



THE UNIVERSITY OF
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Faculty of Law

INCOME TAXATION, LABOUR SUPPLY AND SAVING

Income tax conference:
Looking forward at 100 Years: Where next for the Income Tax?
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Tax and Transfer Policy Institute
Crawford School of Public Policy ANU

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Introduction

2015 Tax Discussion Paper: **Re:think**

“Our tax system needs to support the modern economy.”

Modern economy:

Two of the most fundamental changes in the Australian economy since the middle of the 20th century are:

- the decline in fertility, from around 3.5 in 1960's to 1.9 today
- the rise in female labour force participation.

Majority of working age adults live in couple households. Most have two earners. We need a tax system that can take account of this reality and the gender gap in labour supply elasticities.

Introduction

Re:think

“While Australia’s tax system has served the nation well over the decades, it is outdated.”

“Australia’s reliance on income taxes remains much the same as it was in the 1950’s...”

Q: Is the Australian income tax structure “much the same” as in 1950?

A: No. The system has changed dramatically.

- Overall progressivity of the rate scale has declined significantly despite rising inequality.
- The individual as the tax unit for families has been replaced by a system of “quasi-joint” taxation, raising MTRs for many partnered mothers as second earners to well above the top MTR of the PIT scale.

Overview of presentation

To investigate the effects of these reforms on the economy we present an analysis of the following:

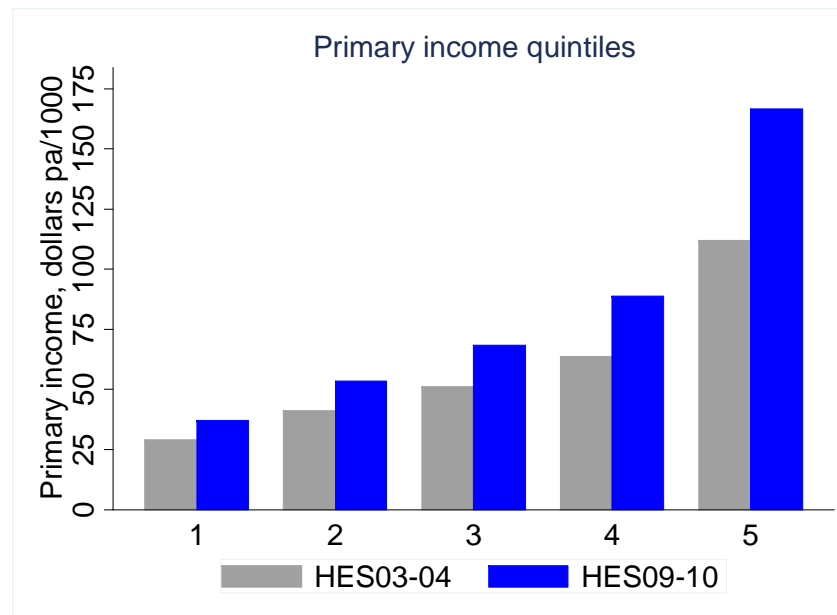
1. Rise in inequality and impact of a less progressive rate scale.
2. Transformation of the 1980s progressive individual-based family income tax into one of “quasi-joint” taxation – female labour supply effects.
3. Impact of high MTRs on 2nd earners on life cycle time use, consumption and household saving.
4. Efficiency merits of a well-designed, individual based, income tax over a consumption tax in a modern economy.

Concluding comment

1 Rise in inequality

ABS HES 2003-04 and 2009-10 data for couples: partners aged 20 to 60 and primary earner employed for min. 25 hours/wk.

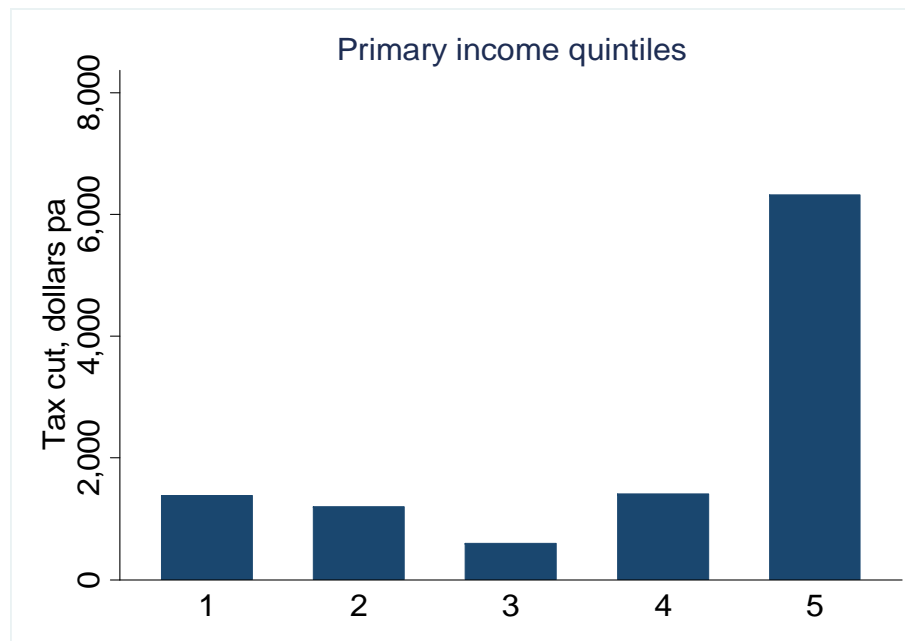
Primary income distribution



Rise in nominal incomes: quintile 1: 28%; quintile 3: 34%; quintile 5: 48%
decile 9: 43%; decile 10: 52%; top percentile: 71%

1 Shift in tax burden to “middle”

Primary income distribution



Nominal tax cut: quintile 1: \$1388; quintile 3: \$602; quintile 5: \$6421
decile 9: \$3,907 decile 10: \$8,717 (40% of total)
top percentile: \$48,680.

1 Shift in tax burden to “middle”

Carefully planned: Accumulated revenue from bracket creep used to fund changes in the rate scale that gave the largest gains to the top.

Shift in tax burden to the “middle” achieved by combining tax cuts at the top with the Low Income Tax Offset.

The LITO raised the zero rated threshold for those on low incomes while simultaneously denying gains for the middle by raising rates further along the distribution, through its withdrawal rate of 4 cents in the dollar. With the GST included, some in the “middle” will have lost.

The LITO has served the sole purpose of reducing the transparency of the true rate scale. The scale is no longer strictly progressive.

1 Bracket creep and GST

Re:think and 2015 Intergenerational Report

“...bracket creep affects lower and middle income earners proportionally more than higher income earners.”

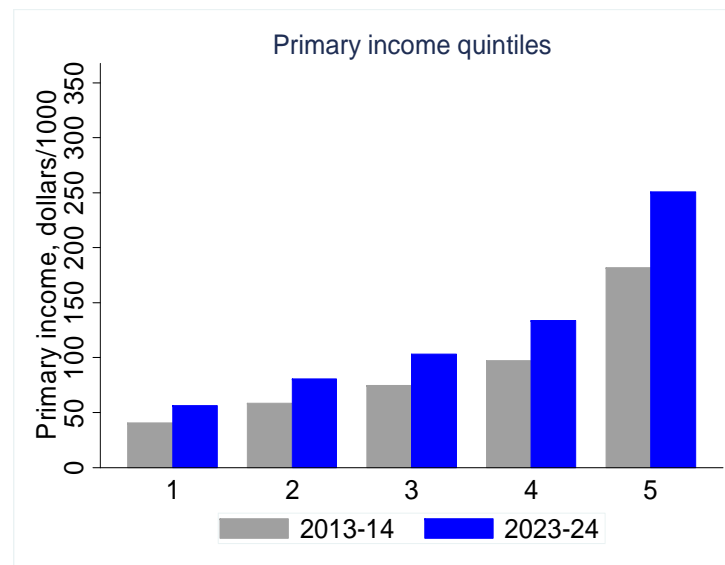
Example: average ordinary earnings in 2013-14 around \$75,000.

<u>2013-14</u>	<u>ATR</u>	<u>2023-24</u>	<u>ATR</u>	<u>INCREMENT</u>
37,500	10.3	52,000	17.8	7.5
75,000	22.7	104,000	27.4	4.7
150,000	30.5	208,000	34.3	3.8

Check with ABS HES 2009-10 data

Incomes indexed to 2013-14 and to 2023-24

\$37,500 mean of 1st dec; \$75,000 mean of 3rd quintile; \$150,000 - 92nd percentile

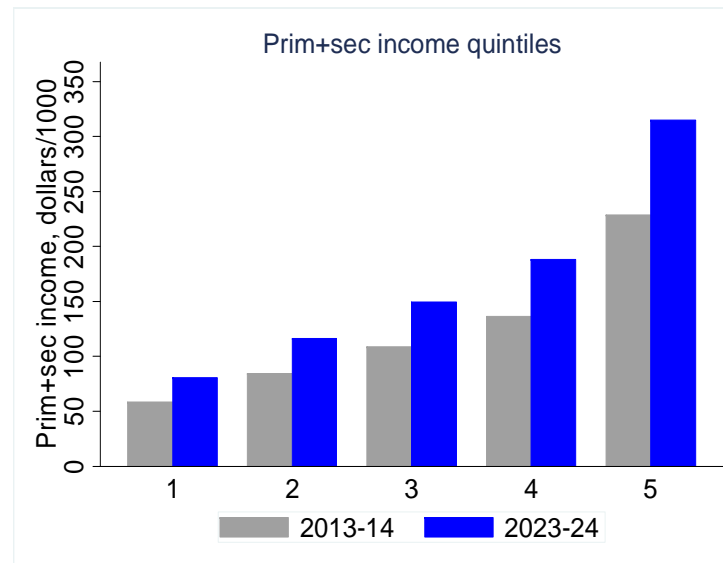


Primary income quintile	1	2	3	4	5
Percentage point rise in ATR	6.18	4.39	4.08	3.41	2.82

Check with ABS HES 2009-10 data

Primary + second income distribution

Bracket creep and a revenue neutral GST rise: equally regressive



Primary income quintile	1	2	3	4	5
Percentage point rise in ATR	5.91	4.57	4.27	3.71	3.05
GST: ATR%	6.03	4.75	4.13	3.78	2.99

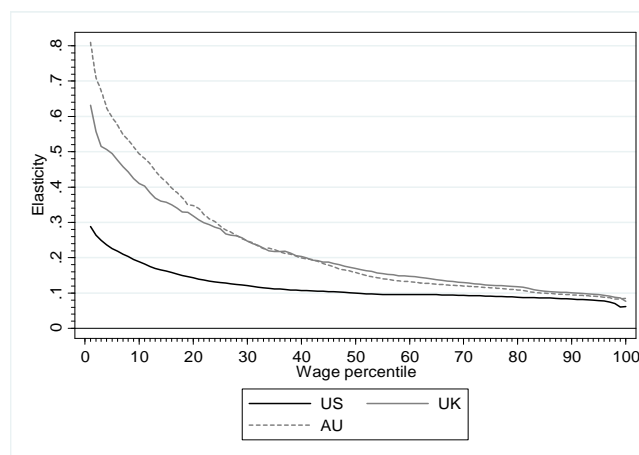
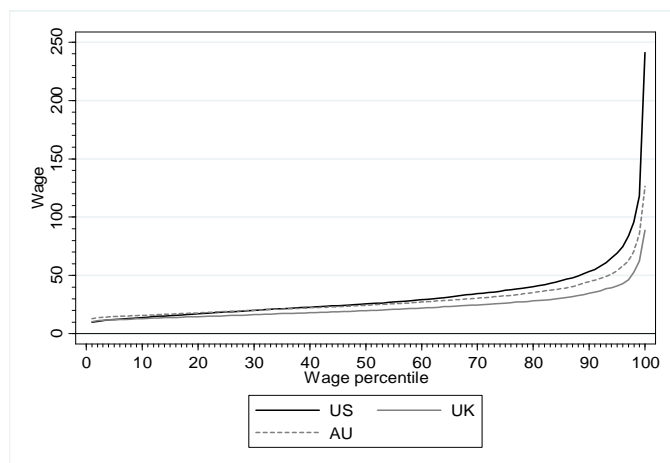
Why promote GST as a solution to bracket creep?

Will we see a further shift in the tax burden to the “middle”?

1 Male/primary earner elasticities

Argument for lower tax rates on top incomes usually based on efficiency gains from reduced labour supply disincentive effects.

Not supported by cross-section or panel data. Labour supply profile is too flat relative to the profile of wage rates. (Andrienko, Apps and Rees, 2014).



Some economists try to get strongly positive estimates for the top percentiles by switching to gross earnings data, e.g. Brewer et al. (2008) use data for Thatcher years of tax cuts and CEO pay rises and attribute positive estimates to a greater input of “unobservable effort”.

1 Male/primary earner elasticities

Piketty, Saez and Stantcheva (2014):

- low estimates of labour supply elasticities at the top.
- fall in gross earnings or taxable income in response to a higher tax rate is largely a reflection of an increase in tax avoidance and evasion, or to weakened bargaining power and consequently a lower share of rents.
- recommend that tax avoidance and evasion be dealt with directly and not through the tax scale. (See opposite view in “**Re:think**”)
- recommend a higher top tax rate in response to rising inequality.

Consistent with results for the structure of optimal tax rates in Andrienko, Apps and Rees (2014).

2 Family tax system: tax unit change

Transformation of Australia's family tax system since 1980s.

Early 1980s: families received universal child payments.

Howard years saw universal child allowances completely replaced with payments withdrawn on joint income together with a much less progressive PIT rate scale.

Current system: “quasi-joint” family taxation with the highest MTRs applying across average incomes and to the income of the second earner, creating a net-of-tax gender wage gap that makes the continuing gender gap in pre-tax pay rates look insignificant.

2 Family tax system: Targeting fallacy

Argument based on “targeting fallacy”: “cost” and revenue savings from reducing “middle class welfare”. Example:

Re:think: *“Reducing effective tax rates is not straightforward because reducing the rate at which payments are withdrawn, or removing them altogether, would extend assistance to higher income levels”.*

PIT is a piecewise linear income tax: Key lesson of modern tax theory: Individual faces two tax parameters: a marginal rate and a lump sum.

A tax system that gives a transfer and then withdraws it as income rises is equivalent to one with the same universal payment and a new structure of marginal tax rates and lump sums. The relevant basis for evaluating the “cost” of a tax system is not the “universality” of the payment, but the value of the payment and the effect of the structure of MTRs on incentives.

2 Female/second earner elasticities

Higher MTRs on 2nd earners: tax burden shifted to partnered working mothers. Negative impact on female labour supply based on estimates of positive and significant female labour supply elasticities.

Gender gap in labour supply and elasticities emerges after first child.

Additional work choice: One parent, typically the mother on a lower wage, can work at home providing child care and domestic services as an alternative to working in the market and buying in care and related services.

High female labour supply elasticities reflect a high elasticity of substitution between market consumption (child care and related services) and home production (home child care and domestic work). (Note: substitution is not between consumption and “leisure”).

3 Life cycle time use

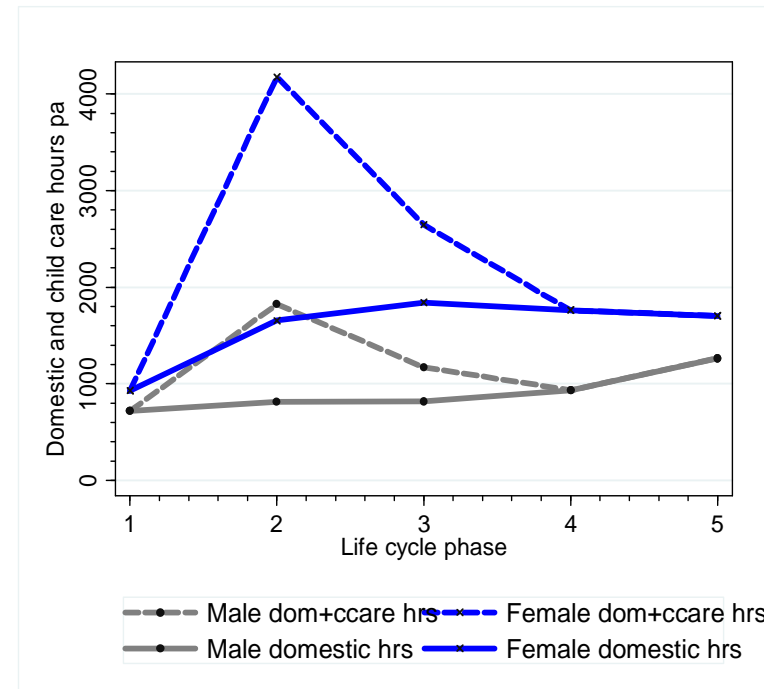
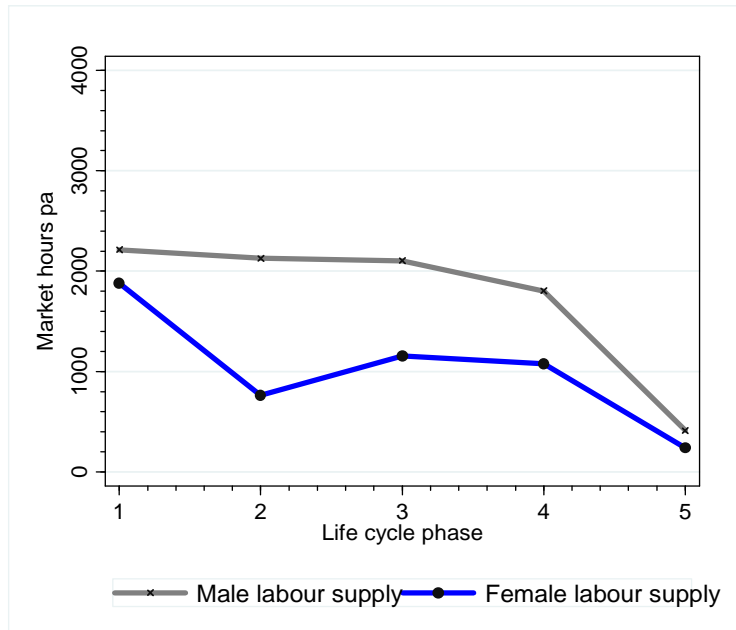
The impact of child care on female labour supply is strongly evident from the time use decisions families make over a life cycle defined not on the age of “head of household” as in the economics literature, but on the presence of dependent children and age of youngest child.

We define the life cycle on five phases:

- Pre-children
- At least one child of preschool age is present
- Children are of school age or older but still dependent
- Parents are of working age but with no dependent children at home
- Retirement.

3 Life cycle time use: ABS data

- 5 phases: 1 pre-child phase – almost identical female and male market hours
- 2 child 0 to 4 phase – dramatic fall in female market hours
- 3 child 5+ phase
- 4 post-child phase (under 60)
- 5 retirement (60+)



3 Life cycle literature

Life cycle literature treats household as a single person and defines the life cycle on age of “head”. Misreads the data. (For a survey see Attanasio et al. 2010).

The studies find that male and female labour supplies and household consumption initially rise together with age and then fall towards retirement. Labelled the “excess sensitivity puzzle”. Range of theories offered as possible explanations, e.g., “buffer stock” – precautionary saving model, etc.

Approach misses the large fall in female supply that takes place after the arrival of the first child because consumption and labour supplies are averaged across couples in phases 1 and 2.

3 Saving tracks female labour supply

Approach also misses the impact of female labour supply on saving.

Median household income, earnings and saving, HES 2009-10

Phase	Household income	Female earnings	Saving
1	116141	47502	19760
2	83824	6240	5824
3	110244	30212	9776
4	94744	26208	14040
5	6980	0	1404

Consumption, household income and saving track female labour supply.

3 Gender gap in labour supply

Life cycle time use profiles show large gender gap in labour supply.

Female hours are only around half male hours even in phase 4 due to high part time and low full time rates.

Participation rates are misleading – show relatively small gender gap.

High degree of heterogeneity across child rearing phases and phase 4.

Data reflect persistence of labour supply decisions made during child rearing years – attributed to loss of human capital.

3 Saving heterogeneity

2nd earnings and saving by primary income, phases 2 to 4

Primary income quintiles	34265	54701	71982	96648	201855
H1: 2 nd earnings \$pa	330	9745	9494	16794	12835
Saving \$pa	-8227	331	4095	14268	54642
H2: 2 nd earnings \$pa	24425	37410	43001	60451	67281
Saving \$pa	297	9075	16167	30634	76973

H1: 2nd earnings at or below median; H2: 2nd earnings above median

By switching type, from H1 to H2, saving almost doubles.

Note: level of saving rises with female labour supply while saving rate falls if female earnings < male earnings. Missed in single-person model.

Data highlight importance of modelling tax reform based on a two-person model of the household.

4 Income vs consumption tax

2015 Treasury Working Paper (TWP): (GE model)

Computes “marginal excess burden” (MEB) of taxes assuming:

- Single-person household with a single labour supply elasticity
- Fixed domestic capital or fixed saving rate

as in KPMG (2010, 2011), etc. Typical results:

	<u>TWP</u>	<u>KPMG</u>
Labour income tax MEB (\$)	21c	24c
Broad-based GST MEB (\$)	17c	8c
Elasticity	0.15	0.20

GST found to be more efficient: fictional result. (See Apps, 2015.)

4 Income tax – efficiency merits

A well-designed labour income tax will always be superior to a consumption tax because it is a less constrained policy instrument.

Individual earnings can be observed and taxed progressively, allowing a lower tax rate on the 2nd earner with the more responsive labour supply and higher saving rate at a given wage.

Individual consumptions cannot be observed. We can never observe **whose** consumption has been reduced to fund household saving

A broad based consumption tax is inevitably a **flat rate joint tax**. Exempting capital income is inconsistent with the theory of “second-best”, which forms the foundation of the economics of taxation.

Female labour is arguably the most mobile factor of production.

4 Labour income tax – equity merits

Progressive individual taxation is superior in terms of horizontal equity as well as vertical equity.

Horizontal equity: a two-earner family working twice the hours of a single-earner family to earn the same joint income pays less tax.

Under Joint taxation – flat rate and progressive – they pay the same amount of tax – inequitable because home production is untaxed.

Household income is an unreliable indicator of living standards in an economy in which wages and earnings are relatively flat across much of the income distribution. ABS data show that when the second partner in a low wage single-earner family goes out to work that family can be reranked from quintile 1 to quintile 4. (See Apps and Rees, 2013.)

Concluding comment

Looking forward at 100 Years: Where next for the Income Tax?

Reverse the direction of reform of recent decades:

- Move to more progressive taxation of labour and capital income to deal with rising inequality of income and wealth
- Return to the individual as the tax unit
- Deal with tax avoidance and evasion directly, and not through the tax rate scale (Picketty et al.)

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