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Why the Five Economists' Plan for a "Wage-Tax Trade-Off" is a Mistake for Australia

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CONTENTS

ABSTRACT

This paper presents an analysis of the Five Economists' plan for a "wage-tax trade-off", combining an EITC program with a freeze on award wage increases, as a policy package for reducing unemployment. The study identifies the changes in effective tax rates implied by the EITC program and shows that, when combined with a wage cut for the low paid, the proposed plan will increase inequality. Drawing on the findings of empirical research on behavioural responses to taxes, the study then goes on to show that the plan can be expected to reduce the efficiency and growth of the economy, due to disincentive effects on family labour supply, saving and fertility. The structure of the plan is found to have much in common with ongoing labour market and tax-benefit reforms. Both are identified as policy directions that are not in the interests of Australia, either domestically or within the context of globalisation.

1   Introduction

In an open letter to the Prime Minister in 1998, Professors Peter Dawkins, John
Freebairn, Ross Garnaut, Michael Keating and Chris Richardson, now referred as the
Five Economists, proposed a wage-tax trade-off as part of a policy package for reducing
unemployment. As explained in Dawkins (2001), the trade-off involves using an earned
income tax credit (EITC) "as a way of increasing the incomes of low wage earners in low
income families, rather than increases in the award wages safety net". In other words, the
"Five" propose a cut, in real terms, in wages for the low paid with compensation for those
in "low income" families through an EITC program. The proposal is based on the
assumption that lowering the minimum wage will lead to a significant reduction in
unemployment, by increasing the demand for unskilled labour.

The use of an EITC program to support "working poor" families on low wages is an idea
imported from the US. An EITC program typically has the following structure. It
provides a credit which is phased in at a specified rate over an initial range of earned
family income and then withdrawn, usually at a faster rate, across a higher range of
earned family income. A program of this kind, entitled Family Tax Credit (FTC), was
included in the Australian Labor Party's tax policy platform in the 1998 election.[1] A
crucial feature of an EITC is its withdrawal on the basis of family income, thereby
ensuing that the compensation is restricted to those with low family incomes. The idea of
using this device, in combination with labour market reforms which reduce the effective
pay for low wage workers, is now receiving support from the Minister for Employment
and Workplace Relations, Tony Abbott.

The aim of this paper is to explain why the Five Economists' proposed wage-tax trade-off
is a fundamentally flawed policy direction for Australia. The reasons lie in the
distributional and efficiency effects of the plan, both domestically and within the context

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[1] See ALP (1998). The program contained a maximum credit of $3,000 for one child, plus $300 for each
additional child up to a maximum of $3,900. The credit was to be phased in at a rate of 10 cents for every
dollar of family earned income up to a plateau of $10,000, and thereafter phased out at a rate of 15 cents in
the dollar. For an analysis of the program, see Apps (2001a).

of a globalized market. The distributional limitations arise from the fact that, contrary to the claims of the Five Economists, an EITC program is not a good "equity instrument". When combined with a freeze on award wages, it purposefully imposes uncompensated pay cuts on many families working long hours to avoid poverty. For these families the "tax" component of the *trade-off* is a fiction. Efficiency losses can be expected because any attempt to lower the minimum wage, with compensation limited to families on the lowest incomes, must necessarily increases effective marginal tax rates for many other workers, also on low wages, to unprecedented levels. Empirical research suggests that reforms of this kind have strong negative effects on labour supply, household saving, fertility and economic growth. The loss of jobs from these effects are likely to outweigh the gains, if any, from an increase in the demand for unskilled labour in response to a lower minimum wage. A further concern is that the proposed wage-tax trade-off will contribute to a "race to the bottom" in a globalized capital market, a phenomenon which has become the focus of research in the international literature on the welfare effects of tax competition.

This paper examines each of these deficiencies of the Five Economists' plan in turn, focussing on the effects for two parent families. Section 2 first of all explains why an EITC program is not a good "equity instrument". Section 3 identifies the changes the structure of effective tax rates for single and dual income two parent families implied by the program. Section 4 discusses disincentive effects for the domestic economy that can be expected from the change in effective marginal tax rates (EMTRs). The analysis is based on the EITC scheme outlined in Dawkins (2001)[2]. The results show that the EITC component of the Five Economists' plan is essentially a mechanism for shifting the welfare cost of a falling minimum wage to low and median wage families, at a significant efficiency cost to the economy. In effect, the plan is trading-off the gains from a presumed increase in the demand for labour in response to a cut in the minimum wage, against efficiency and social welfare losses associated with higher EMTRs across the middle of the distribution of family income. Section 5 evaluates the plan as a policy

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[2] Dawkins (2001) draws in the scheme proposed in Lambert (2000). See, also, Dawkins et al. (2000).

response to the pressures of a globalized capital market. A concluding comment is contained in Section 6.

2 Why an EITC program is not a good "equity instrument"

A central proposition of the Five Economists argument for their wage-tax trade-off is that the provision of "in-work benefits" through an EITC program is a more effective "equity instrument" than award wage rises. To support this proposition, Dawkins (2001)[3] presents results from Richardson and Harding (1998) showing that low wage earners are not concentrated at the bottom of a decile ranking of households by equivalent income but, instead, tend to be spread throughout the distribution. Dawkins then interprets these findings as empirical evidence for the proposition that "living wage" increases are a "very blunt equity instrument". He argues that the "advantage" of an earnings credit is that, unlike increases in the award wages safety net, it targets benefits to low wage earners in low income households. There are no benefits going unnecessarily to low wage earners in families not in the bottom deciles of household income.

The same idea has since been echoed by Economics Editors in the media and by the Employment Minister, Tony Abbot. Mitchell (2002), in a recent article reporting the views of the Employment Minister on "help for the genuinely needy", writes: " ...only the social welfare system can distinguish between low wage earners in low income families – who are in need of assistance – and the substantial number of low wage earners in high income households".

The argument rests on a fundamental error. Dawkins' interpretation of the Richardson and Harding results assumes that living standard comparisons can be made on the basis of household income. It is now well established that this is a fallacy. Family living standards and household income, with or without an equivalence scale adjustment,[4] are poorly correlated, particularly in the case of two parent families.

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[3] See Section 3.
[4] For a critique of such equivalence scales, see Apps and Rees (2001a).

One of the most important reasons for this is that parents with the same number of children, in the same phase of the life cycle and with the same wage rates and non-labour incomes, make very different choices regarding the way in which they provide for their children. In some families one parent works in the market place while the other specialises in providing child care and domestic services at home. In other families, both parents work in the market place and buy in child care and related services. In these circumstances, studies which use household income to make living standard comparisons confuse low wage dual income families working long hours with higher wage single income families enjoying a much higher standard of living. Many of the dual income families spread across the lower and middle deciles of household income are found at the bottom of a ranking defined on a more accurate measure of living standards. Empirical research shows that errors of this kind are large in studies of inequality based on household income.[5] Examples presented in Section 3 illustrate this.

An EITC withdrawn on family income is therefore not a good "equity instrument". An earnings credit, which phases out on the basis of household income above a minimal threshold, raises EMTRs for families in a band of income just above the threshold, as an alternative to raising them on high individual incomes. This has the effect of treating the secondary earner, typically the mother, in low and median wage dual income families particularly unfairly. The withdrawal of the credit on the basis of household income usually means that a low wage married mother who goes out work does not receive the credit and she repays the primary earner's credit. And so both low wage parents in a dual income family are uncompensated for pay cuts, as is the single low wage individual. As a component of a "wage-tax trade-off", an EITC program therefore contributes to an overall increase in inequality. It is also seriously deficient for reasons of efficiency (to be discussed in detail in Section 4) due to the changes in effective tax rates that it implies.

These limitations of the policy also characterise the system of family tax benefits now in place, following a series of reforms over the past two decades. Prior to the early 1980s,

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[5] For empirical evidence from Australian data sources, see Apps (2001a).

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Australia combined a highly progressive individual income tax system with universal family allowances. The overall rate structure of the system was fundamentally sound but there was an urgent need for reforms designed to reverse revenue losses from the excessive use of tax minimisation schemes. Unfortunately, changes of the kind and on the scale required have never been at the centre of the tax reform agenda.

Instead, the focus of reform has been on switching towards a highly targeted family benefit system, now labelled Family Tax Benefit (FTB) Part A and Part B,[6] together with a less progressive income tax system. A key feature of assistance for children through FTB Part A is the phasing out of benefits on family income, as in the EITC program.[7] The policy has the effect of funding higher welfare payments to low wage, low income families, necessitated by a fall in their effective pay due to labour market reforms, by reducing entitlements across the middle of the distribution of household income. Since the last two decades have also seen a fall in the top marginal tax rate on income, the main winners of the reforms have been high wage, high income households.

The fundamental criticism of the Five Economists' plan, combining an effective cut in pay for low wage workers with an EITC program, is that it is "more of the same". It is essentially a plan for extending targeting further along the distribution of household income for the purpose of shifting the cost of welfare support for a growing population of "working poor" to families in the middle of the distribution of household income. Those most disadvantaged will be low and median wage dual income families, as the following examples show.

3   Effective tax rates: why an EITC program is "more of the same"

To illustrate the effects of an EITC program we will, as noted earlier, analyse the scheme outlined in the Dawkins (2001). The scheme specifies a maximum credit of $30 per week ($1560 per annum) in 2003/04, to be implemented over a three-year period. As set out in

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[6] And also including Child Care Benefit.
[7] FTB Part B is phased out only on the second earner's income, and so discriminates more directly against working mothers.

the Dawkins' paper, in the first year, 2000/01, the earnings credit is phased in at a rate of 5.5 cents in the dollar from the first dollar of wage and salary income up to $28200 pa. The latter figure is the threshold of the lower income test for FTB Part A as of 1 July 2000. While phased in on the basis of individual earnings, the credit is phased out, at a rate of 30 cents in the dollar, beginning at the point where the FTB Part A, excluding the base rate, is completely phased out.

The examples to follow illustrate the impact of this program on the structure of effective tax rates by comparing the rates that families faced under the 2000/01 income tax system with the rates that they would have faced had the program been introduced at that time. The "pre-reform system" in the 2001 tax year is calculated to include personal income taxes, the Medicare Levy, and FTB Part A and Part B in that year. Results are presented for families with two children, one aged 0-4 and the other 5-12 years.

The effective tax rates faced by family members under the pre-reform system and under the proposed EITC program depend critically on whether the family is single income or dual income. For this reason, separate results are presented for each of these family types. The examples assume all income is earned.

(i)   *Single income families*

Table 1 first of all lists the 2001 schedule of marginal tax rates (MTRs) on personal income (column 2), and the bands of taxable income to which they apply (columns 1). The table also presents the new profile of EMTRs (column 4), and the income bands to which they apply (column 3), facing a single income family when the Medicare Levy is included.[8]

The personal income tax system is simple. There are just five income bands and the schedule of marginal rates is progressive. The tax base is individual income. When the

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[8] The Medicare Levy rate is 1.5 cents in the dollar. For a family with two children, there is an exemption up to $27579 of family income followed by a claw-back, at a rate of 20 cents in the dollar, up to a family income of $29815.

Medicare Levy is added in, the overall system is not so simple, and the tax base shifts partly to household income. The key point to note is that the Medicare Levy not only has the effect of increasing the number of bands; it also introduces a fundamental change in the structure of marginal rates. The highest rate no longer applies to the top income band, but to a middle band. As we will now see, FTB and the EITC program have the same effect.

Table 1   EMTRs under personal income taxes and the Medicare levy

Taxable income $pa 1	MTR 2	Taxable income $pa 3	Med Levy 4
$0-$6000	0.00	$0-$6000	0.00
$6001-$20000	0.17	$6001-$20000	0.17
		$20001-$27579	0.30
$20001-$50000	0.30	$27580-$29815	0.50
		$29816-$50000	0.315
$50001-$60000	0.42	$50001-$60000	0.435
$60000+	0.47	$60001-$76000	0.485

The maximum rate of FTB Part A is $3029.50 for a child aged 0-12 and the base rate is $974.55 (child 0-18) for each child. Benefits up to the base rate are withdrawn at a rate of 30 cents in the dollar on every dollar above the lower family income threshold of $28200.[9] For the family with two children aged 0-4 and 5-12, the income limit at which the benefit, excluding the base rate, is completely phased out is $41900. The maximum rate of FTB Part B for a family with a child aged 0-5 is $2602.45. Single income families receive the maximum rate, and so the benefit does not affect their EMTRs.

Table 2 lists the EMTRs (column 2) and the much more complicated set of income bands to which they apply (column 1) when FTB Part A is included in the calculation. As the table shows, EMTRs up to the $28200 threshold are unchanged. But from this point on up to $41900 families face EMTRs of 80.0 and 61.5 cents in the dollar, due to the withdrawal of FTB Part A above the base rate.[10] Like the Medicare Levy, FTB Part A

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[9] Details of the FTB system are available on (www.ato.gov.au)
[10] The base rate is withdrawn at a rate of 30 cents in the dollar on family income over $76000 (the lower income limit for two children). The benefit is completely phased out at $82497.

undermines marginal rate progressivity, by raising effective rates across middle income bands.

Column 3 of the table gives the new profile of EMTRs when the EITC is added in. As its authors explain, it is integrated with FTB Part A, and so the phase-out of 30 cents in the dollar begins at $41901. The highest marginal rates now appear across the income range from $28200 to $47100. In other words, the EITC is a device for extending targeting further along the distribution of household income. The changes could equally well have been introduced by announcing modifications to FTB Part A.

Table 2   EMTRs under the 2001 tax system and EITC program

| Taxable income $pa | 2001 EMTR | EITC |
1	2	3
$0-$6000	0.00	-0.055
$6001-$20000	0.17	0.115
$20001-$27579	0.30	0.245
$27580-$28200	0.50	0.445
$28201-$29815	**0.80**	**0.80**
$29816-$41900	**0.615**	**0.615**
$41901-$47100	0.315	**0.615**
$47101-$50000	0.315	0.315
$50001-$60000	0.435	0.435
$60001-$76000	0.485	0.485
$76001-$82497	0.785	0.785
$82497+	0.485	0.485

How far the EMTR of 61.5 cents in the dollar extends across the middle of the distribution of family income depends, of course, on the number of children. If there is a third child aged between 13-15, the family faces this rate up to an income of $54700 under the existing system, and then up to $59900 under the EITC program.

(ii)   Dual income families

Now consider what happens to the dual income family. For the purpose of illustration, we take the case of a family in which the income of the primary earner for full time work

is $28200 pa and that of the secondary earner, also working full time, is $23100.[11]

Table 3 lists the EMTRs (column 2), and the respective income bands (column 1), that the primary earner would face under the 2001 tax system if the family remained single income. The rates are the same as those in the preceding table for a family with an income of up to $28200. FTB Part A and Part B sum to $8661 and income taxes and Medicare Levy, to $4964, so the primary earner receives a transfer of $3697, reported as a negative net tax in the table.[12]

Table 3   EMTRs for primary and secondary earners

Taxable income $pa	2001 EMTR Primary	2001 EMTR Secondary	EITC Primary	EITC Secondary
1	2	3	4	5
$0-$1616	0.00	0.50	-0.055	0.445
$1617-$6000	0.00	0.615	-0.055	0.56
$6001-$10290	0.17	0.785	0.115	0.73
$10291-$13700	0.17	0.485	0.115	0.43
$13701-$20000	0.17	0.185	0.115	0.485
$20001-$23100	0.30	0.315	0.245	0.56
$23100-$27579	0.30	-	0.245	-
$27580-$28200	0.50	-	0.445	-
Net tax $ pa	-3697	10692	-5257	12252
ATR %	-13.18	46.28	-18.64	53.04

Column 3 shows the EMTRs faced by the second earner, typically the mother, on going out to work. With an additional income of only $13700 she loses FTB Part A above the base rate, which amounts to $4110. She also loses all of FTB Part B. The maximum rate of $2602 is reduced by 30 cents in each dollar of the secondary earner's income over $1616, which means that it is entirely phased out at an income level of $10290. In addition, the second earner pays the remainder of the claw-back of the Medicare Levy exemption on her husband's income, which is $323, as well as her own Medicare Levy and income taxes.

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[11] A secondary income of $23100 is chosen to avoid income ranges over which the earnings credit is withdrawn faster than it is earned. At $41900 of family income the credit starts being phased-out while still being phased-in on the secondary earner's income. The increase in the EMTR beyond this point is therefore 24.5 cents in the dollar until an income level is reached where either the credit is fully phased in or fully phased out. A secondary income of $23100 is where both coincide.

If the second earner's income is only $13700, her loss of benefits, together with the income taxes and the Medicare Levy she pays on this income, amount to $8460. Her ATR is 61.75 cents in the dollar. She is left with a net income of only $5240. If she increases her hours of work to earn $23100, she pays $3657 in income taxes and Medicare Levy on her own income. With the withdrawal of FTB Part A and Part B, her effective net tax is $10692. Her ATR is 46.28 cents in the dollar.

Columns 4 and 5 of the table show what happens when the EITC program is added. EMTRs for the husband are reduced by 5.5 cents in the dollar and on the mother's income up to $13700, the point at which FTB Part A above the base rate is fully phased out. At this point, the earnings credit begins to phase out.[13] The result is that the high EMTRs on the second earner's income under the existing FTB system are extended from $13700 to $23100. The total amount the second earner loses is $12252, and her ATR rises to 53.04 cents in the dollar.

If we consider families in which the primary earner has a higher income, so that FTB Part A is partly withdrawn on his income, then the EITC program can result in EMTRs approaching 80 cents in the dollar on the secondary earner's income. This is because the range of income over which it is phased out can coincide with that over which FTB Part B is phased out. In a broader analysis which includes the GST, and now the "Baby Bonus",[14] secondary earners in many families on median wages would end up facing effective tax rates well in excess of 80 cents over significant ranges of income.

Effective taxes at these levels leave many mothers working full time with barely enough to pay for child care using government approved care, which is the only way they can access the Government's Child Care Rebate. The result is that almost two thirds of

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[12] Note that this calculation omits the GST and the various other forms of indirect taxes. It also omits the 9 per cent SGC. If we were to include these, they would wipe out the transfer for the primary earner.

[13] Note that it is still being phased in on the second earner's income, and so the effective phase out rate is 24.5 cents in the dollar.

[14] As shown in Apps (2001b), the "Baby Bonus" also implies a systematic increase in the effective marginal tax rates of second earners.

working mothers find child care in the informal sector and get no benefits. For those that do claim Part Rate of Child Care Benefit, this is likely to cover less than the tax they pay on the additional income they earn to pay for child care. Thus the existing benefit system, comprising FTB Part A and Part B and Child Care Benefit, already has the effect of severely restricting the market-domestic work choices of many women in lower income families. Introducing an EITC program would restrict their options even further.

4   Incentive effects within the domestic economy

Dawkins (2001) reports that "preliminary findings" from a micro-simulation model indicate that the EITC program has only small negative effects for secondary earners. A final result of this kind would be very surprising, given that the withdrawal of the credit would add to already excessively high marginal rates, as shown.

Empirical research has long indicated that married women as secondary earners tend to have relatively high wage elasticities.[15] Dawkins cites more recent studies, such as Duncan and MacCrae (1999), which obtain relatively low wage elasticities for second earners. However, the studies typically specify models of the family that do not take account of domestic child care as a substitute for bought-in child care. In many cases the latter is treated as a cost of working while home child care is defined as leisure. This asymmetric treatment of child care at home and in the market place, which was not a feature of many of the earlier studies, can be shown to lead to an underestimate of the wage elasticities of secondary earners.[16]

For a model explicitly incorporating domestic child care and work, we obtain large wage elasticities for married mothers (Apps and Rees, 2001). Using ABS data for couples[17] we

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[15] For a review article see Heckman (1993).

[16] It is worth noting the Eissa and Hoynes (1998) in their analysis of EITC expansions between 1984 and 1996 in the US find that the labour force participation of married women fell by a full percentage point. They conclude that the EITC program "effectively subsidies married mothers to stay at home". The most damaging aspect of the program is that the subsidies are, in effect, financed by higher taxes on working married mothers in low wage families.

[17] The data are from the ABS 1993 HES, 1994 IDS and 1992 TUS. See Apps and Rees (2001b) for details of the sample selection criteria.

estimate wage elasticities for married women in five pre-retirement phases of the life cycle defined as:

Phase 1: the adult household members are of working age and do not yet have children;
Phase 2: the household has children of pre-school age;
Phase 3: the children are of primary school age;
Phase 4: the children are of high school age or have left school;
Phase 5: the adults are still of working age but the children have left home.

The results for are reported in Table 4. Separate estimates are presented for those in full time and part time work during phase 2 to 5.[18] The most striking feature of the results is that the female wage elasticity rises dramatically with the arrival of children in phase 2 and stays relatively high until the children have left home in phase 5. Our explanation for this, and for the styalised differences by gender reported in the literature, is that, with the presence of children, market and domestic services become close substitutes, and so market and domestic work are close substitutes for married women as second earners.

Table 4   Female wage elasticities and time allocations

Life cycle phase	1	2	3	4	5
Female wage elasticities					
1. Full time work	0.0531	0.2524	0.3345	0.3212	0.1254
2. Part time work	-	0.8604	1.0514	0.9248	0.5595
Hours or work – means					
1. Female market pa	1481	507	737	1023	773
2. Female domestic pa	1244	3838	3149	2150	1830
3. Male market pa	1733	1734	1809	1733	1505
4. Male domestic pa	805	1503	1317	928	910

This thesis is also supported by the data means for male and female time allocations to market and domestic work, reported in rows 3 to 6 of Table 4. From the life cycle profiles of time allocations it can be seen that pre-retirement male hours of market work are relatively constant across all phases, apart from a decline in the final phase. The tendency for male partners to work the same hours before having children as they do after children arrive suggests that, consistent with estimates of their wage elasticities, they tend

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[18] Almost all women work full time before the arrival of children, and so we present a wage elasticity only for this case.

not to substitute domestic for market work. In contrast, female market hours vary widely
and inversely with domestic hours, indicating a high degree of substitutability with the
presence of children. A crucial implication of these results is that when mothers switch
from market to domestic production, there is a loss of jobs because they take market work
with them. Overall, the market economy contracts.

Using the estimated wage elasticities to simulate the effects of a change in tax rates of the
kind implied by the EITC program we find that there is not only a strong negative effect
on the labour supply of second earners but also on household saving.[19] This is not
surprising given that the data show that household saving is undertaken mainly by dual
income families at any given wage level. Table 5 reproduces the results for the different
household types across phases 2 to 5, and for couples in full time employment in phase 1.

Table 5   Saving in 1993 $pa and # children

Life cycle phase	1	2	3	4	5
Single income households					
Saving pa	-	-1352	-780	-1924	1872
# children	-	1.96	2.75	1.73	-
Dual income households					
PT: Saving pa	-	2444	1768	3900	7540
# children	-	1.81	2.46	1.79	-
FT: Saving pa	4524	9024	9022	7228	9282
# children	-	1.68	2.22	1.75	-

On average, household saving by single earner families is negative up till the final pre-
retirement phase. In contrast, household saving by two earner couples is, on average,
positive in all phases. By far the greater share of household saving is undertaken by two
earner households in full time work. These differences between the saving behaviour of
single and two earner households were found to carry across a quartile ranking defined on
full income. Thus, it is not only high income two earner households that save, but two
earner households throughout the wage distribution.

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[19] See Apps and Rees (2001b).

Table 5 also reports the number of dependent children in each phase, by each household type, to show that demographic variation cannot provide a satisfactory explanation for the variation in the domestic/market work choices and saving decisions of the two household types. These results strongly suggest that an EITC program will have significant disincentive effects on both labour supply and household saving and, in the long term, on economic growth. Moreover, the labour supply disincentive effects can be expected to reinforce gender differences in labour supply behaviour which, in the Australian context, is the underlying cause of the high level of unemployment and poverty among female single parent families.

In a further study we find that reforms which lower the net wage for mothers, have a negative effect on fertility.[20] This result contradicts the widely held belief that the decline in fertility in recent decades is due to an increase in the opportunity cost of children associated with a rise in the female wage. This view is based on the counterfactual assumption that parents cannot substitute market for domestic child care. Using a model which recognises that the market can provide substitutes for domestic services, including child care, we show that the effect of policies that lower the net wage for mothers reduce their labour supply and fertility.[21] We offer this as an explanation for the observed correlation between participation and fertility across OECD countries in recent years.

These results suggest that raising EMTRs for second earners under an EITC program, together with inadequate provision for child care, will have a strong negative effect on fertility as well as on household labour supply and saving.

5   Tax competition

In parallel with the move towards a more highly targeted welfare system over the last two decades, there has also been an overall shift in the tax burden away from capital towards labour which, in contrast to capital, is assumed to be a relatively immobile factor of

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[20] See Apps and Rees (2001c).
[21] For formal proofs, see apps and Rees (2001c).

production. The trend towards lower taxes on capital income is common to many OECD countries, but often for more complex reasons than those offered as a justification for lower taxes on capital income in Australia. A matter of particular concern to richer members of the European Union is the influx of highly mobile unskilled labour from poorer countries. The concern has led to extensive research on the effects of tax competition in globalized factor markets.[22]

A key question addressed by the literature is the extent to, and rate at, which tax competition for mobile capital will undermine the attempts of government to redistribute income and to fund public services and infrastructure. Highly mobile unskilled labour means that the richer EU countries, with well-developed welfare, public education and health systems, have become magnets for the poor. As a consequence, they face rising costs for these systems while, at the same time, they are under pressure to lower taxes on capital. This has led to the thesis that, in the absence of international tax coordination, tax competition will lead to the erosion of these systems as governments attempt to attract capital into their jurisdiction by undercutting each other's capital income taxes. In other words, tax competition will lead to "a race to the bottom". The fundamental problem is that without international tax coordination or, at the very least, coordination in the exchange of information, mobile capital can entirely avoid paying its way. Capital is, in effect, subsidised by labour.[23]

The question to which we now turn is whether labour market reforms directed toward reducing wages at the lower end of the distribution, combined with the changes in the tax-benefit system described above, can be justified as a response the pressure of tax competition? We also examine the role of the Five Economists' wage-tax trade-off in this context.

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[22] For a survey, see Wildasin (2000).

[23] This implies efficiency losses, as well as social welfare losses from the inability to redistribute income. Governments will no longer be able to support polices directed toward correcting the failures of private markets within their domestic economies. Example include public education programs in response to capital market failure over the life cycle (see Apps and Rees, 2001a), and health and unemployment insurance in response to the poor performance of private insurance markets in these areas.

Wage, tax and family benefits changes in Australia since the 1980s have been strongly interrelated. Falling wages at the bottom, resulting at least partly from labour market reforms, have necessitated increases in family benefits to alleviate child poverty. Because the benefits are targeted on family income, this has led to the expansion of income bands across which high EMTRs apply. These changes can also be described in reverse. Higher EMTRs in the middle of the distribution have given successive governments a source of revenue for funding tax cuts at the very bottom. By extending this source of funding, through further targeting over time, governments have been able to allow wages to fall at the bottom and to simultaneously fund higher benefits for those facing poverty. Moreover, the revenue gains from raising EMTRs in the "middle" have also provided a source of funding for cutting taxes on capital income and for those on very high incomes.[24] Thus the strategy of targeting benefits on family income has allowed governments to shift the tax burden *selectively* to lower and middle income families - more specifically, to low and median wage workers in dual income families.

The merits of this policy direction, as a response to tax competition, depend critically on three assumptions: (i) that capital is highly mobile between countries; (ii) that low and median wage labour facing higher taxes is highly immobile; and (iii) that high wage labour is not only mobile but will, in fact, change residence to a lower taxed country in response to higher taxes on their labour and capital income. While assumption (i) can clearly be supported empirically, assumptions (ii) and (iii) are rejected by the available data.

Assumption (ii) ignores the incentive effects of high EMTRs on second earners discussed in the preceding section.[25] Many low and median wage workers are not immobile, precisely because they are second earners. In response to an increase in EMTRs, they switch from their market jobs to the household sector, with negative effects on economic growth and fertility as described. Thus the wage-tax trade-off, implied by ongoing labour

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[24] The rise in EMTRs across the "middle" since the 1980s has coincided with a fall in the top marginal tax rate on personal income and in the company tax rate. And there has been no "quid pro quo" in terms of reforms to reduce excessive opportunities for tax avoidance among the beneficiaries.

market and tax-benefit reforms, is a policy response we might expect to see if Australia, facing the conditions implied by assumption (i), had chosen deliberately to participate in a "race to the bottom".

We have already identified the Five Economists wage-tax trade-off as "more of the same". In the context of tax competition the plan has an even more disturbing aspect. If we turn back to Table 1, we can see that the effect of the program outlined by Dawkins is to extend EMTRs of over 60 cents in the dollar further along the distribution of family income. There is, however, a dip in the middle, from around $50000 to $76000 pa. In the case of the dual income family in Table 3, the rates also tend to dip in the middle of the second earner's income.

While the scheme outlined by Dawkins is designed as an addition to Howard's family tax-benefit reforms, it is clear that it could be extended to produce an EMTR profile with no dips in the "middle". And it is evident, from comments from members of the "Five" in earlier papers and in the media, that the authors of the plan have this development in mind.[26] In the case of single income families, the result of pursuing this plan would be that all families apart from those at the very top and at the very bottom of the distribution of family income would face excessively high EMTRs. In dual income families, the EITC component of the plan would ensure that second earners, who contribute to family income above a threshold and below a very high level of income, face the same EMTRs over their entire income.

The Five Economists' plan can therefore be seen as a policy mechanism for further facilitating a "race to the bottom". Under such a plan, a future government could allow the minimum wage to spiral downwards and effective taxes on a wide band of middle

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[25] There are, as well, the widely recognised negative effects on the labour supply of older workers, which are not discussed here.

[26] It is of interest to note that the Five Economists have argued for an EITC program as a step towards a negative income-tax, comprising a credit financed by a flat rate of tax on income and withdrawn on income above a threshold. Both Dawkins et al. (1998) and Garnaut (1999) see this as a way of lowering the top rate of tax. Dawkins et al. suggest that in "the short term a 45% marginal rate on high incomes looks achievable and as time goes by this should be able to be brought down steadily". Garnaut, who proposes

income families to spiral upwards, while keeping those at the bottom of the distribution of family income above a specified poverty level. The overall outcome would be that a much larger segment of the labour market at or near a poverty level of net earnings.

As a response to tax competition, the Five Economics' plan runs counter to the kinds of policies that results of research have shown to be welfare improving.[27] The literature in the field recognises from the outset that we are unlikely to see global tax coordination, and has investigated alternative approaches, given this constraint. An important finding is that a well-designed income tax system, which enforces the residence principle of capital income taxation on a global basis, can achieve welfare gains.[28] The result depends crucially on the rejection of assumption (iii) listed above. Empirical studies reveal that it is not the case that high income earners, in response to higher taxes in their home country, change their country of residence in significant numbers. Thus, it is low and median wage labour in dual income families, not high wage labour, which tends to be highly mobile.

An important lesson from these findings for Australia is that we would be better served by policies which support, rather than undermine, our system of personal income taxation, with its progressive rates based on individual incomes and not on family incomes. For this we need not only to enforce the residence principle of capital income taxation, we must also address the longstanding and central deficiency of the Australian tax system, that of tax minimisation through the use of schemes typically not permitted in other advanced OECD countries.

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the withdrawal of the credit at a rate of 30 cents in the dollar, cites a top rate of 36 per cent as achievable by around 2006.

[27] For a recent survey of the literature, see Wildasin (2000).

[28] For a recent analysis demonstrating this result, Sorensen (2001). Enforcing the residence principle requires coordination in two ways. First, governments must engage in international exchange of information enabling each country to monitor and tax the foreign investment income of its residents. Second, to avoid international double taxation, source countries must give up their right to tax domestic-source income accruing to foreigners. For further discussion of the details of approach, see Giovannini (1989).

6   Concluding comment

This paper has investigated the distributional and supply side effects of the Five Economists' plan for a "wage-tax trade-off", combining an EITC program with a freeze on award wage increases. Section 2 first of all explained the fallacy underlying the idea, central to the argument in support of the plan, that an EITC withdrawn on the basis of family income is a good "equity instrument".

Section 3 identified the changes in effective tax rates implied by an EITC program, using the Dawkins (2001) scheme as a case study. The results show that the program, when combined with a wage cut for low paid workers, leads to an increase in inequality. The distributional limitations of the Five Economists' plan arise from the fact when an EITC is combined with a freeze on award wages, many dual income families, on low wages and working long hours to avoid poverty, are uncompensated for the wage cut they face. For these families the "tax" component of the *trade-off* is a fiction, as it is for single individuals.

Drawing on the findings of empirical research on behaivoural responses to taxes, the study then goes on to show that the plan can be expected to reduce the efficiency and growth of the economy, due to disincentive effects on family labour supply, saving and fertility. The structure of the plan is found to have much in common with ongoing labour market and tax-benefit reforms. In the context of globalized factor markets, both are identified as policy directions which are not in the interests of Australia.

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