000	\$153,913,000	\$0	14,992	41,807	3,016	6,540	589	0	51,952	\$15,893.06	\$15,964	1.1
1999-2000	\$38,542,000	\$889,949,000	\$144,604,000	\$0	13,341	42,655	3,047	6,774	536	0	53,012	\$16,787.69	\$16,788	2.8
2000-2001	\$35,510,000	\$899,125,000	\$181,824,000	\$0	11,685	43,719	3,109	6,938	502	0	54,268	\$16,568.24	\$16,568	6.0
2001-2002	\$31,925,000	\$974,878,000	\$141,628,000	\$0	9,971	44,322	3,141	7,141	484	0	55,088	\$17,696.74	\$17,697	2.9
2002-2003	\$29,422,000	\$1,015,868,000	\$176,512,000	\$0	8,763	44,894	3,129	7,297	551	0	55,871	\$18,182.38	\$18,617	3.4
2003-2004	\$28,229,000	\$1,052,283,000	\$149,567,000	\$0	7,979	45,837	3,968	10,153	458	1,003	61,419	\$17,132.86	\$19,076	2.0
2004-2005	\$27,717,000	\$1,085,048,000	\$164,680,000	\$0	7,252	44,404	3,127	7,647	410	999	56,587	\$19,174.86	\$19,174	2.3
2005-2006	\$26,083,408	\$1,123,653,000	\$168,554,000			44,612	2,340	7,780	389	1,001	56,122	\$20,021.61	\$21,554	3.0
2006-2007	\$23,184,716	\$1,170,997,868	\$160,640,000			44,769	3,148	7,923	352	992	57,184	\$20,477.72	\$20,478	3 2.6
2007-2008	\$25,311,828	\$1,202,874,000	\$118,385,000	\$0	5,600	44,577	3,148	8,164	301	984	57,174	\$21,038.83	\$21,486	4.2
2008-2009	\$24,769,662	\$1,260,072,000	\$155,905,000	\$0	4,630	44,432	3,154	8,300	289	989	57,164	\$22,043.10	\$22,092	5.0
2009-2010	\$22,362,485	\$1,285,458,533	\$95,492,000	\$0	4,246	44,154	3,146	8,422	272	987	56,981	\$22,559.42	\$23,549	1.3

Table 1

<sup>&</sup>lt;sup>3</sup> The final date of this writing is 30 Mar 2011. The Senate should be concerned that it has been six months now and no answers. What a joke!

<sup>&</sup>lt;sup>4</sup> DoFD seems intent on only presenting the liabilities in broad terms by only referring to "Civilian" and "Military" schemes collectively without presenting data for each scheme individually. This amalgamation, together with a lack of detailed analytical data, makes in almost impossible to reverse engineer the estimates.

Table 1 reproduces, in part, the Defence Force Retirement Benefits (DFRB) / Defence Force Retirement & Death Benefits (DFRDB) annual data that has been compiled by the author and that was prepared and released by COMSUPER in their annual reports to Parliament. In doing so, COMSUPER also included a calculation of the "average annual retirement pay / pension" statistic for each year (this can be seen in the third last column from the right). The **red** entries<sup>5</sup> in this column indicate errors that the author has uncovered in COMSUPER's reported calculations as set against the author's own calculations in the preceding column.<sup>6</sup>

Ironically, COMSUPER's 2009-2010 average pension calculation was suppose to be a correction from an original error of \$39,256<sup>7</sup>. In any case, and for this year alone, the corrected figure of \$23,549 still represents a per capita difference/error of approximately \$1,000 (or viewed another way ... a \$57Million error for all recipients on average).

Whilst the reader may consider this to be nit picking, it must be remember that the aggregation of a number of small errors here and there can compound the size of the liability over the long term. I am sure by the time you get the end of this paper you will have a new perspective of this fact.

In concert with the foregoing, Table 2 below is reproduced directly from the Finance Update (i.e. from Question & Answer 17 (Finance link).

	Scheme										
	DFRB	DFRDB	MSBS	1922 Scheme	CSS	PSS	Total				
Number of pensioners	4,196	52,753	7,227	6,017	109,596	18,818	198,607				

Table 2

Here again we see errors in the precision of data being presented directly by Finance because, by comparison, COMSUPER's annual report data is reproduced at Table 3.8

	DFRDB	DFRB	Total
Retirement	43 372	1060	44 432
Invalidity	2428	726	3154
Reversionary			
- spouses	5904	2396	8300
- children and orphans	282	7	289
Redundancy	988	1	989
Total pensions	52 974	4190	57 164

Table 3

<sup>&</sup>lt;sup>5</sup> The red entry in Table 1 for 1996-1997 highlights a retrospective and subsequent correction by COMSUPER in their 1997-1998 report.

<sup>&</sup>lt;sup>6</sup> The author has undertaken a careful review of all these errors and has found (in most cases) where these errors have occurred. The main cause has been predominately where DFRB specific data has not been included in the aggregation of the statistic for "total # of pensioners".

<sup>&</sup>lt;sup>7</sup> This correction came about because of the keen observations of Military Retirees, not least that of Major Bernie McGurgan (Rtd).

<sup>&</sup>lt;sup>8</sup> Comsuper/DFRDB 2008-2009 Annual Report <a href="http://www.dfrdb.gov.au/lib/pdf/dfrdb">http://www.dfrdb.gov.au/lib/pdf/dfrdb</a> 0809 .pdf, Table 5, page 32.

It begs the question: Why are there differences in totals when the demographic numbers have been derived from the same source and have been formally published and tabled before Parliament?

In addition to errors in the precision of base data, Finance seems to have a propensity to artificially inflate averages. By way of example, Table 4 is reproduced in part directly from the Matthews' Review.<sup>9</sup>

			DFRE	В			
Retirement Year		2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
New Pensioners	Number	1,086	818	828	778	729	485
	Average Pension 2007–08	\$23,959	\$25,424	\$27,686	\$27,980	\$27,906	\$29,740
Those who	Number	42	38	29	25	17	21
took full Pension	Average Pension 2007–08	\$34,132	\$31,144	\$39,328	\$50,228	\$42,206	\$46,377
Those who	Number	1,044	780	799	753	712	464
took part Pension and part Lump Sum	Average Pension 2007–08	\$23,550	\$25,145	\$27,263	\$27,241	\$27,565	\$28,987
	Average Lump Sum	\$121,200	\$133,973	\$148,895	\$153,410	\$160,006	\$168,406

### Table 4

On inspection, the reader will quickly see that there is a whopping \$7,948 difference in the 2007-2008 stated "average pension" figures as compared to the figures for the same period from Table 1 of this document<sup>10</sup>. However, some consideration should be given for the fact that the main population of retirees from Table 1 also has a percentage of revisionary pensioners equalling approximately 14.3% of all pensioners; the resultant pension still represents a huge difference of approximately \$7522.

When the reader considers that as at 30 June 2007, 58% of all retirement pay in the DFRDB was less than \$20,000, it just reinforces the erosion that has occurred.

Contrary to what Finance tries to portray in Matthews (i.e. that average pensions are high), by their very own hand these figures only reinforce the fact that on average, the relativity of one's retirement pay, and therefore one's purchasing power and standard of living, has been significantly eroded on average by an incredible 26%!.

Another major gross error with respect to Table 2 above is discussed at Q & A 17 here.

Finance's lack of precision and quality assurance in the presentation of data together with their attempts to mislead Policy Makers significantly undermines the confidence that 600,000 eligible recipients and their representatives have in any advice being tendered to the Parliament.

retirement pay benefit was considered here.

<sup>&</sup>lt;sup>9</sup> Matthews Review, Table 2 Appendix F, pg 58. http://www.finance.gov.au/superannuation/docs/Pension Review.pdf

<sup>&</sup>lt;sup>10</sup> This difference has been calculated between the Matthews figure and that of the author's figure in the proceeding table. If the COMSUPER figure was to prevail then the difference would be approx \$1,000 less. <sup>11</sup> This figure is basis 2007-2008. The percentage erosion would be considerably larger if the median

This now begs the question:

"Were averages used by Finance (and their subsidiaries) in the calculation of any estimates in the Matthews' Review and this new Finance Update? "

If the answer is yes, then apart from the errors presented within this document, averages significantly overstate the situation faced by many retiree recipients, and would in turn (and again) generally overstate the estimates calculated.<sup>12</sup>

### Peer Review of Actuarial Advice (Finance link is here)

Finance's advice in the Update clearly shows a lack of transparency and perhaps even a degree of aloofness by the Actuarial fraternity. Given the serious concerns that have been raised in the past and again within these pages, Policy Makers should insist that all actuarial assumptions be peered reviewed and validated by not only independent actuarial entities, but also from industry, academic and representative organisations that have the skills and a specific interest in such matters.

Given the high variability of the estimates that have been generated, and given the significance of this matter in relation to the retirement outcomes of 600,000 constituents, I believe the Senate Sub-Committee for Finance should be the approving authority and arbitrator on all assumptions used, and any future changes thereof, in the determination of Commonwealth superannuation liabilities.

### Clawback (Finance link is here)

The new "clawback" figure is a welcome acknowledgement by Finance that the figure presented in the Matthews Review was considerably underestimated. However, given this revelation, it now begs the question:

How and why has there not been an effective reduction in the overall figures for the 2020 liability?

Given that Finance has stated under the heading "Assumptions" that the new Update utilises the same assumptions that were used in Matthews; a new question now emerges:

How and what other parameters have significantly changed (within 3 years) that would explain the differential increase in the 2020 estimate?<sup>13</sup>

### **Assumptions** (Finance link is here)

It has been reinforced in the new Update that Finance and the Australian Government Actuary (AGA) continue to perpetuate the assumed but flawed notion that new indexation will result in "increased take up rates of pensions" in lieu of (in part or in total) a lump sum for the PSS and MSBS.

Given the considerable significance of such an assumption on the calculation of the forward estimates, the question still remains:

<sup>&</sup>lt;sup>12</sup> The author believes that Finance inter alia should be utilising the full frequency distribution of payments (where available) in order to calculate and present the forward estimates with greater precision.

<sup>&</sup>lt;sup>13</sup> The figures are now \$61.0B and \$87.8B as opposed to Matthews's \$57B and \$82B for the indexation mechanisms cited. This represents a \$4B and \$5.78B increase /error in the Matthews estimates of 2009. Again, we see a large variation in estimates that just don't seem to stack up.

"On what historical basis has this assumption been made and where's the hard data that substantiates such a proposition?"

The author believes that the establishment will be unable to adequately produce any evidence to support their assumption because the assumption fails to recognise that human nature will almost always gravitate to a "bird in the hand". This tendency will be even more the case as people approach retiring age (i.e. 55-60-65) because people instinctively realise that they only have about 20 years or so to live, if they're lucky.

It is highly unlikely that human nature will change in the foreseeable future (and in the context of the schemes in question) when members make their choice about the average size of lump sum they wish to access.

However, in order not to perpetuate the practice of presenting unsubstantiated assumptions or speculations about human behaviour or preferences, an analysis of over 40 years of DFRB/DFRDB payments data has been undertaken and is captured (in part) within the following graphs<sup>14</sup>.

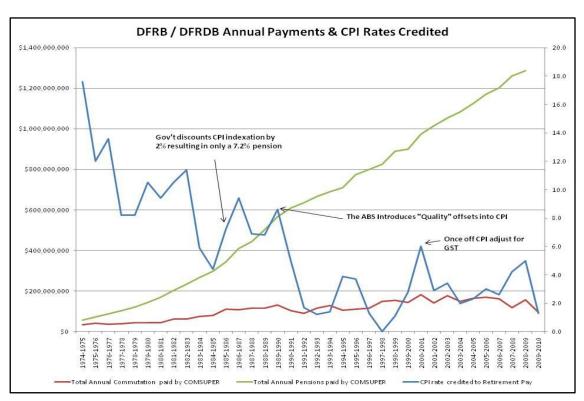


Figure 1

Firstly, it is considered important to show readers the history of payments data in its raw form so that you can see the growth in Pensions (green line) and Commutation (red line) over time. Overlayed upon these two projections is the Consumer Price Index ((CPI) ... blue line) that has been

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<sup>&</sup>lt;sup>14</sup> It was my intention to add CSS, PSS and MSBS data into this analysis but unfortunately the annual reports for these schemes did not generate a consistent and contiguous comparative data set that could be easily interpreted and analysed against the DFRB / DFRDB schemes. An FOI request has been submitted to COMSUPER but this request is yet to be satisfied.

credited to annual pensions, which explains, in part, the rise in pensions relative to commutation lump sums.

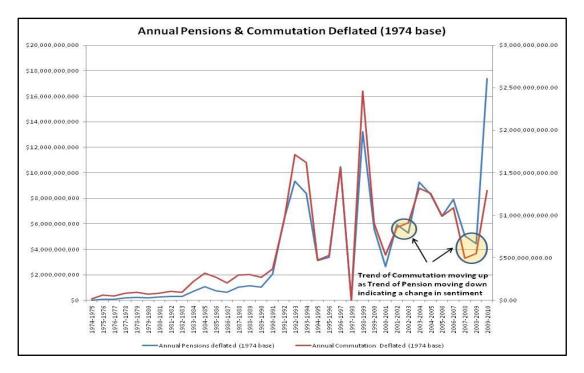


Figure 2

In the field of economics, we use a technique to deflate price-related time series in order to try and extract and evaluate underlying trends and/or cycles that maybe obscured by external forces such as inflation.

As can be seen in Figure 2., once you deflate the CPI crediting rates out of the pension and commutation projections from Figure 1, you can see a much clearer interrelationship between the two and the subsequent preferences of scheme members in general.

Whilst the deflated projections show some amplitude variation between pensions and commutation at various points in time, the projections nevertheless exhibit (almost without exception) the same trend in the peaks and troughs over time. For the purposes of our investigation, any amplitude variation is not overly important in the determination of a member's pension / lump sum preference here.

However, what is extremely important is where you can find divergences between commutation and pensions (i.e. where commutation moves out of sync with pensions) as can be seen in the areas marked by the circles. These two divergences show a clear change in member preferences, where the balance of individuals took more lump sum relative to pension; presumably because of a fear of the then ensuing Dot Com bubble and SARs epidemic (2000-2003), or the more recent Global Financial Crisis (2007-2009).

These two junctures demonstrate unequivocally that the "bird in the hand" principle reigned supreme, which brings into serious question the assumptions made by Finance inter alia. On the

basis of this investigation and not withstanding possible variations in other schemes, the author believes that the only way Finance's assumption would hold true in the future is if somebody found a cure for death!

Given the advice and data contained within Cumpston Sarjeant's peer review, one can only guesstimate that there would be at least a \$10Billion error in the combined forward estimates due to the multiplier effect of this single assumption alone. 15

With the foregoing in mind, the historical evidence is clear that the Establishment's assumption of pension "take up rates" has no historical basis in fact when extreme levels of indexation percentages are present (i.e. extremely high rates of inflation had no effect on preferences). Therefore, it is strongly recommended that Policy Makers insist on having this assumption immediately removed from all calculations.

The reader will find further compelling evidence of this flawed assumption (i.e. by the independent Actuary) at my Q and A 3 comments later in this paper (link is <a href="here">here</a> ).

### **Unfunded Liability Estimates (Finance link is here)**

Given the data errors and flawed assumptions that have been uncovered in the past and again in the foregoing, together with further items of concern to be presented later in this paper, the author believes that it is unacceptable for Finance to aggregate the estimates of individual schemes into two broad liability categories of just 'Civilian' and 'Military'.

Statistical data and estimates for each scheme should be clearly and individually identified to provide transparency and thereby allow Policy Makers and Observers to gain a better perspective of all the dimensions and liabilities at hand, on a scheme by scheme basis.

In addition to this, and as I have stated many times before, the Matthew's Review (and now this latest Update) fails to provide Policy Makers with a balanced view of the "real net cost" of the current liabilities and any resultant increases in liabilities to ameliorate the indexation of public sector superannuation<sup>16</sup>. Sadly, it would appear Finance only wants to present the "fire and brimstone" side of the balance sheet, which seems to be inconsistent with the expectations of the Australian Standard (i.e. AASB 119).

The author believes that under AASB 119, Finance would be required to recognise the net surplus or deficit of the Commonwealth's obligation by undertaking a valuation of the gross liability towards

<sup>&</sup>lt;sup>15</sup> http://www.finance.gov.au/superannuation/CumpstonSarjeantReport.html

<sup>&</sup>lt;sup>16</sup> Current indexation has been substantially broken since 1989 after Australia's adoption and manipulation of "quality" changes into the CPI together and with the abandonment of centralised wage arbitration in the early 1990s, which was underpinned substantially by the old CPI. In 1989 the ABS changed the construction of the CPI to be in accordance with the principles set out by the International Labour Organisation (ILO) in the publication Consumer Price Indices; An ILO Manual, by Ralph Turvey et al (ILO, Geneva 1989). These changes are paramount to a breach of the "employment contract" of former Australian public sector employees. For a more detailed view of "quality" issues please see <a href="http://www.smh.com.au/business/how-damned-lies-hit-the-consumer-price-index-20100330-rbkh.html">http://www.smh.com.au/business/how-damned-lies-hit-the-consumer-price-index-20100330-rbkh.html</a> or indeed ABS website submissions on the recent CPI Review, which can be viewed here(Rob Bray's detailed submission regarding "quality" is required reading: <a href="http://www.abs.gov.au/websitedbs/D3310114.nsf/Home/Sixteenth+series+review+of+the+CPI+-+Submissions">http://www.abs.gov.au/websitedbs/D3310114.nsf/Home/Sixteenth+series+review+of+the+CPI+-+Submissions</a>

employees less the fair or market value of any scheme assets. Surely the Future Fund and ARIA funds under management should be resolved to a total net liability or surplus (aka the "real net cost").

With this in mind, the Update did not disclose (as a liability offset) the \$71.6B sitting in the Future Fund and/or the approximate \$22B in funds under management with COMSUPER / ARIA.

With AASB119 aside, why is it that Finance/Treasury seems reluctant to provide Policy Makers with a "net cost" based upon projected earnings forecasts as potential offsets to extant and prospective liabilities under new indexation arrangements? If these organisations are capable of producing far flung forecasts on commodity prices for a Rent Resource Tax and can somehow model cause and effect and taxation receipts with regard to Climate Change, then why can't they model scenarios on the future earnings of the Future Fund and ARIA with respect to Commonwealth Super liabilities?

The author has it under good authority that Finance somehow "nets off" ARIA funds from the liability estimates. If this is the case, then I believe the Establishment's approach and calculations here are flawed, particularly when you consider the situation of members with preserved benefits.

To explain, when benefits in the PSS/MSBS schemes are preserved the sum of the earnings of employee and employer productivity components generally increase at a greater rate than the notional employer component over time as can be seen in Figure 4.

The very nature of the compound growth on earnings could under certain circumstances, result in the total employer component being substantially smaller in percentage terms when the retirement benefit is fully crystallised. The graph in Figure 3 tries to illustrate this point.<sup>17</sup>

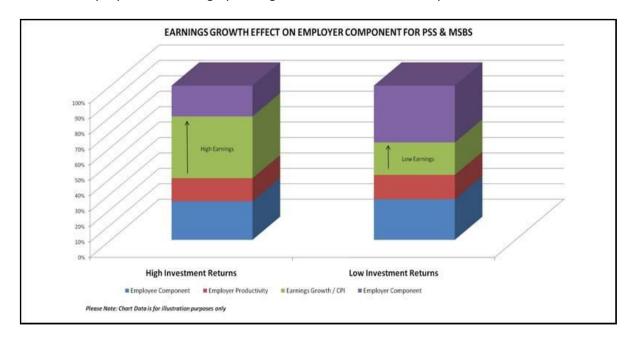


Figure 3

<sup>&</sup>lt;sup>17</sup> An example here might be a young 20 year old and who only serves 10 years on the default contribution rate of 5% and then leaves. At age 60, after 30 years of compound growth the final crystallised balance would have a huge affect on the combined employee/employer productivity components as compared to the employer unfunded component in percentage terms.

Figure 4 below provides a different perspective of Figure 3 by instead illustrating a real world view of PSS crediting rates to CPI crediting rates compounded over the period shown.<sup>18</sup>

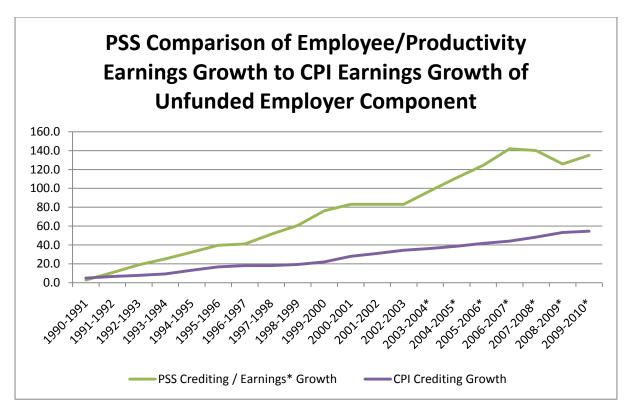


Figure 4

In addition to the foregoing, the employer component and any crediting of CPI continues to remain notional as payments begin; but at the outset of retirement beginning, the entire crystallised balance is transferred to Consolidated Revenue and therefore continues to grow (notionally) in the hands of the Commonwealth until the entire balance is exhausted.<sup>19</sup>

The Compound growth rate of those notional funds in the hands of the Commonwealth (i.e. directed elsewhere into the domestic economy) should not be underestimated and should be front and centre on the balance sheet, because at the moment, the balance sheet is skewed to make the Public Sector retiree look like a parasite on the public purse.

But wait on; Figure 4 tells yet another story! If the PSS, CSS and MSBS schemes had been engineered differently, from their inceptions, the fund's earnings together with retiree benefits could have remained within ARIA to continue to earn and substantially reduce or perhaps even extinguish any appropriation from Consolidated Revenue.

With the foregoing in mind, Policy Makers should seriously revisit scheme designs and consider legislative reengineering of the COMSUPER benefit payment process and ARIA funds management. Notwithstanding some additional risk, an investigation might very well reveal considerable savings

<sup>&</sup>lt;sup>18</sup> The CSS and MSBS Schemes would exhibit similar projection profiles to that represented in Figure 4.

 $<sup>^{19}</sup>$  A fuller explanation of growth in the hands of the Commonwealth will be provided in the next section.

in overall superannuation liabilities and provide yet another (organic) means of funding new indexation (please see my treatment re: Future Fund).<sup>20</sup>

Whilst the liability estimates under new indexation might increase by a factor of wages or living costs as compared to CPI; an incremental increase of say 2% at most above CPI pales into insignificance when the total funds under management of the Future Fund and ARIA have, and are likely to continue to provide, returns well in excess of their respective legislative mandates.

In order to substantiate this even further, Figure 5 provides an historical view of the third order compound growth rates of stock accumulation indices for Australia and the US stock markets over time<sup>21</sup>.

# 12% 10% 8% 6% 4% 2% 0% 1875 1885 1895 1905 1915 1925 1935 1945 1955 1965 1975 1985 1995 2005 2015

**Stock Market Trend Annual Growth Rates** 

Figure 5

With an annual return of 10.6% for June 2010, and a current and similar annualised return likely for 2011, the author continues to affirm (as indicated in Figure 6 below) that the utilisation of some of the excess earnings from the Future Fund alone would be more than enough to satisfy and offset any annual cash cost increase incurred by new indexation, whilst still maintaining and achieving the Future Fund's original legislative intent.<sup>22</sup>

By accessing excess earnings from the Future Fund (and/or the proposed reengineered ARIA funds under management) the Parliament could effectively keep the entire cost of new indexation "off

<sup>&</sup>lt;sup>20</sup> Policy Makers should consider reengineering the schemes so that crystallised retirement balances (less the notional employer component) remain within ARIA to continue to grow. COMSUPER then draws on ARIA funds to fully pay down benefits internally, only drawing upon Commonwealth Appropriation where necessary in the future.

<sup>&</sup>lt;sup>21</sup> Source: Robert Vagg in his article <a href="http://www.investors.asn.au/bulletins/equities/2009/11/us-australian-stock-markets-comparison/default.asp#footnote">http://www.investors.asn.au/bulletins/equities/2009/11/us-australian-stock-markets-comparison/default.asp#footnote</a>,

The reader is once again directed to the author's original "Net Cost Analysis" document, dated Nov 2009.

book" from the main budget, potentially freeing up current appropriations and allowing the Government of the day to focus on its programme agenda whilst keeping the "on book" budget in balance.<sup>23</sup>

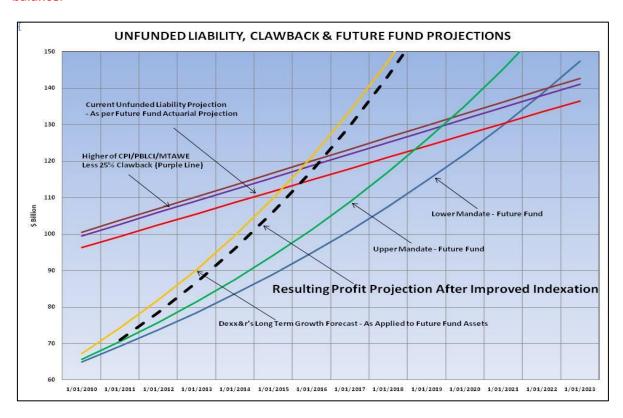


Figure 6

# Notional Employer Contribution Rates (NECR) (Finance link is <a href="here">here</a> .. scroll down)

The utilisation and constant reporting of NECR figures fails considerable logic in my mind because once again these statistics only provide one side of the balance sheet.

The NECR figures fail to allude to or take into account the long term effects of the employee's after tax contributions or indeed make an allowance for the Government's own deferment of notional employer contributions that have been ploughed directly into (or remain notionally within) Consolidated Revenue. These real and notional contributions over time have provided the Commonwealth with an interest free loan at the employee's expense.<sup>24</sup>

In fact, the evidence is clear that on average only about 25% of all DFRB/DFRDB members served the required 20+ years to qualify for retirement pay. The other 75% only received their contributions back without interest and of course with NO access to the employer's notional contribution.

<sup>&</sup>lt;sup>23</sup> Future Fund earnings continue to track the forecast represented by yellow line in Fig 6.

<sup>&</sup>lt;sup>24</sup> It needs to be remembered that a 5.5% after tax contribution is equivalent to a reduction in a member's disposable income of approx 8% depending upon their prevailing marginal tax rate. This very fact forced a lot of younger Defence Force and Commonwealth members (and their families) below the poverty line in the 1980s when pay rises were few and far between.

In addition to the foregoing, and in the case of DFRB/DFRDB, the NECR fails to acknowledge or account for the \$126.94M that was transferred into Consolidated Revenue from the DFRB Accumulation Fund in 1976<sup>25</sup>. The net present value of those funds as at 30 Jun 2010 would have been approximately \$3.77Billion (nominal).<sup>26</sup>

Also, NECR figures do not account for the fact that the Government has and continues to assume a huge NECR for the whole community through tax concessions and therefore lost revenues.

The NECR figures presented by Finance, and earlier by Matthews, only shows their lack of analytical depth in accounting for, or illustrating, the real opportunity cost of that foregone revenue in the context of the NECRs for former employees.<sup>27</sup>

In order to illustrate this point further, and from an historical stand point in time, another Researcher (Julia Perry) found that:

"in 1986-87 the cost of tax concessions [for superannuation] had been estimated by the Treasury at \$3,470Million ... for 2.3 million contributors ... and that the public subsidy on employer contributions was equivalent to the amount of the contribution times the employee's marginal tax rate, so an employee earning more than \$35,000pa would be subsidised at a rate of 49% while someone with half that income would be subsidised at 29%"<sup>28</sup>.

With respect to the public sector schemes in question, the NECR figures presented by Finance do not account for or evaluate the Return on Investment (ROI) that employee contributions and indeed the deferment of "notational" employer contributions had on the increased productive capacity of the economy in the provision of not least improved infrastructure and services including schools, health, communications, roads, trade ports etc.

In order to expand on this further, Figure 7 attempts to capture graphically the third order compound effects (in real terms) of the DFRDB employee and notional employer-deferred contributions that benefited the Commonwealth as compared to total Commonwealth outlays for the DFRDB scheme from the Consolidated Revenue Fund (CRF).<sup>29</sup>

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<sup>&</sup>lt;sup>25</sup> Source: 'Defence Forces Retirement Board Report to Government', dated 28 Jun 1979. However, there is evidence within the annual reports of 1971 and 1972 that the DFRB Fund had in fact approximately \$160M in funds under management at that time.

<sup>&</sup>lt;sup>26</sup> \$3.77B has been calculated on the annual declared 10 year bond rate in June each year Source: RBA, Australian Government Bond Rates at <a href="http://www.rba.gov.au/statistics/tables/xls/f02hist.xls?accessed=1803-07:42:28">http://www.rba.gov.au/statistics/tables/xls/f02hist.xls?accessed=1803-07:42:28</a>

The Matthew's Review makes a superficial comment about NECRs and presents a nebulous cost comparison between some obscure AMP reference and Commonwealth and Military NECRs. Chapter 2 page 10 refers.

28 Social Research Paper No 43 – "Income Support for Older Woman", dated October 1998, pg 22

http://www.fahcsia.gov.au/about/publicationsarticles/research/dss/Policy\_Research\_Series/Documents/policy\_researchpaperno43.pdf

29 The inflation adjusted long term 10 year bond rate has been applied to the employee and employer-

<sup>&</sup>lt;sup>29</sup> The inflation adjusted long term 10 year bond rate has been applied to the employee and employer-deferred contributions. In order to provide some degree of relativity to community standards, the deferred notional employer contribution rate was peg by the author at 9% of the extrapolated superannuation salaries as opposed to the 15-16% that is often quoted. However, whilst the long term bond rate has been used here for ease and for potential further comparative research, it must be said that it is not a preferred statistic for

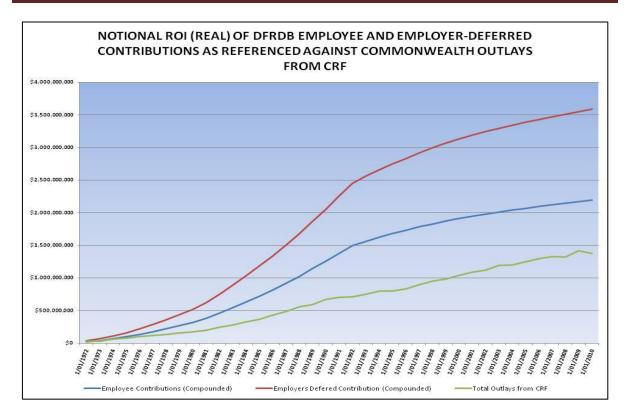


Figure 7

As can be seen in Figure 7, apart from a number of negative returns in the early 1970s, the Commonwealth has been a significant net beneficiary of the DFRDB's design where the third order compounding growth of those contributions has produced an inflation adjusted ROI that has and continues to outstrip the actual cost outlay of the scheme by a country mile<sup>30</sup>. I have every confidence that the other defined benefit schemes that are under consideration would also exhibit similar results as Figure 7 illustrates.

Contrary to the assertion and falsity of Matthews, Professor Pollard ("who was an Actuary" in 1972) clearly understood that the "Commonwealth Servant" had contributed to "national productivity" in a number of ways (i.e. through national income and wealth). He in turn recommended that the "Servant" should be afforded a share of that productivity through an indexation mechanism of the CPI multiplied by a factor of 1.4. An explicit copy of Professor Pollard's recommendation is enclosed at ANNEX\_A.

With the foregoing in mind, it is an absolute nonsense and an affront to public sector superannuates that they should continue to be treated differently to the rest of the community in terms of appropriate indexation and taxation of their "paid for" superannuation entitlements.

illustrating the underlying multiplier effects that would have undoubtedly influenced the growth in GDP over time

<sup>&</sup>lt;sup>30</sup> These projections are considered conservative because they only use a 9% notional employer contribution rate and annual inflation adjusted compounding factor based on the 10 year bond, but as we know, the employee's contributions were paid fortnightly into the CRF (but this affect is somewhat negated in fortnightly pension outlays from the CRF in payment).

# **COMMENTS ON FINANCE'S Q&A** (Finance's Q&A main link is <a href="here">here</a>)

# Comments on Finance's Q\_and\_A\_1 (Link)

No specific comments to this answer but please see comments at Q&A 4 below.

# Comments on Finance's Q\_and\_A\_2 (Link)

No specific comments to this answer

# Comments on Finance's Q\_and\_A\_3 (Finance Link)

As stated previously, Finance makes a specific point that it has engaged an independent actuarial firm Cumpston Sarjeant to provide an assessment of the "reasonableness" of Mercer and AGA assumptions.

Cumpston Sarjeant concluded in broad terms 'that the estimates of financial impacts of changes to indexation arrangements within the Australian Government's civilian and military superannuation schemes are reasonable' presumably because they considered the impact of the assumptions to be small by comparison to the overall liability. However, I would contend (and I am sure many Politicians would agree) that any error that is stated in the \$Billions is a cause for concern.

Cumpston Sarjeant also makes it very clear (under the 'Review of Economic Assumptions') that they were 'not asked to review the appropriateness of base assumptions' (i.e. the discount rate of 6%, CPI of 2.5%, and salary inflation of 4%).

Cumpston Sarjeant also stated under the 'Review of Behavioural Assumptions' (i.e. with reference to "take up rates") that they 'consider that the assumed change is reasonable <u>but highly</u> <u>uncertain</u>'.

They also state that 'In discussions, Michael Burt [from the AGA] indicated that the change in pension take-up represented perhaps 20-30% of the initial increase in liability, although he had not directly quantified it.'

In other words, there is absolutely no historical foundation to the "take up rate" assumptions that have been made .... they have just been plucked out of thin air!

What irks me to no end here, is that Finance (whilst disclosing this information deep in the bowels of the Q&A) did not make it clear in their executive summary that Cumpston Sarjeant had some very clear caveats about their observations of "reasonableness". In my mind, this matter eats at the very heart of the Department's transparency when it comes to providing unbiased policy advice.

The Finance link to Cumpston Sarjeant's full report is here

(Return back to previous discussion at <u>Unfunded Liability Estimates</u>)

# Comments on Finance's Q\_and\_A\_4 (Link)

On review of this answer it has now been explicitly disclosed that the unfunded liabilities Tabled in their Answer and the 2010-2011 budget papers (i.e. the Red Book) now include the "Parliamentary Contributory Superannuation Scheme, Governors-General Scheme and Federal Magistrates Statutory Death and Invalidity Benefits Scheme" .... schemes that were not in scope and that are predominately non-contributory and indexed by wages!

Given the intent of Finance's Update was to update the Matthews' Review and to address issues about the indexation of Commonwealth and Military Superannuation alone, it seems <u>quite</u> <u>inappropriate</u> and <u>indeed</u> extremely <u>misleading</u> when you consider the answer to Question 1 (i.e. the schemes that are under serious contention) that Policy Makers are now being bamboozled by the inclusion of liability estimates for additional schemes, which overstate the liabilities that are specifically in question.

With the foregoing in mind, it now begs the question:

What are the <u>actual specific liability estimates</u> for each scheme that were considered under the Terms of Reference for the Matthews' Review and which were referenced in Finance's Question 1 of this latest Update?

# Comments on Finance's Q\_and\_A\_5 (Link)

No specific comments to this answer.

# Comments on Finance's Q\_and\_A\_6 (Link)

Finance's answer to this question again raises considerable concern about the validity of assumptions and the wide variability of the discount rates that are used. It is extraordinary that the application of a discount rate can vary from 6% to 7.2% depending upon whom the Actuary is and that this variation can amount to an approximate differential cost/error of \$25B.

In order to quantify this matter further, Figure 8 below provides a snapshot of the 10 year bond rate over the period shown. Given that the average of the 10 year bond rate over the last 38 years was 9.37%; and with the Future Fund Actuary's use of a 7.2% discount rate, it seems quite <u>unreasonable</u> for Finance or the AGA to have a considerably lower discount rate when you are dealing with 40 year odd liability estimates.

As a practitioner of economic history, one thing is certain, history will repeat and with global monetary policy already tightening in other regions, you can bet that the Reserve Bank of Australia will move quickly to apply and sustain similar policies to arrest inflation, thereby forcing the long term bond rate higher.

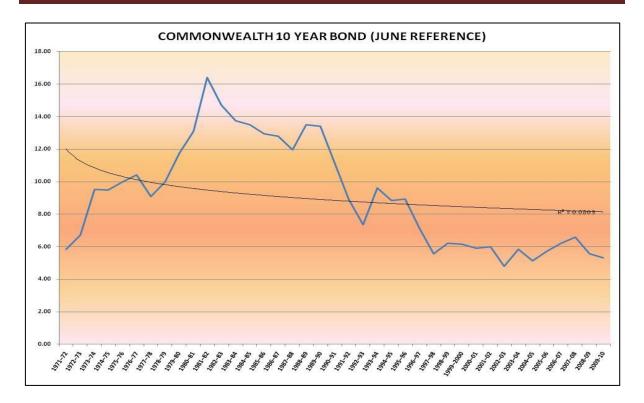


Figure 8

As an adjunct to the foregoing, the Future Fund Actuary stated his 2008 report that that the Discount Rate used in the Long Term Cost Reports for the *Parliamentary Contributory Superannuation Scheme*, *Governors-General Scheme* and the *Federal Magistrates Statutory Death and Invalidity Benefits Scheme* was 6.4%.

The question now screams out:

How is it that schemes such as the ones cited above, which presumably are more expensive in liability terms (i.e. due to their income based indexation), have a more favourable discount rate applied to them than the discount rates that were used (supposedly) in the Long Term Cost Reports for schemes such as the DFRDB and CSS, which are currently only indexed to CPI?

# Comments on Finance's Q\_and\_A\_7 (Link)

Given the political imperative on all sides of Government is to balance the budget and where in the recent past we have had substantial surpluses, it stands to reason that the discount rate for the Finance / AGA estimate should be at least the same as the Future Fund 'Target Asset Level' (TAL) because it would better reflect the opportunity cost of those funds NOT being invested (either in the market via a sovereign wealth fund (i.e. the Future Fund) or through capacity improvements within the domestic economy).

In addition to the foregoing, and as stated earlier, it is nonsense to not show the estimate as a net liability/surplus after asset forecast deductions and offsets. Surely this is what Policy Makers want to see and consider when they are confronted by constituents petitioning with pitchforks to have their indexation fixed.

# Comments on Finance's Q\_and\_A\_8 (Link)

Policy makers should be quivering in their boots and asking some very stern questions when they are confronted by estimates that can by as much as \$25Billion.

Ironically, when inflation does return and the long term bond rate rises back above its long term average the liability estimates will undoubtedly drop substantially. What will Finance's answer be then to Policy Makers who will be trying to grapple with liability adjustment errors in the future?

# Comments on Finance's Q\_and\_A\_9 (Link)

No specific or further comments to this answer.

# Comments on Finance's Q\_and\_A\_10 (Link)

No specific or further comments to this answer.

# Comments on Finance's Q\_and\_A\_11 (Link)

In addition to comments that have already been made, the reader will find further comments at Q&A 17 below that clearly show that the assumption of "increased take up rates" is not well supported.

# Comments on Finance's Q\_and\_A\_12 (Link)

No specific or further comments to this answer.

### Comments on Finance's Q\_and\_A\_13 (Link)

No specific or further comments to this answer.

### Comments on Finance's Q\_and\_A\_14 (Link)

No specific or further comments to this answer.

### Comments on Finance's Q\_and\_A\_15 (Link)

No specific or further comments to this answer.

### Comments on Finance's Q\_and\_A\_16 (Link)

It is now often quoted that there has been mortality improvement and that the estimates have been adjusted accordingly. Given our experience to date with some assumptions, it would be prudent to test the "mortality improvement" assumption against hard data for DFRDB to see if it is valid with respect to the overall liability. <sup>31</sup>

On investigation and to illustrate, Figure 9 shows the trend in recipients accessing DFRDB benefits<sup>32</sup>.

Unfortunately as you can see, <u>the projection of the number of retirement pay recipients is starting</u> to exhibit diminishing returns as the projection for Reversionary recipients continues to rise.

projection has been reduced to 1/4 of the original data set from Table 1.

<sup>&</sup>lt;sup>31</sup> The author was not able to extract (similar to the DFRDB) comparative and detailed demographic data from the annual reports of the CSS, PSS and MSBS. An FOI request has been submitted but is yet to be satisfied.
<sup>32</sup> In order to better illustrate in Figure 9 the diminishing returns of primary recipients, the data for this specific

Given that the DFRB scheme started in 1948 and members were unable to contribute until age 20, the age demographic of these early primary members is well into 80 years of age now.<sup>33</sup>

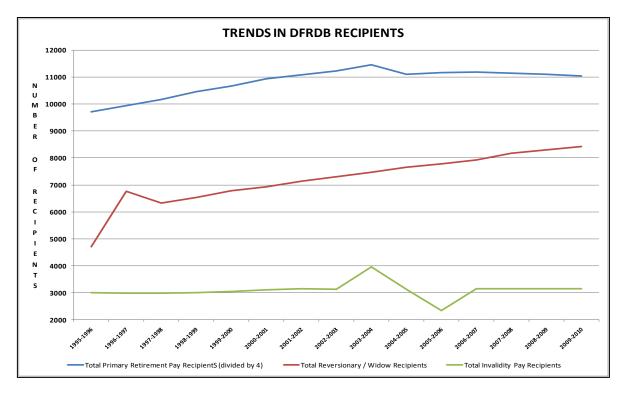


Figure 9

What Figure 9 is effectively indicating is that a transition is now in effect (from 2004) where primary members are being replaced by reversionary recipients (or not at all) and that the resultant benefit is only equal to 5/8s of the original benefit (i.e. only 62.5% of the primary benefit for DFRDB).

So, with all other things being equal, one would expect that Finance's estimate assumption for DFRDB should be more reflective of a decrease in liability terms because even if the mortality rate of the reversionary recipient is improved by several years the fact remains that the base of their pension is considerably less for further indexation increases.

Unfortunately, the author does not have enough comparative and contiguous data to test this assumption against other schemes.

### Comments on Finance's Q\_and\_A\_17 (Link)

On review of the data presented in the Table of this answer, there is yet another major sign of a potential and significant error in the estimates.

The reason why? Because as per the data in Table 1 of this document, **the total number of**DFRDB pensioners for 2009 was in fact 57,164 .... not 52,753 as quoted by Finance!

<sup>&</sup>lt;sup>33</sup> It must be remembered that many of the original DFRB contributing members were required to cut across to the DFRDB scheme in 1972 so unlike most other schemes, the age demographic of the scheme is quite a bit older.

On investigation, Finance has only added primary and reversionary recipients together, negating the additional 4,432 pensioner recipients encompassing the invalidity, orphan and redundancy demographics.<sup>34</sup>

This is yet another example of the utilisation of imprecise data and/or the lack of quality assurance by Finance and the Establishment, which once again brings into serious question the validity of any of the estimates generated.

If the author is able to find so many holes with just one scheme being the DFRDB, then God only knows the extent of the errors that prevail in the estimates of other schemes such as the CSS, PSS, MSBS etc.

Return back to main discussion on page 8 above.

Comments on Finance's Q\_and\_A\_18 (Link)

No specific or further comments to this answer.

<sup>&</sup>lt;sup>34</sup> The total of 57,164 is made up of 44,432 primary retirees, 8300 reversionary retirees, 3,154 Invalidity retirees, 289 Orphans and 989 redundancy retirees.

### CONCLUSION

One thing is clear; it was direct Government policies of the past that have effectively broken the pension indexation of Military and Commonwealth Superannuation of today.

The manipulation of the CPI in 1989 (i.e. the inclusion of "quality adjustments") and the abandonment of centralised wage arbitration in the early 1990s has lead to the significant decline in the purchasing power and therefore the standard of living of those affected. Past Government actions could be easily construed as a direct "breach of employment contract" by the Commonwealth to its former employees.

The Parliament should seriously consider leveraging off its organic assets by reengineering the legislation of the Future Fund and COMSUPER/ARIA benefit payments to not only potentially save the Commonwealth considerable money, but to ameliorate the problem of indexation once and for all.

Finally, and to make a play on the Establishment's own words:

"Policy Makers should accept that the Department of Finance's estimates of Commonwealth Superannuation liabilities are sensitive to the assumptions and data used, and therefore, they (Policy Makers) should treat such estimates with extreme caution!"

### About the Author

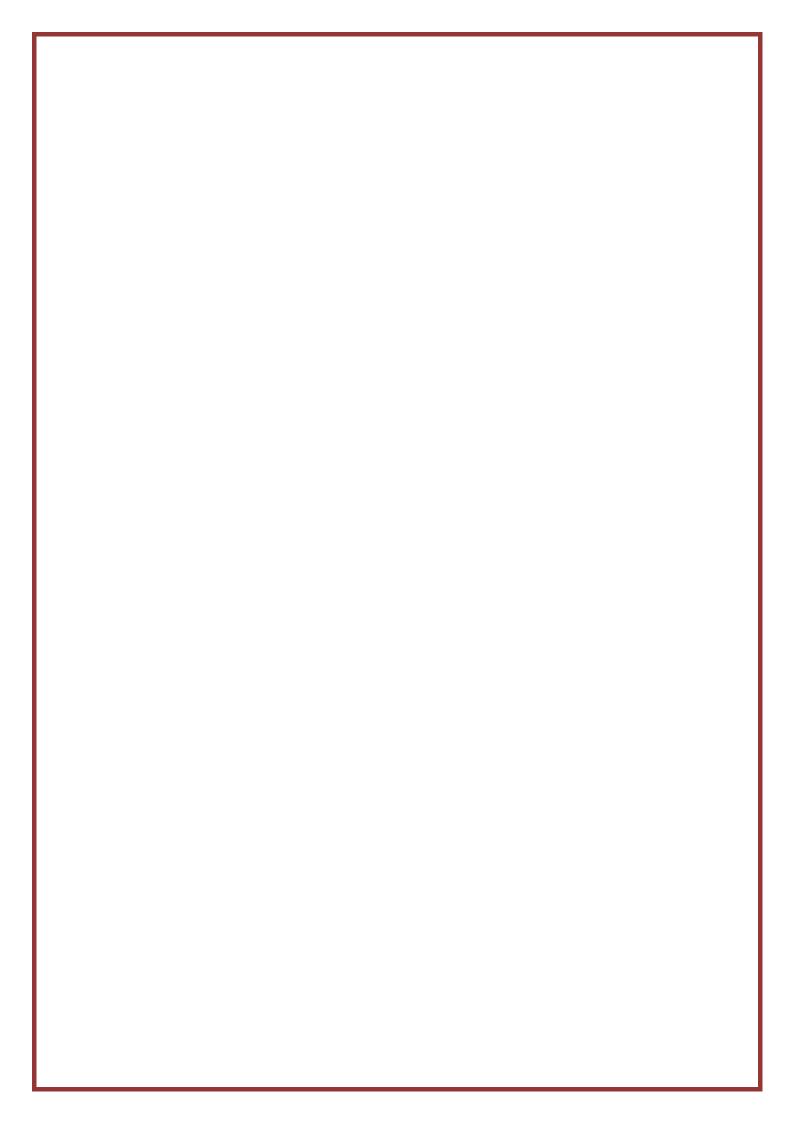
Peter Thornton is a retired member of the Defence Force and the Commonwealth who acts as an independent researcher and commentator on matters relating to Commonwealth and Military Superannuation. Peter's independence aims to support all affected retirees and to aid the representational activities of national peak bodies such as the Defence Force Welfare Association (plus alliance partners), the Superannuated Commonwealth Officers Association, member associations of the Australian Council of Public Sector Retiree Organisations, and the Returned Services League; many of which he is an ordinary member. Peter has graduate qualifications in Economics and Engineering with post-graduate qualifications in Management and is a long standing member of the Foundation for the Study of Cycles.

ANNEX\_A

- 1.31 If these seven recommendations were all adopted the position of the retired Commonwealth Servant would in brief be as follows:
  - (1) He would have certainty of adjustment of the Commonwealth share of his pension; it would be carried out automatically and annually.
  - (2) The 1.4 factor applied to the Commonwealth portion provides
    - (a) a share of productivity increases;
    - (b) a greater share of productivity increases when inflation is high and adjustments are needed, and a lesser share when there is little inflation.
  - (3) He would receive updating on the full value of any noncontributory units held instead of on five-sevenths only as formerly.
  - (4) As a result of the adjustments, he receives a guarantee that the purchasing power of his full pension (i.e. the Fund share as well) is more than maintained.
  - (5) He would have a further share of productivity gains as a result of any benefits received on or after retirement from Fund surpluses which should increase with wider investment powers.
  - (6) Should unexpected inequities or small inconsistencies arise with the passage of time these could still be corrected by ad hoc adjustments additional to the guaranteed formula specified in the recommendations.
  - (7) As from 1 July 1973 pensioners who retired before 1 October 1971 should receive an increase in the Commonwealth share of their pensions of about 15% and those who retired more recently a proportionately lower increase.
- 1.32 It should be recognized that if these modifications are made to the Commonwealth Scheme which has always been a leader in the pension field it will, in this particular area, place the Commonwealth Servant in an even more privileged position than is presently the case.

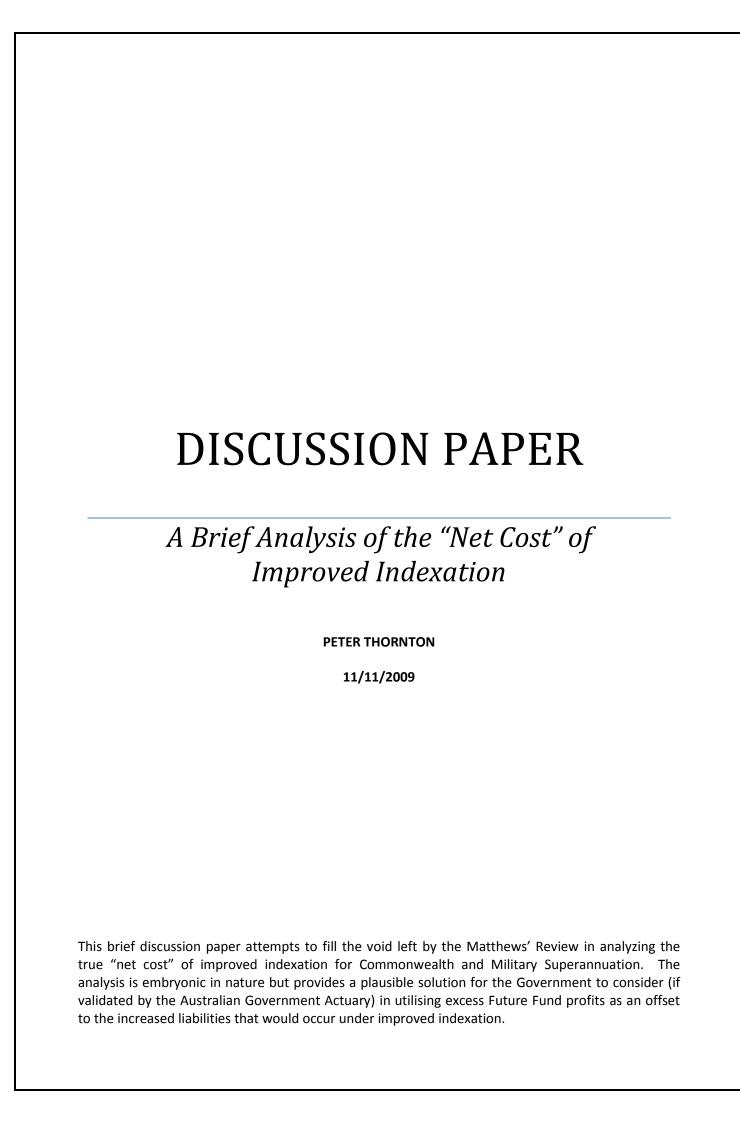
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(Return to previous section above)



# ANNEX B TO THORNTON SUBMISSION

Discussion Paper - A Brief Analysis of the "Net Cost" of Improved Indexation - dated 11 November 2009



# INTRODUCTION

This brief discussion paper provides additional information that has been considered since my response to the Matthew's Report<sup>1</sup>. It is offered to all Special Interest and Political representatives as background research to help with the realisation that improved indexation for Commonwealth and Military superannuants is affordable within current Commonwealth resources.

This analysis is embryonic in nature but I believe it is well enough advanced to allow the reader to consider the merits of the proposal within and to encourage the Government to commission the Australian Government Actuary<sup>2</sup> (AGA) to validate the proposal and formulate robust and transparent options. Armed with this information, I believe the Government and the Parliament more generally would be well placed to consider, debate and agree upon recommended improvements for its former employees.

# **GENERAL**

As I stated in my response to the Matthew's Review, Mr Matthews failed to provide the Government with a "net cost" figure that was required of him in the 4<sup>th</sup> item of the Terms of Reference. Instead, Mr. Matthews / Finance only focused on the liabilities side of the balance sheet giving little or no credence to "clawback" and remained mute with regards to the performance of assets contained in the Future Fund.

In response to this blatant deficiency, Figure 1., attempts to provide a basic graphical representation of the data and assumptions contained in Annex A<sup>3</sup>. The graph ties together a number of projections in order to paint a better picture of the true interraltionships between the projections of:

- current unfunded liabilities<sup>4</sup>;
- future liabilities if improved indexation is applied<sup>5</sup>;
- "clawback" as calculated in 2005 by the Australian Government Actuary; and
- a number of forward projections based upon the mandates and the likely growth of the Future Fund.

<sup>&</sup>lt;sup>1</sup> Thornton's letter to the Minister of Finance and Deregulation, dated 4 September 2009.

<sup>&</sup>lt;sup>2</sup> Unfortunately, I together with many representative organisations have lost faith in the accuracy of Finance derived figures, and as such, would request the Government to commission the AGA to fill the huge gap left by the Matthews Review.

<sup>&</sup>lt;sup>3</sup> Annex A has a supporting Excel Spreadsheet that the author is more than happy to provide electronically

upon request. <sup>4</sup> Initial data for the projection was extracted from Future Fund Actuary Letter., *Target Asset Level Declaration*, dated 8 May 2008.

 $<sup>^{5}</sup>$  I have used the higher of CPI/MTAWE, because our superannuation is not welfare and retirees should be afforded something better than the indexation mechanism of welfare. We should maintained strong adherence to a mechanism better than welfare because this was the stance Representative Organisations took in the 2001 Senate Inquiry (Page 24-25 of the Inquiry Report refers).

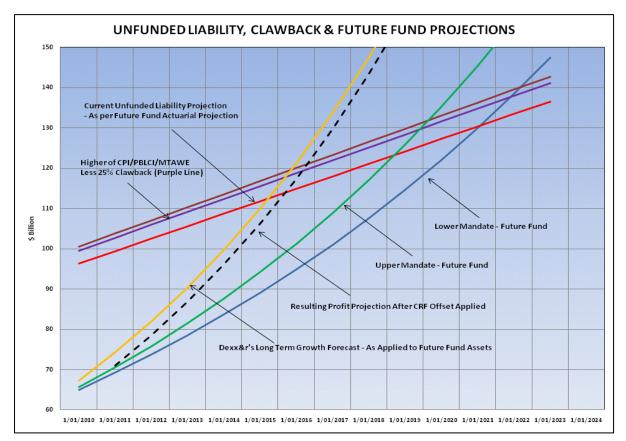


Figure 1

As can be seen above, the Red line shows the current unfunded liability projected over time<sup>6</sup> and the Brown line shows the gross adjusted projection of the unfunded liability if indexation was to be increased to CPI or MTAWE, whichever is the higher<sup>7</sup>.

The Purple line illustrates the resulting projection if a "clawback" of 25% is applied. If "clawback" approached the 2002 NATSEM figure of 37-58% then the Purple line would move closer to the Red line and would therefore reduce the annual "unfunded" cost out of the Consolidated Revenue Fund (CRF).

If this issue is to be resolved to everybody's satisfaction then it is imperative that a valid and substantiated "clawback" figure be independently derived and verified.

The opposing and upward projections show a number of scenarios pertaining to the earnings projections of the Future Fund over time. The Green and Blue lines are the upper and lower

<sup>&</sup>lt;sup>6</sup> The projection is derived from the original data presented to the Government by the Actuary (Dr. Knox) of the Future Fund. The initial data presented by Dr Knox shows a linear progression of \$3.1p.a. Irrespective of improved life expectancies, I believe this is likely to remain linear over the next 10 years or so.

<sup>&</sup>lt;sup>7</sup> This is 4.6% above current liabilities as per the Finance figure stated by Matthews. Again this projection is linear because it is assumed that entrants and exits from retirement will remain constant over the period examined.

<sup>&</sup>lt;sup>8</sup> This figure was derived from the 2005 Long Term Cost Report as generated by the AGA.

<sup>&</sup>lt;sup>9</sup> Clawback figures ranging from 15-58% are unacceptable when we are talking about cost in the Billions of dollars. Is it any wonder Politicians go weak at the knees when confronted by these cost issues and reinforces the proposal to engage the Australian Government Actuary to complete the analysis.

investment mandates respectively, which are the key performance indicators required of the Future Fund as per the enabling legislation.

The Yellow line is Dexx&r's Long Term Growth Forecast for Superannuation assets up to 2017<sup>10</sup>. Whilst this growth rate is used for illustrative purposes only, the projection is not beyond the realm of possibilities when you consider that the Australian Fixed Interest return as measured by the UBS Composite All Maturities Bond Index was 9.22% for the last 12 months (as measured up to 31 July 2009) and 20.61% for the past 3 years<sup>11</sup>. The current annualised return of the Future Fund (as demonstrated over the last quarter) was approximately 9.5%. This together with the fact that the Future Fund was not fully divested at the onset of the Global Financial Crisis positions the Fund to take significant advantage of lower priced assets and future growth opportunities from here on in 12.

With the foregoing projections as a foundation, the Black dotted line represents the prospective situation (and my proposal) where the Government takes excess profit from the Future Fund (i.e. above the "upper mandate") to offset<sup>13</sup> and neutralise any cost increase in the CRF due to improved indexation.

Based upon the Yellow line projection and the 25% "clawback" figure used, it is estimated that a \$1.5B gross liability (i.e. not taking into account contributions) would be incurred in the first year (2010/11) because all outer years show a net profit above the Upper Mandate and the 100% offset required.

Clearly if a higher "clawback" figure was deduced by the AGA then the first year and outer year liabilities would be lessened even further.

Whilst using excess profit above the Upper Mandate as an offset would require a legislative amendment, I believe a change would be defensible because the original constructs of the Future Fund would remain intact (i.e. the mandates required to reduce the total unfunded liabilities of Government provided superannuation by 2020 would still apply).

<sup>&</sup>lt;sup>10</sup> Please be aware that this growth rate also includes contributions and therefore does not reflect a true earnings growth rate per se. However, in the last quarter the Future Fund did produce an annualised return of approximately 9.5% so an excess profit projection over time (i.e. above the Upper Mandate) is not unreasonable.

<sup>&</sup>lt;sup>11</sup>http://www.australiansuper.com/resources.ashx/formsandpublications/802/File/278AD85DAFD4FFAB4E1BE F1568BC9C4A/July 09 Monthly Member Update V2 (2).pdf, page 2.

The Future Fund was lucky in the fact that it had not yet fully divested its assets and that it is substantially held in cash at this time. Even if it remained invested in diversified fixed interest and corporate bonds it would generated a return of approximately 8-10% pa.

<sup>&</sup>lt;sup>13</sup> The CRF should only be supplemented with an amount of Future Fund profit required to offset 100% of the liabilities incurred for improved indexation.

# **CONCLUSION**

This embryonic analysis is provided to representatives (both Special Interest and Political) for their respective consideration and collective positioning in engaging the Government in our campaign for improved indexation of Commonwealth and Military Superannuation.

This analysis further substantiates the call for the Government to commission the AGA to validate the confluence of "clawback" and excess Future Fund earnings as an offset to the prospective liabilities incurred under improved indexation. The commissioning of the AGA would fill a huge gap left by the Matthews' Review and redress the deficiencies (in part) of his analysis.

The utilisation of excess Future Fund earnings as an offset for improved indexation would be defensible from all sides of the political spectrum because the original constructs of the Future Fund would remain intact and all political persuasions would, once and for all, help to rectify the long held injustice and economic discrimination labelled at former Government employees.

### **ANNEX A**

Date	Future Fund Projection - Earning Rate 4.5% above CPI	Future Fund Projection - Earning rate 5.5% above CPI	Dexx&r's Long Term Growth Forecast (10.3%)	Current Unfunded Liability Projection	Unfunded Liability to higher of CPI/PBLCI/MTAWE	Unfunded Liability to higher of CPI/PBLCI/MTAWE less 25% Clawback	Dexx&r's Profit added back to Upper Mandate Projection - After CRF Offset Applied
30/06/2009	61.04	61.04	61.04	93.2	97.4872		
30/06/2010	65.0076	65.618	67.32712	96.3	100.5872	99.5154	
30/06/2011	69.233094	70.53935	74.26181336	99.4	103.8298	102.72235	70.93946336
30/06/2012	73.73324511	75.82980125	81.91078014	102.5	107.0724	105.9293	78.48148014
30/06/2013	78.52590604	81.51703634	90.34759049	105.6	110.315	109.13625	86.81134049
30/06/2014	83.63008993	87.63081407	99.65339231	108.7	113.5576	112.3432	96.01019231
30/06/2015	89.06604578	94.20312512	109.9176917	111.8	116.8002	115.55015	106.1675417
30/06/2016	94.85533876	101.2683595	121.239214	114.9	120.0428	118.7571	117.382114
30/06/2017	101.0209358	108.8634865	133.726853	118	123.2854	121.96405	129.762803
30/06/2018	107.5872966	117.028248	147.5007189	121.1	126.528	125.171	143.4297189
30/06/2019	114.5804709	125.8053666	162.6932929	124.2	129.7706	128.37795	158.5153429
30/06/2020	122.0282015	135.240769	179.4507021	127.3	133.0132	131.5849	175.1658021
30/06/2021	129.9600346	145.3838267	197.9341244	130.4	136.2558	134.79185	193.5422744
30/06/2022	138.4074368	156.2876137	218.3213392	133.5	139.4984	137.9988	213.8225392
30/06/2023	147.4039202	168.0091848	240.8084371	136.6	142.741	141.20575	236.2026871
30/06/2024	156.985175	180.6098736	265.6117062	139.7	145.9836	144.4127	260.8990062

Table 1

### Notes:

- 1. Future Fund Balance as at 30 June  $2009 = \$61.04B^{14}$ .
- 2. The figures presented for 2009-11 in red were derived from the Future Fund Actuary Letter., *Target Asset Level Declaration*, dated 8 May 2008. The projections highlighted in this column are incremented by \$3.1B p.a. as per original projections performed by Dr. Knox. A linear projection is provided because it is assumed that entrants and exits into and out of Commonwealth and Military Superannuation will remain relatively constant over the projection period.
- 3. CPI is assumed to be 2% p.a. over the long run. However, irrespective of the CPI, given that the Future Fund Mandates are percentages above CPI then the growth projections will be directly proportional in percentage terms over time.
- 4. The 'Unfunded Liability to higher of CPI/MTAWE' figures have been projected at 4.6% p.a above the "Current Unfunded Liability Projection". This figure (derived from Matthews / Finance) is used to bridge the gap between the Matthew's Report and this analysis.
- 5. As can be seen in green, if the Future Fund's earning rate is at the upper end of its mandate then unfunded liabilities will be extinguished by 2019.
- 6. As can be seen in yellow, if the Future Fund's earning rate is consistent with Dexx&r's Long Term Growth Forecast for superannuation assets, then unfunded liabilities will be extinguished in 2015-16.
- 7. As can be seen in blue, in the unlikely event that the Future Fund earning rate only achieves the lower end of the mandate then unfunded liabilities will not be extinguished until 2021.
- 8. The red hashed area represents a \$1.5B shortfall in the CRF for the first year of improved indexation. A small price to pay for the improved retirement outcomes of 600,000 former and current employees!

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<sup>&</sup>lt;sup>14</sup> Future Fund Website, http://www.futurefund.gov.au/.