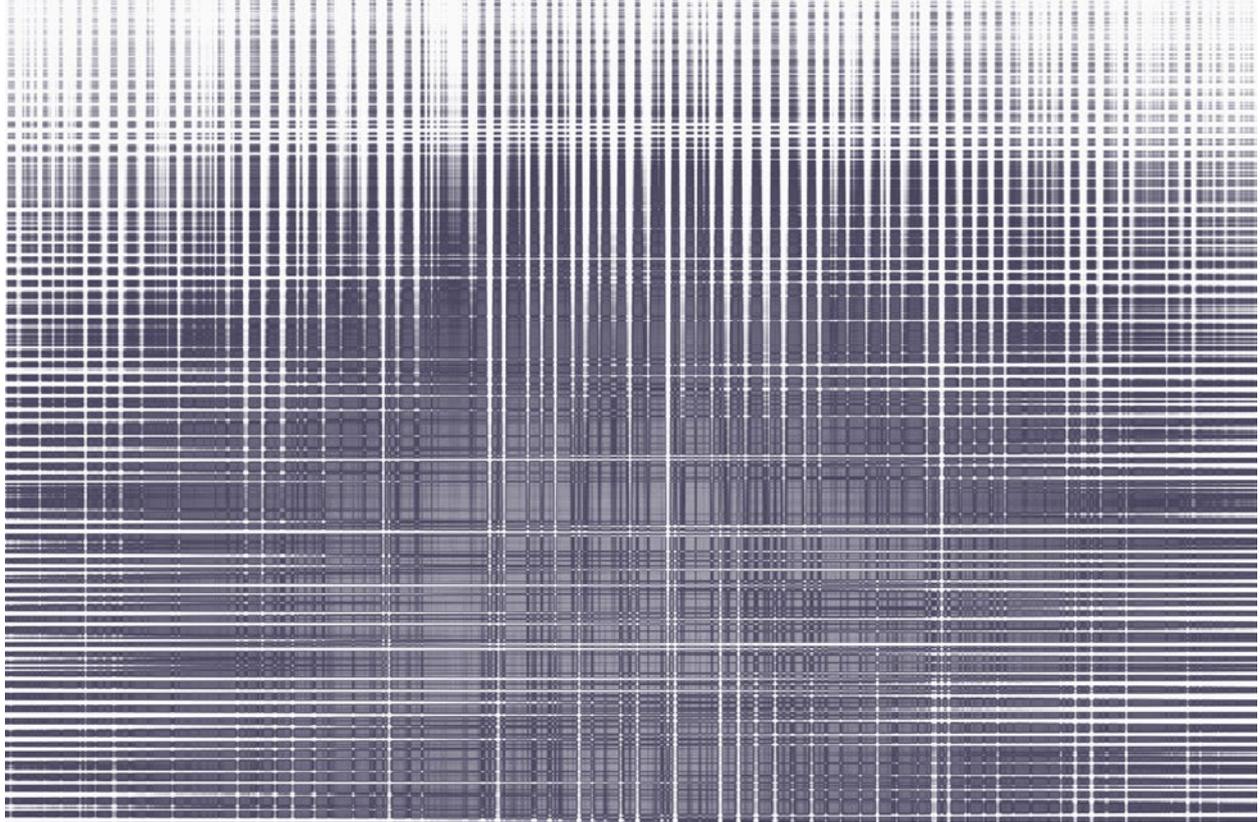




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A basic income for Australia? Exploring rationale, design, distribution and cost

D Ingles, B Phillips and M Stewart

CSRM WORKING PAPER

NO. 8/2019

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ANU Centre for Social Research & Methods

Research School of Social Sciences
The Australian National University

A basic income for Australia? Exploring rationale, design, distribution and cost

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Abstract

This paper considers the potential for a basic income (BI) or guaranteed minimum income (GMI) scheme for Australia. We examine the proposal for a GMI advocated by the Henderson Poverty Inquiry in 1975. We briefly discuss the rationale for a BI and then focus on work incentive effects, design and financing of a BI in the Australian context. The paper describes and models four options that would move the current Australian system towards a partial or categorical BI, with an innovative approach of financing the BI by a wealth tax to keep the tax rate on earned income relatively low. Such a BI could help ease the effective marginal tax rates that affect families and welfare recipients, and would provide extra support to those with low or fluctuating incomes. For each option, the paper explores the required tax rate and the distributional outcomes for different family types and incomes.

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Acronyms

ABS	Australian Bureau of Statistics
ANU	Australian National University
AWT	annual wealth tax
BI	basic income
CSRM	Centre for Social Research & Methods
EMTR	effective marginal tax rate
FTB	Family Tax Benefit
GMI	guaranteed minimum income
GST	goods and services tax
NIT	negative income tax
PRS	Priorities Review Staff
RTR	required tax rate
UK	United Kingdom
US	United States

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1 Introduction

We believe that the guaranteed income scheme which we propose provides a framework which better meets the fundamental purposes of social security, and that urgent attention should be given to developing it for implementation. (Henderson 1975a:67)

A basic income (BI) is not a new concept. It has antecedents dating back to the 15th century, and the idea was developed substantially in the 20th century (Standing 2017). A BI is closely related to proposals for a negative income tax (NIT), guaranteed minimum income (GMI) or demogrant (citizen or family payment). Different versions of a BI, GMI or NIT have been supported by both ends of the political spectrum, albeit with different labels and intents.

A BI was suggested by Bertrand Russell and the ‘social credit’ movement at the end of World War I and won some public support in the United Kingdom (UK) and Canada. In Australia, it was promoted by the Henry George League and the Milners in the 1920s (Arthur 2016:78). In the UK, Lady Rhys-Williams proposed a ‘social dividend’ in the 1940s (Rhys-Williams 1943, Sloman 2016). The idea was resuscitated during the 1960s, when Robert Theobald and Milton Friedman were early United States (US) proponents of a NIT, which is similar in many respects to a BI (Arthur 2016:8–9). There were major NIT experiments in Canada and the US in the 1970s. At one stage, it appeared such a scheme would be enacted by the US federal government. As Freedman (2016:5) states:

In 1968 more than a thousand economists signed a petition for a basic-income scheme and President Richard Nixon attempted to legislate a ‘Family Assistance Plan’ that was in many ways a BI and that was supported by a majority of the public and endorsed by most newspapers. Nixon’s plan sailed through the House of Representatives. It died, however, in the Senate, where conservatives balked at the

cost and liberals wanted a higher payout and no work requirement. The 1972 Democratic presidential candidate, George McGovern, then got into the act, briefly including in his platform a \$1,000 ‘demogrant’ to all citizens.

In Australia, variants of a BI were proposed in official inquiries in the 1970s (notably the Henderson Poverty Inquiry), while the UK published a green paper on a tax credit scheme in 1972.¹ Today, we have seen significant interest and a new movement in support of a BI, which has acquired impetus because of growing income and wealth inequality (notably in the US), and fears about globalisation, automation, technological change and precarious work in the labour market. New experiments are being conducted about the benefits and effects of a BI, including an experiment financed by Silicon Valley entrepreneurs, who see BI as a way to address the impact of technological change on the labour market (Freedman 2016:7).

Discussing renewed interest in a BI today, Arthur (2016:13) asks: ‘Why is basic income back on the agenda?’ He argues:

Much of the recent surge in interest in BI is a response to concerns about job losses as a result of technological change ... There is also a fear that the benefits of economic growth no longer flow to the community as a whole but rather are going almost exclusively to those at the top of the income distribution ... By providing vulnerable individuals with support outside the market [some commentators] hope to head off populist policies.

This paper explores the design, distributional consequences and financing of a BI for Australia. The arguments for and against a BI are discussed in detail by Henderson (2019) and these arguments, and various experiments and proposals, are summarised in Appendix A. Essentially, the issue comes down to whether one has a pessimistic or optimistic view of human

nature. If we are pessimistic, we may see that the universal income support provided by a BI will cause increased workforce withdrawal, idleness and high tax rates. If we are optimistic, we will see the BI as providing opportunities for humans to blossom – for example, to pursue artistic, learning or creative endeavours – and we might expect that most people will continue to work because they want to be part of society and gain satisfaction from work.

Section 2 sets out definitions and concepts for a BI. Section 3 explains the Henderson GMI proposal and other proposals compared with the current Australian social security system. Section 4 examines efficiency and equity arguments for the optimal tax rate and payment level for a BI, in light of evidence on tax rates, work disincentives and poverty traps in the existing system. Section 5 discusses the tax base, required tax rate and our innovation, in which we model a wealth tax to finance a BI. Section 6 explains some specific design issues for a BI, including the unit for payment, categorical or universal design and convergence of payment rates in different categories.

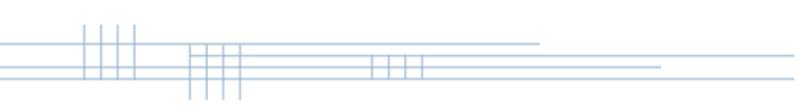
We then turn in Section 7 to describe and model the distributional effects and fiscal cost of four alternative options for a BI in the Australian context. Options 1 to 3 are categorical systems combined with a basic payment, building on the design of the Henderson GMI, and of increasing generosity. Option 4 is closest to the popular understanding of a BI: we apply a substantial basic payment to all adults, with a higher payment for the aged and a lower payment for children aged 0 to 12. On the tax side, option 1 is financed by cashing out the tax-free threshold in the income tax. Option 2 combines this with an asset means test for the BI. Options 3 and 4 are financed with a comprehensive net wealth tax and an income tax on earned income (wages and active business income).

The BI and categorical payments in all our options are not taxable, except that the wealth tax is withheld at source in option 2. We adopt an individual unit for the BI and tax system but assume wealth is equally distributed among all income units in the household. However, where we retain higher categorical payments, the existing couple unit for means testing and

relatively lower payment to each member of a couple remain.

In any BI system, it is important to have some recognition of housing costs, as a flat BI paid to everyone would leave those with high housing costs in poverty, which would be made worse if financed by a wealth tax that, as in our proposals, includes the home. In our options 2 to 4, we abolish rent assistance but we raise net payments to partly compensate for housing costs.

Applying PolicyMod at the Australian National University, we present static microsimulation modelling to estimate the fiscal cost and tax rates required to finance each option in Australia and the distributional effects on different categories of household in quintiles of disposable income, relative to the current system. Details are set out in Section 7. (Tables and charts of modelling results are in Appendix A.) In Section 8, we present concluding remarks and a tentative recommendation of the most feasible and desirable option for Australia, were there an appetite for this type of reform.



2 Definitions and concepts for a basic income

2.1 What is a basic income?

A BI, sometimes called a *universal* or *unconditional* BI, may be defined as ‘an income unconditionally paid to all on an individual basis, without means test or work requirement’ (Martinelli 2016:4, Etzioni & Platt 2008:2). Arthur (2016:4) emphasises, in addition to universality and unconditionality, that most BI proposals seek to provide an adequate income set at a high enough level to protect against poverty.

The lack of a means test is described by Torry (2015), who suggests that a BI is an ‘unconditional and non-withdrawable income for every individual’. The individual unit is a common feature of many BI proposals, which differs from many social security payments that are designed on a family or household basis. In a recent UK proposal for a BI, Painter and Thoug (2015) state that ‘a universal basic (or citizen’s) income is a universal income paid on an individual rather than household or means-tested basis’. They suggest that the payment need not be entirely unconditional but could have a ‘contribution affirmation’: ‘Those aged 16–25 years old would be expected to declare how this income would be used to support them in learning, work, caring, volunteering or establishing a business’. Another issue is whether the payment is the same for all, or higher for those who cannot work; for example, Painter and Thoug propose benefits for the elderly that are around double those for the working aged. They also separate out housing and disability assistance.

We observe that all these elements of the definition of a BI are contestable. Moreover, these definitions do not take account of the need to finance the BI with taxation. Once financing is considered, it is clear (as explained below) that all payments must be ‘withdrawable’ through taxation; the real question is ‘at what rate?’ Taking

all of these factors into account, in this paper we consider the key elements of a BI financed by tax to be:

- the **adequacy** of a BI, to meet an acceptable level of living to prevent poverty
- the **required tax rate (RTR)** to finance the BI
- whether the same level of BI is payable **universally** or a different rate is payable to **categories** of recipient – for example, the elderly, children or people with disability
- whether the BI is **unconditional** or conditional on behaviour (such as job search), or subject to other qualifying requirements.

2.2 The required tax rate

Despite the common description of a BI as ‘universal’, there is no such thing as a universal, or non-means-tested payment scheme. This is because any payment must be financed by taxes that create an implicit withdrawal rate. The withdrawal, or tax, rate to finance the BI is often proposed to be a flat rate, or linear tax on incomes, although there may be variations, such as a surcharge on high incomes to create a more progressive tax structure.

In discussing BI options, it is not all that useful to consider the fiscal ‘cost’, as most of these schemes are designed to be largely self-financing. Instead, our key parameter is the RTR, which we define as the linear, or flat, withdrawal rate or positive tax rate designed to make the prescribed level of BI cost-neutral. Of course, any BI system could levy a surtax or higher progressive rate at higher incomes, and it will operate in a broader fiscal system that includes other taxes that finance other public expenditure. We focus our analysis on the cash transfer, or social security, system, and assume that all other

elements of the tax and expenditure system of government remain unchanged.

2.3 A simple example of a basic income or guaranteed minimum income with tax financing

The effects of a simple GMI of \$300 per week (about the level of the unemployment benefit, Newstart Allowance), with a tax rate of 50% and no tax on the GMI, are shown in Table 1 for different levels of income (destitute, minimum wage, full-time average weekly earnings, top 1%). The tax rate is the RTR, which also operates as the withdrawal rate for the BI, based on income. The tax rate applies to private income, but the average tax rate is calculated taking into account the BI payment received by each citizen.

The rich are large net contributors and the poor large net beneficiaries of a GMI with a flat 50% rate. The effects of a universal GMI of \$300 per week (a little higher than the current level of Newstart), with a tax rate of 50% and no tax on the GMI, are shown in Table 1. Tax is paid only on private (earned) income. The average tax rate is calculated by netting out the GMI with tax payable, as a share of private (taxable) income. The tax net of GMI is \$50 for citizen B, \$500 for citizen C and \$2000 for citizen D.

Citizen A receives a transfer payment equal to the GMI. Therefore, although the tax rate is flat, by including the GMI the system overall is progressive.

Table 1 shows that, while payment of a flat amount to everyone may appear to be poorly targeted, it has a significant equalising effect at a 50% RTR. It also produces an average tax rate on those with average earnings of less than one-third, which is consistent with the current progressive tax rate system in Australia. Table 1 also shows that, when comparing a BI and a NIT, the concept of ‘middle class welfare’ has little meaning. Under a BI scheme, everyone gets the same payment, including the middle class and the rich, but everyone with private income pays tax, which means that the net benefit received from government decreases as income rises.

A BI is intended to be clearly identified as an asset received by and belonging to each individual. In contrast, the income ‘entitlement’ is obscured in NIT arrangements, which net out the guarantee against tax payable and pay out only a residual amount, if any, and the apparent fiscal cost, or size of government spend, is much smaller. Ultimately, everyone ends up in the same position under a BI and an equivalent NIT, and faces the same effective tax rates, although, under a NIT, people may perceive that they are paying less tax.

Table 1 Basic guaranteed minimum income with 50% flat tax

Citizen	Annual income (\$)	Private income/ week (\$)	GMI/week (\$)	Tax paid/ week – 50% (\$)	Disposable income/ week (\$)	Average tax rate (%)
A Destitute	0	0	300	0	300	0
B Minimum wage	37 000	700	300	$700 \times 0.5 = 350$	650	7
C AWE FT	85 000	1 600	300	$1\ 600 \times 0.5 = 800$	1 100	31
D Top 1%	240 000	4 600	300	$4\ 600 \times 0.5 = 2\ 300$	2 600	43

AWE FT = full-time adult average weekly total earnings \$1628.10 (ABS 2017); GMI = guaranteed minimum income

Source: Author’s calculations (approximate annual and weekly incomes, for illustration)

Note: Minimum wage \$719.20 per 38 hour week (Fair Work Commission 2018); top 1%: total income \$4565.25 weekly, derived from \$237 341 annual income (ATO 2017), total income, excluding capital gains and franking credits (Stewart et al. 2017:264).

3 Proposals for a basic income in Australia

In this section, we briefly outline Australia's current tax-transfer system and then discuss the proposals for a GMI made by the Henderson Poverty Inquiry (1975ab), the Priorities Review Staff (PRS 1975) and more recent modelling.

3.1 Australia's current tax-transfer system: a targeted categorical negative income tax

While it is in appearance and effect far from a BI, Australia's system is fundamentally a needs-based categorical NIT. It is well known that Australia has the most targeted social security system in the Organisation for Economic Co-operation and Development (OECD) (Whiteford 2017). Nonetheless, its design means that we could devise options to move towards a BI by modifying the means testing, adequacy, categorical elements and tax financing of the current system.

For countries such as Australia or the UK, with established social security and tax systems, BI proposals raise the issue that only a low level of BI is affordable under the tax system applicable already. Means-tested social security systems can alleviate poverty for the poorest in society at a relatively low fiscal cost. Without a substantial increase in the fiscal envelope, many of those currently in the welfare system would lose from a transition to a BI, and so a transition to a BI without more financing implies increases in poverty rates. Based on extensive modelling for the UK, Martinelli (2017:48) found that means-tested benefits are 'good value'.

The Australian system pays substantially higher pensions (indexed to wages) to the aged, people with disability and families with young children, and lower payments (indexed to inflation) to the unemployed and students. Many consider the latter inadequate. Payments are means tested

or withdrawn on household (spousal) income at rates of 20, 50 or 60 cents in the dollar over varying thresholds. Pensions are also subject to a separate asset (wealth) test that takes precedence over the income test if it produces a lower payment.

The basic elements of Australia's current social security system are:²

- a maximum Newstart Allowance of about \$14 300 per year (\$550 per fortnight) for an individual working-age adult looking for work, or studying, tapering at 50 or 60 cents in the dollar based on income over a threshold
- a maximum categorical pension (for age, disability) including supplements of about \$23 800 (\$916 per fortnight) for an individual, tapering based on income, with separate asset tests
- a higher (but not double) joint rate of Newstart or pension for couples
- child payments, Family Tax Benefit (FTB) A, at a maximum rate of \$5505 for children aged 0–12, and \$6939 per child aged 13–17, tapering at 20 or 30 cents in the dollar based on couple income over a threshold
- family payments, FTB B, paid per family to sole parents or single-earner households, tapering at 20 cents in the dollar based on couple income over a threshold
- rent assistance, depending on rental costs and means.

The Australian age pension, in particular, has characteristics of a GMI paid to individuals or couples who satisfy the age requirement, but it has a tight income test with poorly designed integration with the income tax system and very high implicit tax rates on assets in the asset test (Ingles & Stewart 2017). There have been brief experiments with a universal age pension in Australia, but there seems to be, in this country, an aversion to 'middle class welfare', which makes universal payments hard to sustain,

notwithstanding that we benefit the wealthy by large superannuation tax concessions that can be worth much more than the pension (Ingles & Stewart 2017). In contrast, the flat-rate New Zealand age pension (New Zealand Superannuation³) is a form of BI for those of eligible age, with one rate for couples and a different rate for singles living alone. The New Zealand pension has proven to be resilient and is a politically well-entrenched policy, although being supplemented today by a private retirement savings scheme.

The fact that the Australian system is so highly targeted means that it is difficult to devise a BI scheme that is more redistributive than the current system. Many of the benefits of the BI would end up flowing to middle-income groups rather than the poor. If BI payment rates are designed to recompense social security recipients at existing rates, or even to raise basic levels of welfare payment, the RTR to finance the BI becomes high and the financing task difficult indeed. This commonly leads to proposals for two or more tiers of BI in a categorical scheme. Unfortunately, this reintroduces distinctions between the 'deserving poor' and 'undeserving poor', something that the BI is trying to avoid. As Tanner (2015:1) observes, '... what looks good in theory tends to break down when one looks at implementation'.

However, the degree of redistribution achieved by a tax-transfer system is a function not only of the degree of targeting but also of the quantum of assistance. We will show in our modelled BI options that redistribution towards the poor can improve under a BI with a larger welfare spend. This redistribution is strengthened when we enlarge the tax base to include wealth, although a broad definition of wealth (which we apply) creates its own distributional issues.

3.2 The Henderson guaranteed minimum income

The Henderson Poverty Inquiry proposed a two-tier, categorical GMI scheme (Henderson 1975ab). The Henderson proposal had the following aims (Henderson 1975a:70):

To emphasise that the right to a minimum income and the obligation to pay tax are but two sides of the same coin.

To reduce the emphasis placed on special categories in the determination of entitlements and obligations.

To provide minimum income levels such that Australians do not find themselves in poverty.

To assure all citizens of a logical sequence of income retention rates as private income increases.

To favour neither those whose private income fluctuates nor those whose private income is steady.

To lighten the administrative load of social security and taxation.

To achieve all this without markedly worsening the position of any person compared with the present system.

The Henderson Committee decided to retain categorisation, although the committee was concerned that the existing system 'gives favoured treatment to particular categories of people' and therefore 'has built into it both the incentive to gain a disability and the likelihood of inequity between people on one side of the boundary line of a favoured category and those left out on the other side' (1975a:68). The main reason to retain categories was fiscal: it was estimated that a simple guarantee of income at, or just above, the poverty line for all would require a 50% tax rate, which the committee considered politically unacceptable (Henderson 1975a:74). Instead, the committee proposed a higher GMI to apply to households in categorical groups such as the aged and disabled, and a lower basic payment for everyone who could normally be expected to work. There was also a tightly means-tested top-up for the unemployed or sick.⁴

The higher tier of the Henderson GMI was set at 106% of the poverty line he established, and the basic payment at 62% of the poverty line, increasing to 65% for four-child families and 71% for seven-child families. The Henderson Committee estimated the RTR of this scheme as 40% from the first dollar of private income.

The committee considered a 'minimum' option with a withdrawal rate (or RTR) of 35%, but was concerned that this did not provide high enough payments. Although the RTR of 40% appears high, it smoothed the tax rate structure applicable for those receiving benefits.

There were various modifications to the basic linear tax structure. A progressive surtax brought the tax rate to 45% for high-income earners. A couple unit was applied, with a lower rate of payment than for two individuals. The committee considered an individual unit but estimated that this would increase the RTR to 44%, which was seen as unacceptable. However, acknowledging the work disincentive effect of the couple unit, the Henderson committee proposed a 20% income tax rebate for a second earner. The temporarily sick or unemployed would be made worse off under the GMI and were not eligible for categorical payment, so an additional benefit brought them up to the categorical rate, withdrawn at 100%. The committee also proposed intermediate rates for 'partial' categorical payments (e.g. 'partial' disabled), and supplements for costs (e.g. housing), withdrawn at 20%.

In spite of these complexities, the Henderson scheme had the aim of simplification and integration of the tax-transfer systems to reduce administrative costs across the Treasury and Social Security departments (see Chapter 9 of Tomlinson [2001:12] and Ingles [2000]). However, the committee did not comprehensively address the need to strengthen the definition of income in the tax system to make an integrated GMI scheme robust. The definition of taxable income in Henderson's day was narrow; for example, capital gains and many employee benefits were not taxed (capital gains tax and fringe benefits tax were both introduced in 1986). Experience with the abolition of the age pension asset test in the late 1970s indicates that the tax definition of income is not robust enough to be used for withdrawing welfare benefits. The tax rate surcharge for higher income earners also reintroduces potential problems of tax planning at the top end of the distribution; evidence suggests that the incomes of the well-off are quite elastic with respect to the tax rate, due to their ability to access loopholes in the base (e.g. Saez et al. 2009).

Today, the definition of income in the social security system is considerably broader than the definition of income in the income tax system. Various amounts of exempt income, deemed income from financial assets and losses from negative gearing of rental properties are added back to income for social security purposes.⁵ Many would say that the current definition of income for tax purposes has too many holes, and propose reforms to broaden the income tax base (e.g. Henry 2010). The design of a BI with a flat tax rate applicable from the first dollar, and the elimination of the tax-free threshold and lower rates in the progressive structure would eliminate some tax planning options, such as income splitting, from the system.

3.3 Priorities Review Staff proposal

Another proposal for a GMI was made by a government body, the Priorities Review Staff (PRS 1975). This inquiry supported a GMI but not a demogrant (citizen payment). Rather, it would be a NIT or tax credit, with netting out (i.e. benefits payable equal maximum rate less tax liability). Like Henderson's, the PRS scheme had two tiers, with the basic tier being just over half the categorical or maximum benefit. Tomlinson (2001:14) notes:

Those currently ineligible for benefit or pension, on grounds other than income, would receive a tax credit at a rate of 55 per cent of the poverty line (working) as set by the Poverty Inquiry whereas eligible people would receive a tax credit of 100 per cent of the poverty line (non-working) ... The unit of payment adopted by the Priorities Review Staff was the family.

The PRS scheme would have applied a reduced tax rate for a second earner, acknowledging the higher effective marginal tax rate (EMTR) and consequent work disincentive effect of the joint unit for the second earner. The estimated RTR was 43% for prime earners and 33% for second earners. A progressive surtax applied at relatively low levels of private income of 5% for income in the range \$17 000–20 000, rising in steps to 25% for income over \$58 000. For most workers, therefore, the RTR was around 50%

(see summary in Chapter 9 of Tomlinson [2001:14]). This schedule of tax rates was part-way between the linear tax proposed by Henderson and the pre-existing system of progressive marginal rates.

3.4 More recent Australian options

Various studies since the 1970s have modelled the RTR for the Henderson proposal, or made other proposals at different levels of payment. Manning (1981) developed the Henderson scheme into a NIT, so that claimants would receive only a netted-out benefit rather than a universal payment. In the most radical version of this, Dawkins and Freebairn (1997) recommended that part or all social security benefits be replaced by a tax credit system, with a full BI financed by a flat income tax.

Dawkins et al. (1998) re-costed variants of the Henderson proposal and found considerably higher RTRs of more than 50%, reflective of real increases in pension and benefits since 1975, and changes to the tax base. Demographic trends were also tending to push up the cost. In 1998, the 'five economists' wrote an open letter to the Prime Minister suggesting that low wages be supplemented by new tax credits. These would be part of a long-term move towards a NIT (Dawkins 1999:6,11).

Scutella (2004:23) has done the most recent comprehensive modelling of a two-tier GMI, using payment rates set at those prevailing for pensioners and allowees in 2001. She estimated an RTR of 55%, without allowing for adverse labour supply responses; the equilibrium RTR when these were taken into account was 57%.

Ingles (2010) proposed financing a BI by a broadening of the income tax base combined with a linear withdrawal of welfare benefits. This produced a flat structure of EMTRs for the categorical groups, as pension cut-outs and income tax thresholds were identical. For noncategorical groups, Ingles proposed a stepped tax structure, in which income tax did not cut in until the categorical payment cut-outs. Ingles would also have expanded the goods and services tax (GST) and payroll tax to ensure that

some tax was effectively payable well before these income points. The overall result was a degressive⁶ tax rate structure for categorical payments and a progressive structure for noncategorical payments. This meant that the basic or noncategorical payment converged with the categorical payment at that payment's cut-out points (we explain this further below).

4 Optimal tax rate, equity and efficiency

As in all tax systems, the optimal tax rate for a BI should be determined by equity, efficiency, revenue and administrative reasons, taking account of the tax-transfer system as a whole. A tax rate in a tax-transfer system may be progressive, linear (flat or proportional), or degressive. A 'degressive' structure is one in which the marginal tax rate decreases by gradual amounts; degressive is not the same as 'regressive' in a tax-transfer system, because of the impact of cash transfers on the average (net) tax rate. From the perspective of equity, the average tax rate, not the marginal rate, will determine the redistribution in the system. The EMTR or the effective average tax rate (sometimes called the participation tax rate) may affect the choice to work, or the tax planning, of taxpayers or benefit recipients, depending on the elasticity of the taxpayer response.

4.1 Optimal level of payment and required tax rate

In many BI proposals, the optimum combination of policies for income redistribution has been regarded as a BI financed by a linear tax rate. A BI to all individuals, plus a degressive tax, will produce large negative average tax rates (inclusive of transfers) at low incomes, and high average tax rates at high incomes, as illustrated in the simple example in Table 1. Overall, the system will be progressive. There are also administrative reasons why a linear tax rate structure may be favoured. It can be implemented by indirect taxes such as payroll tax and GST. In such a system, withholding becomes easier and income splitting is less of an issue.

Mirrlees (1971) modelled an optimal tax structure, balancing trade-offs in equity and efficiency, that is approximately linear and showed that a NIT is the optimal policy given an assumed degree of inequality aversion.⁷ The calculation of the optimum values depends on the elasticities

of taxable income and the degree of inequality aversion, or desired progression, in the model. If the researcher uses an inequality-averse social welfare function, a dollar of income will have a higher utility in the hands of the poor (the principle of diminishing marginal utility of income). Moffitt (2003:129) concluded that optimal tax models suggest 'that a negative income tax can be welfare-maximising for society, even when the labour supply disincentives for near-poor families are taken into account'. Fortin et al. (1993) reported optimal tax rates of 50–55% and optimal payments around two-thirds of the poverty line for a family of four. Other analysis has shown that this recommendation may not be robust when some assumptions – for example, concerning the basic distribution of wage rates in the population, and the type and degree of inequality aversion – are relaxed (Creedy 2010:109).

Gruber and Saez (2000:4–5) applied different elasticity estimates to argue that the optimal system for most distributional preferences is a large demogrant that is rapidly taxed away at fairly high rates at low incomes, with lower marginal rates at higher incomes. However, they found that labour supply at high incomes is not particularly elastic, but declared taxable incomes are relatively more elastic: the taxpayer 'response is much lower, however, for a broader definition of total income that does not exclude tax preferences such as exemptions and itemized deductions'. If tax loopholes could be plugged, the optimal tax structure might become more linear (Gruber & Saez 2000:30).

Applying 'broad' income elasticities and a 'utilitarian: progressive' welfare function, Gruber and Saez found the optimal rate structure for low to high incomes to be 66, 88, 84, and 73%, and the optimal level of GMI to be US\$21 700, substantially exceeding the US poverty line of US\$12 316 for a single non-elderly individual in 2015. Applying higher taxable income elasticities, they found the optimal rate structure to be 68, 66, 56, and 49%, and the optimal level of GMI to be

around US\$11 000. It should be noted that, while degressive, these rates are substantially higher than the marginal rates in Australia's income tax. A more conservative welfare function produces lower payments and lower tax rates (Gruber & Saez 2000: Tables 9 & 10).

4.2 Effective marginal tax rates in Australia's tax-transfer system

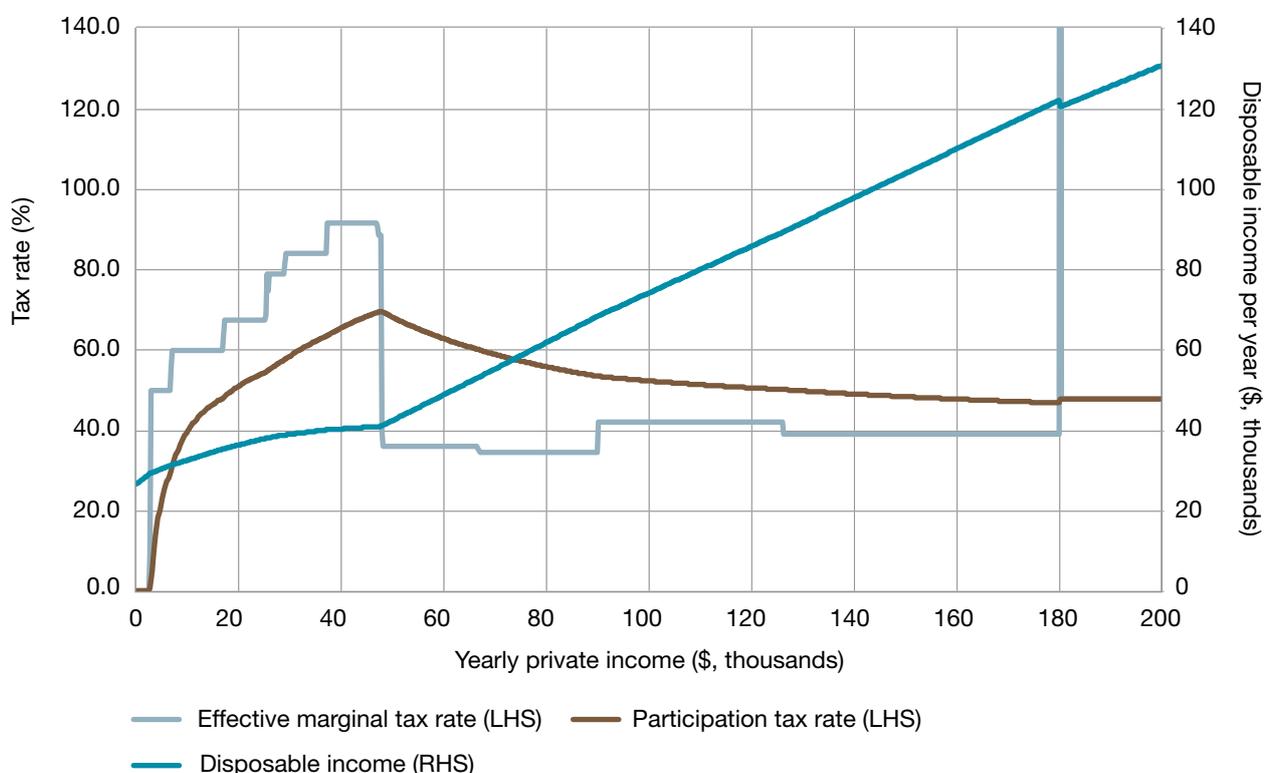
Australia's system is efficient in terms of minimal fiscal cost (target efficiency), but it also produces high EMTRs in some circumstances. These can discourage work and reduce consumption in low-income households, and this may make the system economically inefficient (Stewart & Whiteford 2018). This issue arises in all means-tested and progressive-rate tax-transfer systems.⁸ As Painter and Thoung (2015) and others suggest, improving work incentives, especially through lower EMTRs, is a key rationale for a BI scheme. Ingles (2010:22) argued that, 'as Australia has, in

effect, a categorical NIT, the question that arises is why not formalise and rationalise it so that all welfare clients and taxpayers face a designed structure of marginal rates?'

The highest EMTRs in our current system are faced by those on Newstart and pensions and, because of a combination of the tax-transfer system and childcare costs, over substantial ranges of income.⁹ The disposable income of some payment recipients net of taxes and transfers may increase by only a small amount, or may even decrease, over certain ranges of income for low- and middle-income individuals and families. The current EMTR over the pension taper range is 70–80%.¹⁰ There are also complications with additional 'free areas' for earned income.

In the Ingles (2010) proposal, the tax rate applies to every dollar of income, in effect abolishing pension 'free areas', while concessional treatment for earned income would disappear. Such free areas are rarely desirable – at least in theory – because any combination of a free area and a

Figure 1 Effective marginal tax rate for a couple on Newstart, with income



LHS = left-hand scale; RHS = right-hand scale

Source: Chart prepared by David Plunkett; model with no private health insurance

taper can be replaced by a similar cost lower taper, and no free area, and this will show better incentive properties as a result of the lower EMTR.

We illustrate the EMTRs in Australia’s tax and transfer system with one example, in Figure 1, which shows the effect of Newstart paid to a couple for tax rates on earned income, taking account of tapers, income tax and the Medicare levy.⁴ Figure 1 shows that EMTRs from a low income-free area to about \$48 000 of earnings range from 50% to 95% of private earnings. The brown line is the participation tax rate, which is the effective average tax rate at a particular level of income, while the blue line indicates disposable income net of taxes and transfers (right-hand axis). It can be seen that, over the range up to about \$48 000, the participation tax rate reaches 70% and disposable income remains relatively flat. The steep EMTRs and participation tax rates in Figure 1 would be flattened in a GMI system financed by a proportional tax.

A BI financed by a linear or flat tax rate could ‘smooth’ and lower the high EMTRs at lower incomes. Figure 2 (from the UK) shows the

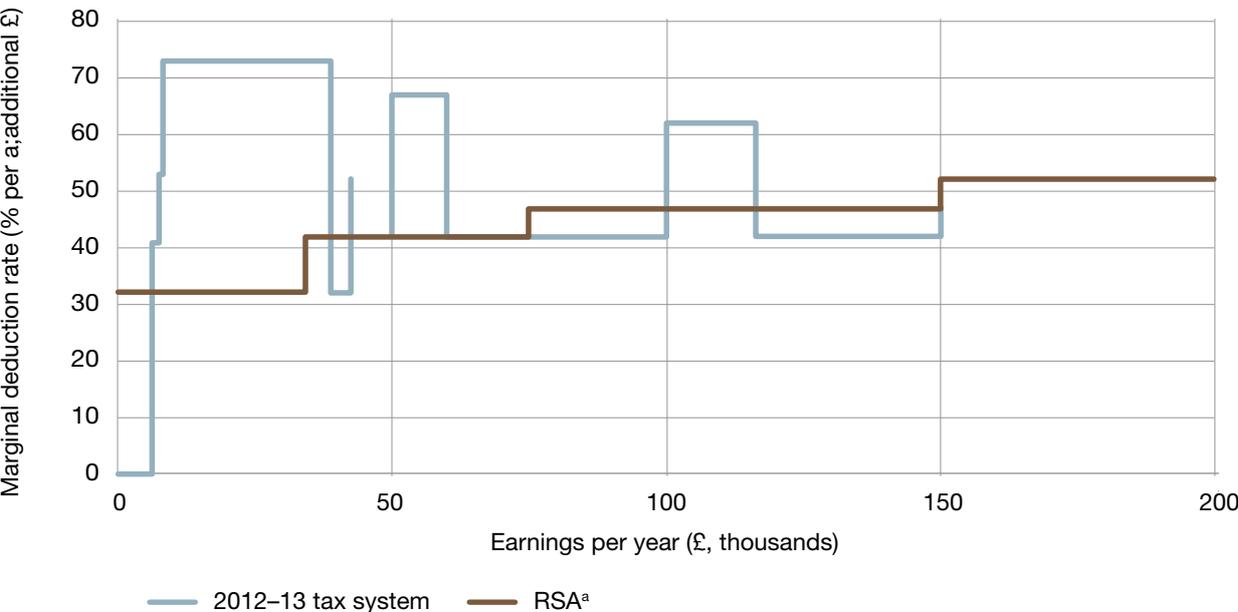
flattening in EMTRs that might be achieved by a BI (called RSA, after its proponents, in this diagram). The stepped structure of marginal rates in this BI is similar to that advocated in PRS (1975) for Australia.

4.3 Wage supplements

Some BI proposals, or existing welfare systems, make net payments to individuals conditional on wages, in an attempt to mitigate work disincentive effects or target the payments to workers. Sometimes there is an ‘hours of work’ requirement, as in Australia’s childcare subsidy system.

It has been suggested that, since the dramatic expansion of the Earned Income Tax Credit (EITC), the US has ‘an effective negative income tax on a scale far beyond that imagined by Friedman’ (Moffitt 2003:134). But the EITC is a wage subsidy scheme, not a NIT. It has broad application and is not tightly targeted in an antipoverty sense, as it applies from low incomes well into the middle-income range. However, the EITC cannot provide support to needy families

Figure 2 Effective marginal tax rate before and after tax credit system, UK example



a RSA stands for the names of the scheme’s proponents; it is a version of the UK tax credit system proposed by Citizen’s Income Trust (2013).

Note: It is not stated what family type is applied in this example. In the Henderson scheme, the orange line would become a flat tax rate at 40% with a high-income surcharge of 5%.

Source: Figure 2 from Painter and Thoung (2015:28).

who have no other income. This could be overcome by giving the EITC a flat rate up to (say) the upper taper point, thus turning it into a NIT.

The work incentive effects of the EITC have been much studied, but the overall effect is inconclusive, because there are countervailing effects below and above the taper points (e.g. Moffitt 2003:132). Some evidence suggests that the EITC increases work effort, although taxpayers may not understand the effective tax rates they face on work because of the complexity of the system (Tanner 2015:22). While Friedman's NIT ideas have had traction in the US in the form of the EITC, 'other trends like work requirements and the continuing proliferation of welfare programs conditional on particular behaviours or obligations run fundamentally in opposition to it' (Moffitt 2003:138).

In the UK, Working Tax Credit (WTC) is paid to people who work and have a low income, as part of a system of refundable tax credits introduced in April 2003 (if the credit exceeds the amount of taxes owed, the excess is returned to the taxpayer). The UK Government intended that the WTC would, by 2017, be integrated into, and replaced by, the new universal credit. The universal credit scheme was introduced in 2013 to replace six means-tested benefits and tax credits; however, it has not yet been fully implemented, and the system has faced many challenges, with recent news stories suggesting it is 'catastrophic' for recipients and requires substantial reformulation if it is to succeed (e.g. Savage [2019]). Universal credit has some similarities to a NIT but should not be confused with a BI, especially given that it is subject to income tests and conditions around work.

4.4 Work incentives and basic income

The hoped-for economic efficiency of a BI relative to the existing system is derived largely from its impact in removing work disincentives produced by high EMTRs, for groups whose labour force participation is particularly elastic to financial returns. However, although a BI or GMI lowers EMTRs relative to the current system, for those who receive benefits, the aggregate impact

on work incentives is unclear. This is because the high linear tax rate required to finance the BI may increase work disincentives across the population.

Moreover, the net impact of a BI on work incentives is unclear because of a complex interaction of income and substitution effects. Under a BI or GMI, more people on slightly higher incomes become eligible for a part-payment. The effect of this is to reduce their work incentive because their EMTR rises to the GMI withdrawal rate, and their income rises (i.e. the income effect is negative). For those subject to a lower withdrawal rate in the new system, income and substitution effects are in opposite directions, and the net incentive effect is unclear. This ambiguity is demonstrated in Moffitt (2003:126).

In contrast to a BI, Chomik et al. (2015) suggested that the optimal EMTR under the age pension means test would be 100% and Kudrna (2015) found a similar result; on this analysis, the highest EMTRs in the system should apply to low-income earners. This suggests that the Australian current system, if income free areas were removed, may be close to an 'optimal' setting. Simulations summarised in Fortin et al. (1993:120) suggest that, for some groups (such as married women), a 100% taper may minimise work disincentives. Hence, the apparent attraction of 'workfare' (an obligation to search for and take jobs, or participate in education or training), which may be an alternative to lowering tapers. Whether workfare with 100% tapers or NIT dominates in terms of social welfare depends on the weights given to equity and efficiency (and the administrative costs of the program). Fortin et al. (1993:150) concluded:

While the results of this paper do not reject the presumption of many economists that a NIT is the best approach to respond to the poverty problem, they do present the real possibility that the presumption is quite false ... Moreover, it may be the case that a combination of a NIT (with an implicit rate lower than 100%) and a workfare payment could maximise the social utility function. In other words, NIT and workfare may be regarded as complementary rather than substitute programs.

Based on optimal tax theory, others argue that a piecewise linear or progressive income tax on an individual basis, combined with universal payments, is most efficient and equitable because of the labour supply and consumption effects (Apps 2015, Gruber & Saez 2000:4–5). Scutella (2004) suggested that a BI might enhance social welfare even if there is a reduction in labour supply because of the welfare gain from income redistribution; see also Colombino (2019:8). In any event, a more universal payment structure would formalise and rationalise the Australian system so that all welfare clients and taxpayers would face a coherent structure of marginal tax rates.

It is important to note that the example of EMTRs illustrated in Figure 1 does not address EMTRs for workers in families with children. Figure 1 does not include the effect of Family Tax Benefit A or B, or take account of childcare costs or the Child Care Subsidy (see Stewart [2018] for a detailed analysis). Recent work on labour supply elasticity indicates that more universal childcare benefits substantially reduce EMTRs for second earners and would be expected to increase women's labour supply (Gong & Breunig 2017). This is a reminder that flattening EMTRs in a BI design may not address all work incentive issues unless other subsidies such as childcare and housing payments¹¹ are also addressed.

4.5 Experimental and modelled evaluation of basic income proposals

Evidence on the effects of BI may be gathered by experiments or trials of BI in the real world. Appendix A summarises the numerous BI trials and experiments that have historically been carried out or more recently initiated around the world. Unfortunately, BI trials have a poor completion record, and most recent trials, including in Finland and Canada, were either terminated early or failed to proceed.

The BI work incentive experiments in the US in the late 1960s and the 1970s showed that primary income earners did not reduce their hours of work very much when given a GMI. It was found that the incomes of secondary earners and

adolescents fell by up to 10–15%. Women used some of the money to increase time caring for children. Adolescents may increase the length of time they remain at school. It has been suggested that negative implications originally drawn from the data in these experiments were based on improper interpretation of the findings or bad experimental design (Colombino 2019:7). This is unfortunate because, in principle, behavioural elasticities informed by experimental results could have been used to inform elasticity estimates used in microsimulation studies. In practice, work elasticity estimates are gleaned from other sources, and may be less than fully reliable in a BI context.

There may be other behavioural and social effects of a BI. There was an early suggestion that the divorce rate increased in response to the BI, and this helped undermine US political support for GMIs; however, this was later suggested to be a statistical anomaly. For Canada, Forget (2011) found that health improved under the BI. More generally, a criticism of the NIT experiments is that they take place in a vacuum. In particular, they do not factor in the higher general taxes that are likely to be necessary to finance a substantial BI.

In this paper, we use a static microsimulation model, ANU PolicyMod, to model the BI and to estimate the RTR and distributional effects, including winners and losers compared with the current system. However, this model cannot inform us about work incentive effects. To test a policy change that is explicitly meant to influence behaviours such as workforce participation, dynamic modelling is also desirable. Dynamic behavioural microsimulation has been used to simulate BI policies for Italy, Australia, Canada and Germany. Results can focus on labour supply effects or on a social welfare criterion. There are suggestions of negative labour supply effects, which are a reason for caution regarding BI proposals if this is a policy priority. Nonetheless, Scutella (2004) found that unconditional BI might improve social welfare despite the reduction in labour supply, because of the welfare gains from income redistribution.

5 A wealth tax to finance the basic income

Most previous Australian analyses of a BI scheme have focused on financing the RTR in an income tax as it exists in the system. However, we are concerned about keeping the RTR at a moderate level, and so it is imperative to consider other ways to finance the BI. This can be done by broadening the tax base, an essential element of reform that would also enhance the resilience of the tax-transfer system to tax planning and avoidance.

For example, Ingles (2010) argued that the RTR for a BI could be materially reduced by base broadening in the income tax, including eliminating tax expenditures such as concessions for superannuation (then estimated at \$30 billion), capital gains (\$7 billion) and housing capital gains (\$60 billion, although rollover relief up to the time of death affects the revenue gain). As a further measure, housing imputed rent could be taxed as a presumptive 2–3% of housing net worth (estimated at \$100 million, although requiring netting out of approximately \$20 billion of deductions for owner-occupied housing costs). Alternatively, Ingles (2010) proposed reforming indirect taxation, increasing the GST rate and broadening the GST base, and levying a uniform payroll tax on wages.

Colombino (2019:9) suggests that ‘alternatives to progressive income taxation should be investigated, such as a flat tax, wealth tax, consumption taxes or environmental taxes’. Cowan (2017) suggested that a land tax at a high rate of 4.5% would be needed if this was the financing source for a BI.¹² These taxes would raise costs for low-income families, so there would need to be built-in compensation in any BI proposal. Indeed, turning the problem on its head, a modest BI has been proposed as a form of compensation for a carbon tax.¹³ There is a limit to how much revenue could be raised by a carbon tax in the longer term, as this tax is specifically designed to reduce the amount of carbon dioxide being emitted, and the tax base would contract over time.

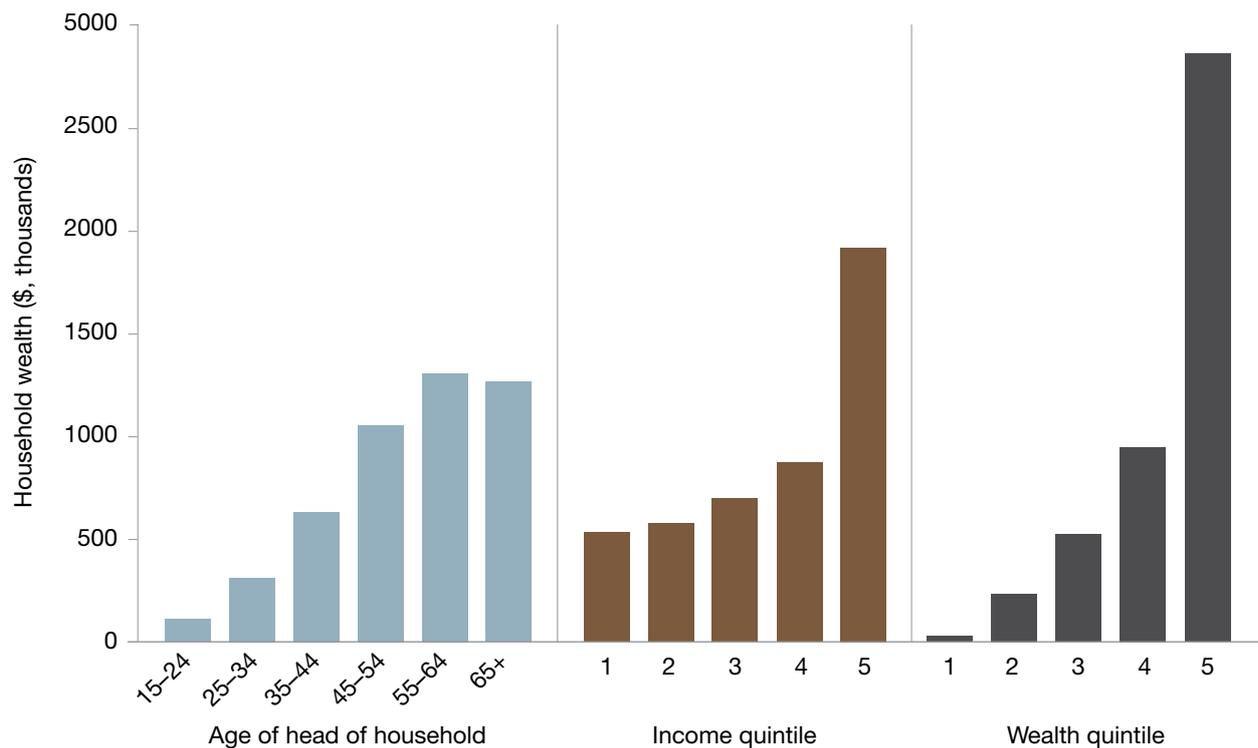
In Australia, wealth is much more unequally distributed than income, as illustrated in Figure 3; see detailed discussion in Ryan and Stone (2016). There has been considerable debate about the role of wealth in Australian households, wealth inequality between existing households and across generations, and whether a wealth tax is desirable. Australia does not tax wealth and abolished the estate tax in 1981, and we tax capital income and gains lightly relative to earned income (Ingles 2016ab). However, those receiving a pension in the transfer system face a wealth tax in the asset means test, above a threshold (excluding the home¹⁴), which is of long standing. Nonetheless, wealth taxation in some form remains on the policy agenda.

The proposal for a wealth tax to finance a GMI is not new. In a submission to the Asprey Review on taxation, which ran concurrently with the Henderson Inquiry, Treasury (1974:10–11) argued, ‘some cognisance should be taken of a family’s capital situation in determining any benefit it receives under a negative income tax scheme ... The capital tax could be a percentage of the family’s net worth above an exemption’.

In this paper, we propose a net wealth tax to finance the BI and ensure that the RTR on earned income remains moderate. For option 2, the wealth tax is structured as an asset test on the BI, while for options 3 and 4 it is a net wealth tax on all households, not just on BI recipients. There are complexities in combining the BI proposal and wealth tax with elements of the current system; overall, we propose that the wealth tax would substitute for the pension assets test in the current system. To keep the RTR as low as possible, and for reasons of horizontal equity, it is desirable that owner-occupied housing (over half of all assets) is included in the wealth tax.

The annual wealth tax (AWT) has the same effect as applying linear tax rates and deeming income from assets in the social security system. For example, deeming a 5% rate of return as

Figure 3 Household wealth distribution (by age, income and wealth)



Source: ABS Survey of Income and Housing 2015–16; chart by Ben Phillips.

income and applying a 40% tax rate is equivalent to an AWT of 2%. The choice between these two methods becomes one of administrative convenience. The rationale for deeming income is to approximate a comprehensive income base using presumptive rather than actual incomes (Ingles 2016a). Actual income from assets would be disregarded, as for deeming in the social security system. Ingles (2016a) estimated that, with 6% deeming, net new revenue under such a scheme might be as high as \$140 billion (assuming housing is included), partly offset by large rises in some welfare payments as part compensation. For options 3 and 4, we specifically suggest that net payments rise by \$6939 for singles and for each member of couples. The increase in net payments compensates on average for the wealth tax, and, in this context, rent assistance becomes redundant.

The AWT we propose is at a rate of 1.5% (option 3) or 2% (option 4) on an extensive base of total assets net of liabilities, including the home, retirement savings, and other financial and real estate assets. The AWT provides a

much fairer and more coherent taxation of net assets, but it would also significantly increase tax on net wealth relative to the current system. We compensate families for this impost by raising payment rates in the BI; obviously, higher payments need to be financed. The AWT is combined with a tax on wages – that is, by excluding capital income and gains from the income tax base. This avoids double counting as these are, in effect, deemed.

To model the distributional impact of our BI proposals financed by a wealth tax, we compare against two benchmarks: equivalised disposable income and a broader measure of comprehensive income that is intended to take account of the value of wealth to a household. This is done by deeming or imputing an annual return to net assets of the household, as is already done in the pension means test; see Ingles and Stewart (2017). We assume a deemed income of 5% (real¹⁶) on assets for purposes of analysing distributional effects. A family's wealth is net of debt and is assumed to be divided equally among all adults in the family; wealth includes all assets, including owner-occupied housing.

6 Other design issues for a basic income

6.1 Categorisation

As already explained, the Henderson GMI and most other BI proposals apply a categorical system with a basic payment, and higher payments to eligible categories based on need or inability to work (such as the elderly or people with disability). A key reason is the high RTR to finance a BI that is adequate to lift those who cannot earn income out of poverty. The argument for categorisation is based on the economics of ‘tagging’ (Akerlof 1978), which suggests that higher payments and lower tax rates are possible if we pre-identify groups likely to be in more need of assistance. If this is correct, categorical systems relying on tagging can dominate a pure NIT in social welfare terms (Moffitt 2003:131). A compromise between the two schools is possible if we have higher basic rates for existing categorical groups and lower rates for others.

6.2 Netting out and churn

One consequence of a BI that involves an actual payment, or demogrant, is so-called ‘churn’, in which many people are both receiving benefits and paying taxes – for example, Saunders (2005). Churn did not trouble Henderson, who was keen for all people to be entitled to a GMI and all to pay tax. We get the same result in terms of net incomes and incentives if we pay a BI financed by a flat tax as if we pay a tax credit or NIT and then give low-income earners only their net payment.

Like ‘middle class welfare’, churn is not economically important, but it can be an important part of adverse perceptions, and may generate higher administrative costs because of the sheer number of taxpayers and benefit recipients. On the other hand, a NIT that nets out tax and payments may lead to significantly greater administrative complexity as it would require low-income people to file tax statements,

which might be avoided in a GMI with a flat rate and source withholding. At the extreme, a universal BI could be entirely financed by indirect taxes such as GST and payroll tax, with no necessity for individuals to file tax returns at all.

An example of the challenges of implementing a NIT model with means testing is the UK ‘universal credit’. The universal credit requires people on very low incomes to file income and asset statements, something that can be avoided in a linear tax system; it also struggles to manage fluctuations in individual incomes over time (which are very common in practice) because it requires reconciliation on an annual basis (Hills 2014, Millar & Whiteford 2017). While the UK government says that universal credit is ‘here to stay’, its full implementation has been delayed to 2023, and the process is encountering very significant (and possibly fatal) administrative and technical difficulties.¹⁵

Tanner (2015:17) notes that, in the US, some 20 million tax units do not file returns; this would include the homeless, the mentally ill, transients and incarcerated people. Many others would find form-filing difficult or burdensome. The options we model do not pretend to solve the administrative challenges. They are hybrid systems in which the BI payments are nominally universal, but source withholding of the annual wealth tax from those payments is used to prevent most people facing large tax payments at the end of the financial year. This is combined with largely flat taxes on noncapital income, which can mainly be withheld at source.

6.3 Convergence

In a system that has more than one level of BI – a basic payment and a categorical payment – the issue of convergence of the payments at some level of income must be considered. Convergence means that, as incomes rise, the net incomes of

the categorically favoured group converge on the net incomes of those not favoured (who receive only a partial or basic level BI). To converge a two-tier system, there are two options:

- linear tax rates on the basic payment, and higher initial tax rates (or means testing) on categorical payments
- linear tax rates on categorical payments, and lower initial tax rates on the basic payment.

The Henderson proposal did not fully converge categorical and basic payments, so that those receiving categorical payments such as the aged and people with disability would have been better off at all levels of private income. There was convergence in the Henderson proposal for the unemployed and sick, who face an initial 100% combined taper. In Ingles (2010), the second approach to convergence was adopted, with a limited lower-tier (basic) payment and convergence achieved at the pension cut-out points due to very high income tax thresholds.

We apply the first convergence approach of linear tax rates for the basic payment, combined with means-tested supplements for categoricals, in option 3. Convergence is achieved at the levels where the means-tested supplements taper away. The means tests would need to be designed carefully to avoid the consequences of ‘stacking’, whereby the sum of the tapers can become a barrier to workforce participation (arguably the current situation). For example, if the RTR for the base payment is (as we find) 22%, the means test taper might be 25%, giving a combined withdrawal rate of 47%.¹⁷ If the taper applies from the first dollar (without any ‘free area’), convergence is achieved as quickly as possible and the rate structure is degressive.

In contrast, our option 4 (noncategorical BI) does not seek convergence because it is based on proportional tax rates. In a nonconvergent system, lower payments to a particular group (e.g. those of working age) mean that they will be worse off than the aged by this amount at every level of private income.

6.4 Family versus individual unit and family payments

In a flat-rate tax system, whether an individual or joint unit is applied makes no difference in terms of the net payment to the household. However, it may affect how payments are divided within a household. If all income is shared and jointly consumed, there is no difference. However, the demogrant achieves income redistribution within a household by taxing the high earner and making a payment to the low earner. As Painter and Thoung (2015:36) note, the argument for an individual unit ‘has a feminist dimension in that Basic Income frees women to make choices about their lives in an independent fashion and provides a greater degree of economic security for those in unwaged labour’.

Universal family payments are a feature of all our BI options. This means that at all levels of family income those with children receive higher payments than those without, and so payments to families and nonfamilies never converge. The effect is seen in our modelling distributional results, discussed in Section 5, where families with children are generally better off than individuals. This nonconvergence is consistent with many people’s views of horizontal equity, and reduces work disincentives for the second earner.

Indeed, disincentives for a second earner are inherent in the whole BI concept, and this may be one reason some would reject it. On the other hand, a BI may be conceptualised as rewarding (unpaid) care work. We note that childcare policy settings remain unchanged in all of our options; a universal childcare system could justify lower child payments in the BI, while a means-tested childcare subsidy as in the current system could still lead to high EMTRs on the second earner.

Ingles (2010:23) proposed that additional payments for children be universal because means testing them would impose higher effective tax rates on families and therefore vitiate the supposed uniformity in marginal tax rates at all levels of income. Another option is to impose a low uniform withdrawal rate on family payments; obviously, this is a complication set against the ‘ideal’ flat tax scheme.

In the Ingles (2010) BI scheme, the family unit in both tax and transfer systems means that tax thresholds are equal to the income levels where net welfare payments cease, creating a linear tax rate for welfare recipients.

The individual BI can be modified by having higher payments for single people or a living-alone allowance (Manning 1981). Ingles (2010:25) proposed that this could be achieved by making 'single payments at half the married rate (and apply the same relativity in tax thresholds), together with a living-alone supplement to bring the single relativity up to some level such as the existing 60 [now 66]% ratio in the pension system. This supplement could then be means tested so that it would be wholly exhausted by the time the pension taper ceased'. However, this would undermine the simplicity of a linear tax rate structure because the supplement taper would stack with the general welfare (categorical) taper rate.

Even in a system with an individual unit, we should recognise the higher costs faced by single people living alone compared with couples.

6.5 Housing costs

There must be some recognition of housing costs because a flat rate paid to everyone would leave those with high housing costs in poverty. It may not be sufficient to say that they should move in with other people. Theoretically, the best way to deal with housing costs is to tax home owners comprehensively (include capital gains and imputed rent or else deemed income) and/or include housing values in assets tests, and gross up the base payments to reflect likely housing costs. (This approach is strictly tenure neutral, unlike our current policies, which discriminate against renters, even taking into account rent assistance and the higher asset thresholds for non-home owners.)

The current exemption of housing assets from welfare means tests means that the higher housing costs in places such as Sydney and Melbourne are implicitly allowed for – at least for those who own homes. For those who are renting, there is some similar allowance in the rent subsidy formulas, which are cost sensitive. However, this

latter adjustment is very modest compared with actual rents.

We assume that net housing wealth, like other wealth, is equivalent to deemed income of 5% per year (a more realistic assumption may be 6%, comprising 3% imputed rent and 3% real capital gains). Based on this assumed rate of return, an income tax rate of about 30% is equivalent to a 1.5% AWI. There may be a case for supplementing base rates in areas of high housing costs. In our options for a two-tier or single-tier BI, we gross up net payments to categoricals and abolish separate rent assistance. These extra or top-up payments should be considered a proxy for a set of differential payment rates (supplements) reflective of housing costs in different areas.



7 Modelling options for a basic income in Australia

7.1 Summary of options and modelling approach

We model four options for a BI in Australia. The four options provide a progressive hypothetical experiment in BI that could be adjusted or modified over time in light of experience with its work incentive and other impacts. The options are intended to be illustrative rather than exhaustive. They could be fine-tuned to achieve a given objective or ameliorate undesired distributional impacts, but we make no attempt to do this. The options are summarised here, and the parameters, RTR and distributional impact are discussed in more detail below.

Option 1: BI = \$5505 per year for adults and children; top-up to \$6939 for older children (equal to FTB A); offset against welfare payments that in net terms stay at current individual and partnered rates. Tax offsets, including Low Income Tax Offset (LITO), and Senior Australians and Pensioners Tax Offset (SAPTO), are removed. FTB is removed except for older child top-up.

Option 2: BI = \$6939 per year for adults and \$5505 for children (0–12 years); offset for welfare recipients subject to a top-up (net gain) of \$4000 for singles and \$2000 for couples. LITO and SAPTO are removed; a 1.5% wealth (net asset) taper applies to BI; welfare means tests are as for current system.

Option 3: BI = \$6939 per year for adults and \$5505 for children (0–12 years); full top-up for welfare recipients. LITO and SAPTO are removed; 1.5% wealth tax applies to net wealth attributed to adults in households. Income tax applies to earned income only (including active business income) by removing capital income, gains and deductions from the base. Welfare tapers for categorical payments are lowered.

Option 4: BI = Newstart level payment plus \$6939 per year for all adults and \$5505 for children (0–12 years), \$6939 per year for older children. A higher payment applies for the aged, based on current pension plus the top-up. LITO and SAPTO are removed. All adults are subject to 2% wealth tax. Income tax applies to earned income only (including active business income) by removing capital income, gains and deductions from the base.

We model the RTR, fiscal cost and distributional impact of each option using ANU PolicyMod, a static microsimulation model of the Australian tax and social security systems.¹⁸ The current system is the tax rates and transfer settings for 2018. The model is based on Australian Bureau of Statistics (ABS) microdata from the 2013–14 Survey of Income and Housing, updated annually, including records of individuals and households. Each proposed BI ‘policy world’ is compared with the ‘current world’ for each of the 17 000 households in the ABS survey file.

The modelling determines the RTR to finance the BI option on a revenue-neutral basis. It compares the BI proposal with the current system against two benchmarks. The first benchmark is equalised disposable income after the tax and transfer system is taken into account.¹⁹

The second benchmark includes a deemed 5% imputed income from wealth (net assets) in household income, to recognise that wealth is a resource for the household, and to sensibly compare the effect of the wealth and asset tax options. This benchmark removes financial income from the income tax to avoid double counting. To model the wealth tax, we impute wealth in households to individuals.

All analysis adopts an income unit basis. Where we talk about households or families, we are

actually referring to income units as defined by the ABS. Household wealth is divided and attributed to all income units in the household, to calculate the AWT liability or the deemed asset income used in the distributional analysis.

7.2 Option 1: Low basic income financed by abolishing the income tax threshold

Option 1 is a modest proposal that cashes out the tax-free threshold in the current income tax structure, as well as various tax offsets such as the LITO. It extends the existing lower-tier per-child payment of \$5505 in Australia's family payments system as a BI to all children and adults. The BI is not taxable, but it is fully offset, so it does not boost the net payments of those already receiving allowances or pensions. As this payment is also made to children, family payments are abolished except for the older child top-up in FTB A.

Option 1 would affect current social security recipients as set out below:

Basic payment: \$5 505 (all adults and children)

Maximum rates

Newstart, Single \$ 14 047 – 5 505 = 8 542

Partnered \$ 12 813 – 5 505 = 7 308

Pension, Single \$ 23 317 – 5 505
= 17 812

Partnered \$ 17 787 – 5 505
= 12 282

Child payment: \$5 505 (0–12 years), topped up to \$6 939 for older children in FTB A

For a four-person family, the total BI payment is around \$22 000. This is not adequate to relieve poverty (it is less than half the poverty line, although higher for larger families), so extra categorical payments are needed (Newstart and pension). The categorical payments above the BI remain means tested as per the current system. We note that EMTRs are reduced because the

range where they are high is truncated by the lower payment rates.

Our modelling shows that option 1 can be financed with an RTR of 32% from the first dollar of taxable income up to \$37 000, to cover a fiscal cost of \$90 billion. At that point, the usual progressive marginal income tax rate structure would continue. Distributional results are shown in Appendix A, relative to equivalised disposable income, and comprehensive income including an imputed 5% return to assets.

Option 1 merely cashes out the tax-free threshold and offsets in the personal income tax, and imposes (initially) a uniform proportional income tax rate and then the usual progressive rate structure. Also, it universalises child payments.

This modest BI would make most families with children better off across the distribution because it universalises child payments. In general, the bottom quintile (the poorest 20%) is better off under this BI than under the current system. However, sole parents are worse off because they pay more income tax than previously and net payments are not increased. In general, other households are worse off, mostly because they pay more tax. Those on Newstart do not benefit from any increase in their basic payment in this option.

7.3 Option 2: Categorical basic income with asset test

Option 2 pays a slightly more generous BI at the higher rate of \$6939 for all adults and children aged 13 and older, and \$5505 for all children aged 0–12. Family payments are abolished. The new payment is only partly offset against existing social security allowances and pensions to make these categorical payments a little more generous (by \$4000 per year for both singles and couples). The effect is set out below.

Basic payment: \$ 6 939

Children aged 0–12: \$ 5 505

Categorical payments topped up by \$4 000 for singles and \$2 000 each for couples

Maximum rates

Newstart, Single	\$ 14 047 + 4 000 (= 18 047) – 6 939 = 11 108
Partnered	\$ 12 813 + 2 000 (= 14 813) – 6 939 = 7 874
Pension, Single	\$ 27 317 + 4 000 (= 31 317) – 6 939 = 24 378
Partnered	\$ 17 787 + 2 000 (= 19 787) – 6 939 = 12 848

To reduce the RTR, we impose an asset test for this BI, which applies at a rate of 1.5% per annum. That is, each \$1000 of net assets reduces the annual payment by \$15.²⁰ There is no need for an income test because this is done through the tax system. Therefore, option 2 involves an asset-tested base tier, and a second-tier categorical welfare system modified to reduce asset test and income test interactions by reducing tapers.

Modelling indicates that, in option 2, the RTR in the income tax is 19% from the first dollar to \$37 000, and then the usual progressive rate structure applies. The fiscal cost is \$40 billion, which is less than half the cost of option 1. Applying an asset test clearly provides scope for a more generous payment and a lower tax (RTR) rate. The top-up for pensioners and allowees partly compensates for the BI asset test (which is a partial wealth tax, especially on the home).

Distributional results of the modelling indicate that the bottom quintile is generally better off under option 2 than under the current system, but couples with children are worse off because they are paying more income tax and face some wealth (net asset) tax, especially on the home. This suggests that the small top-up in the basic payment is not compensating enough. Couples without children are worse off, especially at higher incomes, because of greater income tax and the asset taper on the BI. The asset test fully 'taxes away' the BI at wealth of \$367 000 for single people and \$1.5 million for a family of four. Beyond this, the asset test becomes an implicit lump-sum tax of \$5505/\$6939 × family size.

For example, for a four-person family, the implicit lump-sum tax beyond \$1.5 million is \$26 322 (assuming one child aged 0–12). In general, lone persons, including those on Newstart, are better off, because top-up payments add to social security and capture more recipients.

Option 2 produces some design challenges, because the BI asset test will interact (stack) with existing pension asset tests for categorical payments. The simple answer is to reduce the current asset test for pensions, which operates as a 7.8% implicit wealth tax. We suggest a substantial reduction of the rate to, for example, 3.9%, which was the rate before tightening of the means test in 2017. It is also necessary to adjust tapers on categorical pension and allowance payments. One approach (not modelled) could set the taper rate for the payment above the BI at 30%. If combined with the RTR of 19%, this would produce an EMTR under 50% for those on low to moderate incomes, smoothing the EMTR relative to the current system.

We use the extra revenue from the asset test to raise the BI for adults and older children, and we suggest that the BI not be fully offset, so that all basic payments (except for children) would rise. This partly offsets the impact of the assets test on low-income home owners. The logic for this option 2, with its partial wealth tax withheld from the BI, is that it is more palatable than a system that requires people to make payments to the Australian Tax Office, because the public apparently has no objection to withholding transfers based on assets. It is relatively easy to apply the asset test, because it withholds against a payment – as is currently done for the pension asset test.

The asset test in option 2 detracts from the purity of the BI but makes the scheme much more affordable. However, as in our current system, this asset test effectively applies a wealth tax only to the less well-off (up to the cut-outs described above, and subject to the lump-sum tax feature above these limits); one may query whether this is good policy. We address this in options 3 and 4.

7.4 Option 3: Categorical basic income with 1.5% wealth tax

Option 3 provides a BI of \$6939 to all adults and older children, and tops up existing categorical payments by the full amount. Children aged 0–12 years receive \$5505. This payment is financed by an annual net wealth tax of 1.5% on the entire population. Means tests for categorical payments adopt a single 25% taper with 5% asset deeming and no free area; rent assistance is abolished. The effect is set out below.

Maximum rates

Newstart, Single	$\$ 14\,047 + 6\,939 = 20\,986$
Partnered	$\$ 12\,813 + 6\,939 = 19\,752$
Pension, Single	$\$ 23\,317 + 6\,939 = 30\,256$
Partnered	$\$ 17\,787 + 6\,939 = 24\,726$

In option 3, the income tax is converted to a tax on earned income (wages and active business income). We remove all capital income (and deductions) from the income tax base to prevent double counting under the AWT. Option 3 is a full categorical BI. In terms of the income unit, it restricts the family basis to the welfare system and applies an individual earnings or wage tax. A family basis is maintained for means testing the categorical or tier 2 payments. The AWT is applied by imputing wealth equally to each adult in the income unit (which may be the household); this may not reflect reality.

In option 3, we seek to ‘converge’ the net incomes of recipients of basic payments and those on categorical payments as income rises. We apply linear tax rates to everyone, and higher tax rates (or tapers) to those receiving a categorical payment. The categorical EMTR would be $22\% + 25\% = 47\%$, which is still lower than many EMTRs in the current system.

Modelling indicates that option 3 requires a flat (revenue-neutral) tax rate on earned income of 22.3%, plus the AWT at 1.5%. The fiscal cost is \$100 billion. The distributional analysis shows large changes in distributional outcomes for option 3. Both low-income and high-wealth families are heavily impacted, and the wealth tax on the home has an effect across the distribution,

but especially for age pensioners. Measured relative to equivalised disposable income, the distributional tables suggest that, on average, low-income families are worse off under option 3 because of the wealth tax on the home and tax on earned income from the first dollar. Families with children benefit, except in the bottom quintile. Those in the middle to top quintiles are ahead in most cases because of the universal payment, even though they are paying a wealth tax.

Against the comprehensive income benchmark, the distributional picture is different. The distributional impact is less strong on both low-income and high-income families, although the latter are still paying significantly more tax on their wealth. Families with children are better off across the distribution, and the bottom 20% is better off for all family structures. Couples and lone persons without children from quintiles 2–5 are worse off. The top quintile, apart from families with children, pays more in tax because of the wealth tax. Overall, option 3, measured against the comprehensive income yardstick, is quite progressive.

7.5 Option 4: Full categorical basic income with 2% wealth tax

This option is closest to the popular understanding of a BI. In option 4, we apply a full BI at the Newstart rate for all adults plus a top-up of \$6939 for adults and a payment of \$5505 for children (0–12 years). Those over 65 years receive the age pension rate topped up by \$6939. This is a demogrant²¹ similar to that rejected by the Henderson Inquiry because of its high RTR and fiscal cost. Option 4 is financed by a tax on earned income and an AWT of 2%. The top-up compensates average households for the wealth tax on owner-occupied housing. There are no means tests.

Full categorical BI

All adults (18–64 years)	$\$ 14\,047 + 6\,939$ $= 20\,986$
Children (0–12 years)	$\$ 5\,505$

Age pensioners \$ 23 317 + 6 939
 = 30 256

Modelling finds that the RTR for option 4 is a 37% flat rate on all earned income combined with a 2% AWT (not dissimilar to applying a 37% rate to deemed income of 5% from net wealth). The fiscal cost is estimated at \$264 billion, far higher than our more modest options 1 to 3. However, financing this full BI with the wealth tax allows a lower RTR relative to other models of a Henderson-style GMI, which estimate flat tax rates of more than 50%.

We can compare option 4 to a pension-level BI financed by increasing income tax rates, recently modelled by Phillips (2018).²² Phillips found that a BI at the level of the age pension (about \$23 000) for all adults (single) and \$17 500 for each member of a couple, and a payment of \$5505 for all children, could be financed by increasing tax rates across the existing income tax distribution by 33 percentage points (e.g. increasing the 45% tax rate to 78%) and abolishing the Medicare levy. This proposal abolished the tax-free threshold, applied a 33% rate from the first dollar, and then increased each marginal rate up to the top tax rate, which rises to 78%. No dynamic work or tax planning effects were modelled; these could be substantial.

Option 4 is highly progressive for couple families with children, who are much better off in terms of both equivalised disposable income and comprehensive income benchmarks. Other households, including single parents, are somewhat worse off. When measured against the comprehensive benchmark, this is by far the most progressive BI option that we modelled. Households in the bottom two quintiles (and almost all couple-headed families) are better off (on average), and the lion's share of the cost is paid by the top quintile.

The reason that we gross up all payments for adults in option 4 is to reflect a component for housing costs (by \$6939, as in option 3).²³ Option 4 is equivalent to an individual-based system, because the earnings tax and the wealth tax are proportional (absent any high-income surcharge). However, there may be a marked disincentive for a second earner to work, because they would receive a large base payment and the

wage tax rate applies from the first dollar; this issue was identified in the Henderson and PRS proposals.

We leave open for consideration the idea of replacing the single rate with half the joint rate plus a living-alone allowance. There would be perhaps a halfway rate for those in shared accommodation (as in the current rent assistance formula). This would both save money and allow us to individualise the BI, although the living-alone allowance would modify that, and such an allowance would likely be means tested, thus modifying the flat tax approach.

Option 4 has differences in rates for couples and singles. There are also differences in rates for those of working age and pension age (and families with children compared with those without, because of the child payment). To the extent that such differences exist, the system does not converge in the same manner as option 3, because proportional taxation means that those on a higher base rate – that is, the aged – continue to have higher net incomes at all income levels.

The option 4 BI scheme could be implemented by netting the BI against the wealth tax and by source withholding of tax on earned income through the PAYG system. Essentially, the income tax is converted to a tax on earnings, and the PAYG withholding system collects most of this revenue. Progressivity is achieved by the combination of flat-rate transfers and (nearly) proportional taxes on a broad base. The high degree of redistribution in such a system is increased by wealth taxation because the distribution of net worth is much more unequal than the distribution of household income, so that such an expansion of the tax base can serve as a substitute for higher marginal tax rates at the top end. A high-end income tax surcharge is an option under both the direct (income tax) and the indirect tax financing approach. In Henderson, this surcharge was 5%.



8 Concluding remarks and a tentative recommendation

The Henderson Inquiry proposed a GMI that aimed to reform the social security and tax systems to be a seamless, integrated system, while reducing EMTRs, addressing poverty and reducing stigma. By modelling four options, we show that it is feasible to move towards a BI from Australia's current social security and tax system. However, the RTR and fiscal cost of a GMI would be significantly greater than was estimated by Henderson, leading to a high (income-only) RTR. We therefore model an annual wealth tax to keep the RTR relatively more modest, and to reflect the fact that the existing welfare system takes account of assets. We retain categorical payments in our first three options, with increasing levels of payment financed in part by an asset or wealth tax (options 2 and 3). Option 4 is a universal BI similar to the popular understanding, paid at rates that are higher than the current pension or allowance levels, financed by a tax on earned income and an annual net wealth tax. A key innovation in this paper compared with past research is to reduce the RTR on earnings or income by levying an AWT, and to evaluate its distributional effects against both equalised disposable income and comprehensive (broad) disposable income, including imputed asset income.

Modelling indicates that moving to a BI and financing it through a wealth tax may be regressive, relative to the current system, for many family types and income levels. However, all the options we consider achieve smoothing of EMTRs for some recipients, although for many the marginal tax rate would increase relative to the current system. In some cases, the average tax rate on earned income would also increase. Options 1 and 2 both reduce EMTRs for transfer recipients relative to the current system. They can be combined with other changes to make means tests more rational. In option 3, the tax system is proportional at around 22% – still a higher rate

than the present system for some taxpayers, but low for many – but higher rates (47%) are applied to categorical payments, making the tax scale degressive. Dynamic effects are important, especially regarding incentives to work, and could be the subject of future research.

It is almost impossible to envisage adoption of a substantial BI, as in option 4, in reality. However, a two-tier categorical system such as option 3 may be feasible and could rationalise what is now a very complex and messy tax-transfer system with diverse, and in some circumstances high, EMTRs creating work disincentives and poverty traps. Option 3 is similar in concept to Henderson's GMI scheme but with a new financing mechanism. The tax rate of 22.3% on earned income is much lower than the 57% rate estimated by Scutella (2004). This is achieved by categorisation, along with the broadening of the tax base to include the AWT at a 1.5% rate. The broadening of the base to finance option 3 is particularly desirable, and the tax rates are structured to achieve convergence.

Nonetheless, the politics of option 3 are difficult, because the option involves an explicit AWT. Option 2, with a hidden and lesser wealth tax designed as an asset test on the BI, might be more politically achievable. These difficulties are ameliorated but not removed by the cash compensation we provide in higher basic rates for options 2 to 4. As Henderson acknowledged, many parameters can be tweaked to achieve a desired redistributive outcome for certain groups, such as a surtax on top incomes and supplements to reflect housing costs, or to compensate for illness, disability and unemployment.

There would need to be a transition towards any BI scheme from our existing tightly means-tested social security regime. Tanner (2015:1) suggests that we could pursue incremental

steps: ‘... consolidate existing welfare programs, move from in-kind to cash benefits, increase transparency, and gather additional data. This would allow us to reap some of the gains from a universal income without the costs or risks’. Others regard incrementalism as the problem, not the solution. We suggest that a transition might involve marked categorisation – higher payments for existing categorical groups and much lower payments for the rest. Depending on the results, the lower payments could be increased over time in a phased movement towards a fuller BI scheme.

On the tax side, proposing a wealth tax is, of course, controversial. In particular, taxing the home and retirement savings would face very strong political opposition. Still, the under-taxation of these assets in our current system is widely acknowledged. The AWT in our model could be considered as a proxy for better taxation of capital income in general (moving the income tax base towards a comprehensive income tax, mainly by eliminating many tax expenditures).

Other challenges of a wealth tax include the difficulties of identifying and measuring wealth, and enforcing the tax. There are cashflow issues for low-income people who own assets (most importantly their own home); the wealth tax raises their costs substantially, and they may be only partly compensated by a higher BI. One possibility could be to defer the wealth tax to be offset against realisation of assets at a later date – for example, for the elderly. A wealth tax may also have price and macroeconomic effects. We do not have scope to discuss these issues here; our main point remains that broadening the tax base in some manner is necessary to finance a BI at a viable tax (RTR) rate and to replace welfare asset tests.

Our analysis shows that there are many options for improving Australia’s current social security system without moving to a full BI. We can rationalise and smooth EMTRs by abolishing free areas and reducing tapers, reform or eliminate tax offsets to prevent interactions (or to make them more rational), and apply a common deeming rate for income from assets in place of asset tests. If free areas are abolished (as required under linear tax options), there are many losers on low incomes unless base payment rates

are raised. Arguably, the highest priority is to raise the adequacy of some payments such as single Newstart and rent assistance. We could also universalise childcare support and family payments (e.g. by applying a single low taper rate to FTB A). Tax reform could broaden the base to tax more capital income and gains, and make the overall reform package progressive.

Australia has the luxury of learning from overseas experiments in BI without having to spend money on them. In the meantime, we have plenty of scope to rationalise EMTRs and reduce disincentives in the welfare system by incremental reform, and to improve the tax system, notably by base broadening. Both sets of measures take us closer to the BI ideal, and ease the further steps that would be needed if we ever decided to go down this path wholeheartedly.

Appendix A Modelling options 1–4: results by percentage

Table A.1 Percentage change by quintile, equivalised disposable income

Option 1: RTR = 32% first dollar of income up to \$37 000; standard PIT rates. Fiscal cost \$90 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	7.2	1.4	4.3	4.2	2.1	3.1
Couple only	3.6	-1.3	-2.9	-3.8	-2.819	-1.4
Lone person	4.2	-1.9	-5.2	-4.3	-2.5	-1.2
Single parent	-3.6	-7.7	-6.2	-4.1	1.5	-4.9
All	4.6	-0.7	0.0	-0.5	-0.6	0.0

Option 2: RTR = 19% first dollar of income up to \$37 000; standard PIT rates. Fiscal cost \$40 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	-12.9	-6.6	0.0	1.2	-0.7	-0.9
Couple only	0.8	-3.2	-4.0	-3.7	-2.7	-2.2
Lone person	14.5	6.4	0.8	-0.5	-1.7	4.6
Single parent	0.8	-3.4	-2.6	-0.8	0.2	-1.6
All	5.2	-0.2	0.1	-0.3	-1.2	0.0

Option 3: RTR = 22.3% flat rate from first dollar of earned income (wages). Fiscal cost \$100 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	-5.0	0.4	9.1	10.8	10.4	9.0
Couple only	-32.6	-22.8	-10.1	-3.0	2.5	-10.0
Lone person	-20.2	-18.5	-8.8	-0.3	6.0	-8.1
Single parent	-1.0	-2.9	0.9	3.0	11.9	1.3
All	-20.6	-8.2	1.2	3.2	6.6	0.0

Option 4: RTR = 38.3% flat rate from first dollar of earned income (wages). Fiscal cost \$264 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	21.3	11.1	12.4	6.8	-2.6	4.2
Couple only	-11.9	-8.8	-6.9	-4.7	-8.2	-8.4
Lone person	-8.4	-15.6	0.2	0.1	-3.1	-5.7
Single parent	5.5	-3.3	1.8	-10.2	0.7	-1.4
All	-0.6	-0.1	6.4	2.3	-3.7	0.0

PIT = personal income tax; Q = quintile; RTR = required tax rate

Table A.2 Percentage change by quintile, comprehensive income (broad)**Option 1: RTR = 32% first dollar of income up to \$37 000; standard PIT rates. Fiscal cost \$90 billion**

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	0.4	2.6	4.1	2.7	1.4	2.2
Couple only	3.8	-0.3	-1.5	-1.7	-0.8	-0.8
Lone person	2.8	-1.1	-1.5	-1.6	-0.7	-0.7
Single parent	-6.1	-5.0	-3.4	-1.4	1.1	-3.8
All	1.5	0.1	0.3	-0.1	-0.1	0.0

Option 2: RTR = 19% first dollar of income up to \$37 000; standard PIT rates. Fiscal cost \$40 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	-6.8	-0.3	1.7	0.0	-1.4	-0.7
Couple only	-1.8	0.7	0.2	-1.6	-1.8	-1.3
Lone person	12.0	6.3	3.8	1.3	-0.7	2.7
Single parent	-0.7	-1.5	-1.4	-2.6	-0.7	-1.2
All	3.1	2.2	1.7	-0.2	-1.5	0.0

Option 3: RTR = 22.3% flat rate from first dollar of earned income (wages). Fiscal cost \$100 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	6.2	8.7	10.6	8.7	3.4	6.6
Couple only	4.3	-10.5	-8.3	-2.5	-6.4	-5.8
Lone person	13.4	-5.0	-6.3	-6.4	-8.0	-4.7
Single parent	2.6	0.0	-0.8	0.1	2.6	1.0
All	9.4	0.9	1.5	1.6	-3.0	0.0

Option 4: RTR = 38.3% flat rate from first dollar of earned income (wages). Fiscal cost \$264 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	18.7	15.1	10.3	3.7	-4.9	3.0
Couple only	17.8	1.6	0.4	-1.2	-10.1	-4.9
Lone person	15.8	0.3	-1.3	-4.2	-9.8	-3.4
Single parent	1.3	3.9	-7.3	-5.3	-3.6	-1.1
All	18.5	8.9	5.5	1.2	-7.7	0.0

PIT = personal income tax; Q = quintile; RTR = required tax rate

Figure A.1 Option 1: Percentage change in disposable income, by equivalised disposable income, relative to current system, for each quintile

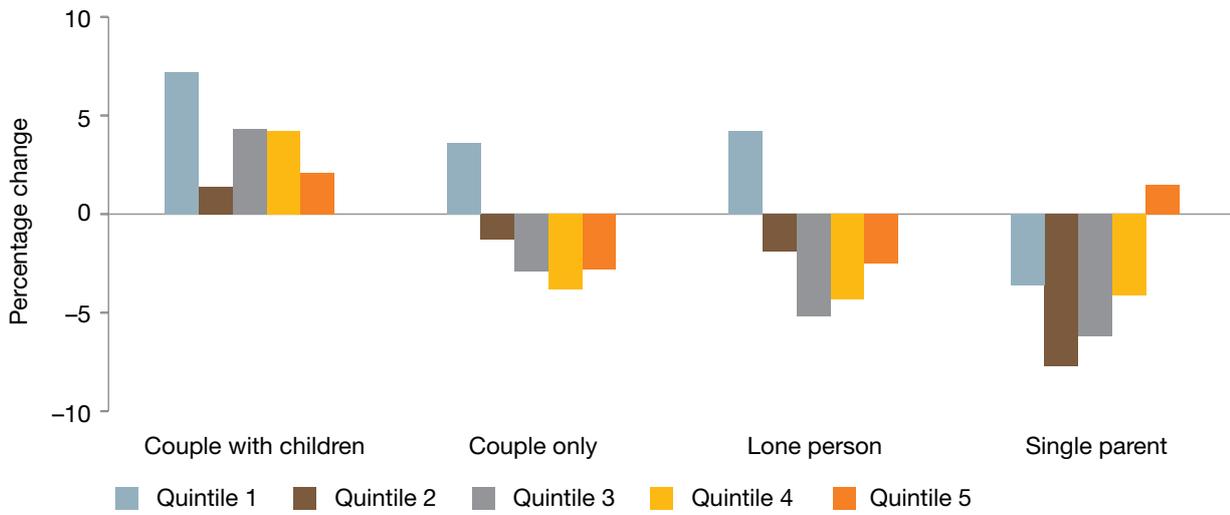


Figure A.2 Option 2: Percentage change in disposable income by equivalised disposable income, relative to current system, for each quintile

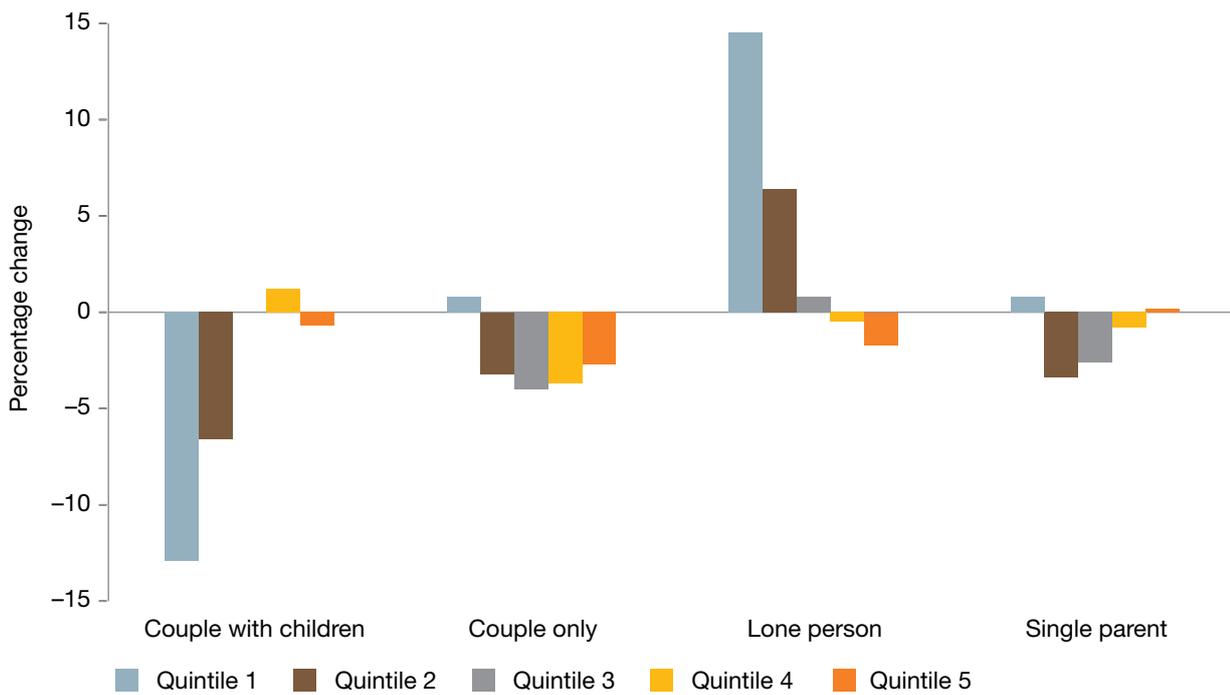


Figure A.3 Option 3 Percentage change in disposable income by equivalised disposable income, relative to current system, for each quintile

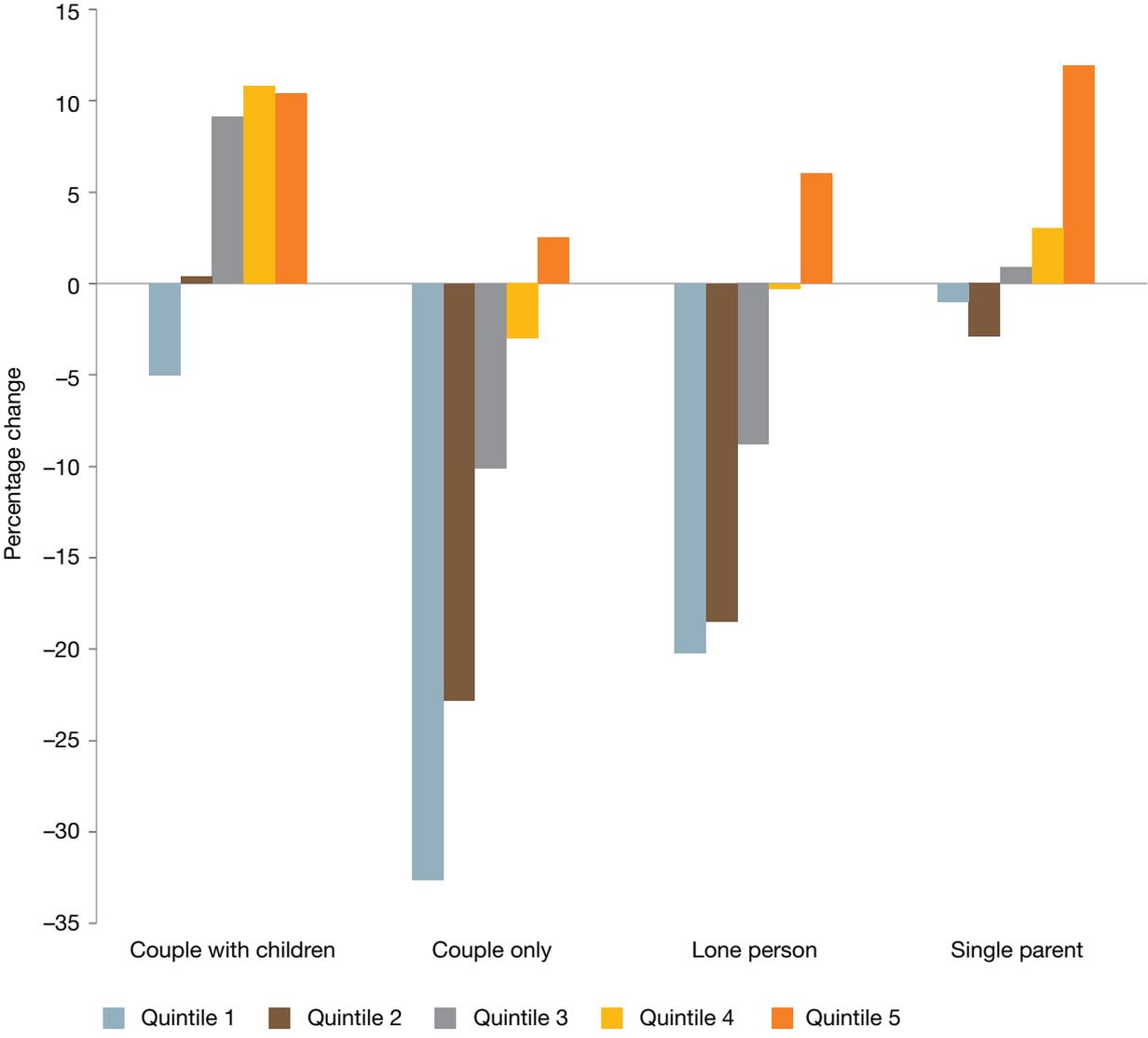


Figure A.4 Option 4 Percentage change in disposable income by equivalised disposable income, relative to current system, for each quintile

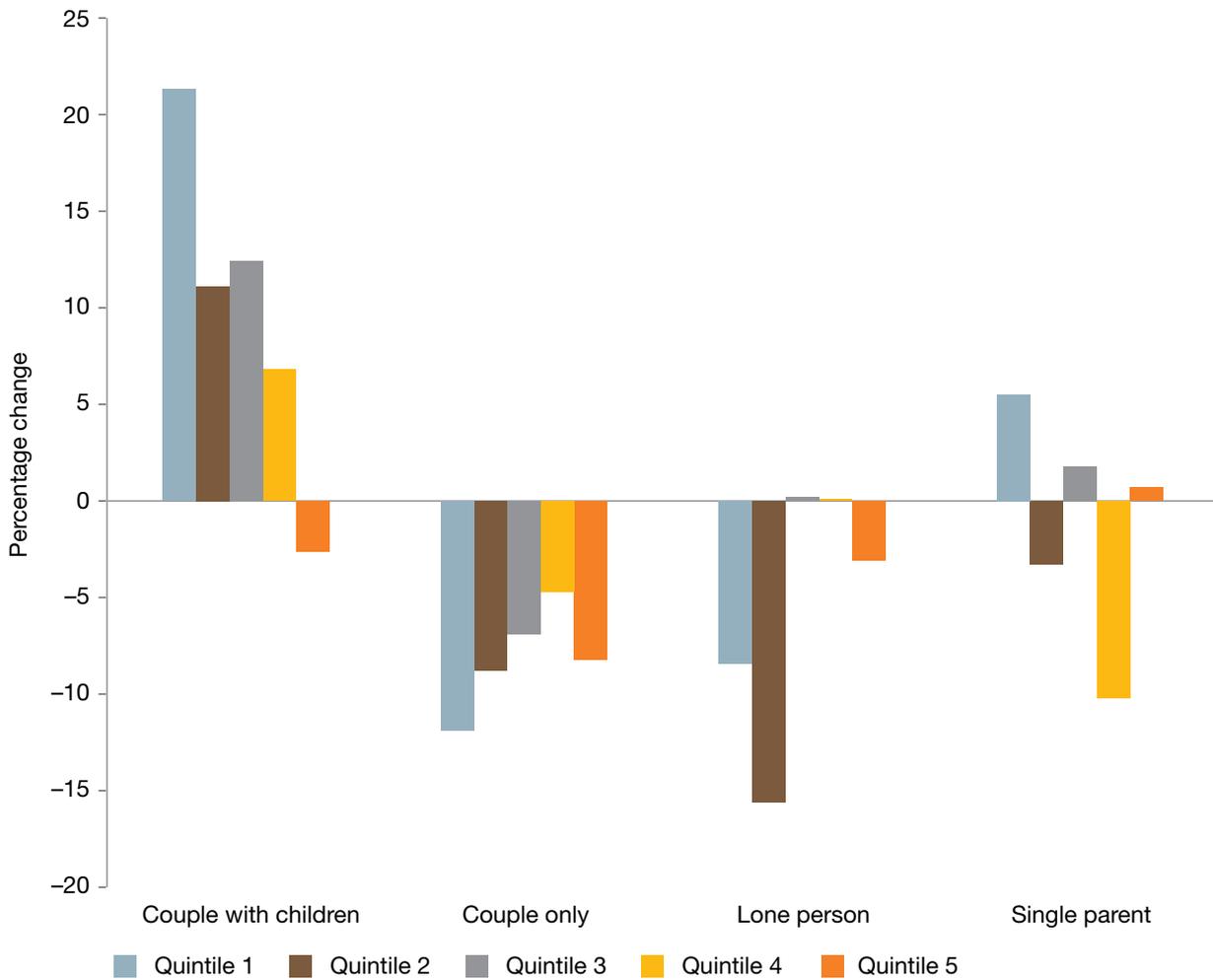


Figure A.5 Option 1 Percentage change in disposable income, by comprehensive income (broad), for each quintile

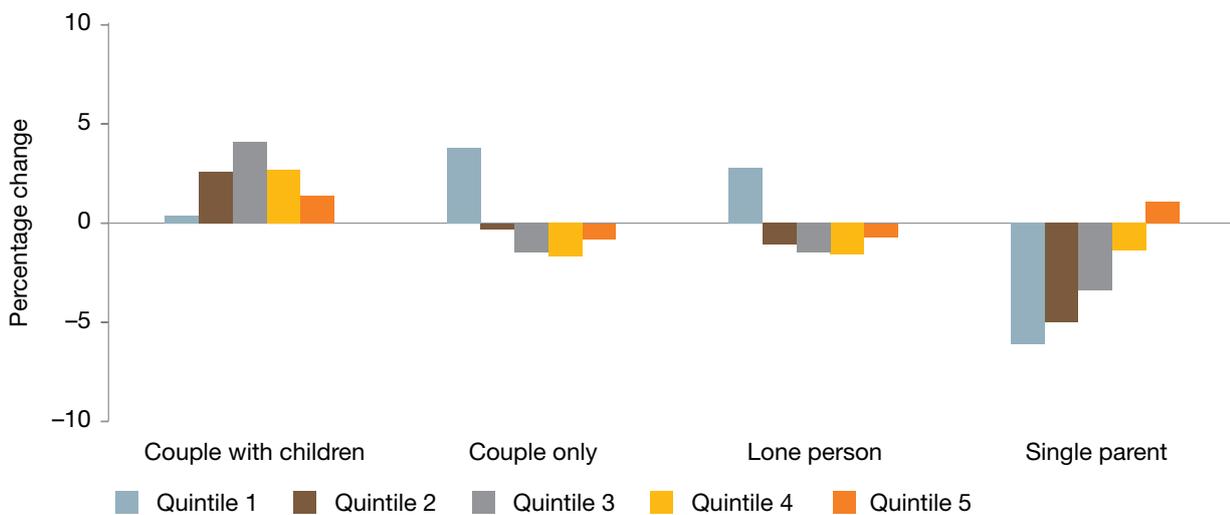


Figure A.6 Option 2 Percentage change in disposable income, by comprehensive income (broad), for each quintile

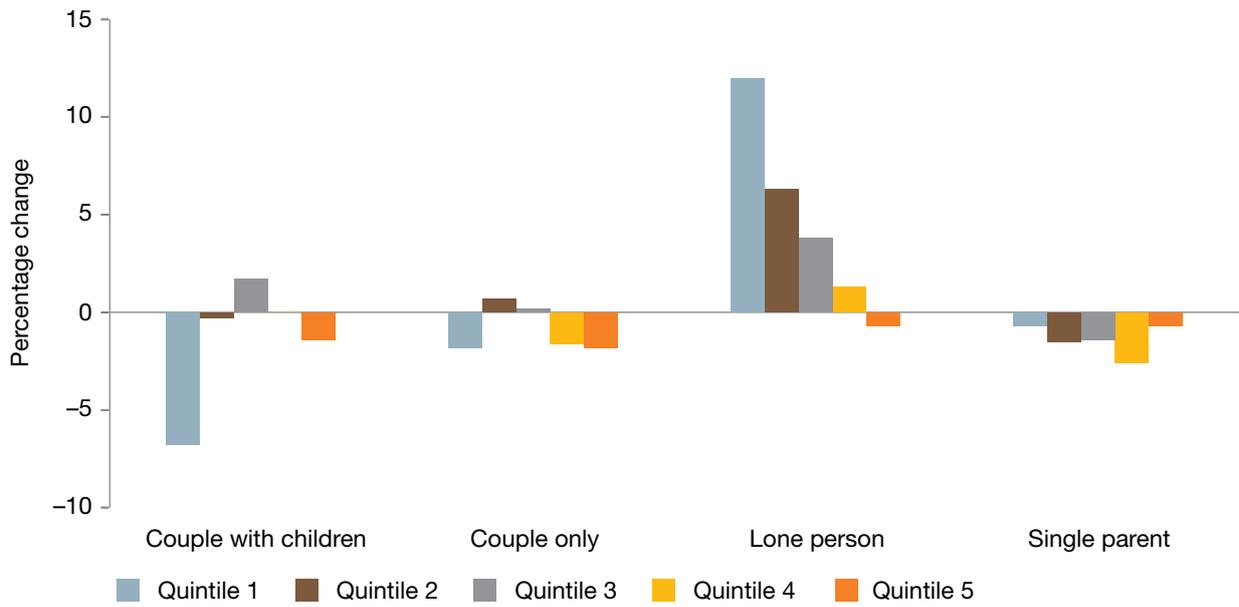


Figure A.7 Option 3 Percentage change in disposable income, by comprehensive income (broad), for each quintile

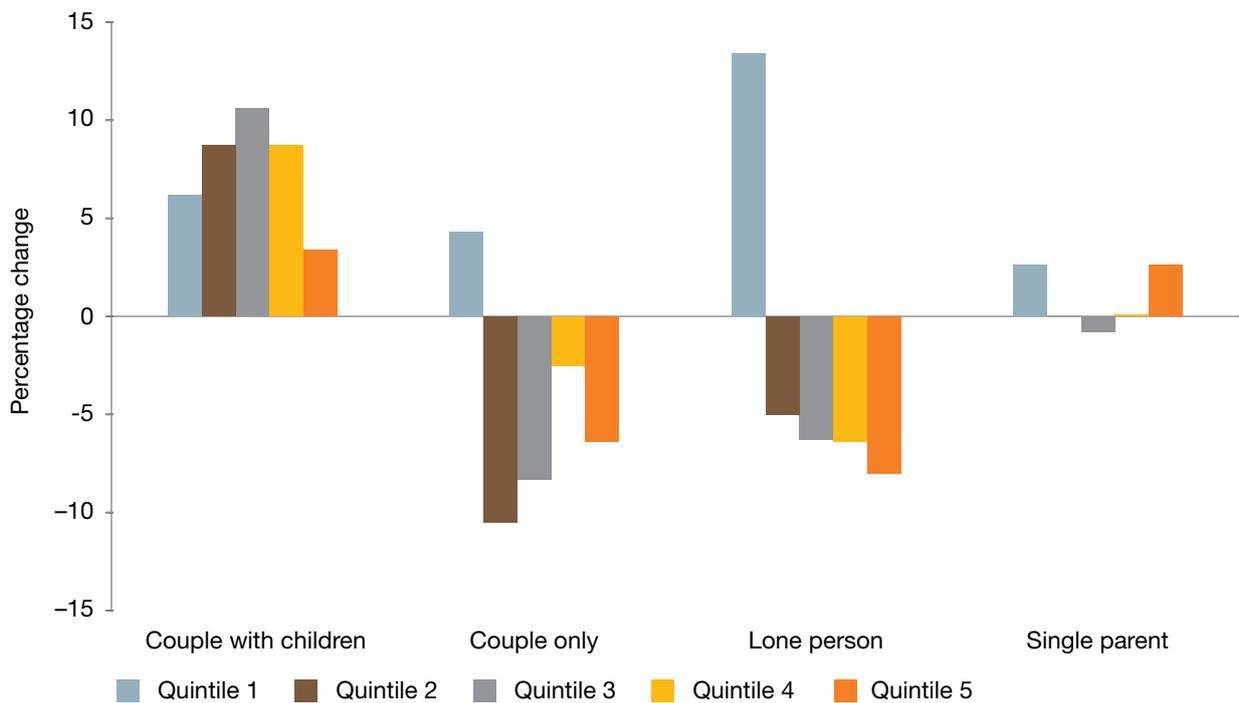
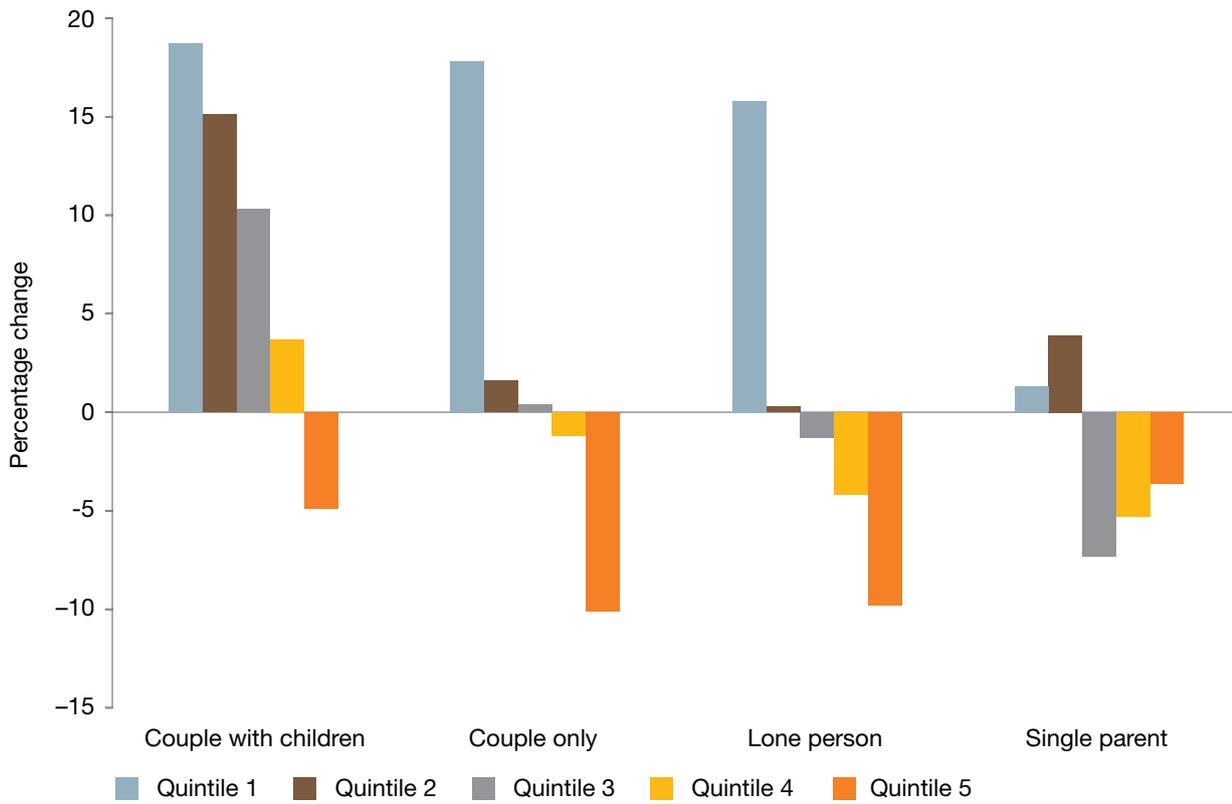


Figure A.8 Option 4 Percentage change in disposable income, by comprehensive income (broad), for each quintile



Appendix B Comparing distributional effects of options 1-4

These graphs compare the effects of options 1-4 on the distribution of incomes by quintile, against benchmarks of equivalised disposable income and comprehensive income (broad; including imputed asset income).

Figure B.1 Distributional effect of option 1

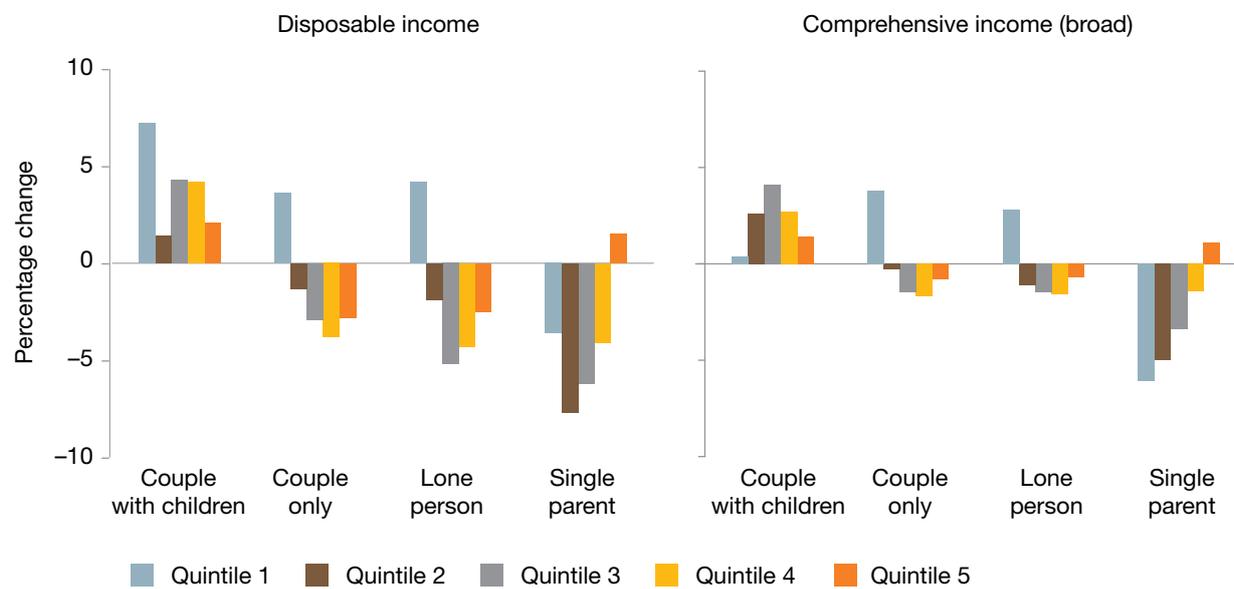


Figure B.2 Distributional effect of option 2

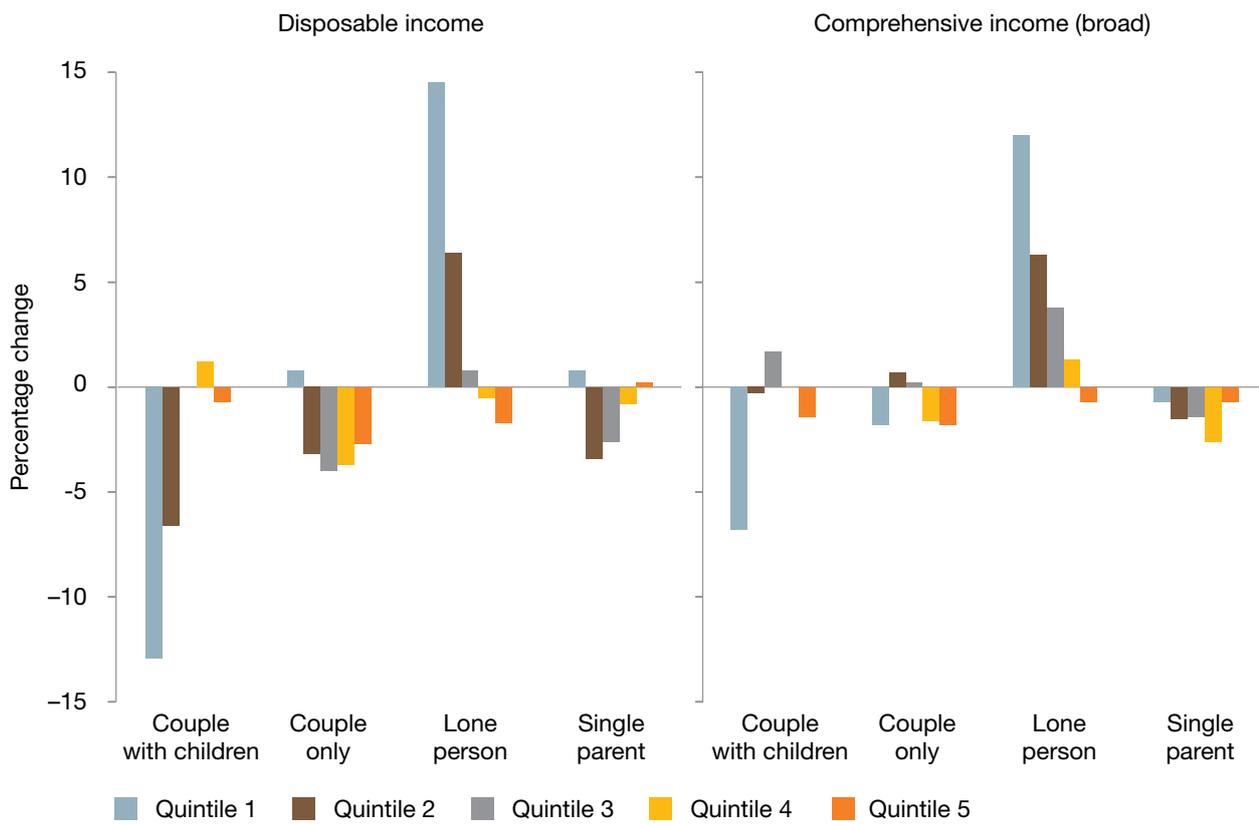


Figure B.3 Distributional effect of option 3

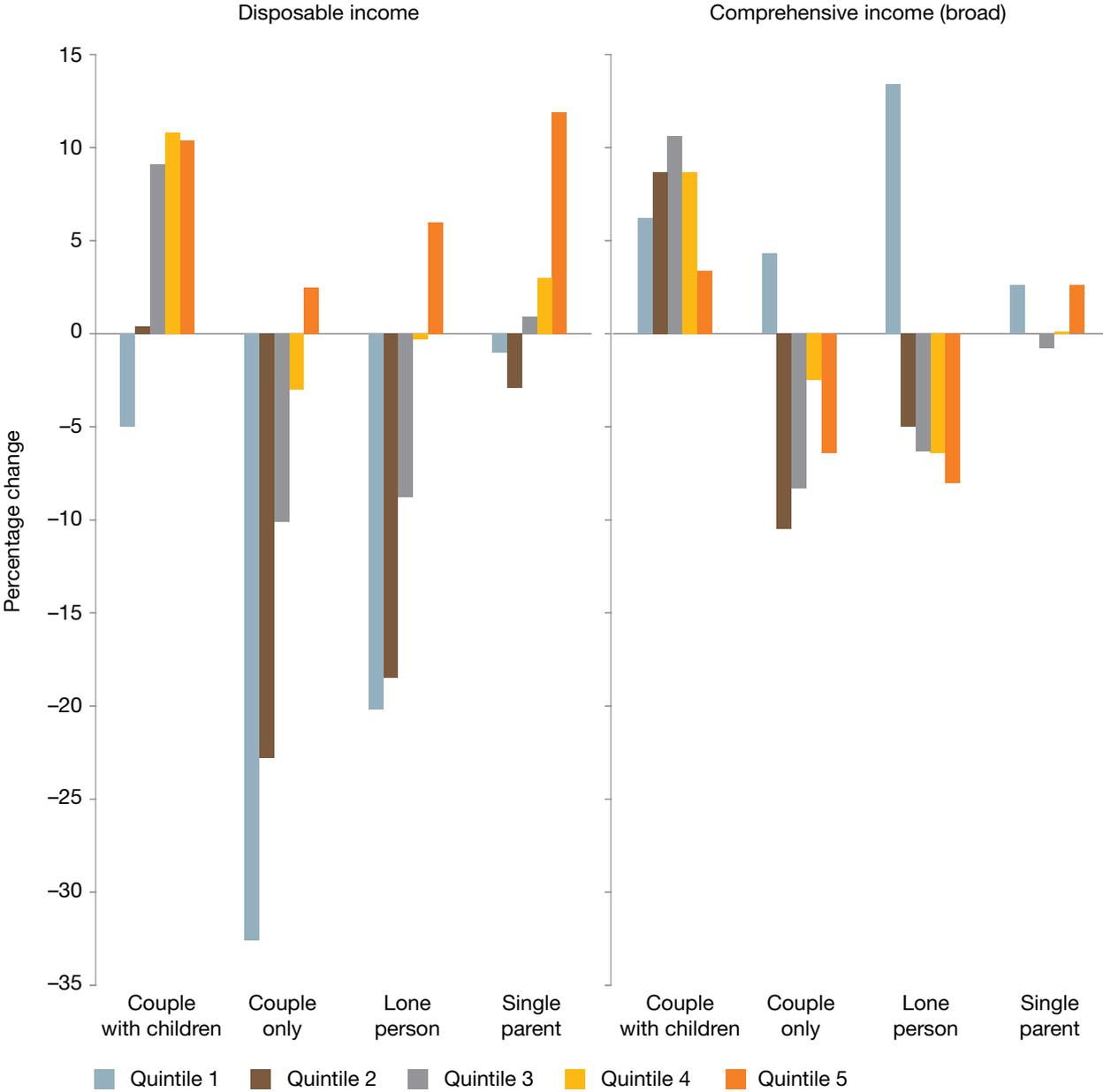
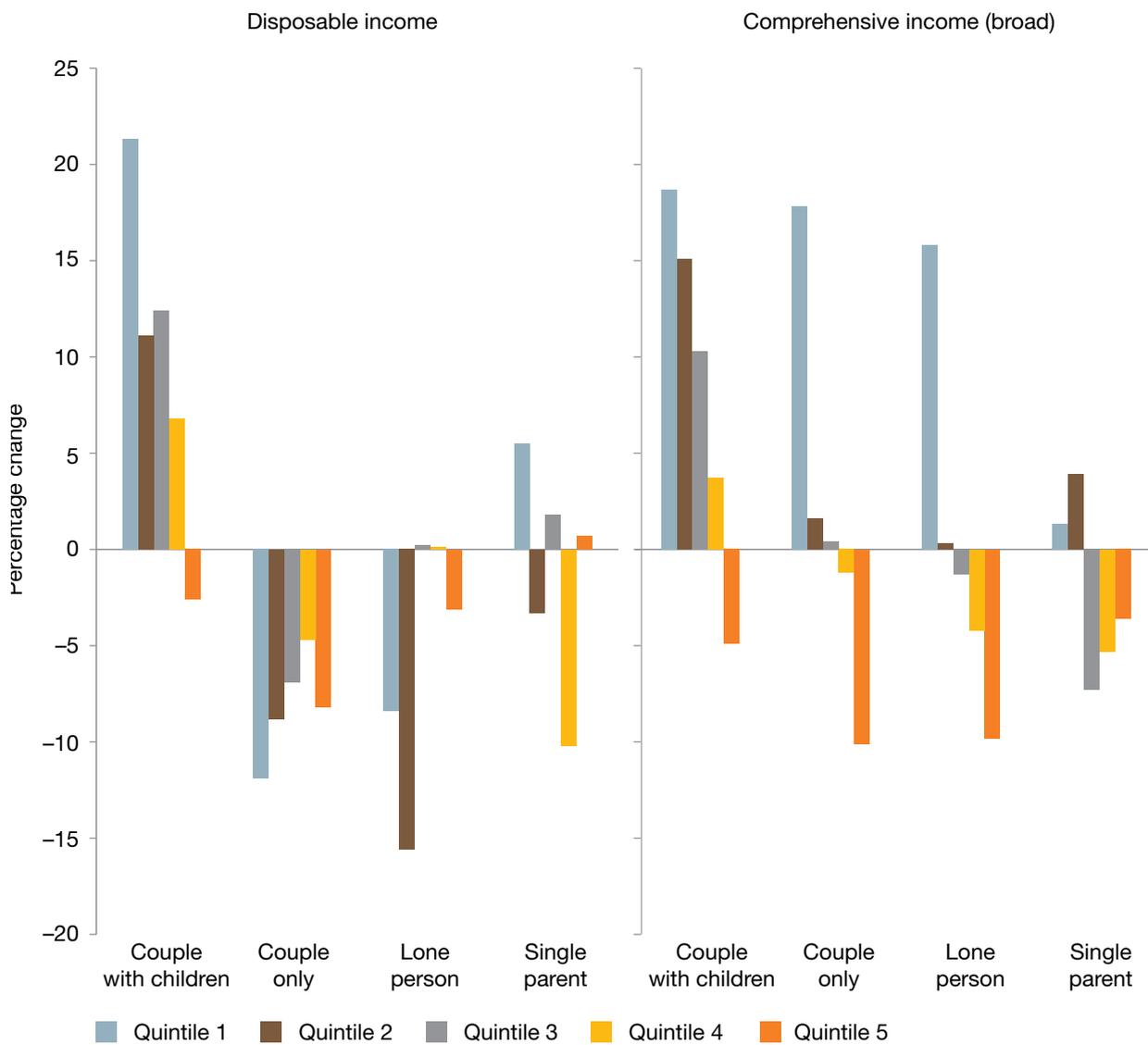


Figure B.4 Distributional effect of option 4



Appendix C Modelling options 1–4: results by dollar impact

Table C.1 Dollar impact of changes by quintile, equivalised disposable income

Option 1: RTR = 32% first dollar of income up to \$37 000; standard PIT rates. Fiscal cost \$90 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	3 245	1 088	4 268	5 530	4 724	4 104
Couple only	1 713	-696	-2 085	-3 513	-4 462	-1 110
Lone person	1 025	-623	-2 368	-2 567	-2 624	-478
Single parent	-1 289	-4 142	-4 541	-3 821	2 260	-3 071
All	1 704	-404	-34	-575	-1 037	98

Option 2: RTR = 19% first dollar of income up to \$37 000; standard PIT rates. Fiscal cost \$40 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	-5 841	-5 020	-\$5	1 607	-1 440	-1 235
Couple only	378	-1 694	-2 861	-3 475	-4 294	-1 824
Lone person	3 527	2 058	345	-274	-1 861	1 876
Single parent	300	-1 839	-1 936	-797	382	-1 009
All	1 942	-102	45	-317	-2 276	52

Option 3: RTR = 22.3% flat rate from first dollar of earned income (wages). Fiscal cost \$100 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	-2 256	288	8 919	14 186	23 103	12 033
Couple only	-15 491	-11 890	-7 199	-2 770	4 019	-8 118
Lone person	-4 919	-5 971	-4 027	-168	6 405	-3 318
Single parent	-374	-1 549	686	2 839	18 288	822
All	-7 646	-4 534	962	3 472	12 151	-11

Option 4: RTR = 38.3% flat rate from first dollar of earned income (wages). Fiscal cost \$264 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	9 625	8 515	12 227	8 901	-5 738	5 570
Couple only	-5 638	-4 572	-4 934	-4 376	-13 038	-6 829
Lone person	-2 036	-5 058	90	68	-3 309	-2 357
Single parent	1 966	-1 774	1 360	-9 618	1 014	-860
All	-232	-66	5 241	2 547	-6 710	6

PIT = personal income tax; Q = quintile; RTR = required tax rate

Table C.2 Dollar impact of changes by quintile, comprehensive income (broad, including imputed asset income)

Option 1: RTR = 32% first dollar of income up to \$37 000; standard PIT rates. Fiscal cost \$90 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	263	2 736	5 887	4 976	5 002	4 104
Couple only	1 585	-220	-1 391	-2 098	-2 171	-1 110
Lone person	706	-498	-949	-1 339	-1 298	-478
Single parent	-2 975	-4 291	-3 495	-1 864	3 078	-3 071
All	647	59	308	-175	-378	98

Option 2: RTR = 19% first dollar of income up to \$37 000; standard PIT rates. Fiscal cost \$40 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	-4 625	-291	2 463	65	-4 809	-1 235
Couple only	-740	504	149	-1 966	-4 864	-1 824
Lone person	3 002	2 943	2 349	1 130	-1 228	1 876
Single parent	-323	-1 276	-1 475	-3 394	-1 966	-1 009
All	1 321	1 707	1 890	-321	-4 181	52

Option 3: RTR = 22.3% flat rate from first dollar of earned income (wages). Fiscal cost \$100 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	4 171	9 183	15 164	16 253	11 926	12 033
Couple only	1 802	-7 278	-7 829	-3 158	-17 117	-8 118
Lone person	3 349	-2 346	-3 885	-5 353	-13 931	-3 318
Single parent	1 282	33	-802	125	7 523	822
All	4 065	675	1 614	2 371	-8 572	-11

Option 4: RTR = 38.3% flat rate from first dollar of earned income (wages). Fiscal cost \$264 billion

Family type	Q1	Q2	Q3	Q4	Q5	Total
Couple with children	12 686	15 965	14 702	6 780	-17 379	5 570
Couple only	7 505	1 125	408	-1 495	-26 773	-6 829
Lone person	3 937	117	-779	-3 544	-17 098	-2 357
Single parent	633	3 339	-7 415	-6 970	-10 314	-860
All	8 019	7 022	5 953	1 806	-22 063	6

pa = per annum; PIT = personal income tax; Q = quintile; RTR = required tax rate

Appendix D Arguments and trials about basic income

Friedman's original proposal (as summarised in Moffitt [2003:122–123]) gave six main reasons to introduce a NIT in the US. These were to:

- improve work incentives (by having withdrawal rates at no more than 50%)
- support poor families purely on the basis of income and not on other characteristics
- provide support in the form of cash (which is the best from the viewpoint of the recipient)
- substitute for the 'rag bag' of multiple programs then (and now) existing
- save on administrative costs
- reduce invidious distinctions between the poor and nonpoor (i.e. reduce stigma) by folding the NIT into the tax system.

Further, the NIT does not distort market prices in the manner of, say, the minimum wage. Many of these ideas are mirrored in modern arguments for a BI.

Today, as in the 1960s, the interest in a BI comes from both the right and left of politics. On the right, conservatives and libertarians are 'searching for a cheaper and more efficient alternative to the welfare state' (Tanner 2015:4). There is a concern that existing social security systems are inadequate to deal with economic and technological challenges. Martinelli suggests:

there is increasing recognition that important features of mature welfare states – means testing, contributory insurance principles, and 'active' labour market requirements – are increasingly unfit for purpose. They are stigmatising, intrusive and bureaucratic ...; they discourage work ... and they distort incentives for family formation ... labour market changes have left a growing number of people ... with inadequate incomes. (2017:4–5)

Advocates from the left, such as Guy Standing (2015, 2017), see the BI as a response to the

phenomenon of the 'precariat', whereby people are much less likely to remain in secure and well-paying jobs under the influence of globalisation and rising inequality. If their incomes are not supported, we can expect political instability, as exemplified by Trump and Brexit, and the rise of far-right political movements: 'A basic income is a right of citizenship which would help counter the systemic insecurities that are pervasive in the open economies of the era of globalisation' (Standing 2015:1).

Arguments for a basic income

- Simplicity and transparency (Tanner 2015:7), including simplifying administration and reducing benefit fraud.
- The 'least damaging way for the Government to transfer wealth from some citizens to others' and offering smaller government 'in terms of the State's power to control people's lives' (Murray 2008:2).
- Redistribution of income to address inequality, poverty and chronic economic insecurity. 'Recent studies document the tremendous impact of technology on jobs and skill, a sharp increase in national income and wage inequality, and a drop in labor's share of national income since the 1990s' (Colombino 2019:2). Automation and globalisation can bring big gains, but there tend to be a few big winners and many losers. Redistributing income through a BI can spread the gains and reduce resistance to change. These trends may be less marked in Australia.²⁴
- Addressing 'growing wage gaps between "lousy" and "lovely" jobs ...; the growth of zero-hour and temporary contractual arrangements; and long-term unemployment among disadvantaged groups' as well as 'complex and unstable family structures' (Martinelli 2016).

- Allowing the labour market to be deregulated (Opielka 2008:5).
- Avoiding stigma and differences between 'deserving' and 'undeserving' poor.
- In Finland 'the focus has been on improving incentives for work and providing economic security to those who are self-employed, in precarious work, zero-hour contracts and other new forms of employment' (Kallioma-Puha et al. 2016:2).
- Removal of bureaucratic traps – that is, losing benefits for certain periods of time, overlong waiting periods or being shifted between welfare programs, all of which make claimants cautious in accepting short-term job offers.
- Improved poverty reduction; existing programs do not appear to have been very effective (Tanner 2015:13–14), partly because of built-in disincentives to work.²⁵
- A single focus on poverty alleviation (although, in practice, programs with a different focus, such as income replacement, are likely to continue and operate in tandem).
- Removal of the economic bias against marriage, which is a feature of many welfare programs.
- Replacement of current complexities, intrusions and perverse incentives, such as the 'cliffs', where benefits are lost with rising income, and disincentives to cohabit. The US federal government operates some 126 separate antipoverty programs, and there are additional programs at state and local levels. According to Tanner (2015:2), this poverty reduction effort – costing around US\$1 trillion – has been 'remarkably unsuccessful ... the current welfare system has failed to make the poor independent or to increase economic mobility among the poor and their children'.
- Reducing the intrusiveness of government, an idea that appeals to libertarians ('treat recipients like adults'). Murray (2006:21–22) has proposed scrapping the entire welfare state and replacing it with a single universal cash payment. However, this idea sometimes involves a large net reduction in assistance; see Ingles (2010:23–24) and his comments on a 2005 CIS proposal.
- Supporting work (better incentives), with flattening of EMTR schedules: 'The issue of "making work pay" is at the very heart of basic income' (Painter and Thoung 2015:14). We present figures showing EMTRs for an Australian family with two children, which can reach 100% at certain points, even if no account is taken of childcare costs.²⁶ Such costs limit incentives for a secondary earner to work more than 2 days each week.
- Reducing the maze of payments and agencies beneficiaries must navigate – a particular concern in the US (Flowers 2016:6). 'The typical means-tested and selective regimes are a chaotic overlapping of interventions that do not favour transparency or rational decision-making ... and may open up opportunities for fraud and error' (Colombino 2019:4).
- Increasing the legitimacy of the system in the face of concerns about cheating and shirking.²⁷
- Boosting take-up rates, which can be well below 100%.
- Supporting the family – the flat-rate variant is free of disincentives to marry or cohabit.
- Supporting gender equity, because women are disadvantaged in the labour market and in market-related remuneration such as superannuation (Schulz 2017:1).
- Enabling people to adapt to technological change; some tech entrepreneurs predict a future with fewer workers, with up to 47% of jobs seen as 'at risk' as a result of their routine nature (Frey & Osborne 2013); some now point to mass underemployment.²⁸ Even right-wing advocates such as Murray (2016:4) believe that many jobs are at risk. It must be said that, although new jobs have often accompanied technological change, increased casualisation does seem possible – see final point below.
- Productivity – rather than being forced into the first job that comes along, as may be required under work tests, BI enables more time to search for the right job.
- Health benefits, as found in the Canadian GMI experiment.²⁹

- Social or utopian ideals – ‘If people no longer had to worry about making ends meet, they could pursue the lives they want to live’, create art, and be free from drudgery in ‘crappy jobs’ (Flowers 2016:2–3).
- Facilitating learning and training, caring, or entrepreneurial activities.
- Encouraging creativity and the arts.
- Smoothing work transitions if, or as, employment becomes more fractured. In Australia, many of the jobs created in the past 3 years were part-time. This makes it less likely that unemployed jobseekers will be able to ‘jump the hump’ at the low-income end of the EMTR graph (Figure 1) by getting full-time work; Ingles and Plunkett (2016) show similar graphs. With a lower initial tax rate, Newstart could become a sort of low-income subsidy scheme. This may already be happening; 12% of part-time employees are on some form of benefit.

Arguments against a basic income

- Cost – see, for example, Martinelli (2017) for costs of a UK BI. Painter and Thoun (2015:8) see cost of their UK scheme as an extra 1% of GDP. In the demogrant versions, there is a big increase in the apparent size of government, although the actual ‘excess burden’ of the tax-transfer system (as measured by its disincentive effects) need not necessarily rise.
- Where the welfare system is large, as in the Scandinavian countries, it might be possible to finance BI from within existing budgets (although there would be many losers as well as gainers). Where welfare is less generous, there will be a large net cost to the budget, with associated higher tax rates (RTRs).
- Work incentives – and this cuts two ways. Some people face lower EMTR (*substitution effect*), but there can be an *income effect* tending to reduce work, such as high tax rates on middle incomes. In the US NIT experiments, there were modest declines in hours of work for primary earners, but higher declines for secondary earners, and the impact was greater for married women than single mothers (Tanner 2015:18). However, some of these reduced hours were used for caring or education. In Manitoba, Forget (2011) found virtually no decline in work for primary earners, declines for secondary earners, and notable health benefits.
- Inability to implement conditionality, which is the general direction the Australian system is moving in (McClure 2014, 2015; Davidson 2017). For example, we strongly require the young unemployed to look for work or undertake training. McClure (2014:4) states that ‘the social support system should provide adequate support while encouraging more people to work to their capacity. It should also help people build the capacity they need to participate economically and socially, to the extent they are able’. Conditionality can be retained in a two-tier scheme such as Henderson’s, but ‘a basic income model strongly based on conditional reciprocity runs into problems of supervision and control, i.e. how to define the level of participation required by reciprocity and who will supervise and document that the requirements are met. This seems not to reduce bureaucracy’ (Kalliomaa-Puha et al. 2016:4).
- The public ‘support the welfare state because it conforms to deeply-held norms of reciprocity and conditional obligations to others’ (Bowles & Gintis 2000, cited in Martinelli 2016:2). The public oppose ‘middle class welfare’ but this is a perception more than a reality in any financed BI scheme, because the middle classes will pay taxes that more than balance the benefits they receive. However, this may nonetheless be an important perception that affects implementation.
- ‘For progressive opponents of BI, welfare should be restricted to those most in need, since the wealthy do not need it’ (Martinelli 2016:2).
- Churn; in the demogrant forms of BI, people receive benefits and pay taxes at the same time. Like middle class welfare, churn may not be economically important but can be an important part of adverse perceptions. It can be addressed by modifying the BI scheme to a tax credit or NIT type. This has similar properties to the demogrant type, but results in a much smaller apparent size of government

and much less appearance of middle class welfare. The downside is greater administrative complexity compared with the flat (or nearly flat) tax, which is the natural counterpart of a demogrant scheme.

- Implementation is challenging: ‘what sounds good in theory tends to break down when one looks at implementation ... there are simply too many unanswered questions to rush forward with any such plan’ (Tanner 2015:1). The UK is having massive problems in implementing its universal credit, which is a form of NIT. Others observe ‘it is difficult to implement a totally new and revolutionary system in the context of an institutionalized welfare state with numerous vested interests’ (Kalliomaa-Puha et al. 2016:14).

Trials and proposals for a basic income

There have been proposals and trials for a BI in several countries, and the idea has been a subject of recent and wide public debate, including in the US, France, Germany and Italy. Several trials appear to have halted before completion, including in Ontario (Canada) and Finland, illustrating the challenges of even small trials of a BI in practice. In developing countries, BIs are being developed as more efficient alternatives to food or fuel subsidies, or other in-kind programs. Results from these studies are not always applicable to developed economies. Current or recent trials and proposals are discussed in Chapter 11 of Standing (2017), and include:

- Netherlands – BI trials to begin in Utrecht and Tilburg.
- Finland – trial of a BI to replace parts of the current welfare system. A trial to give €550–600 (A\$1000) a month started in 2018, roughly corresponding to the levels of existing basic social security benefits, with possibly a higher level later. Nearly 70% of respondents to a survey supported a BI of €1000 a month, but, when told its price tag (an RTR of more than 55%), support fell to 35–40% (Kalliomaa-Puha et al. 2016:13). This trial was recently reduced in scope and is being terminated early.
- Switzerland – referendum to introduce a BI in 2016, at a suggested amount of around A\$3400 a month. This was defeated, but gained 23% of the vote. A suggested reason for its defeat was not the (seemingly high) quantum but rather concerns about the scheme being too attractive to immigrants. This might be less of an issue if a country has better control of its borders.
- Canada – Ontario trial (now abandoned); campaign to guarantee all citizens \$20 000 per year.
- US and Canada – experiments between 1968 and 1980 (Whiteford 1981), although some view these studies as flawed and not really a test of BI. The closest to the ‘ideal’ was MINCOME in Manitoba, Canada, analysed years later by Forget (2011).
- UK – universal credit has similarities to a NIT but is categorical and is still being phased in.
- Alaska – a very basic social dividend funded from oil and gas revenues.
- Brazil – ‘Bolsa Familia’, a conditional cash transfer to households in extreme poverty. Mexico has a similar program; both are conditional and means tested.
- Kenya, Uganda and other developing countries – some trials are being funded by nonprofit organisations. conclusions from trials in poorer countries may not be widely applicable, because many circumstances are different (Tanner 2015:5–6).

Notes

1. See Treasury (1974:1–2) for brief information on this and other proposals.
2. The system is substantially more complex than this, because there are many supplements, conditions and other provisions applicable for particular circumstances. Rates as at January 2018.
3. <https://www.workandincome.govt.nz/eligibility/seniors/superannuation/index.html#null>
4. See Tomlinson (2001:13)
5. ‘Depending on which payments or services you claim, your adjusted taxable income can include:
 - taxable income
 - foreign income
 - tax-exempt foreign income
 - total net investment losses
 - reportable fringe benefits
 - reportable superannuation contributions
 - certain tax free pensions or benefits, and
 - superannuation income stream benefits, including both taxable and non-taxable components (www.humanservices.gov.au/customer/enablers/adjusted-taxable-income).
6. That is, with declining marginal rates as incomes rose, taking into account the tendency of lower income earners to consume a higher proportion of their incomes.
7. Studies in the ‘optimal tax’ tradition are based on the (constrained) maximisation of an evaluation function defined in terms of individuals’ utilities viewed as functions of leisure and income.
8. See, for example, the comparative data and EMTR charts compiled by the OECD, *Benefits and wages: country policy descriptions* (www.oecd.org/els/soc/benefits-and-wages-country-specific-information.htm).
9. See Ingles and Plunkett (2016) and Stewart (2018) for a discussion and cameo examples. Recent work on labour supply elasticity indicates that more universal benefits, especially for child care, will increase women’s labour supply (Breunig & Gong 2017).
10. There is a significant ‘free area’, particularly for earnings, since the Work Bonus increases the amount an eligible pensioner can earn from employment before it affects their pension rate. The first \$250 of fortnightly employment income is not assessed and is not counted under the pension income test; see www.dss.gov.au/seniors/programmes-services/work-bonus.
11. Rental rebates in state housing are means tested.
12. The proposal to use land rent taxation, advocated by some, was investigated by Ingles (2016b), who calculated that the full expropriation of land rents would raise a third to half of current government revenue. This approach has the potential to reduce land values to almost nil, and thus effectively amounts to the nationalisation of land holdings. Such a policy could only be pursued over a very long transition period – say 50 years – if at all.
13. See, for example, in California: <https://basicincome.org/news/2017/05/us-california-state-legislature-consider-carbon-dividend>). The idea has been recently proposed in Australia of a universal ‘dividend’ from a carbon tax: see Holden and Dixon (2018).
14. The asset threshold is, however, higher for non-home owners.
15. That is, after taking account of inflation. (We note that this is higher than the general deeming rate of 3% used in the welfare system.) The 5% figure is consistent with estimates of real returns on (for example) shares and property over time, but sits somewhat on the conservative side.
16. UK Chancellor Philip Hammond, 2018 Budget Speech, 29 October 2018.
17. Depending on the tax status of the payments, the two rates are not necessarily additive. However, because the BI payments are free of tax in our option 3, additivity applies.
18. See <http://csrcm.cass.anu.edu.au/research/policymod>.
19. We use the OECD-modified equivalence scale to adjust disposable income for differences in family size; see ‘What are equivalence scales?’ *OECD project on income distribution and poverty* (www.oecd.org/social/inequality.htm). This scale assigns a value of 1 to the household head, 0.5 to each additional adult member and 0.3 to each child.

20. In the current pension asset test, the tax rate is very high, as it is effectively \$78 for every \$1000 (Ingles & Stewart 2017).
21. It need not necessarily be a strict demogrant, if the AWT is levied by source withholding against the BI.
22. See http://csrmm.cass.anu.edu.au/sites/default/files/docs/CSRM_Research_Note_Basic_Income_final.pdf.
23. Current rates do reflect some assumed housing costs, so any new increment must take this into account. Current allowance rates are generally seen as too low, particularly for singles.
24. For a contrary view on wealth inequality, see Sheil and Stilwell (2016) and Swan et al. (2016). There is evidence (e.g. from ABS income surveys) that the Gini coefficient of inequality of net household equivalised incomes is rising in Australia, albeit slowly.
25. However, Whiteford (2015) shows that tax transfer systems around the world are generally equalising and do reduce poverty; there are difficulties with static analysis because we do not know what the counterfactual would look like if the tax-transfer system did not exist.
26. On the effect on child care, see Ingles and Plunkett (2016) and Stewart (2018).
27. 'Recently, the fairness versus cheating axis has become particularly prevalent, i.e. reciprocal altruism. This expresses a notion of procedural justice – playing by the rules in law and spirit. This has led to a system of complex incentives, conditions and sanctions. It is very difficult for those who need support ... to understand the signals of such a system ... Essentially, the system has faced a legitimacy crisis of declining public support – and in many respects still does so. This has led to series of incremental reforms under the banner of 'conditionality'. Over time conditionality meant welfare institutions developing an elaborate set of rules applied in an often arbitrary manner.' (Painter & Thoun 2015:15–16)
28. In the US in 1993 a total 194 bn hours of labour were performed. By 2013, despite a 42 percent increase in labour and an increase of 40 million in the workforce, the number of hours of labour was still 194 bn hours. We are not seeing mass unemployment. Rather we may be seeing mass underemployment.' (Painter & Thoun 2015:10–11). However, these authors also cite studies sceptical of the technological unemployment suggestion.
29. 'MINCOME, a Canadian Guaranteed Annual Income (GAI) field experiment ran in the province of Manitoba between 1974 and 1979, and ended with no final report and no analysis of data from the saturation site. This essay uses a quasi-experimental design and routinely collected health administration data to revisit outcomes for the saturation site. We found a significant reduction in hospitalization, especially for admissions related to mental health and to accidents and injuries, relative to the matched comparison group. Physician contacts for mental health diagnoses fell relative to the comparison group. A greater proportion of high school students continued on to grade 12. We found no increase in fertility, no increase in family dissolution rates and no improvement in birth outcomes. Our results document the value of health administration data for historical analysis, and demonstrate that a relatively modest GAI can improve population health suggesting the possibility of health system savings.' (Forget 2011, abstract)

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