Tax and Transfer incidence in Australia

Productivity Commission  
Commission Working Paper. October 2015.

Commonwealth of Australia 2015



Except for the Commonwealth Coat of Arms and content supplied by third parties, this copyright work is licensed under a Creative Commons Attribution 3.0 Australia licence. To view a copy of this licence, visit [<http://creativecommons.org/licenses/by/3.0/au>](http://creativecommons.org/licenses/by/3.0/au). In essence, you are free to copy, communicate and adapt the work, as long as you attribute the work to the Productivity Commission (but not in any way that suggests the Commission endorses you or your use) and abide by the other licence terms.

Use of the Commonwealth Coat of Arms

For terms of use of the Coat of Arms visit the ‘[It’s an Honour](http://www.itsanhonour.gov.au/coat-arms/index.cfm)’ website: <http://www.itsanhonour.gov.au>

Third party copyright

Wherever a third party holds copyright in this material, the copyright remains with that party. Their permission may be required to use the material, please contact them directly.

Attribution

This work should be attributed as follows, *Source: Productivity Commission, Tax and Transfer Incidence in Australia*.

If you have adapted, modified or transformed this work in anyway, please use the following, *Source: based on Productivity Commission data, Tax and Transfer Incidence in Australia*.

An appropriate reference for this publication is:

Productivity Commission 2015, *Tax and Transfer Incidence in Australia*, Commission Working Paper, Canberra.

Publications enquiries

Media and Publications, phone: (03) 9653 2244 or email: maps@pc.gov.au

|  |
| --- |
| The Productivity Commission |
| The Productivity Commission is the Australian Government’s independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.  The Commission’s independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.  Further information on the Productivity Commission can be obtained from the Commission’s website ([www.pc.gov.au](http://www.pc.gov.au/)). |
|  |

Contents

Acknowledgments v

Abbreviations vi

Glossary vii

1 What is this paper about? 1

1.1 The purpose of this paper 1

1.2 Why analyse taxes and transfers together? 1

1.3 Why take a life cycle perspective? 2

1.4 Research questions considered in this paper 3

1.5 Structure of the paper 3

2 Framework for analysis 5

2.1 Taxation in Australia 5

2.2 Transfer payments in Australia 7

2.3 How do taxes and transfers redistribute income? 10

2.4 How do taxes and transfers change incentives? 13

2.5 How do taxes and transfers affect incomes over lifetimes? 16

3 State of evidence 21

3.1 General methodological challenges 22

3.2 Annual tax and transfer incidence 25

3.3 Incidence from a life cycle point of view 42

3.4 Lessons from the literature 47

4 Tax and transfer incidence 51

4.1 Approach to analysing tax and transfers 52

4.2 Income, wealth and demographics 54

4.3 Tax and transfer incidence by income and wealth 62

4.4 Tax and transfer incidence by age and family type 72

4.5 Tax and transfer payers and recipients 78

5 Tax and transfer incentives 81

5.1 Incentives to earn additional income 82

5.2 Incentives to enter the workforce 89

5.3 Responsiveness to incentives 92

6 Tax and transfer incidence over time 93

6.1 Lifetime tax and transfer flows 94

6.2 Projecting tax and transfer flows 101

7 Opportunities for further work 109

A Major Australian taxes and transfers 111

A.1 Taxation revenue 111

A.2 Taxation offsets 112

A.3 Transfer expenditure 114

B Modelling approach 117

B.1 Aim of the modelling and the approach used 117

B.2 The tax and transfer model in more detail 119

References 135

# Acknowledgments

The Commission is grateful to everyone who has provided feedback on the issues canvassed in this research project. Particular thanks are extended to those who participated in the Commission’s workshops, held in Melbourne on 27 May and 6 July 2015.

The Commission would also like to thank Peter Whiteford (Australian National University) for providing referee comments on a draft of the paper and officers of the Australian Treasury for their assistance and feedback.

### Use of CAPITA model

The modelling results in this paper were based on a development version of the CAPITA microsimulation model provided by the Australian Treasury. CAPITA is a redevelopment of the STINMOD model which had previously been developed and maintained for the Commonwealth by the National Centre for Social and Economic Modelling at the University of Canberra. The nature and functionality of CAPITA and STINMOD are very similar, although the Commission has augmented the development version of CAPITA for the analysis produced in this paper.

The CAPITA project is a joint initiative of the Treasury, the Department of Social Services, and the Department of Employment. CAPITA uses survey data from the ABS. However, the findings and views reported in this paper are those of the Commission and should not be attributed to any of these departments or the ABS.

# Abbreviations

ABS Australian Bureau of Statistics

ATO Australian Taxation Office

CPI Consumer Price Index

CURF Confidentialised Unit Record File

DSS Department of Social Services

DVA Department of Veterans’ Affairs

EATR Effective average tax rate

EMTR Effective marginal tax rate

GST Goods and services tax

HES ABS Household Expenditure Survey

OECD Organisation for Economic Cooperation and Development

PC Productivity Commission

PTR Participation tax rate

SIH ABS Survey of Income and Housing

SSC Social security contribution

VAT Value added tax

VRR VAT revenue ratio

# Glossary

|  |  |
| --- | --- |
| CAPITA | Microsimulation model of Australia’s income tax and transfer system, provided by the Australian Treasury. The model was augmented and used by the Commission in its analysis. |
| Churn | When families simultaneously pay income taxes and receive transfers. |
| Concentration coefficient | Measures the degree to which taxes or transfers are distributed between people on different incomes. |
| Effective average tax rate | The total amount of tax paid less the total amount of transfers received divided by private income. |
| Effective marginal tax rate | Additional tax paid less the amount of transfer payments forgone for each extra unit of private income. |
| Final income | Private income adjusted for transfer payments, taxes on personal income, taxes on goods and services and in-kind services (such as health and education). |
| Gini coefficient | Measures how much the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. |
| Income taxes | Taxes on income levied by the Australian Government, including personal income tax, company income tax, superannuation fund taxes and fringe benefits tax. |
| Indirect taxes | Indirect taxes levied by the Australian Government, including the GST, excises (for example, on fuel, beer and tobacco), customs duties, wine equalisation tax and the luxury car tax. |
| Marginal tax rate | The additional tax paid on an extra unit of taxable income. |
| OECD-10 | Australia, Canada, Ireland, Japan, the Netherlands, New Zealand, Spain, Switzerland, the United Kingdom and the United States. |
|  |  |
| Private income | Income before any taxes, transfers or in-kind services are taken into account. This includes all income from wages, salaries and unincorporated businesses, income from superannuation, private pensions and annuities, investment income including dividends and other non-government income. |
| Progressivity | Under a progressive tax, the percentage of income paid as tax increases as income rises. In the case of personal income taxes, people with lower income pay a lower percentage of that income in tax than do those with higher income. |
| Participation tax rate | Additional tax paid less the amount of transfer payments forgone for an extra unit of income, where the unit of income is equivalent to the amount that someone would receive if they entered paid work. |
|  |  |
|  |  |
|  |  |