

WELFARE WORKING GROUP - OPTIONS FOR REFORM

A Guaranteed Minimum Income for New Zealand

A Preliminary Assessment of the Tax and Equity
Implications



October 2010

EXECUTIVE SUMMARY

Treasury has responded to a modelling request from the Welfare Working Group to model a specific Guaranteed Minimum Income (GMI) scheme for New Zealand. This report provides a preliminary assessment of the tax and equity implications of introducing that particular scheme and is not an analysis of any other forms of GMI. The model assessed assumes a *universal and unconditional payment of \$300 per week* to all individuals aged 16 years and over, and an extra payment to those families with children. The proposed scheme *replaces all forms of income support* – including second and third tier assistance – and would be *administered through the tax system*. The results provide a guide to understanding the fiscal and distributive impact of a GMI Scheme. We discuss in the paper dynamic effects that were not modelled but suggest the long term impact would be more poverty than suggested by the model.

An income of \$300 per week is just over the average (mean) benefit income – therefore a plausible minimum income. However, paying a guaranteed income of \$300 per week to every New Zealander aged 16 years and over, excluding superannuitants, comes at considerable fiscal cost. The fiscal cost of the GMI proposed in the first model (Model 1) is **\$44.5 billion** (including the cost of all social transfers – in particular, New Zealand Superannuation payments, would cost \$55.5 billion), requiring a flat personal tax rate of approximately **45.4%**. Note that this tax rate and the others considered below are cost-neutral – not fiscally neutral – as personal taxes currently raise approximately \$6 billion in excess of current social assistance costs.

However, a consequence of Model 1 is that the higher personal taxes rates lower post-tax New Zealand Superannuation payments by approximately 44% on average. Therefore, a second model (Model 2) was developed that removed New Zealand Superannuation and extended the GMI payment to superannuitants. As expected, the fiscal cost of the GMI increased to **\$52.6 billion** (\$55.6 billion including all social transfers) requiring a higher flat personal tax rate of **48.6%**. However, it did improve the outcomes for superannuitants, evident by declining poverty levels.

In the first two models, Working for Families was retained as it is outside of the remit of the Welfare Working Group. However, a variant of Model 2 (Model 2A) was proposed to show a complete spectrum of options. Model 2A removes Working for Families, replacing it with a payment of \$86 per child per week. This increases the fiscal cost to **\$57.1 billion** and the personal tax rate to **50%**.

Although the Gini coefficient improves under all models, many beneficiaries (including the disabled, carers and sole parents) currently receive more than \$300 per week and would be made financially worse off under a GMI scheme. Therefore the GMIs considered could distribute money away from those most in need of government assistance and toward those who have choices and opportunities but choose not to work.

The impacts on efficiency and economic growth are broad ranging. While there are opposing incentives on the labour market, overall labour supply is likely to fall due to an increase in effective marginal tax rates for the vast majority of workers; leading to decreased incentives to enter into the labour market or to increase labour market participation, and increased incentives for skilled workers to emigrate. There are mixed effects on both labour market flexibility, and education and training incentives. Combining these labour market effects with a significant increase in non-productive government expenditure suggests negative consequences for economic growth.

High personal tax rates also have damaging effects on the integrity and coherence of the tax system. The widening of the gap between company and personal taxes would create incentives for people to restructure their affairs to avoid the high tax rate on personal income. The large difference between the company and personal rates also makes the tax system less coherent. Although a GMI might be

simple and easy to administer, the degree of non-alignment between these rates could necessitate increased integrity measures, increasing enforcement and compliance costs.

The GMI scheme proposed by the Welfare Working Group is a significant policy change with large economic consequences. The scheme is fiscally very costly and would not necessarily achieve its main goal of reducing poverty. The high personal tax rates required to fund the scheme are highly distortionary to the labour market and to savings and investment decisions, and would be likely to induce a significant behavioural response. This has damaging effects on the tax system and economic growth.

1. INTRODUCTION

The Welfare Working Group has requested Treasury to model a specific Guaranteed Minimum Income (GMI) scheme for New Zealand. This report provides a preliminary assessment of the tax and equity implications of that particular scheme; it is not a broader assessment of GMI schemes in general. While this assessment discusses specific implications of the proposal for New Zealand's tax system, this report should not be considered Treasury's advice on the tax system. Note that the results provide a guide to understanding the fiscal and distributive impacts of a GMI scheme. Below we discuss the dynamic effects that were not modelled but suggest the long term impact would be more poverty than suggested by the model. Therefore, the results presented below should be treated with caution.

This assessment assumes that the scheme:

- is a universal and unconditional payment of \$300 per week to all individuals aged 16 years and over, extra to those families with children (models 1 and 2 have variations for superannuitants);
- replaces all forms of income support, including second and third tier assistance¹; and
- is administrated through the tax system.

There are also three variations on the model discussed below:

- Model 1 is a GMI with the status quo setting for New Zealand Superannuation retained. Under this model, the cost-neutral flat tax rate (the tax rate at which the social assistance payments are fully funded by personal tax revenue) is 45.4%. The fiscally neutral flat tax rate (the rate at which government revenue is increased by the same amount as the increased expenditure) is 50.6%. Superannuitants would be taxed at the 45.5% flat rate, lowering their post-tax New Zealand Superannuation payment by approximately 44% on average.²
- Model 2 is a GMI without NZ Superannuation. Under this model, the cost-neutral flat tax rate would be 48.6% (54.3% is required for the model to be fiscally neutral).
- Model 2A is the same as Model 2 except Working for Families is replaced with a payment of \$86 per child per week.³ Under this scenario, the cost-neutral flat tax rate would be 50% (with 55.7% required for fiscal neutrality).

The required tax rates and fiscal costs of the three models are summarised in Table 1 below:

Table 1: Fiscal Cost and Tax Rates of the Models

Fiscal Cost (\$m)	Model 1	Model 2	Model 2A
GMI Cost	\$44,463	\$52,638	\$52,638
Total Social Transfers	\$55,537	\$55,458	\$57,054
Personal Tax Rates Required			
Cost-neutral Tax Rate	45.4%	48.6%	50%
Fiscally-neutral Tax Rate	50.6%	54.3%	55.7%

The GMI models discussed below are considered in isolation; it may be possible to fund part of the GMI by increasing other taxes, by base broadening, or by reducing government expenditure; or to lower the cost of the GMI by lowering or narrowing the payments. These changes would allow a lower flat rate of personal tax. This lower rate, combined with any changes to other taxes,

¹ This includes student allowances.

² Under Model 1 superannuitants at an aggregate level lose \$3,650.3m (\$8,246.3m down to \$4,596m), or an average loss of \$6,636.91 per person (assuming 550,000 superannuitants). This is a 44.27% reduction relative to the status quo.

³ This means that the payment of \$86 per child per week is received by those families who did not previously receive any benefit from Working for Families.

government expenditure, or the GMI payment would have different efficiency and equity impacts from those discussed below.

A GMI scheme has a number of policy implications. These will be discussed in the following sections: Section 2 discusses equity and fairness; Section 3 covers the efficiency and growth implications including the labour market effects; Section 4 discusses the fiscal cost; Section 5 the integrity and coherence of the tax system; Section 7 covers administration and compliance; Section 7 presents some international examples of GMI schemes; and Section 8 concludes.

2. EQUITY AND FAIRNESS

The universal, unconditional nature of GMI means it is generally an equitable policy in a redistributive sense. The broad nature of the GMI also means every person is covered and none are allowed to slip through the social safety net. The Gini coefficients confirm this as all variations of the model show a more even distribution of income, on average, across society as illustrated in Table 2 below:

Table 2: Equity measures of the models relative to the status quo

Equality measures (post-tax income)	Status quo	Model 1	Model 2	Model 2A
Gini coefficient	0.355	0.349	0.294	0.292
80 / 20 Ratio	3.010	3.491	2.622	2.646

Figure 1: Income Distribution of GMI Models 1 and 2A

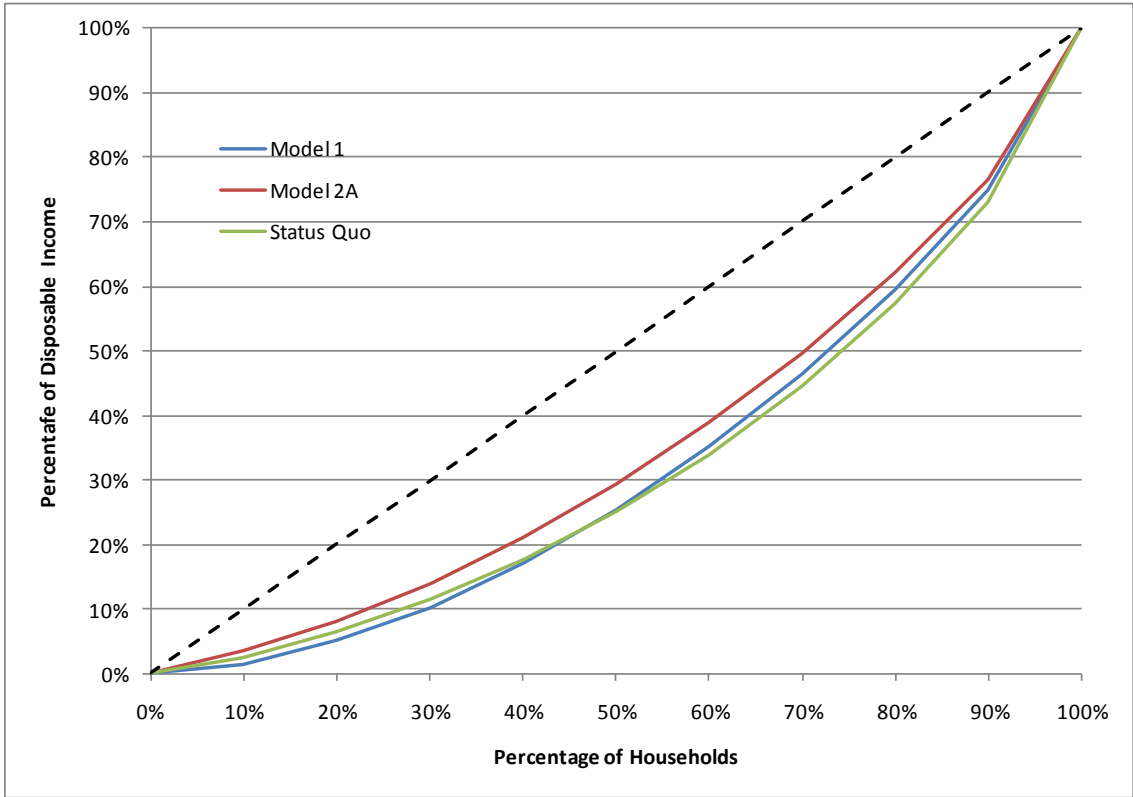


Figure 1 above shows the projected cumulative income distribution under the GMI scheme in comparison to the status quo (Model 2 produces a distribution almost identical to that of Model 2A). Model 1 reduces the share of total disposable income held by low-income households, likely due to

the impact on superannuitants, but improves the share of middle-income households. Models 2 and 2A improve equality at all points of the distribution.

However, Table 3 below shows that the relative poverty levels have both increasing and decreasing measures:

Table 3: Relative poverty levels

Poverty Measures % of relative reference line*	Status quo	Model 1	Model 2/2A
50% relative	13.4%	22.2%	14.1%
60% relative	23.7%	27.7%	22.7%
70% relative	32.1%	32.3%	29.0%

* Measurement is the percentage of households below the poverty line. The reference line is the median household disposable income (equivalised) of \$36,009.

Even at an income level of \$300 per week, Model 1 shows increasing poverty across the range (mainly due to higher tax rates on superannuitants) and Model 2 only shows small improvements in the 60 and 70 percent relative measures. As evident from Model 1, the current social assistance system appears skewed toward superannuitants.

All models (but particularly 1 and 2) may have horizontal equity problems as they pay single-parent families at lower rates than two-parent families. Although we have not estimated the impact of this on child poverty, previous analysis of another GMI proposal by the Tax Working Group would suggest that it is likely to increase as a result.

Figure 2: Change in Disposable Income – Model 1

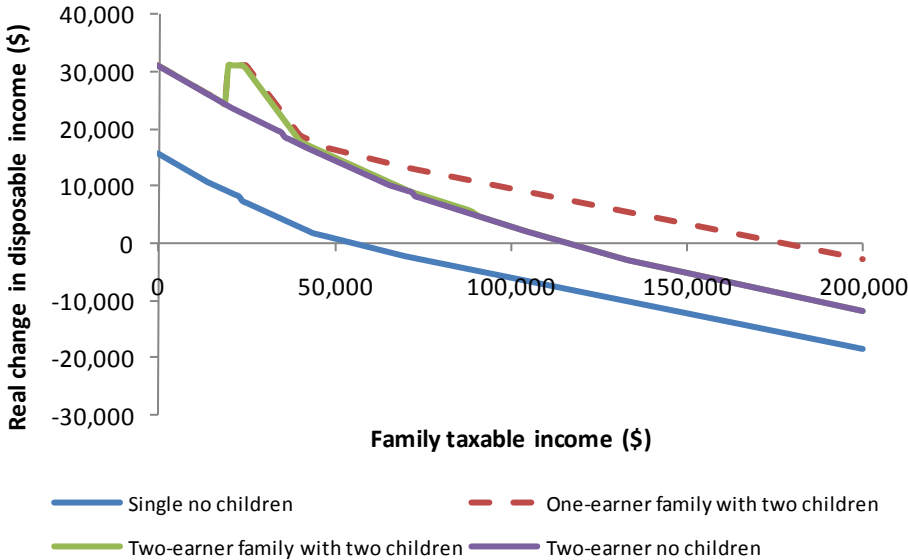
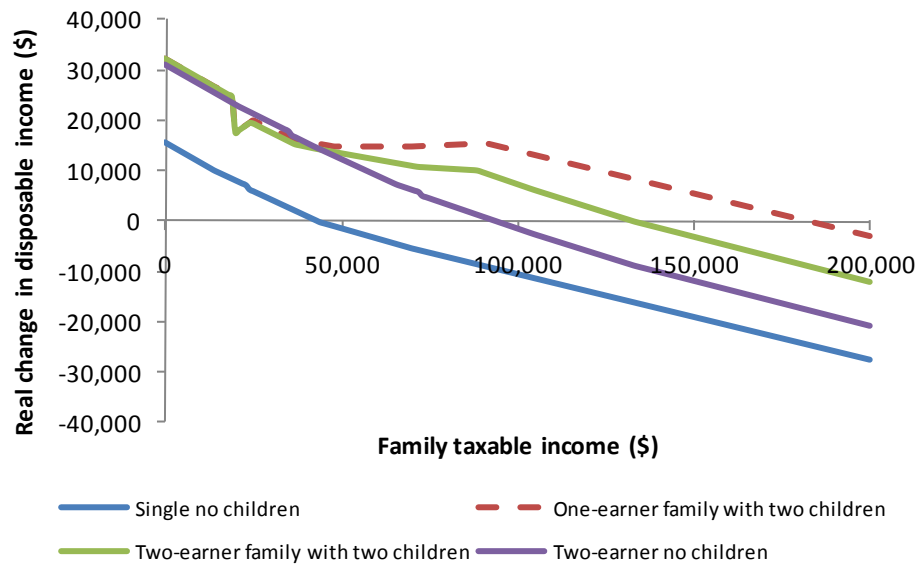


Figure 3: Change in Disposable Income – Model 2A



Figures 2 and 3 above show the change in disposable income for different household types and income levels under models 1 and 2A (Model 2 would be much the same as Model 1, with slightly reduced gains due to the higher flat tax rate). It should be noted that this analysis includes Working for Families, but does not account for other benefits received under the status quo. That is, if people do receive a benefit under the status quo, their net gain will not be as large as depicted here. This will have implications on those at the lower end of the income scale.

In both cases, the primary losers would be single-person households without children earning over (roughly) \$50,000. Two-earner households with children start to become worse off from income levels of \$117,000 and \$134,000 for models 1 and 2A respectively. Single-income (but two-parent) families are less disadvantaged by this than dual-income families. Therefore the cross-over point for single income families is higher – \$178,000 and \$183,000 for models 1 and 2A respectively.

The sharp increase in income for families with children earning between \$20,000 and \$40,000 under Model 1 (illustrated in Figure 2 above) is due to the Minimum Family Tax Credit (MFTC). The MFTC is configured to guarantee a minimum level of after-tax earnings once the work test is met⁴. Because higher tax rates cause after-tax earnings to fall, a greater ‘top-up’ is required to reach this minimum after-tax level. As two-earner households without children do not receive compensation for higher tax rates, families on the MFTC will receive a greater real change in their disposable income. In addition, a wider income range now qualifies for the MFTC.

Many beneficiaries, including second and third tier assistance, receive an income in excess of \$300 per week. These include carers, sole parents and the disabled. Despite the removal of abatement rates, many of these beneficiaries are unable to undertake part-time work. Thus, a GMI would distribute money away from people with the most need for government assistance, towards those who have plenty of opportunities but in some cases choose not to work.⁵⁶ Superannuitants would

⁴ The work test requires a couple to work 30 hours and a single parent to work 20 hours.

⁵ In the academic literature this question is discussed as whether people in work should be subsidising people to surf. For further discussion see Parjis (1991).

⁶ These problems could be addressed by leaving in place the second and third tier assistance regimes or increasing payments to these beneficiaries, but this defeats the purpose of a universal unconditional GMI.

also receive less – and if the GMI payments were indexed to inflation rather than wage growth, would also be likely to receive increasingly lower payments in out-years than current projections.

3. EFFICIENCY AND GROWTH

A GMI scheme employs a broad base tax strategy but would significantly increase the tax rate on the personal income tax base. This has consequences for efficiency and economic growth as discussed below.

Labour Market Incentives

There are two opposing incentives on the labour market. The removal of the abatement regime for beneficiaries would, in isolation, reduce the disincentive for beneficiaries to undertake part-time work thereby potentially boosting labour market supply. On the other hand some lower income earners would choose not to work or reduce their hours at a benefit rate of \$300 per week, and higher tax rates on individual earnings would cause many skilled/higher income earners to reduce their hours or migrate to countries with lower tax rates.⁷ Increasing global competition for labour has meant that the responsiveness of these tax bases has become more ‘elastic’. There is also an international downward trend in personal income taxes exacerbating these problems.

There are some studies to back up the above effects.⁸ In the UK, single earning males, particularly those with low or medium levels of education, are sensitive to the level of taxation and welfare benefits. The hours of work and labour force participation among single parents with young children is also sensitive to the level of taxation and welfare benefits. However, benefit levels have little or no effect on higher skilled individuals. Instead, higher tax rates are much more likely to discourage effort, implying important efficiency effects for taxation.

There have also been particular experiments with GMI schemes in Canada and the US to show the effects on incentives to work.⁹ Although those participating in experiments knew that their benefits were not permanent and consequently were unlikely to change their behaviour, total hours worked fell by about 5% on average. Second earners had the greatest reduction with the main earner having the least. Also the higher the benefit level, the higher the negative effect on work hours.

Relative to the current unemployment benefit, the GMI has ambiguous effects on labour market flexibility. At a level of \$300 per week, a GMI would allow more time for individuals to find suitable jobs, and will further encourage those forms of work that do not receive income but which are essential to a healthy society (e.g. child care or at home/community work). However, the income effect associated with the higher out of work income associated with the GMI could discourage people from taking entry level jobs. As entry level jobs are often precursors to better jobs – the first step on the labour market ladder – this could have negative implications for labour market dynamics that would worsen over time.

The GMI could give employees a degree of additional bargaining power, giving them the option of leaving a job with unsatisfactory working conditions¹⁰. The higher safety net also encourages greater risk-taking and entrepreneurial activity as people will have time to set up small businesses to create employment. However, we do not consider that this would offset the negative impacts of the GMI on the labour market discussed above.

⁷ Clark and Kavanagh (1996)

⁸ Meghir and Phillips (2008)

⁹ Forget (1998)

¹⁰ Rankin (1991)

The GMI has mixed effects on education and training incentives. On one hand the GMI reduces the opportunity cost of full time education, so encouraging it. However, other effects oppose this – the income effects of a GMI (of getting \$300 a week even if you are unskilled) and substitution effects of higher in-work EMTRs will both increase and decrease current disincentives on education and training. The net effect is theoretically indeterminate but it appears likely that the net effect would be to weaken education and training incentives.

New Zealand has one the most internationally mobile labour forces in the OECD. The effect on migration incentives is similar to those on education. Incentives on the unskilled to migrate would reduce, due to increased incomes in NZ, while the higher skilled would face stronger incentives to emigrate, due to the increase in the gap in take-home real incomes between NZ and comparator counties, particularly Australia. The effects on education and training, and migration, are separate but cumulative. One likely result is increased numbers of higher-skilled migrating from New Zealand.

The above discussion focuses on the incentives on workers. However, the labour market consists of those demanding labour, as well as those who supply it. A GMI would likely increase the tax wedge between those who supply and demand labour, reducing equilibrium employment. This is either because some workers exit the market (where workers bear the incidence of the tax, or where the income effect of the GMI causes them to reduce their labour supply) or because employers reduce their labour demands (where employers bear the incidence). In reality, at the macroeconomic level, a combination of these two effects will occur.

Effective Marginal Tax Rates (EMTRs) are also affected by a GMI scheme. High EMTRs discourage labour supply and skill acquisition, as well as encouraging tax planning and avoidance. Therefore, the significant increase in EMTRs at most income levels under the GMI is likely to negatively affect decisions about whether and how much to participate in the labour force. Further, a flat tax rate at the levels discussed above would mean that it is likely that New Zealand employees will pay more tax at all wage levels than in Australia.

Figures 4 and 5 below show EMTRs for a single earner with no children and a one-earner family with children (two, in this case), under both the existing personal tax regime and with a flat tax in place.

Figure 4: Effective Marginal Tax Rates – Model 1

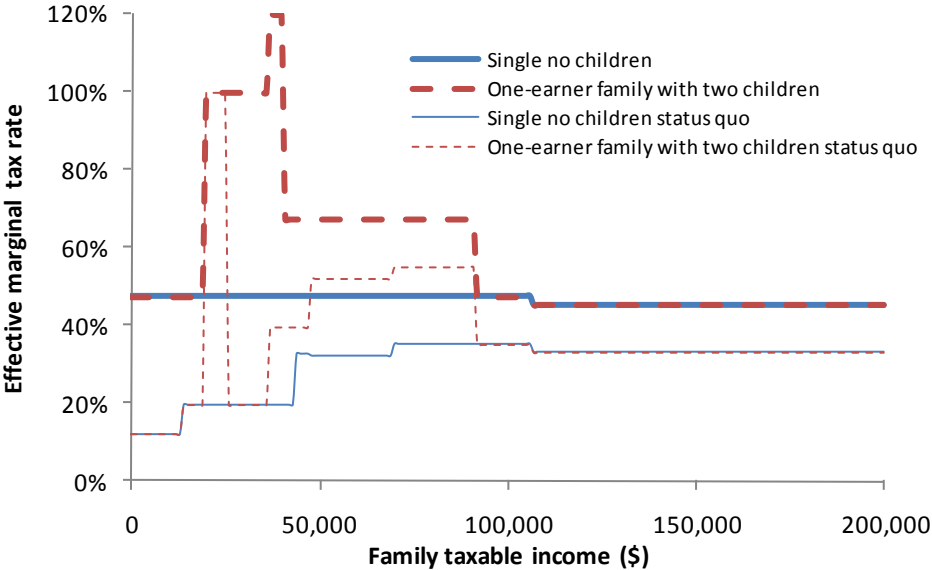
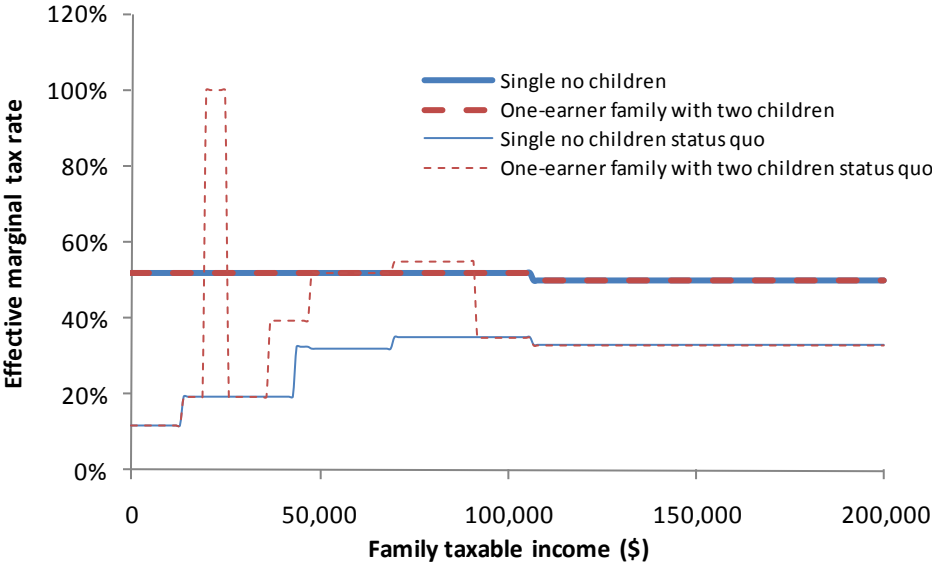


Figure 5: Effective Marginal Tax Rates – Model 2A



These EMTRs apply to earned/taxable income; under a GMI each adult is granted \$15,600 p.a. tax-free on top of this. Under Model 1 (i.e. retaining Working for Families) the EMTRs for those with children are very high – 67.4% for those with a family income of \$41,000-\$91,000 (due to the abatement of Working for Families credits at 20c per dollar earned). Model 2 would be very similar, with a slightly higher EMTR at most levels due to the assumption of a higher flat tax rate. Under both Model 1 and 2, due to the retention of the current structure of the Minimum Family Tax Credit, a wider range of income levels face EMTRs of 100%, and some even reach 120% due to the abatement of the MFTC at \$1 for every \$1 earned plus the abatement of other Working for Families credits at 20c). Under Model 2A, the removal of Working for Families means that all workers would face EMTRs equal to the flat tax rate. Relative to the status quo, all models increase the EMTRs faced by taxpayers at almost all income levels.

Economic Growth

Endogenous growth models that examine the effects of fiscal policy on growth, and the empirical studies which test their predictions, typically split fiscal policy into four categories: productive expenditure; non-productive expenditure; distortionary taxes; and non-distortionary taxes. The introduction of a GMI scheme as described equates to an increase in non-productive expenditure of the order of 20 percentage points of GDP, funded by a similar increase in distortionary taxes.

Such a change in fiscal policy could have significant consequences for economic growth. Estimates from Gemmill et al (2010), which studied the effects of fiscal policy among OECD countries, show that growth in GDP could be reduced by around 2.8 percentage points per year.¹¹ Given New Zealand has had few periods in recent history of sustained growth of that magnitude this is significant. Of course the literature does provide a range of estimates and it is not clear that this relationship would hold for such a large change in fiscal policy. However, it suggests that there would likely be significant growth consequences from the introduction of GMI.

¹¹ Results based on R6 from Table 1 in Gemmill et al (2010). The study also produces lower estimates, for example from E5 of Table 5. These would put the reduction in GDP growth at 1.9 percentage points per year

This fall in economic growth could in turn have consequences for employment. Employment elasticities (a measure of relationship between employment and economic growth) have been widely discussed in the academic literature. Seyfried (2005) has surveyed the literature and finds positive elasticities for: a range of OECD countries (0.5 – 0.6); the United States and Canada (0.5); the EU (0.65); and a study covering 7 OECD countries and the EU (ranged from 0.24 for Austria to 0.76 for Spain). However, not all studies were positive. One study showed negative elasticities for Italy and Sweden over a five year period (1990-1995), and others showed mixed results with elasticities close to zero in a number of countries.

While the labour market effects discussed above are likely to dominate any changes in employment, the flow on effects from lower growth could be significant. An elasticity of 0.5 (an approximate average given the studies above) implies that a 1 percentage point fall in the growth rate would decrease employment growth by 0.5 percent. Applying this estimate of 0.5 to New Zealand data would mean that approximately 10,800 jobs would not be created in a given year. If the fiscal policy impact on growth described above is large enough, this could mean a fall in the level of employment. Therefore, a policy aiming to reduce poverty could actually increase poverty by reducing available work and decreasing incomes.

The form of taxation used to fund GMI schemes is also important for growth. OECD studies show that income taxes (including personal and corporate income taxes), are among the most damaging for economic growth. Significantly increasing the tax levied on the personal income tax base has negative implications for savings, investment and productivity.¹²

An increase in personal tax rates to these levels would also significantly increase tax paid by domestic investors (although non-resident investors would not be affected). This would increase the cost of domestically sourced equity finance. Due to the compounding nature of interest taxation, tax rates at these levels would increase the effective consumption tax rates on long-held savings from 61% over a 60 year period (with the current top personal tax rate of 33%) to 97% (with the lowest proposed flat tax rate of 45.4%). Both would reduce savings incentives.

4. FISCAL COST

A summary of the fiscal cost of the three models and the tax rates required to fund them is summarised in Table 4 below:

Table 4: Fiscal Cost and Tax Rates of the Models

Fiscal Cost (\$m)	Status quo	Model 1	Model 2	Model 2A
GMI Cost	-	\$44,463	\$52,638	\$52,638
Total Social Transfers	\$17,984	\$55,537	\$55,458	\$57,054
Tax Payable before flat tax	\$24,472	\$23,801	\$22,581	\$22,581
Tax Payable after flat tax	-	\$53,843	\$55,444	\$57,042
Tax Rates Required				
Cost-neutral Tax Rate	-	45.4%	48.6%	50%
Fiscally-neutral Tax Rate	-	50.6%	54.3%	55.7%

Table 4 highlights the significant fiscal cost of a GMI scheme and also its opportunity cost. There are other ways that the revenue raised could be used (for example, on expenditure on health, education, or other government expenditure) and the relative merits of a GMI should be weighed against the other possible use of this revenue.

¹² Johansson (2008)

Table 4 also presents two different tax rates. We were asked to model a GMI with a cost-neutral tax rate, i.e. the tax rate that would cover the cost of all social transfers. However, these tax rates derived for the models would not be fiscally neutral. This is because personal tax rates currently raise approximately \$6.5 billion in excess of current social assistance costs; whereas the personal tax rates derived in the models raise only enough revenue to fund the total social transfers. This \$6.5 billion shortfall would need to be redressed through either a higher personal tax rate (at rates noted in the bottom line of Table 4); a significant increase in the company tax rate (approximately doubling the current rate); an increase in GST (in the order of 7.5 percentage points); a land tax (at approximately 2%); reductions in government expenditure; or a combination of these.

The integrity issues mentioned below would be likely to lead to behavioural responses which would reduce revenue collected. This impact could be significant.

In out-years, the cost could increase as the impact of fiscal drag on revenue projections would be removed from forecasts. However, this will depend on whether, and if so, how, the payment rate would be indexed: most current benefits, with the partial exception of New Zealand Superannuation, are indexed to CPI. Indexing to wage growth would be more costly in out-years than indexation to CPI.

5. INTEGRITY AND COHERENCE

Integrity

The universal nature of the GMI payments would reduce integrity pressures on the current social assistance structure. However, the high rate of personal tax, particularly when combined with the high EMTRs for many tax payers, would create incentives for individuals to structure their affairs in such a way as to pay a lower rate of tax (for example, the 28% company tax rate). Although some integrity measures may be possible, with a margin of around 20% between the company and personal rates, there would be serious integrity concerns with this rate of tax which impact negatively on tax revenue collected.¹³ This problem would be exacerbated if the trust tax rate was not aligned with the flat tax rate.

Coherence

The tax system proposed would be internally coherent as it taxes all forms of taxable income at the same rate. However, the degree of nonalignment between the personal rate and the corporate tax rate would cause the tax system to become less coherent. The trust rate would need to be aligned with the personal rate to avoid serious integrity problems. Similarly, the PIE regime would need to be reconsidered: at present it allows those on lower personal income tax rates to be taxed at their marginal rate, and caps the tax rate for those in higher tax brackets at a maximum rate of 28%. The flat tax rate would mean that the PIE regime would essentially become a concessionary tax scheme for particular savings types.

6. ADMINISTRATION AND COMPLIANCE

A GMI scheme would be administratively efficient as it lowers the administrative, management and operating costs of the current social assistance and tax systems. The scheme is also simple to understand and the cost is transparent to taxpayers.

¹³ Rankin (1991) proposed a GMI scheme with company tax rates set at 45%, just below a flat personal rate of 48%. His scheme had a universal payment of \$115 per week or approximately \$170 in today's dollars.

However, the change will have transitional administration and compliance costs and the scheme could increase the costs of enforcement; in particular in relation to integrity measures needed to protect the difference between the personal and company rates, and in relation to audit activity. Enhanced integrity measures could also increase compliance costs for taxpayers.

7. INTERNATIONAL EXAMPLES

There are many different policies that achieve the goal of reducing poverty through a guaranteed income and terminology varies widely between countries: guaranteed income, basic income, basic income guarantee, minimum income, citizens income, state bonus, national dividend, social dividend, negative income tax to name only a few. Some reflect different policies but most mean the same thing. Below are some examples of where regions have experimented with, or seriously considered, GMI policies.

North America

North America contains the best example of a working GMI in the Alaskan permanent fund¹⁴. The fund sets aside a certain share of oil revenues to continue benefiting current and all future generations of Alaskans. The state pays a dividend to all its citizens based on the performance of the fund, although this is not considered enough to live on. Annual payments range from about \$1000 to \$3500 USD.

A Canadian trial in the early 1990s highlighted the apparent cost of the scheme.¹⁵ Total costs of a Canadian GMI were \$146 billion, requiring \$93 billion (approximately 13% of GDP) to be collected through increasing taxes. The scheme provided benefits to more people than the existing system of social support and was therefore expensive. For example, to pay a benefit rate of \$20,000 to a family of four, a flat tax rate of 50 percent would be required.

Europe

Estimates have been run for Belgium of what a GMI could cost assuming an expenditure of about 25 percent of GDP. With a benefit rate of 10,000 francs per person per month (which is less than the minimum benefits paid to spouses and single persons) there would have to be a 15 point increase in the rate of tax on primary household income. If benefits were doubled, it would mean a rate of taxation in the region of 70 percent.¹⁶

The UK estimated tax rates of 40% on low earned incomes¹⁷, 45% on average earnings and 60% on earnings four times the average, to pay an allowance at the current level of UK benefits.¹⁸

Africa

In 2008, a Namibian pilot project by a coalition of aid organizations showed that a GMI scheme could be successful at reducing poverty.¹⁹ The Pilot project implemented a basic income scheme, funded through tax revenues, of 100 Namibia dollars per month, or about \$13 USD for each citizen.²⁰ It is an unconditional payment and nothing is received in return. For example, women with 7 children will receive 800 Namibian dollars per month, and this is considered a moderate income.

¹⁴ For further information see <https://www.pfd.state.ak.us/>

¹⁵ Government of Canada (1994)

¹⁶ Euzeby (1987)

¹⁷ Note that this is twice current levels and would include losing the tax-free zone.

¹⁸ Euzeby (1987)

¹⁹ For more information on the Pilot project see <http://www.bignam.org/page5.html>.

²⁰ Namibia is a country where more than two-thirds of the population live on less than \$1 a day.

The pilot took place in Otjivero, a small village of 1,000 people where unemployment is over 70 percent and 42 percent of children are malnourished. The village has a cross section of society with people at the bottom and people at the top. The results of the two year trial are encouraging. Many villagers became entrepreneurs investing their money in business enterprise. They sold various goods ranging from chickens and bread, to clothing and shoes. Child malnutrition dropped to 10 percent and the proportion of children attending school rose to 92 percent. Economic activity in the village has reportedly grown by 10 percent, more people are paying tuition and doctors' fees, health is improving and the crime rate is down.

A scheme for all Namibians is reportedly feasible at a cost of only 3 percent of GDP, or €155m. This could be funded by increasing the value-added tax or income tax by only a few percent. Based on this example, the benefits of a relatively small guaranteed income could outweigh the costs. However, there was no assessment of the counterfactual in this pilot. Although a GMI scheme was the chosen form of social assistance, other social assistance policies could well be as effective and the results should be treated with caution.

8. CONCLUSION

This report has assessed the tax and equity implications of a New Zealand-specific GMI scheme. The specific costs and benefits of the three GMI models were assessed in this report relative to the status quo. A summary of this analysis is contained in Table 5 below:

Table 5: Summary of the Cost and Benefits of a GMI scheme relative to the status quo

Benefits	Costs
<ul style="list-style-type: none"> • More equal distribution of income • Removes disincentive for beneficiaries to undertake part-time work • Poverty is reduced but only at the 60 and 70 percent relative levels (2, 2A) • May improve labour market outcomes in some areas: more employee flexibility; encourages unpaid work; additional employee bargaining power; encourages entrepreneurial activity; and reduces the opportunity cost of full time training or education. • Lowers administrative, management and operating costs 	<ul style="list-style-type: none"> • Poverty is either increased across all relative levels as Superannuitants have their payment decreased by 44% on average (1), or is increased when measured at the 50 percent relative level (2, 2A). • Horizontal equity problems due to differential treatment of one and two parent families • Many current beneficiaries (e.g. sole parents, the disabled and carers) will be financially worse off under the scheme • Reduces the supply of labour: decreases hours worked; increases migration of skilled workers; discourages people from taking entry level jobs; discourages further education and training; and the EMTRs for families with children are very high discouraging further work, MFTC (1, 2). • High personal income taxes have negative implications for saving, investment and productivity • Lowers economic growth (estimated at 2.8 percentage points per year) • Non-alignment causes integrity and coherence issues for the tax system

* Note that the benefits and costs apply to all models unless otherwise stated by the model number in brackets.

This assessment included equity, efficiency and economic growth considerations, and the various implications for our tax system. While the models showed, on average, improvements in income equality, and in some cases reduced poverty, this comes at considerable fiscal cost. The inevitable funding of the GMI scheme through high personal taxes rates has significant effects on: labour market incentives; economic growth; savings and investment; our administrative systems; and the integrity and coherence of our tax system.

From the international examples it is apparent that the more equal a society is in the beginning, the lower the returns to a GMI scheme. That is, a New Zealand specific GMI would either be at a level of income too low to reduce poverty, or a level of income that is high enough to reduce poverty but is therefore expensive and hence distortionary through higher tax rates.

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