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Unravelling the Mysteries of the Oracle: Using the Delphi Methodology to Inform the Personal Tax Reform Debate in Australia

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Abstract
The paper explores key outcomes relating to personal income tax (PIT) reform in Australia derived from the use of a Delphi methodology conducted during 2006. The Delphi methodology combines quantitative and qualitative techniques to explore

(CGT), negative gearing, wealth taxes, work-related expenses and artificial tax minimisation.

In terms of tax rates and thresholds, and despite recent reforms, Australia's high marginal rates still apply from relatively low income thresholds by international standards. In addition, social security recipients face very high effective marginal tax rates on earnings.

In terms of administration, the costs of complying with the PIT in Australia are relatively high. The most recent comprehensive study (Evans et al, 1997, Table 5.3, p 65) estimated the compliance costs of individual taxpat c3(di)-86eeI15 TD- rates 102h18c3(di]tralia a5 al)

methodology) in order to establish strengths and potential weaknesses in the models and seek to establish a consensus around one single model;

- survey tax community attitudes to this expert-derived model in order to establish levels of potential resistance/acceptance by key stakeholders including tax payers, tax practitioners, tax professional bodies and tax administrators; and
- fine-tune or revise the model to reflect community feedback.

This paper focuses only upon the Delphi methodology and explains how it is being used as a critical component of the overall research project. The Delphi methodology combines quantitative and qualitative techniques to explore future possibilities in systematic and iterative rounds of anonymous testing involving a panel of international experts in the field of personal taxation. The experts have been drawn from Australia and from countries with comparable PIT regimes, such as the UK, the USA, Canada and New Zealand. Over a four month period the panel has responded to a series of open-ended propositions relating to the design and operation of the PIT, with a view to establishing whether a consensus on key PIT reform issues can develop.

The emphasis in the paper is upon both the process of conducting a Delphi and the specific outcomes of the Delphi. The Delphi stage was completed in 2006 and the data has been collated, analysed and used to inform the final phase of the broader research project, which was completed by June 2007[2].

The next part of the paper explains in more detail the theory underpinning the Delphi methodology, including references to the extensive literature on the topic. The paper then describes the Delphi process actually adopted in this research project and the outcomes of that process.

THE DELPHI METHODOLOGY

The word Delphi refers to the hallowed site of the most revered oracle in ancient

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Rayens and Hahn (2000) outline the major characteristics of the Policy Delphi. It is a multistage process involving the initial measurement of opinions (first stage), followed by data analysis, design of a new questionnaire based on group response to

The third underlying principle – controlled feedback – emphasizes the iterative nature of the Delphi. The results of one activity or question are used to inform the development of the next. It is obviously critical to the success of the Delphi to ensure that results are fed back to panelists in as unbiased a manner as possible.

Studies comparing the Delphi's results with other methods have confirmed the effectiveness of the methodology on the basis of both its capacity to generate ideas and its effective use of participants' time (Ulschak, 1983), as well as its capacity for accuracy when forecasting is involved (HERO, 2001). But the methodology is not without its critics. Makridakis and Wheelwright (1978, cited in Gunaydin (2006)) summarise the general complaints against the Delphi method in terms of (a) a low level reliability of judgements among experts and therefore dependency of outcomes on the particular judges selected; (b) the sensitivity of results to ambiguity in the questionnaire that is used for data collection in each round; and (c) the difficulty in assessing the degree of expertise incorporated into the forecast. Among the major concerns listed by Martino (1978, cited in Gunaydin (2006)) are:

- the simplification urge: experts tend to judge the future of events in isolation from other developments. A holistic view of future events where change has had a

identifying tax academics with a specific interest (evidenced through research and writing) in the field of personal taxation. The research team also wanted to ensure that the panel it chose was capable of reflecting a variety of disciplinary perspectives, and therefore looked for personal tax academics from a mixture of legal, accounting and public finance backgrounds. Finally, the research team was interested in recruiting tax academics from both Australia and overseas, and particularly from broadly comparable tax jurisdictions such as the UK, USA, Canada and New Zealand.

An initial list of some 35 eminent personal tax academics was compiled by the research team, subsequently short listed (on the basis of the research team's own knowledge of, and contacts with, the persons on the list) to 18. All 18 academics were contacted in late 2005 or early 2006 to establish their willingness to participate. Thirteen agreed to participate.[7] The panel of 13 experts comprised six academics from Australia, three from the UK, two from the USA and one from each of New Zealand and Canada. In terms of broad disciplinary background, six would be considered as having a primarily legal background, five come from an economics/public finance perspective and two would be categorized as being from an accounting background –

four headings identified above. Panel members were also given clear instructions about what they were required to do, and some details about the Delphi methodology itself and about personal tax reform in Australia (considered to be vital for international experts). It was decided to administer the survey instrument using email technology – largely on the basis of timeliness, ease of access and general acceptance of that medium within the academic community. At that stage it was anticipated that there would be up to three rounds of questioning involved in the Delphi.

In line with the literature relating to the Delphi process, the 21 questions comprised a mixture of "forecast", "issue", "goal" and "option" questions, with an emphasis on the latter two categories. In fact, only one question (Question A3) would readily be classified as a "forecast" question, and only two questions (Questions A2 and B7) are specific "issue" questions. The 18 remaining questions fit broadly equally in either the "goal" or the "option" categories.

Panel members were asked to complete and return the first round surveys within two weeks – by 31 March 2006. Responses were received from nine of the 13 panel members within that timeframe and from the other four within five days of 31 March. This was a somewhat unexpected and exceptionally positive rate of response, perhaps accounted for in part by the novelty of the methodology within the taxation discipline, but perhaps also attributable to the careful priming of the panel by the research team over preceding months.[8] The covering information had suggested that panel members would need about 30 minutes to complete the instrument. This proved to be a significant under-statement, with some panel members indicating that they had spent over an hour on the first round responses.

The information contained in the Round One responses was then collated and analyzed in the period through to mid-June 2006, at which point (18 June 2006)

TABLE ONE R

TABLE TWO RANKING OF DISTORTIVE IMPACT OF TAX EXPENDITURES (QUESTION B2)

	Ranked first	Ranked second	Ranked third	Ranked fourth

TABLE THREE RANKING FOR REMOVAL OF TAX EXPENDITURES (QUESTION B6)

	Ranked first	Ranked second	Ranked third	Ranked fourth	Ranked fifth	Weighted score
50% CGT discount	**7**	**3**	**1**	**-**	**-**	**50**
Negative gearing	**2**	**3**	**4**	**-**	**-**	**34**
Super concessions	**1**	**2**	**1**	**5**	**-**	**26**
Work related expenses	**1**	**2**	**3**	**1**	**1**	**25**
Others	**1**	**-**	**-**	**1**	**-**	**7**

Weighted score is 5 for 1st, 4 for 2nd, etc.

The final question in Section B (B7) sought

particular circumstances. But six experts rejected the idea for Australia outright. Given the relatively clean split of opinion on this issue, it was decided that this was another question that would be included in Round 2 of the Delphi.

The final question in Section C was also identified for follow-up in Round 2. Question C8 sought the experts' views as to whether a properly implemented negative income tax could provide a viable solution to the problem of high effective marginal tax rates (EMTRs) in Australia. Five experts considered that it could; two considered that it could in particular circumstances; three felt that it could not; and three expressed no view.

Tax Administration

The final section of the Round 1 Delphi contained three questions relating to tax administration. The first (Question D1) was designed to elicit the experts' views on what advantages and disadvantages might arise if the Australian PIT were re-designed to remove the obligation to file for most personal taxpayers. As might be expected, on

Table Four summarises the outcomes of the second round of the Delphi. Although the process of summarizing is necessarily impressionistic, qualitative and somewhat simplistic, it does accurately capture the sense that the opinions of the experts, once formulated, were hard to shift, even when confronted with defending a minority position in the face of peer pressure. There is very little evidence of views being changed, and where changes did occur they were often relatively insignificant or minor in nature, and sometimes explained on the basis of a misunderstanding in Round 1.

TABLE FOUR SUMMARY OF CHANGES IN ROUND 2 FROM ROUND 1

Question	**B4**	**B5**	**B6**	**C2**	**C7**	**C8**
No change	11	11	9	10	10	12
Change	1	1	3	2	2	0

Only five of the twelve experts who participated in Round 2 changed a position in relation to any one of the six questions. One respondent recorded a change of opinion on three separate questions; two respondents recorded changes on two separate questions; and two respondents recorded a change on one question. Most respondents, however, maintained their positions on all questions.

In summary, therefore, there was little evidence of changes in opinion as a result of the second round of the Delphi, and little evidence of the likelihood of a consensus emerging on the six questions that were under review. On that basis it was decided not to continue with a third round of the Delphi.

CONCLUSIONS

It is relatively simple to offer conclusions about the process of the Delphi methodology, but more difficult to provide definitive conclusions about the value of the data derived from that process.

So far as methodology is concerned, the De

and development of the PIT in an open developed economy, and has also highlighted other areas where there is no consensus. It has established, inter alia that:

- there is broad support from the experts for the generally accepted criteria of equity, efficiency, simplicity and revenue adequacy as appropriate criteria for evaluating a PIT, with general agreement that equity ranks as the single most important criterion;
- there is no general agreement, however, about the appropriate role of the PIT in the overall tax mix;
- there is general agreement that the Australian PIT should be characterized, so far as possible, by as broad a base as possible combined with rates that are as low as can be sustained;
- the experts consider, on the whole, that the individual is a more appropriate tax unit than the family;
- there is a strong view expressed by the experts that the superannuation concessions and the 50% CGT discount are the tax expenditures that cause the greatest level of distortion within the Australian PIT. Moreover, the experts generally agree that the CGT discount would be the first choice of tax expenditure that could be removed to broaden the tax base, that "ideally" capital gains should be taxed on the same basis as other forms of income, and that there are strong grounds for introducing a de minimus annual exemption to remove relatively insignificant capital gains from the tax base;
- there is strong endorsement for the view that all income tax brackets or thresholds should be indexed annually for inflation, though less agreement on precisely how this elimination of bracket creep should be implemented;
- the experts generally agree that alignment of the corporate rate and top personal rate (or at least a reduction in the gap) is desirable, but there is no general agreement on the optimal number of tax rates or scales that should be contained in a PIT;
- the experts can identify significant advantages that are likely to ensue with less comprehensive annual filing (primarily relating to simplicity and compliance costs) but also identify some disadvantages (primarily related to the capacity for non-compliance that less filing might permit); and
- there is little agreement – even after experts were given the opportunity to re-consider their positions in the light of the views of their peers – on key design issues such as the deductibility of work related expenses, rules relating to negative gearing, the level of the tax free threshold, or on the potential for alternatives such as a negative income tax or a hybrid flat tax to counter some of the problems associated with Australia's PIT.

The product of the Delphi has therefore been useful in a confirmatory, developmental and clarifying role. It has reinforced outcomes that have emerged from other parts of the broader project. This use of the Delphi for triangulation purposes alone has been sufficient justification for its adoption. Moreover, the Delphi has provided the research team with clarification on a number of issues, and has provided a rich seam of information that has repaid detailed mining. The outcomes have also assisted, in a developmental fashion, in shaping the future direction of the research.

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APPENDIX ONE: ROUND ONE INSTRUMENT

Delphi: Round One (March 2006)

Dear Colleague

Many thanks for agreeing to participate in this Delphi methodology involving a panel of 12-15 international academic experts in the field of taxation. This is the first round of the Delphi and we provide some background and context about the project and the Delphi immediately below and in the appendix. We expect to conduct the second and third rounds (where you will anonymously comment on the views of the other panel members with a view to seeking a consensus) in April to June 2006.

Background and context to the research project

We are currently involved in an Australian Research Council (ARC) funded research project entitled "*Towards systemic reform of the Australian personal income tax: Developing a sustainable model for the future*".

The aim of this project is to develop a model of the Australian personal income tax system that is capable of commanding widespread expert and community support

constitutes a sufficient number of experts to ensure reliable outcomes.) Up to three rounds of questioning (over a four month period) about the perceived advantages and weaknesses of the models developed in the first modelling phase is being conducted in an attempt to seek expert coalescence about the characteristics of a model that can best provide the policy objectives required of the PIT. The Delphi panel comprises PIT experts from Australia and from comparable tax jurisdictions (New Zealand, the UK, Canada and the USA). We are hoping that many of these international experts will later be able to participate in a PIT Symposium scheduled for March/April 2007.

DELPHI ROUND ONE

This first round of the Delphi contains four sections. Section A seeks your views on some broad tax principles and the tax mix, while Sections B-D seek your input on more specific issues relating to (respectively) the personal tax base, personal tax rates, and personal tax administration issues.

Feel free to write, in open-ended sections, as much or as little as you please (do not feel constrained by the space available). As you will appreciate, there are no right or wrong answers – we are merely seeking your opinions with a view to identifying what level of consensus (if any) may initially exist within the panel. Future rounds (we anticipate that there will be two further rounds) will (anonymously) seek feedback on the views of members of the panel and further seek to develop a consensus (which may prove impossible!).

We have estimated that you should not need more than about 30 minutes to respond to these questions. We would really appreciate it if you could complete the Round One Survey below and return the document to Chris Evans (email cc.evans@unsw.edu.au or fax +612 9385 9383) by 31 March 2006.

Please move to the next page to commence the Delphi.

Chris Evans Atax, UNSW
Binh Tran-Nam Atax, UNSW
Brian Andrew Charles Darwin University
Paul Drum Senior Tax Counsel, CPA Australia

March 2006

Section B The Personal Tax Base and Tax Unit

B1 It is often suggested that the PIT should be characterised by as broad a base as possible combined with rates that are as low as can be sustained bearing in mind the needs of generating "sufficient" tax revenue. Do you generally support this view? If not, how would you describe the approach that you think is appropriate in the design

B5 Australia (unlike many other comparable regimes) currently permits individuals who incur losses on revenue account as a result of holding passive investments (equities, property etc) to set those losses off against any other income including income from salary and wages (so-called "negative gearing").

Is this treatment justified? If not, what treatment might be more appropriate?

B6 If you were seeking to broaden the tax base in Australia, what priority order would you apply in removing each of the following concessions (where a ranking of 1 would suggest that this would be your highest priority for removal, 2 would be the second highest etc):

Concession	**Ranking**
The 50% discount for capital gains	_____
Work related deductions	_____
Superannuation concessions	_____
Negative gearing concessions	_____
Other (please specify) _____	_____

B7 Australia (in common with many other comparable PIT regimes) bases its PIT on the individual (although its social security system is often predicated upon the household or family unit). In your estimation, what is the ideal tax unit for the PIT: the individual, the family, hybrids of this or other? Why?

Section C Tax Rates and Thresholds

The 2006-07 Australian PIT rate structure for residents involves a five rate structure with marginal tax rates (MTRs) as follows:

Taxable Income (AUD$)*	MTR (%)
0 – 6,000	Nil
6,001 – 21,600	15
21,601 – 70,000	30
70,001 – 125,000	42
> 125,000	47
* AUD$1 = approx US$0.73 or £0.42 or CAN$0.85 or NZ$1.15 as at 13 Mar 06	

In addition a Medicare levy of 1.5% is charged on income greater than AUD$17,191, and there are various rebates and offsets including a low income rebate.

C1 In your estimation, should all tax brackets/thresholds be automatically indexed on an annual basis in line with inflation? (Yes/No/Don't know is fine, but any elaboration is welcome.)

C2 Currently around 40% of taxpayers in Australia pay no net tax because of a range of rebates and concessions, and the two lowest income deciles have almost zero taxable income and do not benefit from the tax free threshold.

If reform of the Australian PIT were undertaken, which of the following options would you prefer to see implemented with respect to the initial tax free threshold (currently AUD$6,000):

- Option A: Increase it to the individual poverty line (currently approx AUD$13,500).
- Option B: Increase it above AUD$13,500.
- Option C: Leave it unchanged.
- Option D: reduce it to zero.
- Option E: Other (please specify)_____

Preferred Option (specify A, B, C, D or E): ____

(Feel free to elaborate on your preferred option.)

C3 Assuming the revenue impact can be neutralised (ie that the same tax revenue can be generated) and that there are no adverse distributional outcomes, what advantages or positive benefits could you envisage if Australia were to implement a two or three rate PIT rate structure (rather than the current five rate structure)? What disadvantages or negative implications might arise?

Advantages/positive implications:

Disadvantages/negative implications:

C4 Is there an optimal number of rates and thresholds for an equitable, efficient and simple PIT system? If yes, indicate that optimal position and say why. If no, indicate why not?

C5 The current top marginal PIT rate is 47%. The corporate rate is 30%. Ideally, should the rates be aligned? (Yes/No/Don't know is fine, but any elaboration is welcome. If you do not consider full alignment is possible, are there grounds for seeking, at least, to reduce the gap?)

C6 Should a flat tax (ie one single PIT rate) be considered as an option in a developed economy such as Australia? (Yes/No/Don't know is fine, but any elaboration is welcome.)

C7 Should a hybrid flat tax (i.e. a tax free threshold plus a flat rate) be considered as an option in a developed economy such as Australia? (Yes/No/Don't know is fine, but any elaboration is welcome.)

C8 Australia has a particular problem with high effective marginal tax rates (EMTRs) as a result of the poor meshing of its tax and transfer systems. For example, middle and lower income recipients can face EMTRs in excess of 60% (and sometimes over 100%). Can a properly implemented negative income tax provide a viable solution to the problem of high EMTRs? (Yes/No/Don't know is fine, but any elaboration is welcome.)

Section D Tax Administration
D1

All of the methodologies involved in the project are mainstream research tools, and have been used in many other research projects. Indeed, the proposed researchers have successfully utilised each of these methodologies in their own recent work. Professor Andrew has extensively applied the micro-simulation technique in his study of the Australian tax system (Andrew 1996; CPA, 1998) and A/Prof Tran-Nam has had considerable experience in dealing with unit record data (eg, Tran-Nam and Whiteford 1990; Tran-Nam and Podder 2003). Prof Evans has successfully utilised the Delphi methodology in research into the use of Tax Impact Statements in the OECD (Evans and Walpole, 1999) and all three CIs have extensively used survey techniques of various types (eg, Gul; Teoh and Andrew, 1989; Evans et al, 1997; Tran-Nam and Glover 2002).

What is innovative and unique about the research design of this project is that the CIs

It is within this conceptual framework that the design of the current project has taken place. The three major methodologies involved – micro-simulation, Delphi methodology and survey – feed off each other and into each other as an iterative loop.

APPENDIX TWO: ROUND TWO INSTRUMENT (INSTRUCTIONS ONLY