Potential Economic Impacts and Reach of Basic Income Programs in Canada

Research Report
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CANADIAN CENTRE FOR ECONOMIC ANALYSIS

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INTRODUCTION

Basic income has been explored in numerous government reports and studies for over a half-century in Canada. Canada already has a modest basic income program in place for people with children: the Canada Child Benefit. In 2020, the idea of a universal income guarantee has been thrust into the spotlight by the COVID-19 pandemic and the programs that have been created to provide economic relief to Canadians.

OBJECTIVES OF THE ANALYSIS

The objectives of this study are to understand the benefits to families receiving payments under different basic income programs, as well as the potential economic impacts of the programs and how these are shaped by the way in which a program is funded. This work is meant to support policy discussions around basic income in Canada, rather than advocate for a particular position or make the case for basic income on macroeconomic grounds. Whether or not a basic income program is the best method for achieving any particular societal goal—such as poverty reduction, job creation, or economic growth—is beyond the scope of this report.

This study focuses only on the economic impacts of certain basic income programs in Canada and is designed to provide a general understanding of the potential economic impacts of the basic income programs considered here.

ECONOMIC BENEFITS AND IMPACTS OF BASIC INCOME PROGRAMS

BASIC INCOME PROGRAMS

Two proposed basic income programs are considered: (1) the GMI program, modeled after the Ontario Basic Income Pilot but with higher benefit amounts, which guarantees a minimum annual income of $24,000 for individuals and $34,700 for couples; and (2) the Dividend-plus-GMI program, as proposed by UBI Works under the name “Recovery UBI,” which guarantees a minimum annual income of $24,000 for individuals and $36,000 for couples, and includes a $6,000 annual universal dividend paid to all adults. Both programs claw back payments (excluding the dividend) at a rate of $0.50 for every $1 of employment income and at a rate of $1 for every $1 of government transfers received, for certain transfers; the programs differ in terms of which government transfers are subject to this claw back rate.

ECONOMIC BENEFITS

The payments made by the two basic income programs would largely benefit families in lower income brackets. The two tables below show the key benefits for families resulting from the basic income programs after one year.

GMI Program Key Economic Benefits

	Metric	Summary of the Benefits
Families Benefitting	3.2 million	Families lifted above the poverty line.
	129,000	Lone-parent families lifted above the poverty line, leaving none remaining below the poverty line.
	306%	Increase in income, on average, for the 2.3 million families in lowest income bracket. The 1.7 million families in the second-lowest bracket see a 114% increase and the 3.3 million families in the third-lowest bracket see a 21% increase, on average.

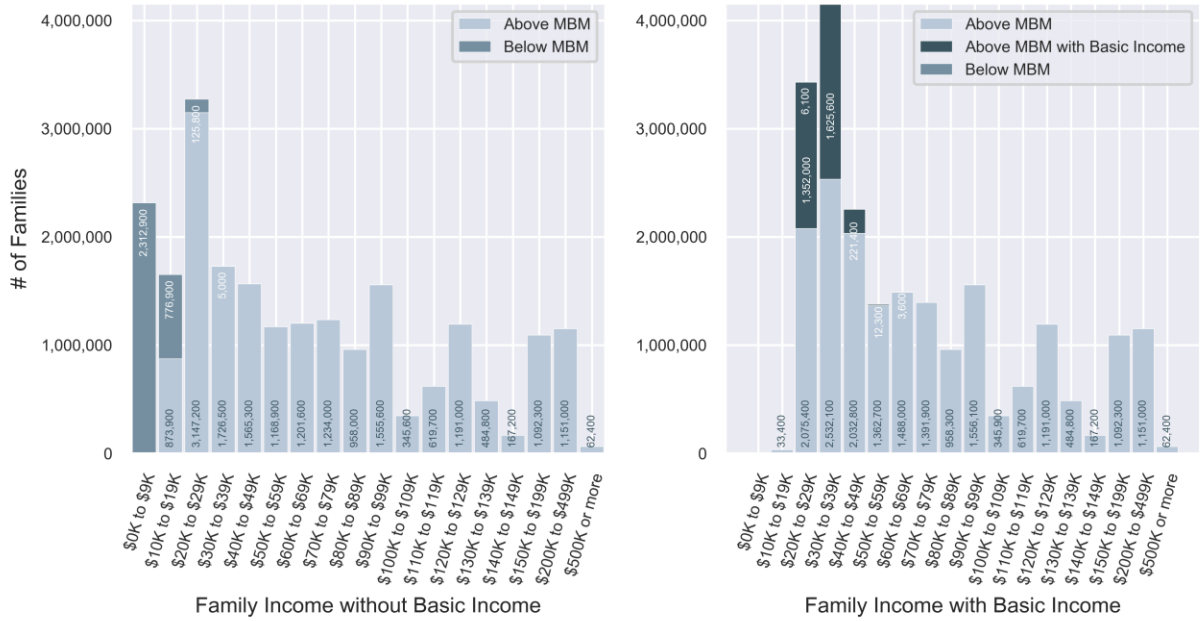
Dividend-plus-GMI Program Key Economic Benefits

	Metric	Summary of the Benefits
Families Benefitting	3.2 million	Families lifted above the poverty line, including around 6,000 families left below the poverty line by the GMI program.
	129,000	Lone-parent families lifted above the poverty line, leaving none remaining below the poverty line.
	236%	Increase in income, on average, for the 2.3 million families in lowest income bracket. The 1.7 million families in the second-lowest bracket see a 105% increase and the 3.3 million families in the third-lowest bracket see a 34% increase, on average.

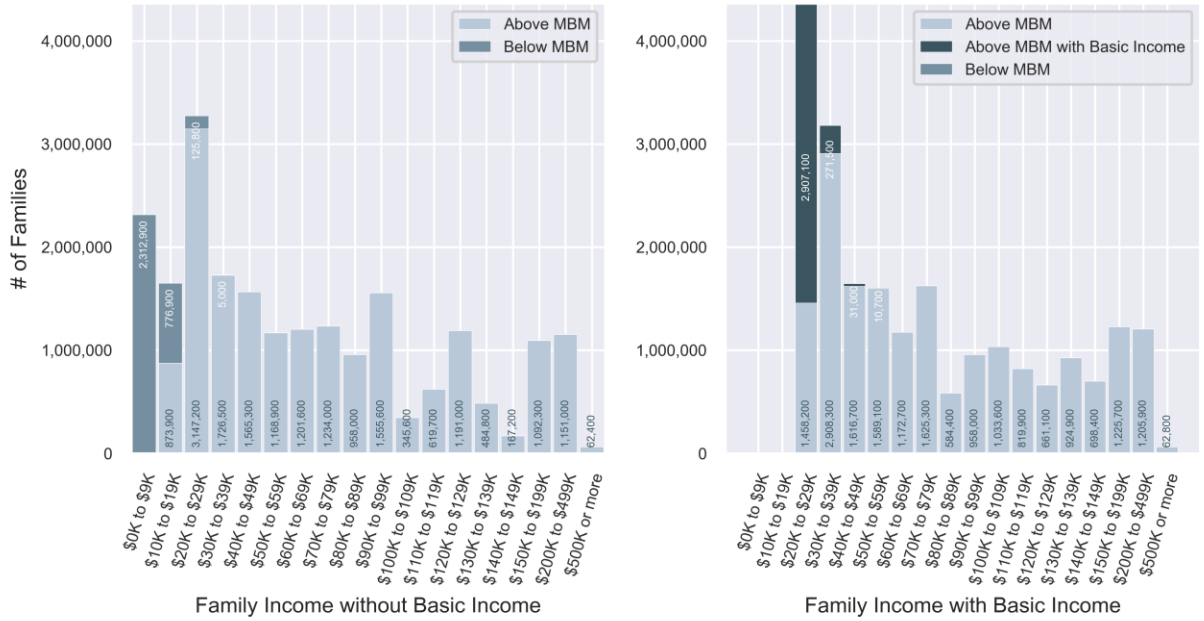
The universal dividend component of the Dividend-plus-GMI program results in the 3.3 million families with incomes between $20,000 and $30,000 seeing a larger average increase in income than on the GMI program.

The figures below show how the distribution of families by income shifts after one year under each program.

Distribution of Families by Income Currently (left) and with the GMI Program (right)



Distribution of Families by Income Currently (left) and with the Dividend-plus-GMI Program (right)



The two basic income programs differ when it comes to which government transfers result in basic income payments being clawed back. These differences explain the divergent rates at which the programs increase the incomes of families in the lowest income brackets and also the fact that the GMI program

moves some families from below the poverty line into higher income brackets than the Dividend-plus-GMI program does. Because the Dividend-plus-GMI program includes a universal dividend, some families who are above the poverty line are shifted into higher income brackets with the program.

ECONOMIC IMPACTS AND HOW FUNDING INFLUENCES OUTCOMES

The potential economic impacts of a basic income program depend on how the program is funded. Increasing the incomes of millions of families will certainly have broad economic effects resulting from increased spending; however, relying on households, businesses, and government debt to varying degrees in order to fund a basic income program leads to different outcomes when it comes to GDP, job creation, and other metrics.

The tables below highlight the potential short-term and long-term economic impacts of the two basic income programs when funded entirely by households, with no initial government debt.

GMI Program Key Economic Impacts – No Initial Debt Funding

	Metric	Summary of the Impacts
GDP	1.6%	Additional real GDP above baseline projections, after 5 years. Economic activity steadily increases compared to baseline and is at an additional 2.8% after 25 years.
	$178 billion	Additional cumulative GDP after 5 years, and $1.5T additional cumulative GDP after 25 years.
Jobs and Income	298,000	Additional jobs above baseline, after 5 years. After 25 years, the program could result in 660,000 jobs above baseline projections.
	52%	Share of families that are net beneficiaries of the program in the first year.
Government Revenue	$46 billion	Cumulative additional tax revenues, after 5 years. After 25 years, there could be $389B in cumulative additional revenues resulting from the additional economic activity generated by the program.

Dividend-plus-GMI Program Key Economic Impacts– No Initial Debt Funding

	Metric	Summary of the Impacts
GDP	1.8%	Additional real GDP above baseline projections, after 5 years. Economic activity steadily increases compared to baseline and is at an additional 4% after 25 years.
	$199 billion	Additional cumulative GDP after 5 years, and $2T additional cumulative GDP after 25 years.
Jobs and Income	346,000	Additional jobs above baseline, after 5 years. After 25 years, the program could result in 916,000 jobs above baseline projections.
	61%	Share of families that are net beneficiaries of the program in the first year.
Government Revenue	$52 billion	Cumulative additional tax revenues, after 5 years. After 25 years, there could be $514B in cumulative additional revenues resulting from the additional economic activity generated by the program.

The two tables below highlight the potential short-term and long-term economic impacts of the two basic income programs when initially 50% funded by government debt at a rate decreasing to zero over the course of 10 years, with the remaining costs entirely covered by households.

GMI Program Key Economic Impacts – 50% Initial Debt Funding

	Metric	Summary of the Impacts
GDP	2.4%	Additional real GDP above baseline projections, after 5 years. Economic activity remains above baseline over time and is at an additional 2.2% after 25 years.
	$309 billion	Additional cumulative GDP after 5 years, and $1.5T additional cumulative GDP after 25 years.
Jobs and Income	450,000	Additional jobs above baseline, after 5 years. After 25 years, the program could result in 538,000 jobs above baseline projections.
	54%	Share of families that are net beneficiaries of the program in the first year.
Government Revenue	$80 billion	Cumulative additional tax revenues, after 5 years. After 25 years, there could be $388B in cumulative additional revenues resulting from the additional economic activity generated by the program.

Dividend-plus-GMI Program Key Economic Impacts– 50% Initial Debt Funding

	Metric	Summary of the Impacts
GDP	3.2%	Additional real GDP above baseline projections, after 5 years. Economic activity remains above baseline over time and is at an additional 2.6% after 25 years.
	$419 billion	Additional cumulative GDP after 5 years, and $1.8T additional cumulative GDP after 25 years.
Jobs and Income	593,000	Additional jobs above baseline, after 5 years. After 25 years, the program could result in 627,000 jobs above baseline projections.
	77%	Share of families that are net beneficiaries of the program in the first year.
Government Revenue	$109 billion	Cumulative additional tax revenues, after 5 years. After 25 years, there could be $475B in cumulative additional revenues resulting from the additional economic activity generated by the program.

The GMI program would see the federal government disburse $122 billion to families in the first year, while the Dividend-plus-GMI program would see $235 billion in payments made to families in the first year. In general, the disbursements of both programs increase over time as population increases; however, as time goes on disbursements fall as a percentage of GDP for both basic income programs.

A key difference between the programs is that with the Dividend-plus-GMI program, the net beneficiaries extend farther into middle incomes due to the dividend paid to all adults. For example, when the Dividend-plus-GMI program is initially 50% debt funded, families earning up to $110,000 are almost always net beneficiaries—the exception being that families earning between $80,000 and $90,000 see an average decrease of 0.5% in disposable income in this scenario.

The potential additional GDP contributed by a basic income program in a given year compared to the cost of the program that year could be understood as demonstrating the return on investment for the program. With the GMI program, this GDP-to-cost ratio could reach 1 after 18 years with no debt funding, after which point the additional GDP contributed by the program in a given year exceeds the program's annual cost. In our analysis, the additional GDP contributed by the Dividend-plus-GMI program reaches 85% of program costs after 25 years and is trending upwards at that stage, toward 100%, when funded entirely by households, with no initial government debt.

Additional taxation revenue generated by the extra economic activity can help offset the cost of a basic income program. After five years, such additional revenue reaches up to $18 billion annually under the GMI program and $23 billion annually under the Dividend-plus-GMI program.

The analysis of the two basic income programs under different funding scenarios indicates that:

- Scenarios with little or no debt funding provide more sustainable long-term outcomes with increasing economic growth. While initial debt funding could result in more short-term economic growth and job creation, in the long run the carrying cost of debt can result in less positive outcomes in these funding scenarios.
- Larger debt amounts or longer borrowing periods can prevent the ability of government to reach a point where the cumulative taxation revenues driven by additional economic activity could equal additional debt used to fund the basic income program and associated carrying costs.
- Funding options that rely too much on businesses could hamper economic growth.
- The Dividend-plus-GMI program could make larger economic contributions than the GMI program; however, its larger size and scope means that in funding scenarios that produce less economic growth, the program's economic contributions could lag behind those made by the GMI program.
- These general conclusions are robust to varying assumptions regarding potential price and wage effects resulting from the increase in aggregate demand, although the absolute size of economic impacts varies depending on such effects.
- Funding scenarios that involve a lower proportion of government debt and rely primarily on high income families to fund a basic income program could also help reduce economic inequality more effectively than other funding options.

EXAMPLE: ADDITIONAL ECONOMIC IMPACTS AND SUSTAINABLE FUNDING

Determining whether a basic income program can be self-sustaining or has a potential payback period for government requires first deciding on specific criteria to satisfy. For example, the preference for different debt levels over different time periods might vary across stakeholders in the system, in accordance with their motivations to maximize and minimize the timing of different economic outcomes or reduce the additional revenues that initially need to be raised to fund a program. Once criteria are determined with respect to the outcomes that should be met when implementing a program, the question becomes an optimization problem that can be examined under simulation. We conducted a simulation to determine a funding scenario for each program that met the following criteria:

1. That the net present value of the cumulative taxation revenues resulting from additional economic activity driven by the basic income program equals the net present value of additional government debt used to fund the program and associated carrying costs, within 25 years (i.e. has a payback period for government of 25 years or less);
2. Minimizes aggregate new tax increases, under the condition that lower income and middle class families are net beneficiaries of the program or net neutral;
3. Economic outcomes are at least equal to or greater than what is expected without the program;
4. Is the lowest government debt solution under the above criteria.

The motivation for these criteria was to determine whether an initial period of debt funding could be used to minimize the cost of basic income programs to households while maintaining positive benefits to families and the economy.

The simulation confirmed that a scenario exists which meets these criteria. The GMI program satisfies the above criteria when it is initially 57% debt funded at a rate decreasing over the course of 21 years, with households covering 98% of remaining program costs and businesses covering the remaining 2%. In this scenario, the program could result in 2.3% additional GDP above baseline in year five and 1.5% additional GDP in year 25, as well as 436,000 additional jobs above baseline in year five and 344,000 additional jobs in year 25.

The Dividend-plus-GMI program satisfies the criteria when it is initially 48% debt funded at a rate decreasing over the course of 12 years, with households covering 100% of remaining program costs. In this scenario, the Dividend-plus-GMI program could result in 2.6% additional GDP above baseline in year five and 2.1% additional GDP in year 25, as well as 498,000 additional jobs above baseline in year five and 463,000 additional jobs in year 25.

CONCLUSIONS

Basic income is garnering attention in Canada in the midst of the COVID-19 pandemic. This report seeks to add to the conversation by examining the reach and potential economic impacts of two basic income programs, under a variety of different funding options.

Both the GMI program and the Dividend-plus-GMI program could lift more than 3.2 million families out of poverty, while also resulting in economic growth. Our analysis demonstrates that relying too much on government debt or on businesses to fund a basic income program could diminish the economic impacts of the program in the long run. However, when a program is funded largely or entirely by households, a basic income program could support positive, long-term economic returns. As a demonstration we also show that each basic income program can be funded such that it has a payback period for government, results in increased economic activity compared to baseline projections, and leaves lower income and middle class families without a net decrease in disposable income.

1.0 INTRODUCTION

1.1 BACKGROUND

In response to the COVID-19 pandemic, the Government of Canada provided economic relief in the form of payments resembling a basic income program. Individuals who had lost work due to COVID-19 were eligible for financial support of $2,000 every four weeks through the Canada Emergency Response Benefit (CERB). The program ran for approximately six months, during which time it provided more than $81 billion in support to nearly nine million Canadians (Government of Canada, 2020).[1] In addition to helping people afford basic necessities despite their employment being impacted by the pandemic, CERB also provided economic stimulus at a time when millions suddenly found themselves without a paycheque.

While CERB has ignited broad public interest in universal basic income (UBI), basic income programs are far from new to Canadians. Canada already has a modest basic income program in place for people with children: the Canada Child Benefit. In 2017-18, the Child Benefit provided $24 billion in support to 3.7 million families, helping to lift 277,000 families out of poverty while contributing around $50 billion to GDP and $15 billion in government revenues (CANCEA, 2019). Meanwhile, a more widespread basic income has been explored in numerous government reports and studies.

A half-century ago, when one in four Canadians were living in poverty, the Department of National Health and Welfare noted the potential of a basic income to combat poverty (Government of Canada, 1970). The following year, the Senate Committee on Poverty released a report calling for a guaranteed annual income administered by the federal government that would provide cash payments to support a basic standard of living for all Canadians (Government of Canada, 1971).

Manitoba's basic income experiment followed soon after, funded jointly by the provincial and federal governments. As with similar trials in the United States around the same time, the Manitoba experiment set out to examine the effects of a basic income on low-income families, focusing largely on the labour supply response of recipients.

More recently, the Ontario Basic Income Pilot proposed to examine not only the labour impacts of a basic income program, but also a variety of social, health, and educational outcomes. Seen by some as a pilot for a more extensive program, the project was cancelled prematurely by the newly elected Progressive Conservative government in 2018.[2]

UBI has been supported on a variety of different grounds. Historically, proponents argued that because society's wealth is collectively produced—arising not only from the collective efforts of people today but

[1] Initially, Canadian residents who had stopped working due to COVID-19 and had earned at least $5,000 the previous year were eligible for CERB. Eligibility was expanded to include workers who had been negatively impacted by COVID-19 and continued to earn less than $1,000 in a given four-week period. The government rolled out an expanded Employment Insurance program after CERB was ended in October 2020, maintaining the link between the supports and prior employment.

[2] For a more extensive review of basic income in the Canadian context see discussions in Young & Mulvale (2009) and Lammam & MacIntyre (2015).

from past generations—everyone deserves a fair share of this wealth (Standing, 2017). Others emphasize how a UBI would provide individuals with genuine freedom, allowing them to further their education or pursue types of work that are vital to our society but may not offer enough by way of financial compensation, like artistic and care work. As many countries developed social welfare programs, basic income came to be viewed as a means to combat poverty, while also reducing the costs associated with poverty (Forget, 2011). Recently, UBI has been pitched as a way to address growing economic inequality (UN News, 2020) and has been proposed by the tech industry as a way to alleviate the economic insecurity brought by technological advances while supporting entrepreneurship and demand for products (Sadowski, 2016).[3]

Critics of basic income typically object to the cost of such programs and claim that a basic income program would negatively impact labour force participation (Mintz, 2020). However, major basic income experiments like Manitoba's show no statistically significant employment effects (Hum & Simpson, 1993) and comprehensive reviews of basic income studies find no meaningful impact on participation in paid work (Gilbert, Murphy, Stepka, Barrett, & Worku, 2018; Bastagli, 2019). When income supports have resulted in some individuals working less, this was often to pursue educational opportunities or care for young children. Meanwhile, the financial cost of poverty in Canada is often overlooked when considering the cost of basic income programs.

Over the past few years, we've seen renewed interest in basic income in Canada. Leadership candidates for major political parties at the provincial and federal levels have made basic income central to their candidacy. In 2018, the Parliamentary Budget Officer (PBO) costed a national basic income based on the Ontario pilot (Parliamentary Budget Officer, 2018)–an analysis that was updated in recent months (Parliamentary Budget Officer, 2020). And a majority of Canadians are now in favour of a basic income (Angus Reid Institute, 2020).

The national conversation about how to navigate and recover from the COVID-19 pandemic has increased the focus upon a universal income guarantee. The pandemic has revealed many of the inequities within Canadian society and created the need for significant economic supports, while simultaneously creating the need for economic stimulus—making this an appropriate time to examine the potential benefits and economic impacts of a basic income program.

1.2 BASIC INCOME

1.2.1 OVERVIEW

A basic income program can come in two main forms, or a combination thereof. One type of program involves uniform payments made to all residents, sometimes called a "demogrant" or "dividend." This type of program is typically proposed by advocates who view basic income as a way to ensure everyone

[3] It is important to note that these alleged benefits would be threatened if a basic income were accompanied by cuts to certain other forms of social spending and reduced investment in social services. Similarly, without action on housing affordability and low wages, a basic income risks being a subsidy for landlords and large corporations.

gets a fair share of society's collectively-produced wealth.[4] The other type of program takes the form of a negative income tax (NIT), where only those whose incomes fall below a certain threshold receive payments. A NIT is therefore a means-tested program where income is the means used.[5] The Manitoba experiment and Ontario pilot both implemented a NIT.

Means-tested programs have certain risks and benefits. For one, they risk creating unemployment traps if not adequately designed. Sometimes called "welfare traps" or "poverty traps," these occur when programs are structured such that recipients are actually financially better off not working at all than working a certain number of hours and having their benefits aggressively clawed back. The 1971 report by the Senate Committee on Poverty recommended a NIT that ensured all those who worked would be better off than those that did not. Means-tested programs also have increased administrative costs, create stigma, and typically result in fewer people utilizing the program than are eligible (Canadian Centre for Policy Alternatives, 2020; Kidd & Athias, 2019; Stapleton, 2007). However, means-testing decreases the amount of money distributed by a basic income program.

Several other key characteristics shape a program and determine how it may be classified. For a program to be a genuine basic income program, the payments must be sufficient to at least provide for a person's basic needs and involve cash transfers rather than vouchers or other form of payment. A program is unconditional if there are no work or other requirements. Whether a basic income program is considered universal may be contentious: for some, only programs that involve payments to all residents (i.e. a dividend) are truly universal; however, for others a program may be viewed as universal if all adults are eligible for payments, thus guaranteeing a basic income for all. Programs without identical payments made to all residents may be called "guaranteed minimum income" (GMI) or "guaranteed annual income" programs, as they ensure that all residents receive a certain annual income. Finally, payments can be made to families or individuals, with the latter ensuring no one is financially dependent on a partner.[6]

1.2.2 EXISTING LITERATURE

A growing body of literature has emerged examining the findings from basic income experiments in Canada and around the world. While some of this research focuses on labour responses (Hum & Simpson, 1993; Gilbert, Murphy, Stepka, Barrett, & Worku, 2018), the impacts on health, food security, housing, and other contributors to well-being have also been examined (Standing, 2017). For example, Forget (2011) examined data from the town of Dauphin and found that basic income led to an 8.5% reduction in hospitalization rates and had positive impacts on mental health and high school completion during the Manitoba experiment. And Ferdosi, McDowell, Lewchuk, & Ross (2020) found that despite its short duration, the Ontario pilot saw improved outcomes with respect to employment, health, and well-being for participants. Still other work focuses on the lessons learned from experiments that can inform the

[4] Administrative and conceptual simplicity and avoiding the risks associated with means-testing are also common reasons given for this type of model.

[5] Other programs may use different means to test for eligibility.

[6] For a more detailed discussion of the different ways to structure a basic income program and the motivations behind different program structures, see Van Parijs (2004) and Van Parijs & Vanderborght (2017). For a discussion of some of the known impacts of certain design characteristics, see Banerjee, Niehaus, & Suri (2019).

design of future basic income experiments and programs (Simpson, Mason, & Godwin, 2017; Mendelson, 2019).

A variety of studies and reports have also examined the potential cost and proposed funding of different basic income programs in Canada, with some proposing models that balance costs and funding (Boadway, Cuff, & Koebel, 2016) and others looking at the economic impact on families of the benefits paid through such programs (Pasma & Regehr, 2019). Meanwhile, potential macroeconomic impacts of a basic income have been studied in the context of the United States (Nikiforos, Steinbaun, & Zezza, 2017) and Egypt (Helmy, Ghoneim, & Siddig, 2019). However, despite extensive discussion and debate about basic income in Canada, there is a lack of research regarding the potential economic impacts of a basic income program in Canada.[7]

1.3 Objectives of this Study

The objectives of this study are to analyze the reach and potential economic contributions of two proposed basic income programs in Canada, examining how different funding models impact key macroeconomic metrics. As noted above, the case for a basic income can be made in a variety of different ways. This report seeks to understand the benefits to families receiving payments under the two basic income programs as well as the potential economic impacts of the programs and how these are shaped by the way in which a program is funded. As such, it is meant to support policy discussions around basic income in Canada, not advocate for a particular position or make the case for basic income on macroeconomic grounds. Whether or not a basic income program is the best method for achieving any particular societal goal—such as poverty reduction, job creation, or economic growth—is beyond the scope of this report, as is the much more difficult question of how different goals ought to be ordered.

Section 2 outlines the basic income programs analyzed, the funding options considered, the different economic impacts examined, and the methodology used for our analysis. Section 3 presents the results of our analysis.

This study focuses only on the economic impacts of the proposed basic income programs in Canada. Other potential impacts of a basic income program—whether regarding physical and mental health, civic engagement, or other dimensions—are beyond the scope of this research.

[7] One exception is Clavet, Duclos, & Lacroix (2013), who examine potential impacts of certain guaranteed income programs in Quebec. However, the analysis does not consider a number of the metrics discussed below, nor does it examine the role that the funding of a program may have in shaping these impacts. Note, too, that the analysis assumes behavioral responses that are at odds with empirical findings in this area.

2.0 APPROACH

2.1 General Approach

Two basic income programs will be analyzed and compared along a variety of economic metrics. For each program, a wide range of funding models will be analyzed. The reach and economic contributions of the basic income programs will be studied using CANCEA's agent-based modelling platform.

2.2 GMI Basic Income Program

The first proposed basic income program is a NIT tax model that guarantees a minimum income. The guaranteed minimum income program, or GMI program, is inspired by the Ontario Basic Income Pilot, which is the model that has been costed by the PBO. However, whereas the Ontario pilot set its income guarantee at 75% of the low-income measure, the GMI program takes as its floor the standards of individual support established by CERB.

The GMI program is structured as follows:

- The program covers all Canadians between 18 and 64
- A GMI of $2,000 per month for individuals and nearly $2,900 per month for a two-adult nuclear family[8] (guaranteed income of $24,000 per year for individuals and $34,700 for couples), which is clawed back at a rate of 50% for employment income and 100% for EI and CPP[9]
    - For every $1 of employment income earned, this amount is reduced by $0.50
    - For every $1 of EI and CPP received, this amount is reduced by $1
    - This amount is not reduced in response to other government transfers like the GST credit
    - This design ensures that people are always better off financially when they receive employment income
- Disability payments are modelled in the same manner as in the PBO report, with payments replacing Ontario Works and Ontario Disability Support transfers, and estimates of similar programs in other provinces. The program provides a supplemental disability benefit of up to $500/month
- Payments are in cash
- Payments are to individuals[10]
- Payments are unconditional

[8] A nuclear family consists of one or two adults and any children under the age of 18. A household consists of one or more nuclear families.

[9] In 2020-21, 75% of the low-income measure would be $18,329/year for individuals and $25,921/year for couples. The GMI program maintains the same ratio between individuals and couples but increases the GMI to $24,000/year for individuals.

[10] Results, below, may nevertheless be presented in terms of effects on families.

2.3 Dividend-plus-GMI Basic Income Program

The second proposed basic income program is the Dividend-plus-GMI program, which includes a dividend portion and NIT component, as proposed by UBI Works under the name "Recovery UBI." This program is structured as follows:

- The program covers all Canadians aged 18 and over
- $500 per month paid to every Canadian adult ($6,000 per year universal dividend)
- An additional $1,500 per month to individuals and $1,000 per month per adult in a two-adult nuclear family that is clawed back at a rate of 50% for employment income and 100% for all provincial and federal government transfers (excluding the Canada Child Benefit)
    - For every $1 of employment income earned, this additional amount is reduced by $0.50
    - For every $1 of government transfers received, this additional amount is reduced by $1[11]
    - This design ensures that people are always better off financially when they receive employment income
- A total GMI of $2,000 per month for individuals and $1,500 per month per individual in a two-adult nuclear family (guaranteed income of $24,000 per year for individuals and $36,000 per year for couples)
- Payments are in cash
- Payments are to individuals
- Payments are unconditional

2.4 Funding Basic Incomes

Much of the discussion around basic income centres on the cost of a program and how that cost may be covered. While it is understood that any program's payments will come directly from government, the question is where those funds will come from (unless the program is simply funded through the reallocation of existing government spending). Our analysis assumes that no existing government programs are eliminated or adjusted beyond those specified in the GMI program. Thus, there are three general sources of funding for a basic income program: households, businesses, and government debt.

Drawing funds from each of these different sources can have varying effects. For example, interest must be paid on government debt and such payments must be included in annual budgets. Businesses, meanwhile, require funds to invest in capital. And households with different levels of income will utilize their incomes differently, with higher income households saving a greater percentage of income than others. As funds are drawn from these different sources in varying degrees, government, businesses, and households may react in different ways, which in turn will impact the economy as a whole.

How a basic income program is funded, then, is a variable that must be considered in the modelling of a dynamic system like our economy in order to determine the contributions of a basic income. While

[11] The dollar-for-dollar reduction could allow governments to adjust or phase out existing transfer programs without affecting the total income that families would receive.

distributing funds will impact the economy in many ways, how a program is paid for will significantly shape the economic impacts of a specific program, particularly given the size of basic income programs.

A wide range of funding options are analyzed, each involving different combinations of funding from the three possible sources. The funding options considered are dynamic in the sense that, for a given option, the amount of funding that comes from government debt will decrease over time. As the share of funding that comes from government debt decreases over time, different funding options will allocate that share of funding to households and businesses to different degrees. For example, consider the following funding option:

Figure 1 Sample funding option

	Govt. Debt Funding	Household Funding	Business Funding
Year 1	40%	48.0%	12.0%
Year 2	36%	51.2%	12.8%
Year 3	32%	54.4%	13.6%
…			
Year 10	4%	76.8%	19.2%
Year 11	0%	80%	20%

In this funding option, 40% of the program cost is initially covered by government debt. In any given year, 80% of the remaining program cost is covered by households and 20% of the remaining program cost is covered by businesses. In Year 1, households fund 48% of the program costs and businesses fund 12% of the costs. As the share of costs covered by government debt decreases over time, the amount it decreases by is allocated to households and businesses at a ratio of 80:20. For this funding option, debt funding is decreased over the course of 10 years, beyond which the program is no longer funded by any government debt. The amount of time that a given funding option has some debt funding is called the "ramp"—thus, the above program has a 10-year debt ramp.

Although the analysis considers the effects of drawing on the three funding sources in different combinations, it makes no assumptions about the precise mode of implementation for the different funding options. For example, if particular funding option sees 70% of the program costs coming from households in a particular year, no assumptions are made about the types of policies implemented to collect those funds, such as closing certain tax loopholes, introducing a wealth tax, or other options. However, in order to draw funds from households it is assumed that whatever policies may be implemented, the amount paid by households would be in proportion to their incomes received above the poverty line. In this manner, families below the poverty line would not be required to pay additional tax, while those in the highest income brackets would pay proportionally more, consistent with current

practice. The analysis thus examines the impacts of having households and businesses contribute different shares of a program's costs but does not propose ways to implement a given funding model.[12]

2.5 Economic Impacts and Benefits

A variety of economic impacts will be examined, some of which result from a basic income program independently of how the program is funded and some of which are funding-dependent. In the first category, we examine the impact of the two programs' benefits on family incomes and on the distribution of Canadian families by income bracket, focusing particular attention on the number of families above and below the poverty line. The initial total cost of a basic income program can also be determined independently of how the program is funded.

We also examine economic outcome metrics that vary significantly depending on the funding scenario considered and the economic impact of that funding model. Here, we analyze the impacts of the two basic income programs in terms of GDP, GDP-to-cost, debt-to-GDP, jobs created, government revenues, and business gross operating surplus. We also analyze the potential impacts of the basic income programs on economic inequality by assessing not only changes in income resulting from payments made through the program but also the incremental costs to different families under various funding scenarios.

2.6 Methodology

Measuring the economic impacts of a basic income program on the Canadian economy requires quantifying all economic activity generated by the additional expenditures due to the benefits paid through the program, as well as how these expenditures and the funding of the program ripple through the economy. This study uses CANCEA's agent-based modelling platform to simulate how agents within the Canadian economy respond to scenarios involving the different basic income programs and various funding options. The platform models over 38 million individuals, together with businesses and governments, to simulate the economic impacts of a basic income program resulting from three main types of economic effects:

- **Direct effects** are computed as the value of all economic activity that can be directly attributed to the expenditures generated by the payments included in a basic income program. This includes, for instance, the value of sales of the goods and services purchased by recipient families with income from the basic income.

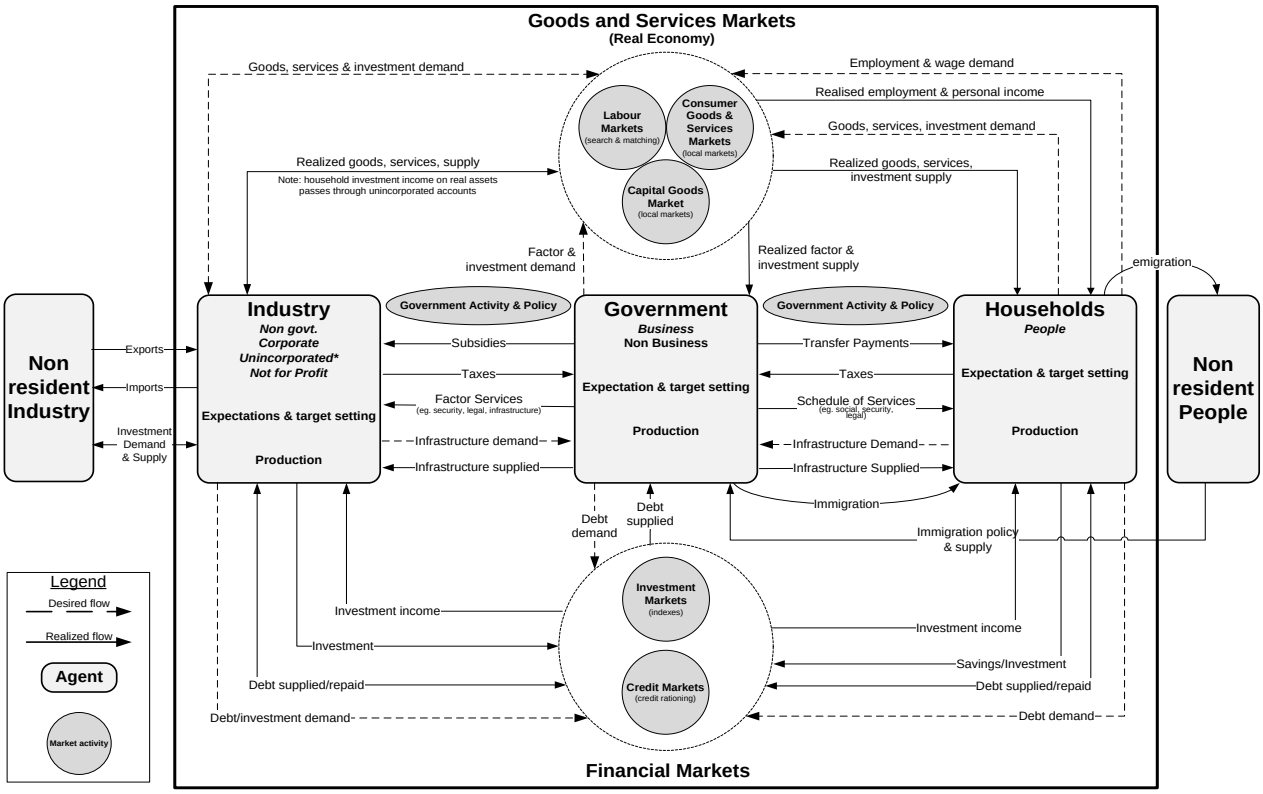
- **Indirect effects** are computed as the value of the economic activity that arises through business-to-business interactions within the supply chain. Indirect effects include, for example, additional wages paid to salespeople working in shops where recipient families spend their extra income and the inputs required to produce and supply the additional goods bought by recipient families with their additional income.

[12] See UBI Works (2020) for a detailed discussion of specific policies and reforms that could help fund a basic income program.

- **Induced effects** are computed as the economic activity generated through the spending of the wages earned by workers who supply the additional goods and services, as well as the inputs to the additional goods and services purchased by families. Induced effects also include expenditures on increased capacity or the replacement of depreciating capital stock that result from reinvesting business profits (Heintz, Polin, & Garrett-Peltier, 2009). These purchases or activities can lead to further hiring, resulting in income and tax revenues that reverberate throughout the economy.

The effects of a basic income program are modelled by applying transfers to and from households, businesses, and government according to the basic income eligibility criteria and funding options. Any transfers from households to fund a basic income are assumed to be in proportion to their incomes above the poverty line. The changes in disposable income for families and businesses propagate through the economy via the effects described above with the propensity of households to spend money dependent upon the family incomes. Figure 2 illustrates the structure of the economy modelled.

Figure 2 Illustration of the key sectors and relationships included in the model



Businesses, people, and households are modelled on the individual level with discrete agents representing each person, business, and government in the system. Relationships are based on geo-spatial historical data, down to the municipal level where available, with future industry trends assumed to follow recent history. Industries are modelled across 30 different sectors. The demographic assumptions surrounding immigration, births, and mortality align with Statistics Canada's moderate growth scenario.

All results are presented as relative to the status quo baseline of no basic income program, and any minor changes in baseline industry or demographic assumptions are unlikely to significantly affect the incremental outcomes.

Supply-side wage and price effects are included in the analysis in response to changes in aggregate demand. Since the response of producers and consumers to a given increase in demand are not definitively known, the impact of prices and wages are modelled as exogenous parameters upon which a sensitivity analysis is performed. Under the scenarios examined in the analysis, the maximum increase in the number of jobs above the baseline growth is about equal to the 2019 unemployment numbers and below the "high-employment" forecasts from Statistics Canada, and inflation rates remain small and within the Bank of Canada target range of 1% to 3%. Therefore, we expect the price and wage impacts to be on the lower end of the sensitivity analysis, and constant interest rates are assumed.

See http://www.cancea.ca/publications/ubi for detailed discussion of the methodology used in this study.[13]

[13] The platform has been subject to third-party validation, including by economists from the University of Toronto, McMaster University, and Queen's University.

3.0 RESULTS OF ANALYSIS

The results of the analysis are divided into three main sections. In Section 3.1 we look at the reach of the two basic income programs and how the payments of the two programs impact families, as well as the costs and the potential economic contributions of the programs. In Section 3.2 we present and discuss the results relating to the economic impacts of the two programs, examining how different funding options influence outcomes with respect to a range of macroeconomic metrics. In Section 3.3 we examine a funding scenario that minimizes the aggregate taxation revenue required to fund each program while ensuring that any government borrowing is recouped.

3.1 ECONOMIC BENEFITS

This section of the results examines national-level impacts of the GMI and Dividend-plus-GMI programs, before offering a breakdown of how the two programs may impact different regions and provinces. We begin by examining how the payments made by the two programs initially impact families. These benefits of the programs are entirely funding-independent. We then turn briefly to the potential economic benefits of the two programs with respect to jobs and for different industries. Next, we turn to government and examine the costs of the two programs as well as the potential benefits regarding government revenues. Finally, we show how the payments made by the programs impact families in different regions and provinces.

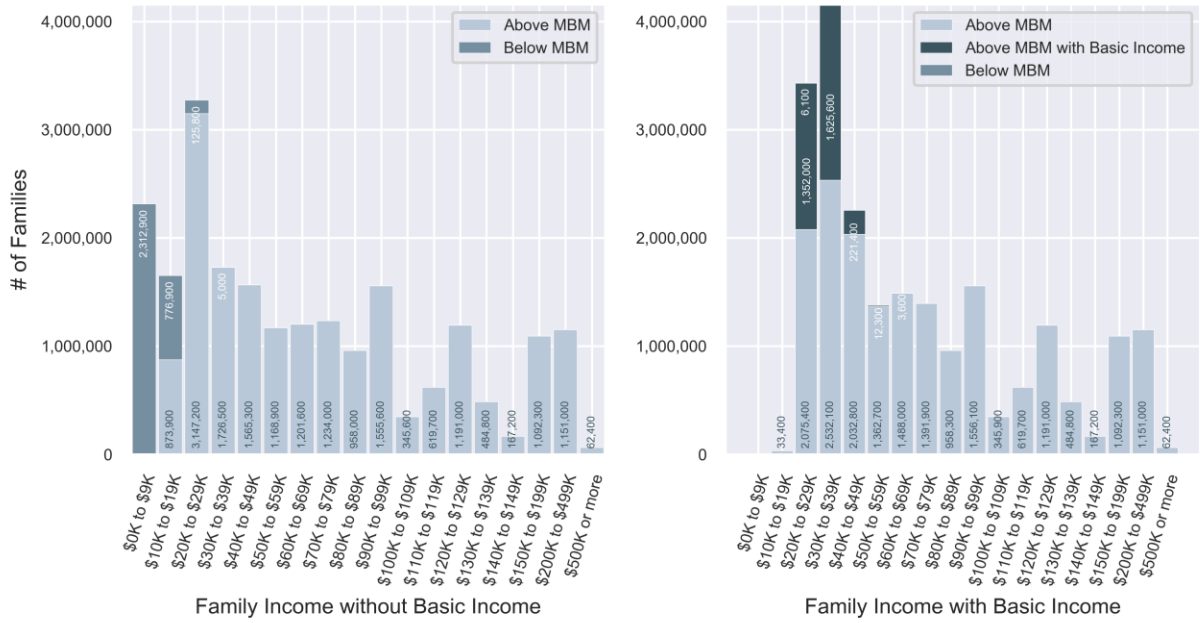
3.1.1 NATIONAL RESULTS

3.1.1.1 IMPACTS FOR FAMILIES

Both basic income programs analyzed would lift millions of families above the poverty line.[14] With the GMI program, more than 3.2 million families are moved above the poverty line. Figure 3 shows the current distribution of families in Canada by income bracket and the distribution that we would see after one year with the GMI program, highlighting families below the poverty line and the ones moved above the poverty line by the program. Families are divided into brackets increasing by $10,000 increments until family income reaches $150,000, followed by larger increases for the three highest income brackets. As the GMI program does not include a dividend, families above the minimum income floor do not receive payments under the program, thus no families above that income level are shifted into higher income brackets.

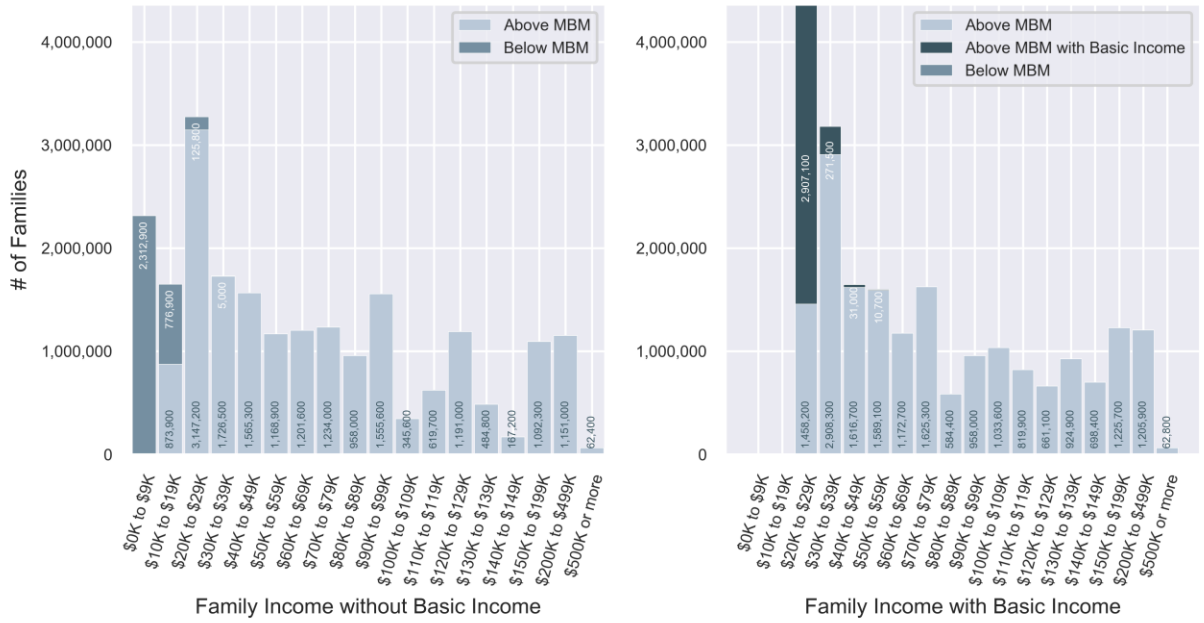
[14] As measured by the Market Basket Measure threshold, which is the official standard of living metric developed by Employment and Social Development Canada.

Figure 3 Distribution of families by income currently and with the GMI program



The Dividend-plus-GMI program would also move more than 3.2 million families above the poverty line. Because the program covers all adults, including those 65 and over, an additional 6,100 families are lifted above the poverty line than with the GMI program. Figure 4 shows the current distribution of families by income bracket and the distribution that we would see if the Dividend-plus-GMI program was implemented. As the program includes the dividend portion, some families who are above the poverty line are also shifted into higher income brackets.

Figure 4 Distribution of families by income currently and with the Dividend-plus-GMI program



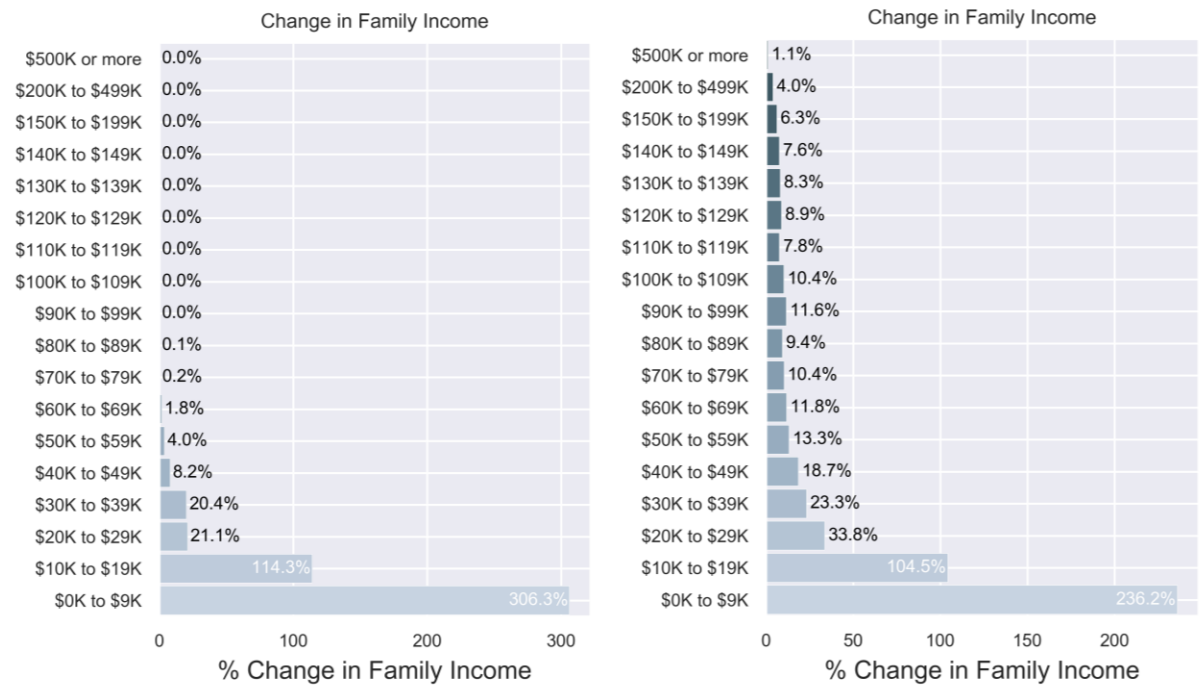
The difference in how the two programs' benefits impact families overall is perhaps most evident if we compare the relative changes in income for families in different income brackets. Figure 5 compares the change in family income with the GMI program (on the left) and the Dividend-plus-GMI program (on the right) resulting from payments made under the programs.

The GMI program would mean a 306% increase in income for the 2.3 million families currently in the lowest income bracket and a 114% increase in income for the 1.7 million families in the second-lowest bracket. Meanwhile, the 3.3 million families in the third-lowest bracket—the largest income bracket in the country by far in terms of number of families—would see a 21% increase in income. With the Dividend-plus-GMI program, the lowest and second-lowest brackets see their incomes increase by 236% and 105% respectively, while the 3.3 million families in the third-lowest bracket would see their incomes increase by 34%.[15]

Note that with the Dividend-plus-GMI program, families in middle income brackets don't benefit as much on average as those in some higher brackets because there are more lone-parent or single-person families in middle income brackets and such families only receive one monthly dividend, whereas two-adult families in higher income brackets would receive two monthly dividend payments.

[15] Note that the two programs impact families in the two lowest income brackets differently due to differences in which transfers are included when clawing back the basic income. If these differences between the programs were eliminated, then both programs would have similar impacts on the families in these two brackets.

Figure 5 Change in average income per income bracket with the GMI program (on left) and the Dividend-plus-GMI program (on right)



The result of the GMI and Dividend-plus-GMI programs would be to lift 1.5 million and 1.8 million families, respectively, from lower incomes into middle class incomes (based on total family income).[16]

Figure 6 and Figure 7 show how lone-parent families are impacted by the two basic income programs. Both programs succeed in lifting all lone-parent families currently below the poverty line, of which 85% are female-led, above the poverty line. The GMI program would see more lone-parent families moved into higher income brackets because fewer existing government transfers are clawed back by the program, as compared to the Dividend-plus-GMI program.

[16] In this analysis, middle class is defined as total family income between two-thirds and twice the median family incomes.

Figure 6 Distribution of lone-parent families by income currently and with the GMI program

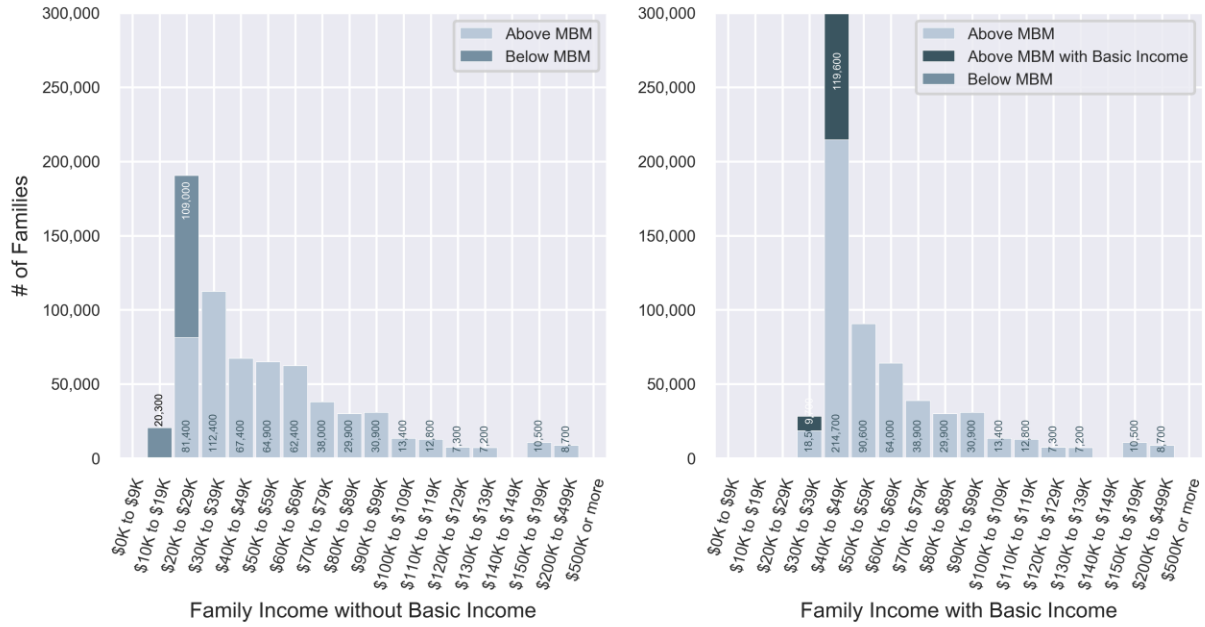
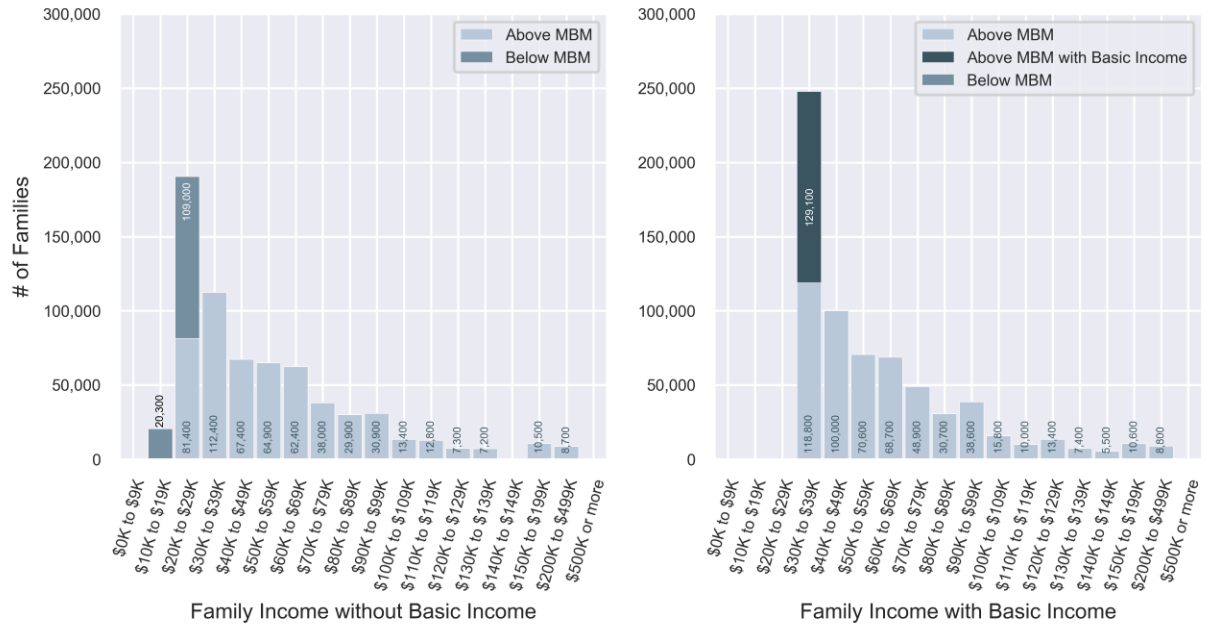


Figure 7 Distribution of lone-parent families by income currently and with the Dividend-plus-GMI program



The above-described impacts on family incomes resulting from the benefits paid by the two basic income programs analyzed are seen after the first year of a given program. The distribution of families as above or below the poverty line does not change significantly in subsequent years since the basic income programs prevent families from falling back below the poverty line.

While the way in which the distribution of families by income brackets shifts under the two programs gives us a general sense of how the programs will impact different families, we can gain a better understanding of how the two programs work and impact families by examining a handful of sample families. How a family will see their income change under a basic income program depends on a number of factors, including: the structure of the basic income program implemented; the number of adults and children in the family; the amount of employment or other income the family receives; and, the government transfers the family receives prior to receiving payments through the basic income program—including some transfers that will result in their payments being clawed back entirely and others, like the Canada Child Benefit, which will not impact basic payments on either program considered here.

Table 1 shows different sample families and how they benefit from the GMI program. The table shows the annual income from different sources and total pre-tax income for the following families: a single adult living on their own who is currently unemployed; a single adult who has some employment income; a lower income couple with two young children; a lone parent with one young child; and a middle income couple without children.

Table 1 Sample families' total incomes with the GMI Program

Family Description	Employment Income	GMI Payments	Canada Child Benefit (est.)	Total Income
Single adult	$0	$24,000	$0	$24,000
Single adult with part-time job	$18,000	$15,000	$0	$33,000
Couple with two young children	$32,000	$18,700	$12,400	$63,100
Lone parent with child	$45,000	$1,500	$4,800	$51,300
Couple without children	$85,000	$0	$0	$85,000

Since the program's payments are clawed back at a rate of $0.50 for every $1 of employment income, the single adult with a $1,500 in monthly employment income is financially better off than a single adult with less employment income, including someone currently unemployed. Individuals stop receiving payments under the GMI program once they reach $48,000 in annual employment income, if they have no other income (e.g. government transfers resulting in basic income payments being clawed back); adults in couples stop receiving payments when a couple's total annual employment income is $69,400 (if they have no other income that sees basic income payments clawed back).

Table 2 shows the same families under the Dividend-plus-GMI program, which includes the universal dividend.

Table 2 Sample families' total incomes with the Dividend-plus-GMI program

Family Description	Employment Income	Dividend	GMI Payments	Canada Child Benefit (est.)	Total Income
Single adult	$0	$6,000	$18,000	$0	$24,000
Single adult with part-time job	$18,000	$6,000	$9,000	$0	$33,000
Couple with two young children	$32,000	$12,000	$8,000	$12,400	$64,400
Lone parent with child	$45,000	$6,000	$0	$4,800	$55,800
Couple without children	$85,000	$12,000	$0	$0	$97,000

As a result of the different program structures, the two families with some employment income and with children have slightly larger total incomes with the Dividend-plus-GMI program. Since individuals and families receive the dividend portion regardless of their employment income, even individuals with incomes above $48,000 and couples with incomes above $69,400 receive dividend payments. A couple with total employment income near the median total income level for Canadian families also benefits from the basic income program because of the universal dividend paid to each adult.

The potential net impacts of the two basic income programs on families will be discussed in detail below. In general, with funding scenarios that have favourable macroeconomic outcomes, most families are net beneficiaries under both programs.

3.1.1.2 IMPACTS ON THE ECONOMY, INDUSTRIES AND EMPLOYMENT

Both basic income programs could have positive impacts on economic activity and jobs. These impacts, and how they vary depending on how a program is funded, are discussed in more detail in Section 3.2. Under certain funding scenarios, the economy could be 1.6% to 2.4% larger in real terms compared to baseline projections after five years with the GMI program. With the Dividend-plus-GMI program, the economy could be 1.8% to 3.2% larger after five years, under certain funding scenarios.

Businesses could see 1.5% to 2.3% additional gross operating surplus (GOS) after five years with the GMI program, under certain funding scenarios. GOS is the funds available for businesses to re-invest, pay taxes, and take profits. The Dividend-plus-GMI program could result in additional GOS of 1.8% to 3.1% after five years. Businesses that provide basic necessities such as food, shelter, and transportation could see the largest gains in GOS under a basic income program.

In scenarios which rely on 50% initial government debt to fund a program, the initial stimulus to the economy could result in 450,000 additional jobs after five years on the GMI program and 593,000 additional jobs after five years on the Dividend-plus-GMI program. Without any debt funding, the GMI program could result in an additional 298,000 jobs after five years, while the Dividend-plus-GMI program could result in 346,000 additional jobs in this time. Below, we examine how debt funding impacts outcomes with respect to jobs over the short and long term.

3.1.1.3 PROGRAM COSTS AND IMPACTS FOR GOVERNMENT

The costs of both basic income programs and the impacts the programs have on government under different funding scenarios are discussed in detail in Section 3.2. The GMI program would see the federal government disburse $122 billion to families in the first year, while the Dividend-plus-GMI program would see $235 billion in payments made to families in the first year. The difference in cost is due to a number of factors relating to how the programs are structured, including whether there is a universal dividend, whether adults 65 and over are covered, and differences in which transfers result in basic income payments being clawed back. Over time, the costs of the programs do vary slightly depending on the funding scenario, as different funding scenarios have different economic impacts, which in turn have differing impacts on income distributions.

In general, the costs of both programs increase over time as population increases. However, as time goes on the costs of both basic income programs fall when considered as a percentage of GDP.

Additional taxation revenue generated by the extra economic activity can help offset the cost of a basic income program. As we will see below, however, such revenues alone are able to cover only a portion of program costs, reaching up to $18 billion to $23 billion annually after five years, depending upon the basic income program and funding scenario.

3.1.2 BENEFITS BY REGION/PROVINCE

The figures below show the current distribution of families by income bracket and the distribution we would see after one year with the GMI program or the Dividend-plus-GMI program, for different regions and provinces.[17] Like Figure 3 and Figure 4, the figures below show how the two basic income programs shift families from lower income brackets to higher ones; however, these figures show the impacts of the benefits at a regional or provincial level. The number of families above and below the poverty line in each figure is indicated.

As with the national results, the two programs lift a similar number of families out of poverty, with a small number of families remaining below the poverty line on the GMI program. While the Dividend-plus-GMI program also shifts some families who are already above the poverty line into higher income brackets due to the universal dividend, the GMI program shifts some low-income families into higher income brackets than the Dividend-plus-GMI program because fewer existing government transfers are clawed back by the program.

[17] Statistics Canada's Social Policy Simulation Database and Model does not provide the territorial-level data required, thus the territories are not included here.

Figure 8 Atlantic Canada: Distribution of families by income currently (on left) and with the GMI program (top) and the Dividend-plus-GMI program (bottom)

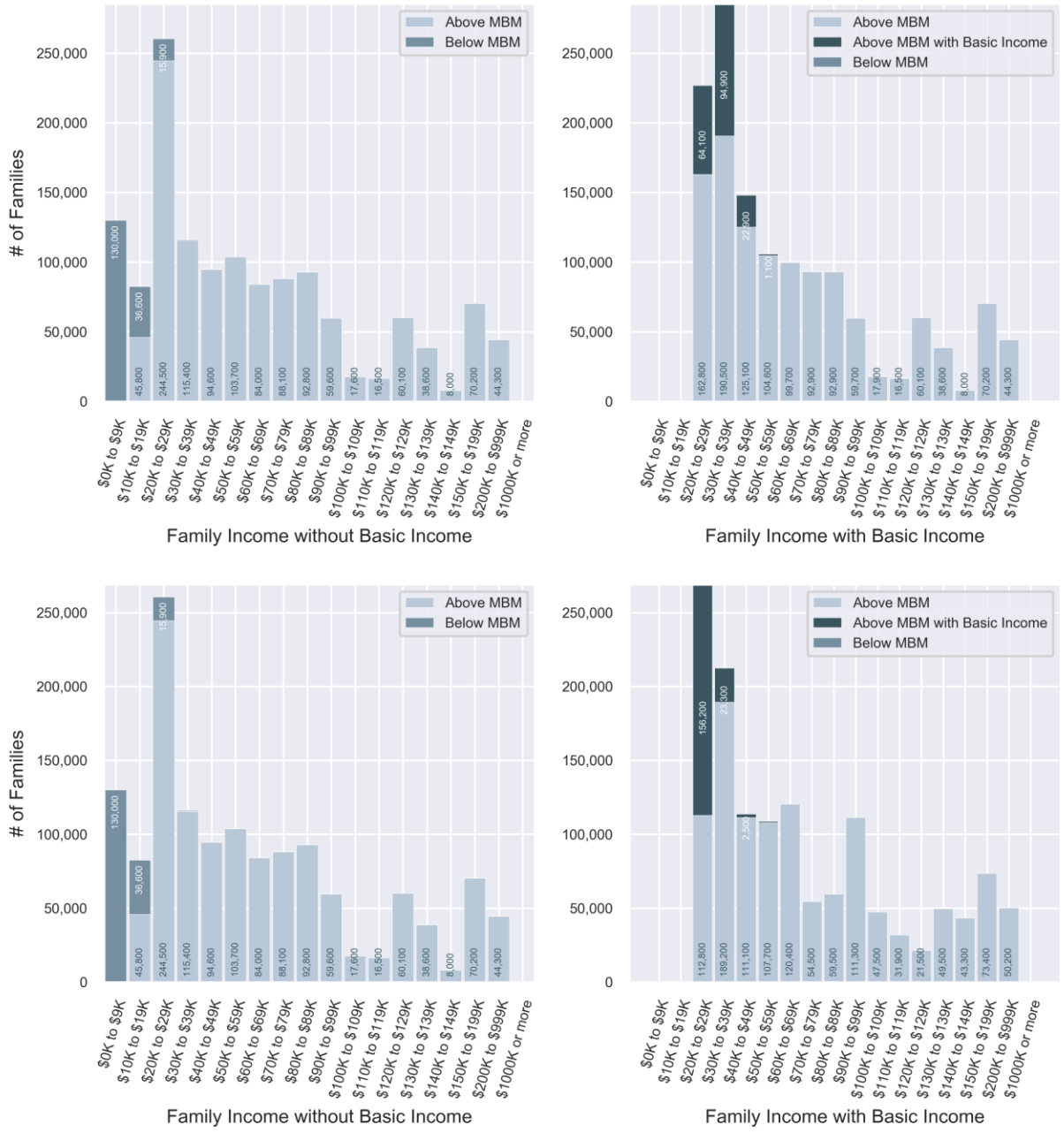


Figure 9 Quebec: Distribution of families by income currently (on left) and with the GMI program (top) and the Dividend-plus-GMI program (bottom)

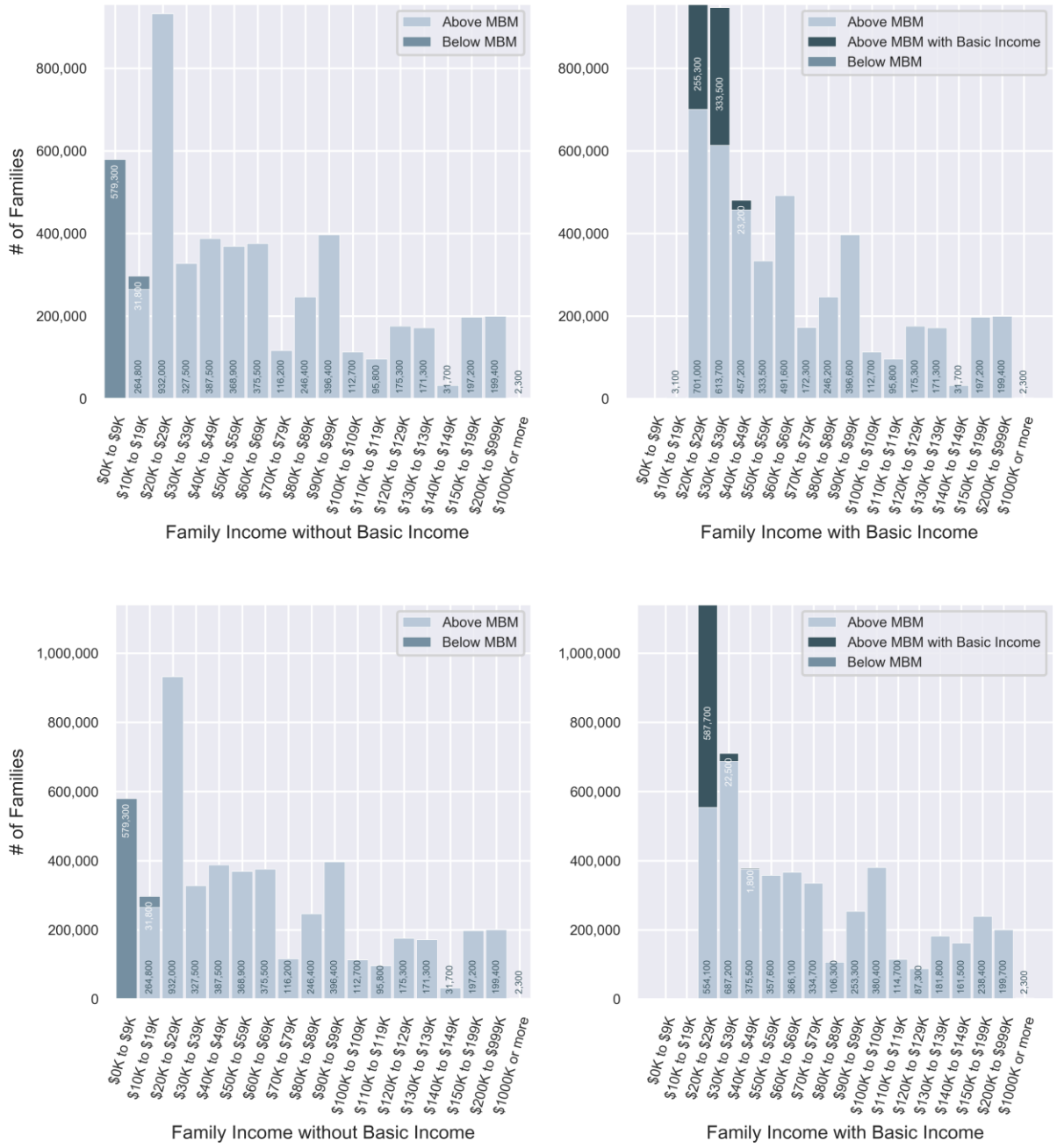


Figure 10 Ontario: Distribution of families by income currently (on left) and with the GMI program (top) and the Dividend-plus-GMI program (bottom)

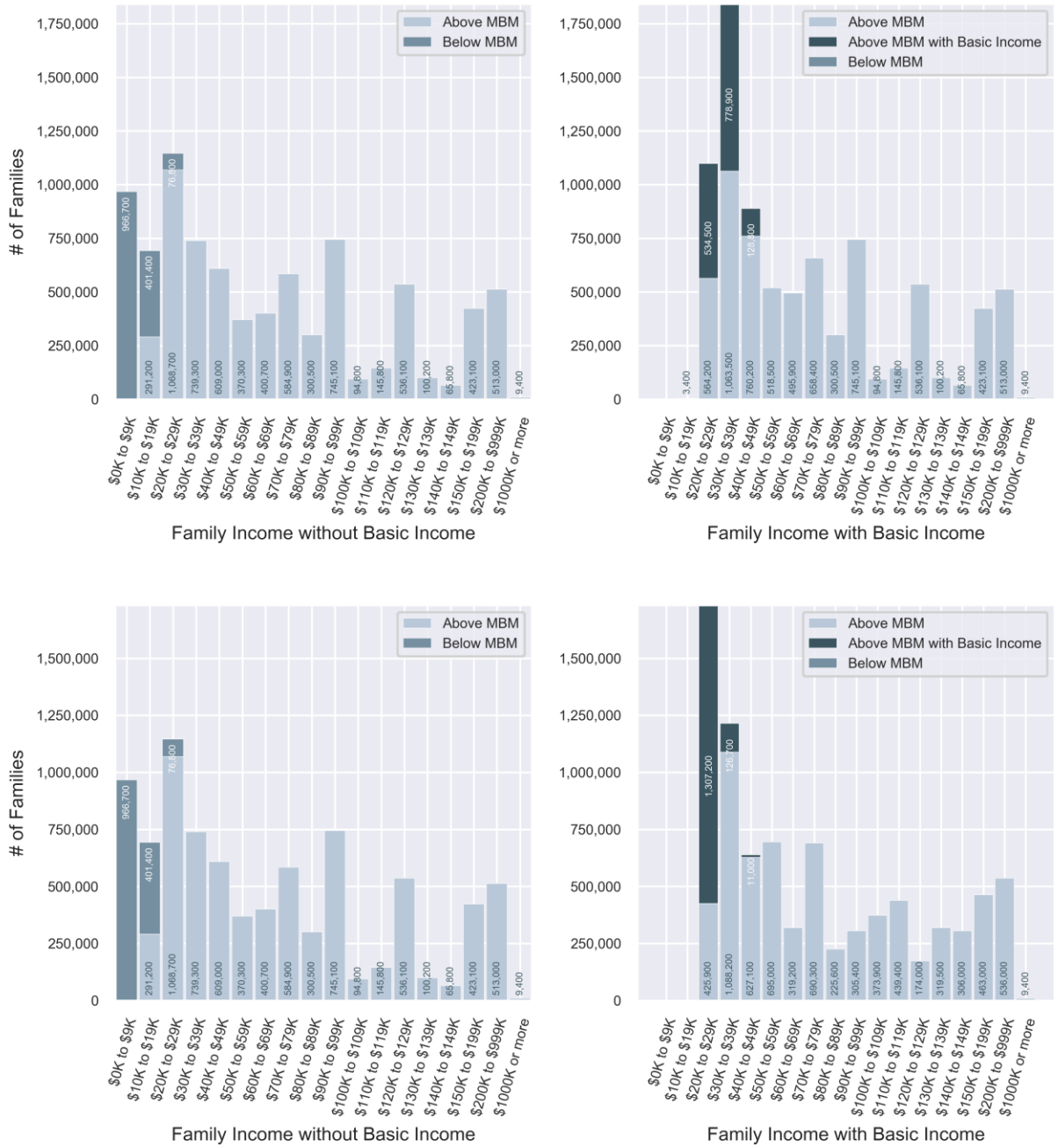


Figure 11 Prairies: Distribution of families by income currently (on left) and with the GMI program (top) and the Dividend-plus-GMI program (bottom)

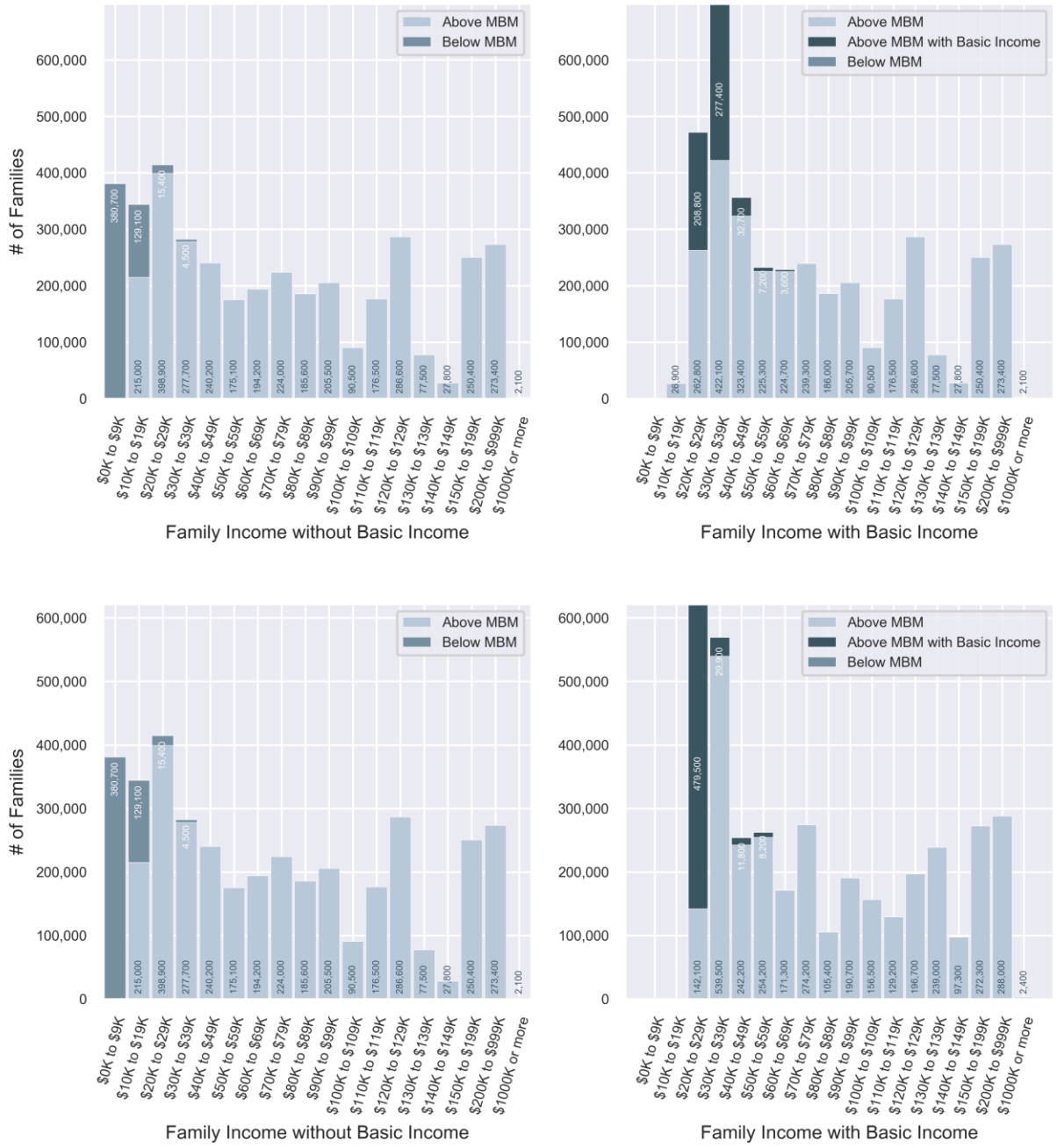
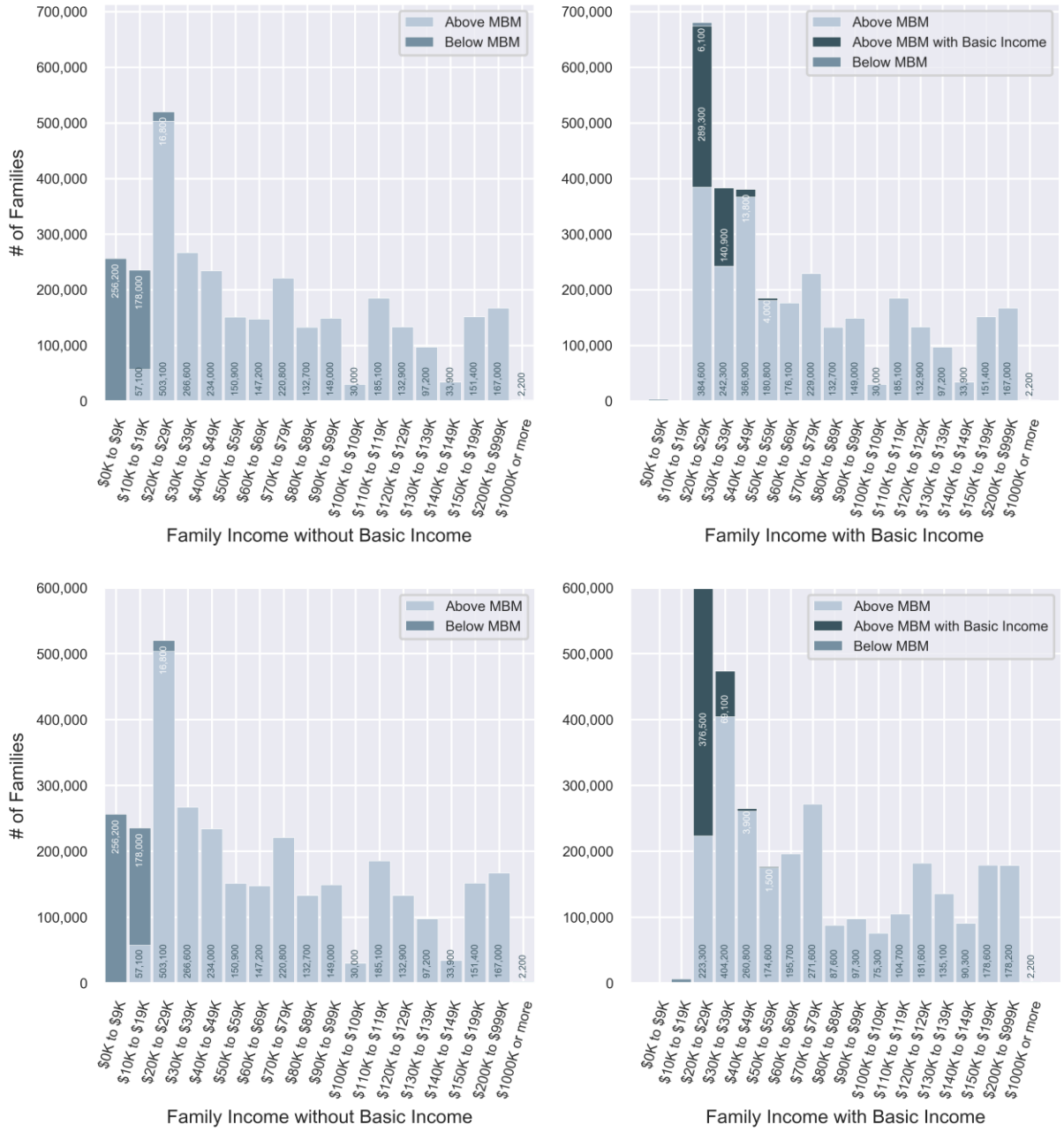


Figure 12 British Columbia: Distribution of families by income currently (on left) and with the GMI program (top) and the Dividend-plus-GMI program (bottom)



3.2 Economic Impacts

How a national basic income program impacts Canada's economy will depend on how a program is funded. Increasing the incomes of millions of families will certainly have broad economic effects resulting from increased spending. This is particularly so given that lower income families are the main beneficiaries of the basic income programs considered here, and lower income families typically spend a larger share of their incomes than do higher income families. But different funding mixes will impact households, businesses, and government in different ways, resulting in varying outcomes when it comes to GDP, jobs, and other metrics.

This section examines in detail how the GMI program and the Dividend-plus-GMI program could impact GDP, jobs, government revenues, businesses, and economic inequality. The discussion focuses on national-level results; see Appendix B for a breakdown of results for different regions and provinces. As the results below indicate, a basic income program could contribute positively to economic activity and job growth, depending on how the program is funded.

3.2.1 Funding Options

To highlight the impact of different funding options on economic impacts, our discussion focuses on four funding options:

1. 100% of program costs covered by households, with no initial funding from government debt
2. 90% household funded and 10% funded by businesses, with no initial funding from government debt
3. 50% of program costs initially covered by government debt, with this amount decreasing to zero over a 10-year period, and 100% of remaining costs covered by households
4. 50% of program costs initially covered by government debt, with this amount decreasing to zero over a 10-year period, with households covering 90% of the remaining costs and 10% being covered by businesses

Focusing on these funding scenarios allows us to highlight the impact of funding basic income programs in different ways while also showcasing options that deliver favourable economic outcomes. However, our focus on certain scenarios should not be interpreted as a recommendation regarding the funding of a basic income program. Since outcomes are considered over a 25-year period, no single funding option will necessarily maximize outcomes with respect to a given economic metric; while one option could deliver the best short-term results, another will have better long-term potential. Meanwhile, whether a particular funding option appears favourable will depend on which metric one prioritizes, amongst other factors.

3.2.1.1 Price and Wage Response to Changes in Aggregate Demand

The impacts of a basic income program on economic activity and jobs under a particular funding scenario will also depend on the degree to which prices and wages are influenced by the increase in aggregate demand.

The price and wage response to a change in aggregate demand resulting from a basic income program is uncertain. In response to the increased demand, businesses could increase output, or demand could raise prices, or both. The relative degrees to which these happen will determine the price effects observed. Meanwhile, increasing output to meet demand requires additional labour. If labour shortages arise, wages could increase more rapidly than seen in historical trends. However, there is uncertainty regarding the actual labour force participation rate and thus whether an increase in demand for labour would result in demand exceeding supply at a particular time.

With the goal of demonstrating the relationships behind the economic impacts of the two basic income programs that are largely funding-dependent, we ran a sensitivity analysis of the economic results to varying price and wage responses. The range of variance used in the model was calibrated from Bank of Canada macroeconomic models. The calibrations resulted in a range of potential price responses and wage responses.

It is likely that an increase in aggregate demand for goods and services will be met with some increase in the number of goods produced and some increase in price (for the same amount of goods). The fraction of aggregate demand that is met by the purchase of additional goods is parameterized by the “price factor” sensitivity variable. A price factor sensitivity value of 1 corresponds to a situation where all of the additional aggregate demand is met by an increase in the number of goods purchased, with no price increases. A price factor sensitivity value of 0 corresponds to a situation where all of the additional aggregate demand is met by increase in prices. Bank of Canada studies have shown that the price factor is expected to be between 0.9 and 1, with smaller values corresponding to situations with a larger increase in the value of aggregate demand (Gervais & Gosselin, 2014).

With respect to wages, the range of historical wage increases was used to estimate the potential variation in wage responses to labour shortages arising from increased output in a particular scenario. Based on the historical data, we allow wages to grow at the historical rates, meaning “wage factor” value of 0, to up to 25% faster than the historical average rates, corresponding to a wage factor value of 0.25.

For each funding scenario examined in the analysis, the sensitivity of the conclusions was tested across all price and wage assumptions. The general relationships discussed in the report held throughout such testing; that is, the general conclusions regarding the relationships between how a basic income program is funded and the resulting economic impacts over time are robust independently of a conversation about price and wage responses. It is the degree of the economic impacts regarding a particular metric that is impacted by price and wage effects, as will be discussed below.

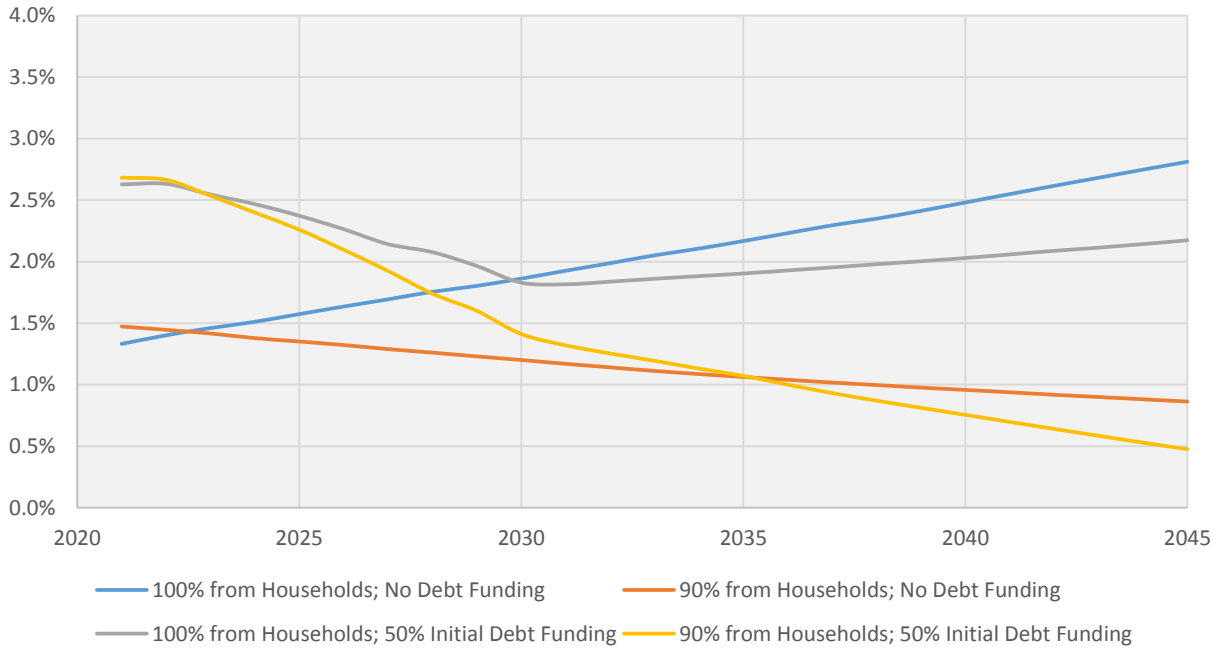
Under the scenarios examined in our analysis, the maximum increase in the number of jobs above the baseline growth is about equal to the 2019 unemployment numbers and below the “high-employment” forecasts from Statistics Canada, and inflation rates remain small and within the Bank of Canada target range of 1% to 3%. Therefore, we expect the price and wage impacts to be on the lower end of the

sensitivity analysis. Thus, to demonstrate the impacts of basic income programs, it is reasonable to assume moderate price and wage affects corresponding to a price factor of 0.95 and wage factor of 0.125.[18]

3.2.2 GDP

Both basic income programs could have positive, long-term impacts on GDP. Figure 13 shows the potential additional real GDP with the GMI program, compared to baseline projections, with moderate wage and price effects (i.e. a price factor of 0.95 and a wage factor of 0.125). Shown are four different funding options: (1) 100% of program costs covered by households with no initial funding from government debt (blue); (2) 90% household funded and 10% funded by businesses with no initial funding from government debt (orange); (3) 50% of program costs initially covered by government debt, with this amount decreasing to zero over a 10-year period, with the balance covered entirely by households (grey); (4) 50% of program costs initially covered by government debt, with this amount decreasing to zero over a 10-year period, with households covering 90% of the remaining costs and 10% being covered by businesses (yellow). [19] Table 3 shows the real annual GDP changes associated with the GMI program after five years and 25 years, for the four funding options.

Figure 13 Real GDP changes with the GMI program



[18] For further information on the sensitivity testing that was performed, please visit www.cancea.ca/publications/ubi.

[19] See Section 2.4 for a discussion of funding mixes and debt ramps.

Table 3 Real GDP changes with the GMI program

Funding Mix	Change in GDP ($B)		% Change in GDP	
	By year 5	By year 25	By year 5	By year 25
no debt, 100% HH	$40	$94	1.6%	2.8%
no debt, 90% HH	$34	$29	1.4%	0.9%
50% debt, 100% HH	$60	$72	2.4%	2.2%
50 % debt, 90% HH	$57	$16	2.3%	0.5%

HH = Households

Table 4 Average annual change in GDP with the GMI program

Funding Mix	Average Annual Change in GDP ($B)	
	Year 5	Year 25
no debt, 100% HH	$36	$60
no debt, 90% HH	$35	$32
50% debt, 100% HH	$62	$60
50 % debt, 90% HH	$61	$37

HH = Households

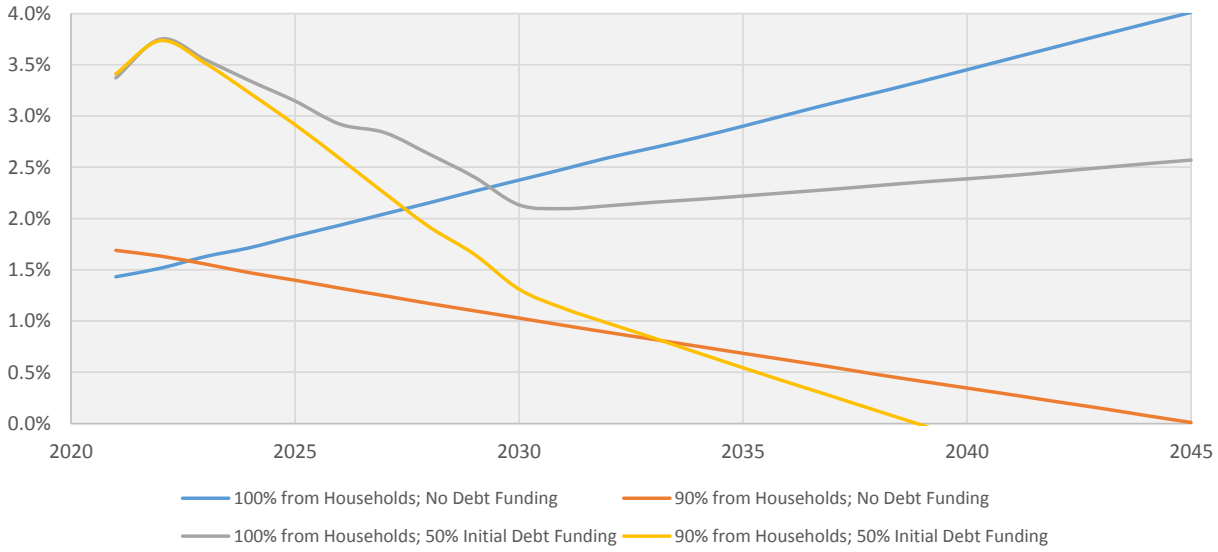
As we see in Figure 13, initial debt funding could provide a greater immediate boost to economic activity, with real GDP being more than 2.4% above baseline every year over the first five years of the program when households cover all remaining program costs. This represents additional annual real GDP, compared to baseline projections. Without initial debt funding the program could potentially result in 1.4% to 1.6% additional annual GDP in five years, above baseline projections. Without initial debt funding, we see steadier, increasing growth to GDP when the program is funded entirely by households. Despite the initial boost provided by debt funding, by the 10th year the potential additional real GDP resulting from the program is maximized over the long term when the program is entirely funded by households, without any debt funding. Over time, the carrying costs of large debt makes it more difficult for the government to invest and provide services, which impacts overall economic activity.

As we see in Table 3, in year 25 the GMI program could result in $94 billion in additional GDP, when funded entirely by households. Table 4 shows the average annual additional GDP in the four different funding scenarios, after five years and 25 years.

Notably, with or without initial debt funding, GDP is greater when remaining program costs are covered entirely by households, compared to scenarios where businesses cover 10% of remaining program costs. The sizes of both basic income programs represent a significant portion of the GOS of Canadian businesses; consequently, too much reliance on businesses for funding impedes their ability to keep up with the projected economic growth. For example, the initial cost of the GMI program is about 20% of Canada's total GOS. If businesses are unable to re-invest to keep up with economic growth, this can hinder job growth and future economic activity.

Figure 14 shows the potential additional annual real GDP with the Dividend-plus-GMI program, compared to baseline projections, for the same funding mixes and the same moderate wage and price effects. The overall pattern of the GDP impacts matches those seen with the GMI program, however the effects are more pronounced due to the Dividend-plus-GMI program involving a larger amount of total benefits paid and having a larger program cost.[20]

Figure 14 Real GDP changes with the Dividend-plus-GMI program



If initially funded 50% by government debt, the Dividend-plus-GMI program could increase real GDP by more than 3.2% in each of the first five years of the program when households cover all remaining program costs, compared to baseline. As we saw above, by the 10th year the potential additional GDP resulting from the program is larger when the program is entirely funded by households, without any debt funding. In this scenario, we see steadier, increasing growth to GDP over the long term. Without initial debt funding, the program could potentially result in a 1.4% to 1.8% increase to GDP after five years, above baseline projections. Once again, funding options that rely entirely on households perform better with respect to GDP compared to scenarios where businesses cover 10% of remaining program costs. Over

[20] Although two sides of the same coin, the larger amount of total payments results in more spending compared to the GMI program and thus greater initial GDP growth, whereas the larger program cost means that the impact on businesses is larger in scenarios when they contribute 10% of program funding.

the longer term, if business fund 10% of the cost of the Dividend-plus-GMI program, this could negatively impact real GDP, as compared to baseline projections.

The Dividend-plus-GMI program could result in $35 billion to $79 billion in additional annual GDP after five years, as shown in Table 5. In 25 years, the program could result in $134 billion in additional annual GDP, compared to baseline. Table 6 shows the average annual additional GDP in the four different funding scenarios, after five years and 25 years. As we can see, even though the program results in less economic activity than baseline in year 25 when 50% debt funded and businesses cover 10% of remaining costs, over the course of 25 years the average annual change in GDP in this scenario is positive.

Table 5 Real GDP changes with the Dividend-plus-GMI program

Funding Mix	Change in GDP ($B)		% Change in GDP	
	By year 5	By year 25	By year 5	By year 25
no debt, 100% HH	$46	$134	1.8%	4.0%
no debt, 90% HH	$35	$0	1.4%	0.0%
50% debt, 100% HH	$79	$86	3.2%	2.6%
50 % debt, 90% HH	$74	-$28	2.9%	-0.9%

HH = Households

Table 6 Average annual change in GDP with the Dividend-plus-GMI program

Funding Mix	Average Annual Change in GDP ($B)	
	Year 5	Year 25
no debt, 100% HH	$40	$79
no debt, 90% HH	$38	$22
50% debt, 100% HH	$84	$73
50 % debt, 90% HH	$82	$28

HH = Households

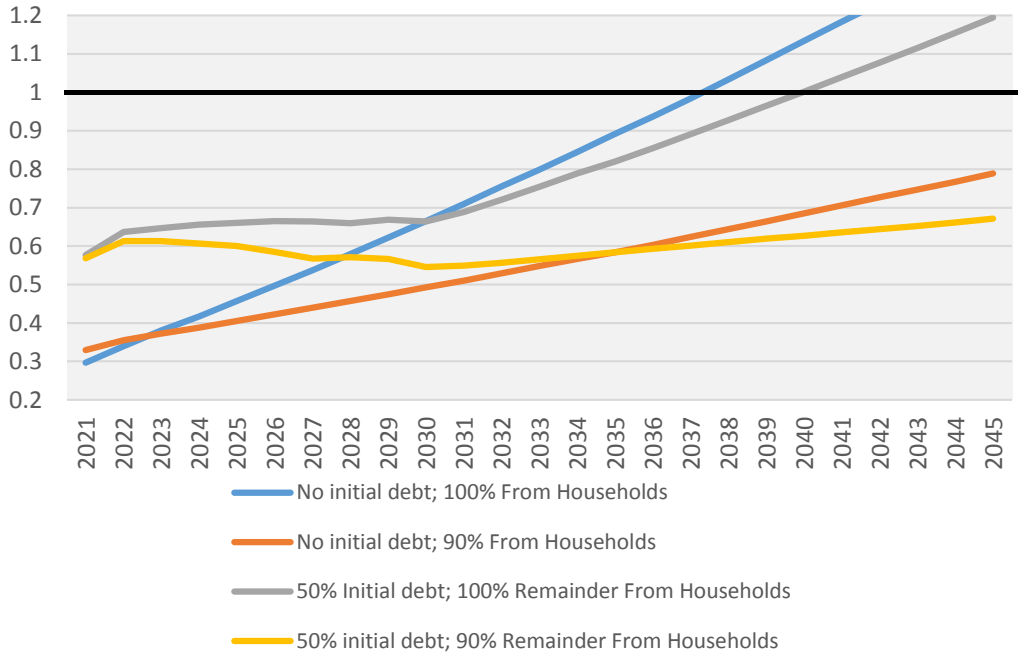
The cumulative additional real GDP that could result from the two basic income programs in the above scenarios is shown in Table 7. In five years, the GMI program could contribute an additional $173 billion to $309 billion in cumulative nominal GDP under certain funding scenarios. In five years, the Dividend-plus-GMI program could contribute an additional $189 billion to $419 billion in cumulative GDP.

Table 7 Cumulative GDP changes (in billions of dollars, real terms)

	No Debt Funding		50% Debt Funding	
	100% from households	90% from households	100% from households	90% from households
	GMI program			
5 Year	$178	$173	$309	$306
25 Year	$1,496	$795	$1,490	$935
	Dividend-plus-GMI program			
5 Year	$199	$189	$419	$410
25 Year	$1,977	$557	$1,826	$708

We can also consider the potential contributions to GDP in terms of program cost. Figure 15 shows the GDP-to-cost ratio for the GMI program for the same four funding options. The graph demonstrates the relationship between the additional nominal GDP contributed by the program and the nominal cost of the program in a given year, allowing us to see that the additional GDP that could result from the GMI program projects to match the cost of the program within 18 years, when the program is funded entirely by households. After that point, the additional GDP contributed in a given year exceeds the program's cost. As we can see, government debt funding creates additional GDP growth early on, but increases the time it takes for the potential additional GDP contributed by the program to equal the program's gross cost to 20 years. Because funding scenarios that rely on businesses to cover 10% of remaining program costs are not as favourable when it comes to increasing economic activity, the projected additional GDP in these scenarios do not equal the program's cost within 25 years.

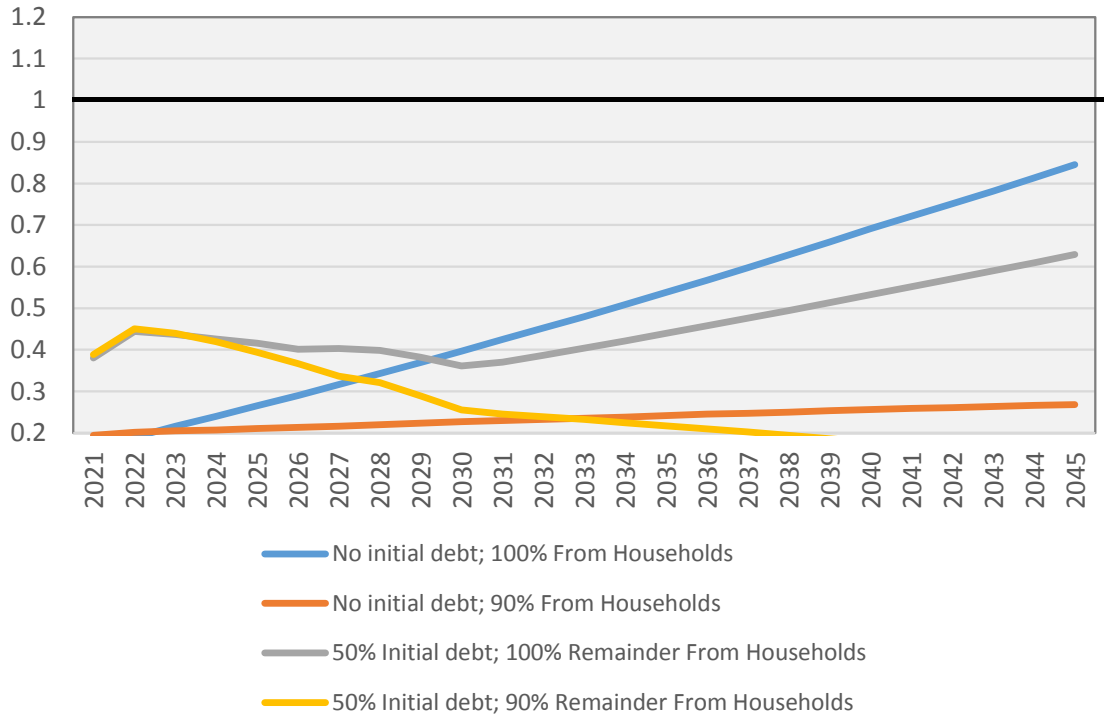
Figure 15 GDP-to-cost for the GMI program



The GDP-to-cost ratio can be understood as demonstrating the return on investment for the program, where the investment is the total program cost and the return is additional GDP contributed by the program, each for a particular year.

Figure 16 shows the GDP-to-cost ratio for the Dividend-plus-GMI program.

Figure 16 GDP-to-cost for the Dividend-plus-GMI program



As we see above, over time the additional GDP contributed by the Dividend-plus-GMI program could begin to approach a significant share of the program's cost. While the projected additional annual GDP contributed by the program does not match the annual cost of the program within 25 years, the ratio trends toward 1 over the long term with the funding options shown here that do not rely on businesses to cover any program costs. When the program is funded entirely by households, with no debt funding, the additional GDP contributed by the Dividend-plus-GMI program reaches 85% of program costs after 25 years. Over time, additional annual GDP grows with and without debt funding when remaining program costs are covered by households, while the program cost does not increase as quickly (increases in program costs are primarily driven by the growing population). Funding options that do not have as positive an impact on GDP could result in the ratio moving in the other direction over time (see Appendix B for full results).

Figure 17 and Figure 18 show the debt-to-GDP ratios that could result with the two programs, under funding scenarios with different levels of initial debt and different debt ramps.[21] Additional nominal debt beyond current levels and baseline is compared to total projected nominal GDP.

Figure 17 Debt-to-GDP ratio for the GMI program

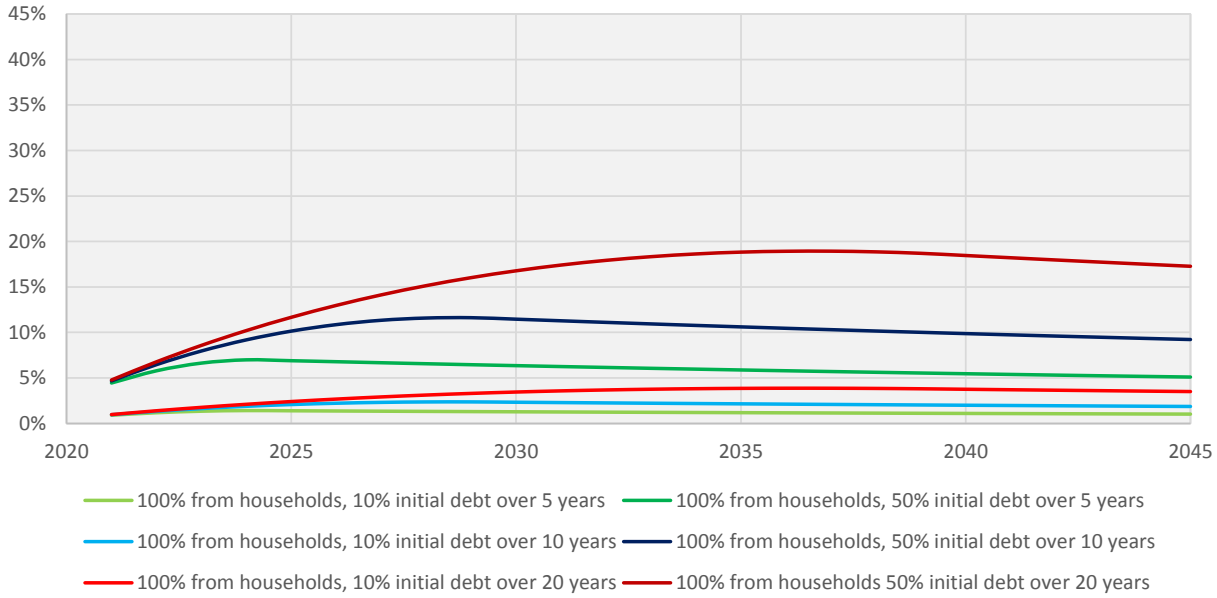
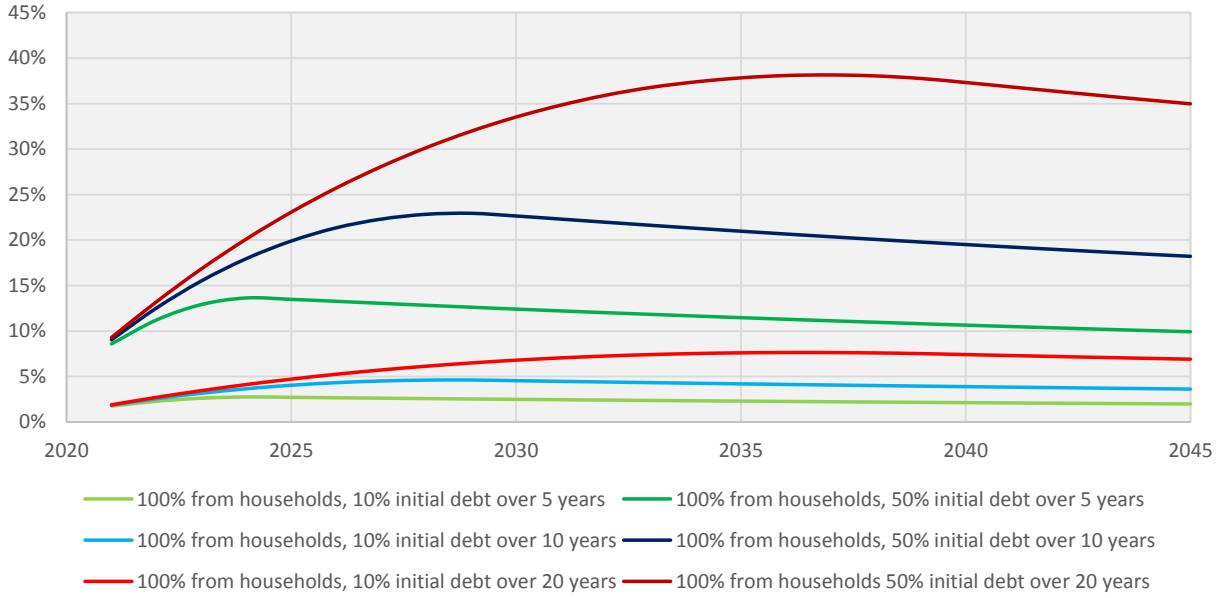


Figure 18 Debt-to GDP ratio for the Dividend-plus-GMI program



[21] Note that this is additional debt arising from the basic income programs, not total debt which would include existing government debt.

When the two programs are funded by 50% government debt for an initial 10-year period, with remaining costs covered by households, the GMI and Dividend-plus-GMI basic income programs reach a maximum debt-to-GDP ratio of 12% and 23% respectively after 8 years. Beyond this point, the debt-to-GDP ratio begins to fall. When the debt ramp is extended to 20 years, the debt-to-GDP ratio once again begins to fall after the initial borrowing period is over, however significant debt could accumulate when a larger portion of a basic income program is funded by debt over a longer period of time (see Appendix B). The carrying cost of such large debt impedes the ability of government to invest and provide services, resulting in less long-term economic growth. When a program is only 10% debt funded, the debt-to-GDP ratio remains relatively low even with a longer debt ramp.

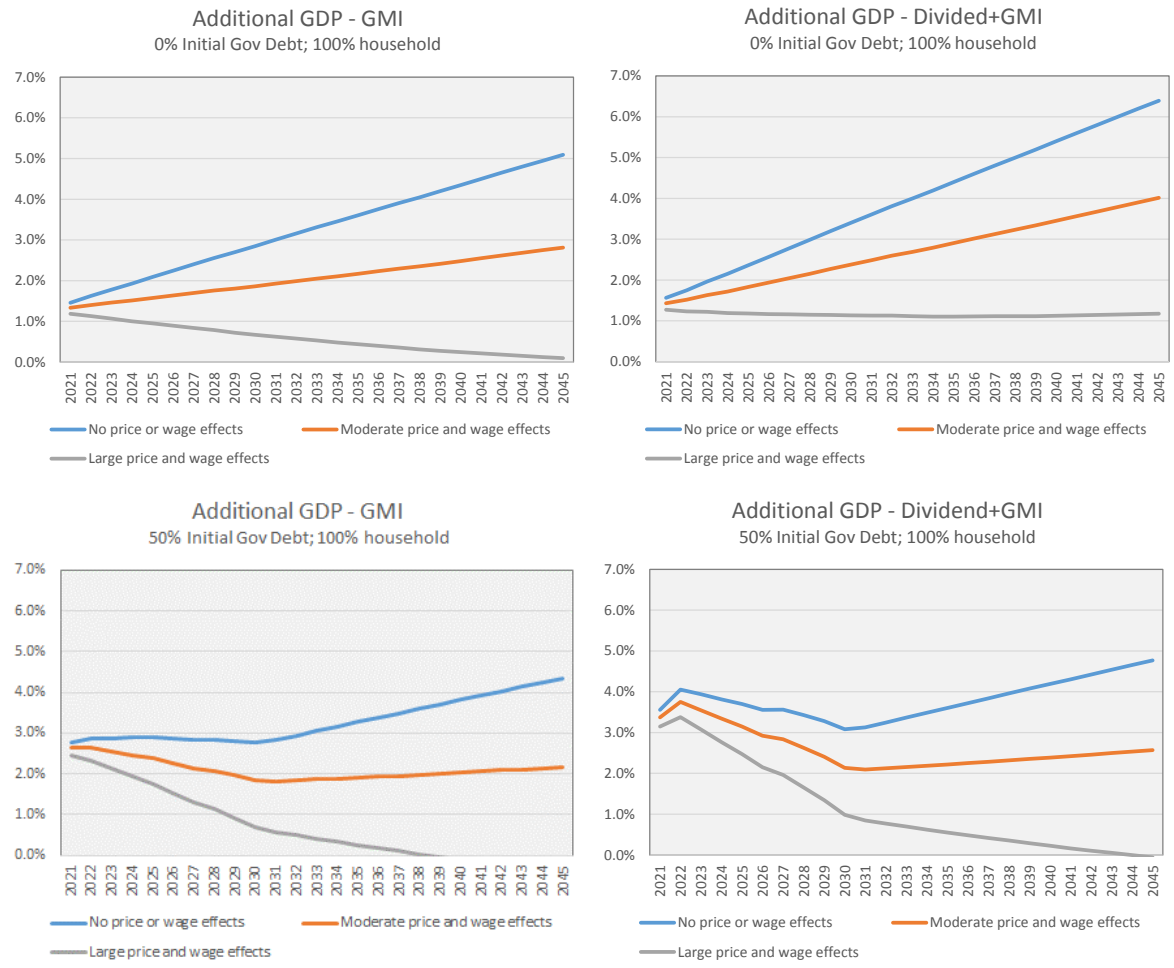
3.2.2.1 GDP RESULTS: SENSITIVITY TO PRICE AND WAGE CHANGES

As discussed previously, the price and wage response to the increased demand resulting from the basic income programs is uncertain. In response to the increased demand, businesses could increase output, or demand could raise prices, or both. We assume moderate price and wage effects, with a price factor of 0.95 and wage factor of 0.125, in the above results regarding GDP.

Different price and wage effects will result in different outcomes with respect to GDP for a basic income program under a specific funding scenario. However, these effects do not fundamentally alter the impact that funding options have with respect to GDP; rather, these effects modulate the degree of these impacts. For instance, initial debt funding could result in larger additional GDP in early years, whereas funding options that rely entirely on households show steady, increasing growth in GDP. These general conclusion are robust, however much the degree to which we could see additional GDP is impacted by price and wage effects.

Figure 19 demonstrates this by showing the impacts of different wage and price inflation effects on real GDP. Shown are additional real GDP for the GMI program and the Dividend-plus-GMI program with either no initial debt funding or 50% initial debt funding and the remaining program costs covered by households, under three different wage and price scenarios: (1) no price or wage effects beyond current historical trends (blue); (2) moderate additional effects of 0.95 for prices and 0.125 for wages (orange); (3) large price and wage increases, with a price factor of 0.9 and wage factor of 0.25 (grey). In all cases with debt funding, the initial government debt decreases over a 10-year period.

Figure 19 Sensitivity of real GDP changes to price and wage factors



As can be seen above, initial debt funding boosts GDP initially but long-term outcomes are more favourable without initial debt, regardless of potential price and wage increases. With moderate or no price and wage effects, additional GDP increases over time in the no-debt scenarios, while all of the program and funding option combinations shown above result in strong performance over the course of 25 years. Meanwhile, even with larger price and wage effects, economic activity could be increased relative to the baseline with a basic income program, as long as programs are entirely funded by households.

3.2.3 JOBS

Through the economic activity generated by a basic income program, several hundred thousand additional jobs could be created in the short term with initial debt funding. Without any initial debt funding, both basic income programs analyzed could still lead to hundreds of thousands of additional jobs per year in the short term, compared to baseline scenarios.

Figure 20 shows the potential additional jobs contributed by the GMI program with moderate wage and price effects assumed, for the same four funding options examined above: (1) 100% of program costs covered by households with no initial funding from government debt (blue); (2) 90% household funded and 10% funded by businesses with no initial funding from government debt (orange); (3) 50% of program costs initially covered by government debt, with this amount decreasing to zero over a 10-year period, with the balance covered entirely by households (grey); (4) 50% of program costs initially covered by government debt, with this amount decreasing to zero over a 10-year period, with households covering 90% of the remaining costs and 10% being covered by businesses (yellow). Shown are the additional jobs contributed by the program in a given year compared to the baseline projection for that year, over the course of 25 years. Table 8 shows the additional annual jobs above baseline after five and 25 years for the four funding options, alongside the corresponding increase in aggregate wages.

Figure 20 Job changes with the GMI program

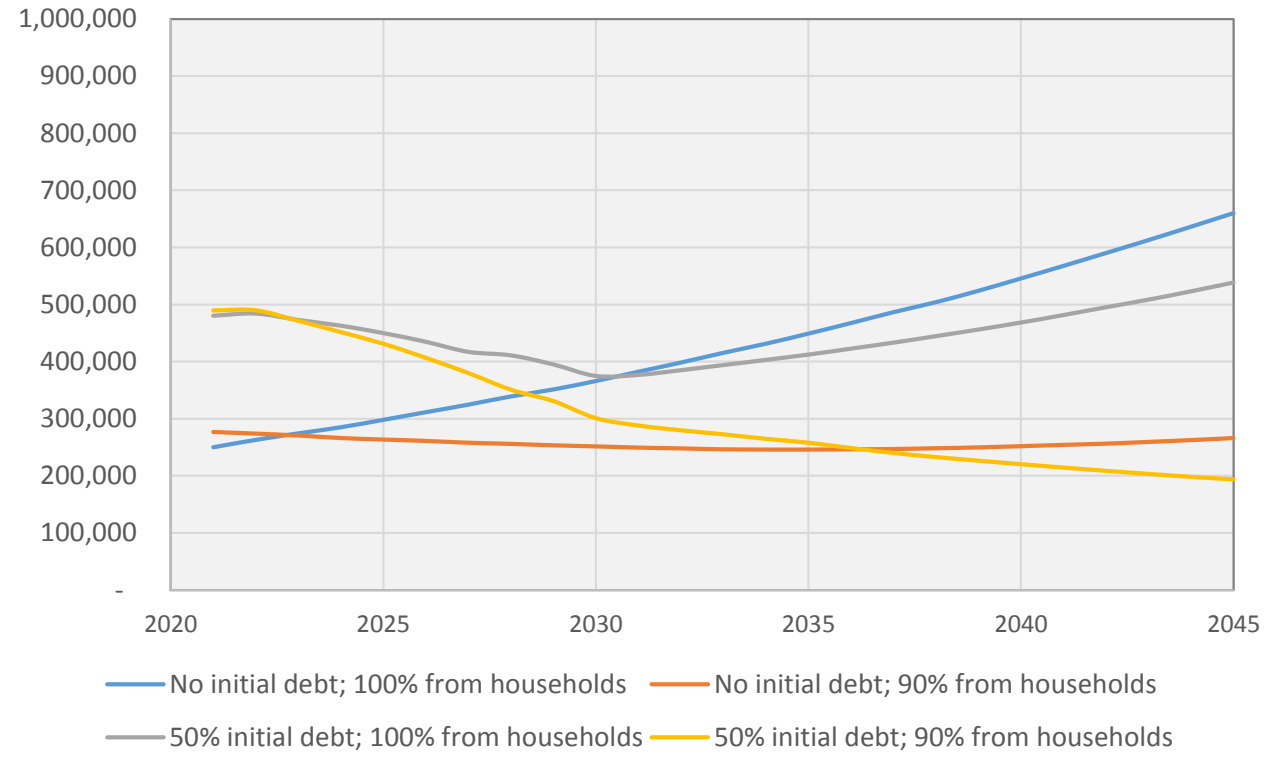


Table 8 Job changes with the GMI program

Funding Mix	Change in Jobs		% Change in Aggregate Wages	
	By year 5	By year 25	By year 5	By year 25
No debt, 100% HH	298,000	660,000	1.2%	1.9%
No debt, 90% HH	264,000	266,000	1.1%	0.4%
50% debt, 100% HH	450,000	538,000	1.9%	1.5%
50 % debt, 90% HH	431,000	194,000	1.8%	0.1%

HH = Households

As with additional GDP, initial debt funding has a positive short-term job creation potential. If 50% of the program is funded by government debt with a 10-year debt ramp, this could result in 450,000 additional jobs in year 5, when households cover 100% of the remaining program costs. This funding scenario could see an additional 538,000 jobs above baseline in year 25, and over the course of 25 years the additional jobs resulting from the program in a given year does not fall below 375,000. The additional boost provided by debt funding begins to erode over time as the share of the program funded by debt decreases, and after 10 years the scenario without any debt funding begins to result in more additional jobs, compared to baseline. In the scenario without any debt funding, more than 260,000 additional jobs could be created in the first year, and this number consistently increases over time, reaching over 660,000 after 25 years when the cost of the program is covered by households.

As initial debt funding increases and the debt ramp lengthens, more additional jobs are created over the short term (see further results in Appendix B). However, as the share of debt funding increases or the length of the debt ramp increases, a funding option results in fewer additional jobs in a given year in the long term, compared to different shares of debt with the same debt ramp and scenarios with the same share of debt but different debt ramps. Over time, the carrying costs of the debt in high debt scenarios impact economic growth, which in turn impacts jobs. While the high debt funding scenarios could create the most jobs in the short term, the job creation boost delivered by debt funding still exists with lower amounts of debt funding, albeit to a reduced degree.

As we saw with GDP, scenarios that rely on businesses to cover 10% of remaining program costs result in less favourable outcomes than those that rely on households to cover all remaining costs. However, these scenarios still result in additional jobs over course of 25 years, compared to baseline projections. Without any debt funding and with businesses covering 10% of program costs, the GMI program could result in up to 266,000 additional jobs over the next 25 years.

The impact of the program in terms of the increase in annual aggregate wages after five years and 25 years is shown in Table 8, for the different funding scenarios. This represents the increase in total wages resulting from the basic income program, including via the creation of additional jobs. Without any debt funding, aggregate wages could increase by 1.2% above baseline projections in year 5; it can increase by

1.9% when the program is initially 50% funded by government debt and households cover remaining program costs.

Table 9 shows the average annual increase in aggregate wages after five years and after 25 years, for the GMI program under the four funding scenarios. As we can see, the program can result in an additional $20 billion in aggregate wages over the course of 25 years, when 50% initially funded by government debt and all remaining costs are covered by households.

Table 9 Average annual change in aggregate wages with the GMI program

Funding Mix	Average Annual Change in Aggregate Wages ($B)	
	Year 5	Year 25
no debt, 100% HH	$13	$19
no debt, 90% HH	$13	$10
50% debt, 100% HH	$24	$20
50 % debt, 90% HH	$24	$13

HH = Households

Figure 21 shows the potential additional jobs contributed by the Dividend-plus-GMI program for the same funding mixes. Table 10 shows the additional annual jobs above baseline after five and 25 years for the program under the four funding options, alongside the corresponding increase in aggregate wages. And Table 11 shows the average annual increase in aggregate wages after five years and after 25 years, for the Dividend-plus-GMI program under the same funding scenarios. Once again, the overall pattern of the program's potential contributions in terms of jobs is similar to what we see with the GMI program, however the effects are more pronounced.

Figure 21 Job changes with the Dividend-plus-GMI program

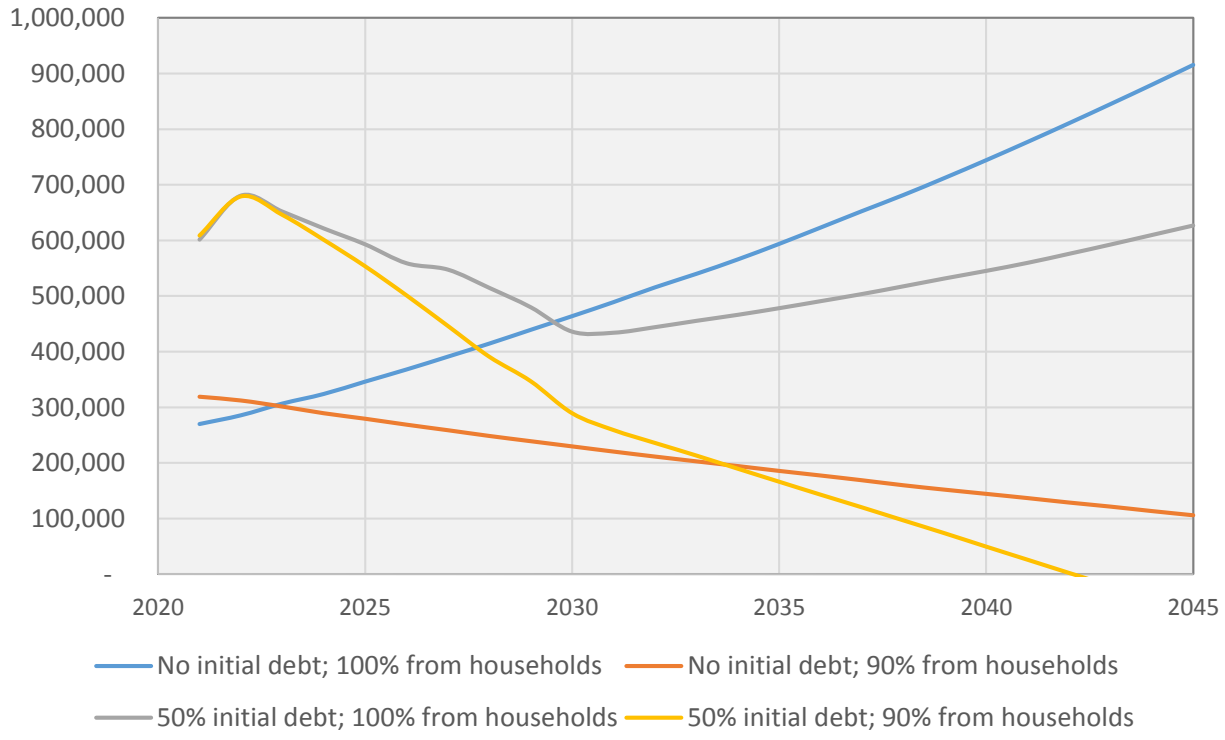


Table 10 Job changes with the Dividend-plus-GMI program

Funding Mix	Change Jobs		% Change Aggregate Wages	
	By year 5	By year 25	By year 5	By year 25
no debt, 100% HH	346,000	916,000	1.3%	2.8%
no debt, 90% HH	279,000	106,000	1.1%	-0.3%
50% debt, 100% HH	593,000	627,000	2.6%	1.7%
50 % debt, 90% HH	554,000	-69,000	2.4%	-1.0%

HH = Households

Table 11 Average annual change in aggregate wages with the Dividend-plus-GMI program

Funding Mix	Average Annual Change Aggregate Wages ($B)	
	Year 5	Year 25
no debt, 100% HH	$13	$25
no debt, 90% HH	$14	$6
50% debt, 100% HH	$32	$25
50 % debt, 90% HH	$32	$9

HH = Households

The Dividend-plus-GMI program could contribute 627,000 additional jobs above baseline in 25 years when initially 50% debt funded and remaining costs are covered by households. In this scenario, the program could result in 593,000 additional jobs after five years, compared to baseline projections. Meanwhile, in the scenario without any debt funding, more than 346,000 additional jobs could be created after five years, and this number consistently increases over time to deliver the best outcome in later years, reaching 916,000 additional jobs in 25 years. The yellow line above highlights the potential long-term impacts of debt and of businesses covering 10% of the costs associated with the larger Dividend-plus-GMI program, as after 22 years this scenario projects to have a negative impact on jobs, compared to baseline.

As we can see in Table 10 and Table 11, annual aggregate wages could increase by 1.3% after five years with the Dividend-plus-GMI program when it is funded entirely by households, increasing to 2.8% above baseline after 25 years. With 50% initial debt funding, annual aggregate wages could increase by 2.6% after five years; after 25 years, it could still be above baseline when all remaining costs are covered by households, but at 1.7% above baseline it is projected to be lower than at the five-year mark. When funded entirely by households, the program could result in $13 billion in annual aggregate wages added on average after five years and $25 billion in annual aggregate wages added on average over the course of 25 years. With 50% initial debt funding, annual aggregate wages could increase on average by $32 billion after five years and $25 billion after 25 years.

3.2.3.1 JOB RESULTS: SENSITIVITY TO PRICE AND WAGE CHANGES

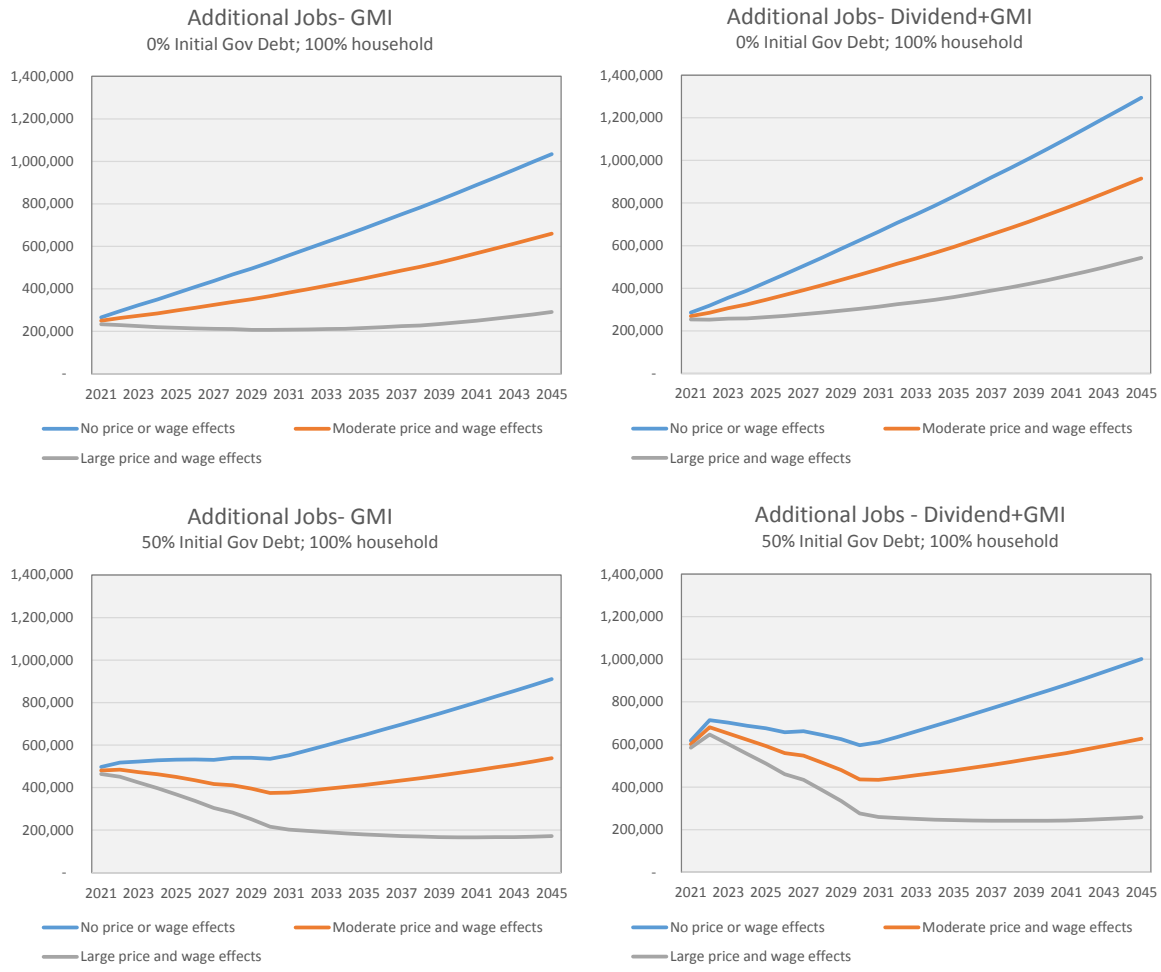
As with impacts on GDP, the way that prices and wages respond to the increased demand resulting from a basic income program is uncertain yet would shape outcomes with respect to additional jobs created. However, these effects do not fundamentally alter the impact that funding options have on jobs created; rather, these effects modulate the degree of these impacts.

For the purposes of the above discussion we assume moderate price and wage effects, with a price factor of 0.95 and wage factor of 0.125. Figure 22 demonstrates how much the additional jobs created as a result of the programs could be impacted by price and wage. Shown are the additional jobs created for the GMI

program and the Dividend-plus-GMI program with either no initial debt funding or 50% initial debt funding and the remaining program costs covered by households, under three different wage and price scenarios: (1) no price or wage effects beyond current historical trends (blue); (2) moderate additional effects of 0.95 for prices and 0.125 for wages (orange); (3) large price and wage increases, with a price factor of 0.9 and wage factor of 0.25 (grey). In all cases with debt funding, the initial government debt decreases over a 10-year period.

As can be seen below, while different price and wage effects result in different outcomes under a given funding scenario, the general conclusions regarding the impacts of different funding scenarios on jobs remain robust. Initial debt funding provides a short-term boost, but over the long term more jobs could be created when programs are entirely funded by households. Additional jobs created remain positive and increase over the long term with no initial government debt, even with large price and wage effects. Even in the 50% debt scenarios, the impacts on jobs are positive in all cases shown below over 25 years, and with both programs the number of jobs remains above the baseline in the large price and wage effect scenario at 25 years.

Figure 22 Sensitivity of additional jobs to price and wage factors



3.2.4 GOVERNMENT REVENUES AND EXPENDITURES

Insofar as the two basic income programs analyzed could increase economic activity and create jobs, they could also result in additional government revenues. Table 12 shows the change in annual government taxation revenues in year five and in year 25 with the GMI program, with the same four funding options examined in the GDP and jobs sections (and the same moderate price and wage effects assumed). Shown are the additional real revenues above baseline in those years (in billions of dollars) followed by the percentage increases above baseline those represent. Table 13 shows the average annual change in taxation revenues over five years and 25 years.

Table 12 Additional tax revenues with the GMI program

Funding Mix	Change Taxation Revenue ($B)		% Change in Taxation Revenues	
	By year 5	By year 25	By year 5	By year 25
no debt, 100% HH	$13	$36	1.6%	2.8%
no debt, 90% HH	$12	$21	1.4%	0.9%
50% debt, 100% HH	$18	$30	2.4%	2.2%
50 % debt, 90% HH	$17	$18	2.3%	0.5%

HH = Households

Table 13 Average annual change in taxation revenues with the GMI program

Funding Mix	Average Annual Change in Taxation Revenues	
	Year 5	Year 25
no debt, 100% HH	$9	$16
no debt, 90% HH	$9	$8
50% debt, 100% HH	$16	$16
50 % debt, 90% HH	$16	$10

HH = Households

As we can see above, the increases in government tax revenues that could result from the GMI program follow the same pattern as the potential impacts on GDP. Initial debt funding leads to larger additional revenues in the short term, but in the long term additional revenues are larger when the program is entirely funded by households; and, as with GDP, additional revenues are larger when all remaining program costs are covered by households rather than when 10% are covered by businesses.

When the GMI program is entirely funded by households it could result in $13 billion in additional annual government revenues in year five and $36 billion in additional annual revenues above baseline after 25 years. With 50% initial debt funding, the corresponding figures are $18 billion and $30 billion in annual revenue. This represents additional revenues of 1.6% and 2.8% above baseline projections in the no-debt scenario, and 2.4% and 2.2% in the debt funding scenario.

Table 14 shows the change in government taxation revenues in year five and in year 25 with the Dividend-plus-GMI program. Shown are the additional real revenues above baseline in those years (in billions of dollars) followed by the percentage increases above baseline those represent. Table 15 shows the average annual change in taxation revenues with the program, over five years and 25 years.

Below we see that, as with GDP, the potential increase in tax revenue resulting from the Dividend-plus-GMI program can exceed the additional revenues that could result from the GMI program. With 50% initial debt funding, the Dividend-plus-GMI program could result in $23 billion in additional tax revenue in year five and $33 billion in year 25, increases of 3.1% and 2.6% above baseline, respectively. When the program is entirely funded by households, it could result in $15 billion of additional annual revenue after five years and $45 billion after 25 years, increases of 1.8% and 4% above baseline, respectively.

Table 14 Additional tax revenues with the Dividend-plus-GMI program

Funding Mix	Change in Taxation Revenue		% Change in Taxation Revenues	
	By year 5	By year 25	By year 5	By year 25
no debt, 100% HH	$15	$45	1.8%	4.0%
no debt, 90% HH	$12	$14	1.4%	0.0%
50% debt, 100% HH	$23	$33	3.1%	2.6%
50 % debt, 90% HH	$22	$8	2.9%	0.9%

HH = Households

Table 15 Average annual change in taxation revenues with the Dividend-plus-GMI program

Funding Mix	Average Annual Change Taxation Revenues	
	Year 5	Year 25
no debt, 100% HH	$10	$21
no debt, 90% HH	$10	$6
50% debt, 100% HH	$22	$19
50 % debt, 90% HH	$21	$7

HH = Households

Table 16, below, shows the cumulative real additional tax revenues that could result from the basic income programs, for the same four funding options.

Table 16 Cumulative tax revenue (real terms, billions of dollars)

	GMI program			
	No Initial Debt		With 50% Initial Debt	
	100% Households	90% Households	100% Households	90% Households
5 year	$46	$45	$80	$80
25 year	$389	$207	$388	$243
	Dividend-plus-GMI program			
	No Initial Debt		With 50% Initial Debt	
	100% Households	90% Households	100% Households	90% Households
5 year	$52	$49	$109	$107
25 year	$514	$145	$475	$184

The GMI program could result in $46 billion to $80 billion in additional cumulative tax revenue after five years, depending on the funding scenario. The Dividend-plus-GMI program could result in $109 billion in additional cumulative tax revenue after five years, when the program is initially 50% funded by government debt, with a 10-year debt ramp. Without any initial debt funding, the program could result in $52 billion in additional cumulative tax revenue after five years. Over the long term, both programs could result in greater cumulative additional tax revenue without debt funding than with, so long as all remaining program costs are covered by households. When 10% of program costs are covered by businesses, both programs see greater additional tax revenue after 25 years with debt funding, which lessens the burden on businesses and the resulting negative impacts.

Note that Table 16 shows the potential additional government revenues resulting only from the potential economic growth attributed to the two basic income programs. The table does not include potential revenues due to any tax reforms that may be implemented under a particular funding scenario.

The cost of both basic income programs fall as a percentage of GDP over time. As shown in Figure 23 and Figure 24, the amount transferred from the government to families falls as a percentage of GDP over time. When households fund 100% of program costs, total transfers from families to government approach those going in the other direction, also decreasing as a share of GDP over time. Initial debt funding widens the gap between transfers going in these two directions, which closes over the time of the debt ramp.

Figure 23 Transfers to and from families as a percentage of nominal GDP, with no debt funding and programs funded by households

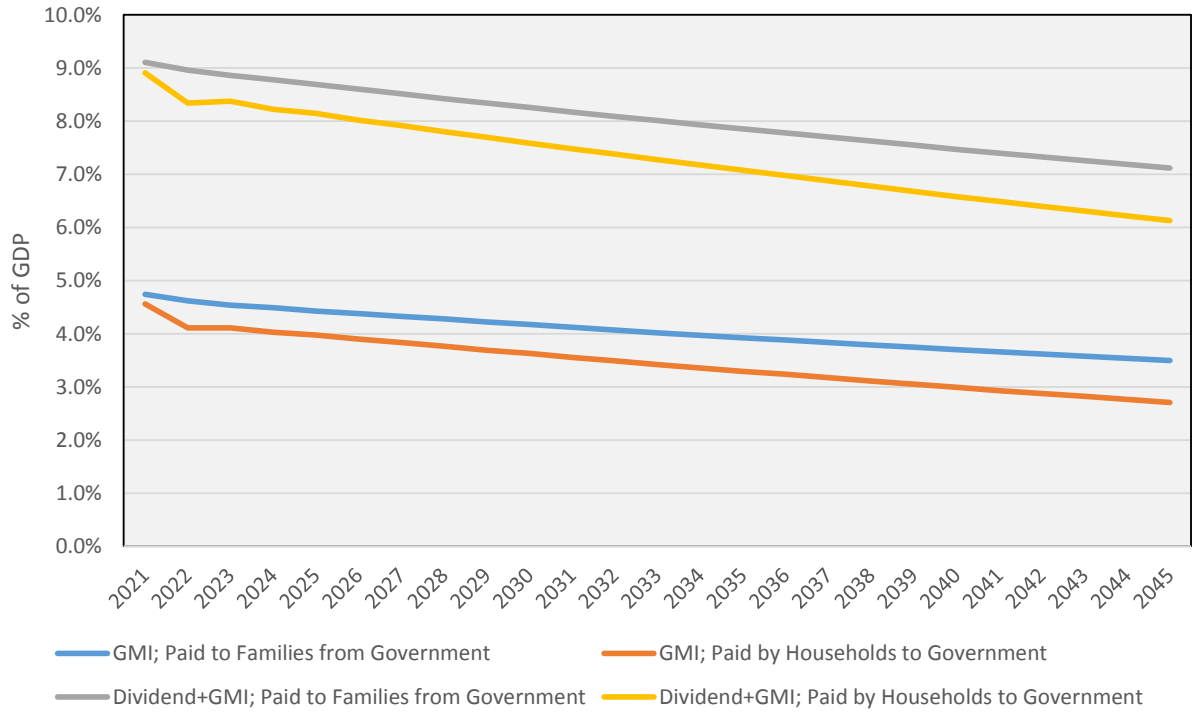


Figure 24 Transfers to and from families as a percentage of nominal GDP, with 50% initial debt funding and a 10-year ramp, and 100% of remaining costs covered by households

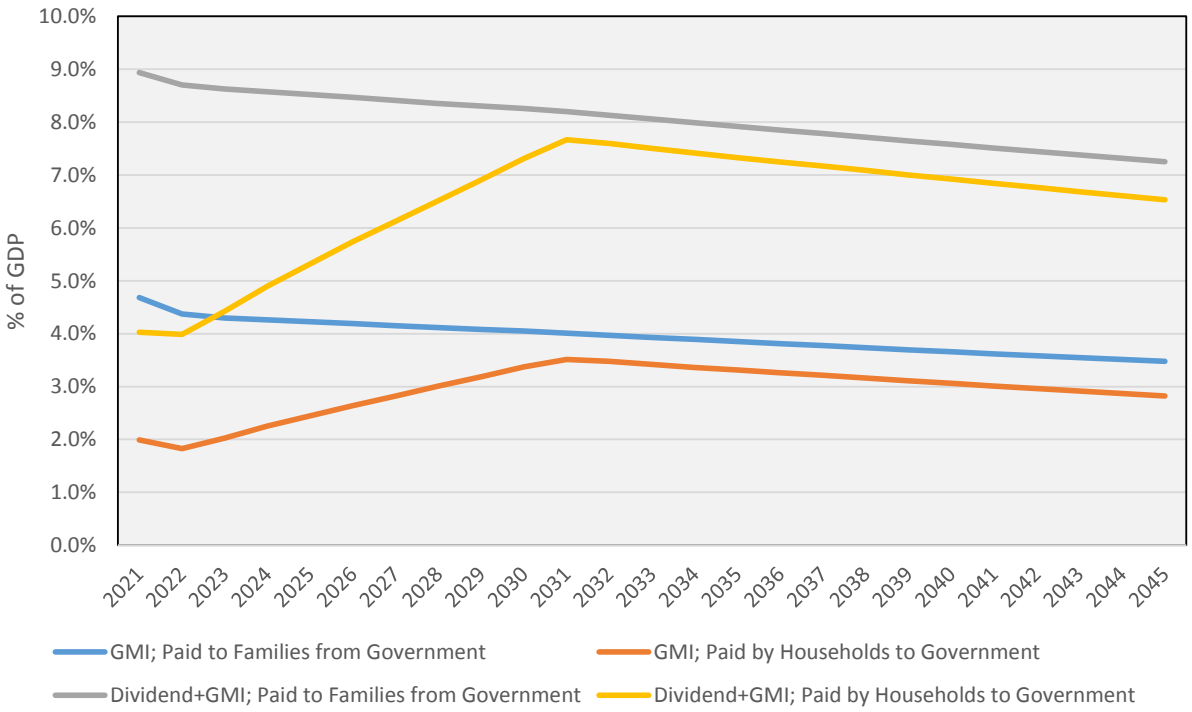
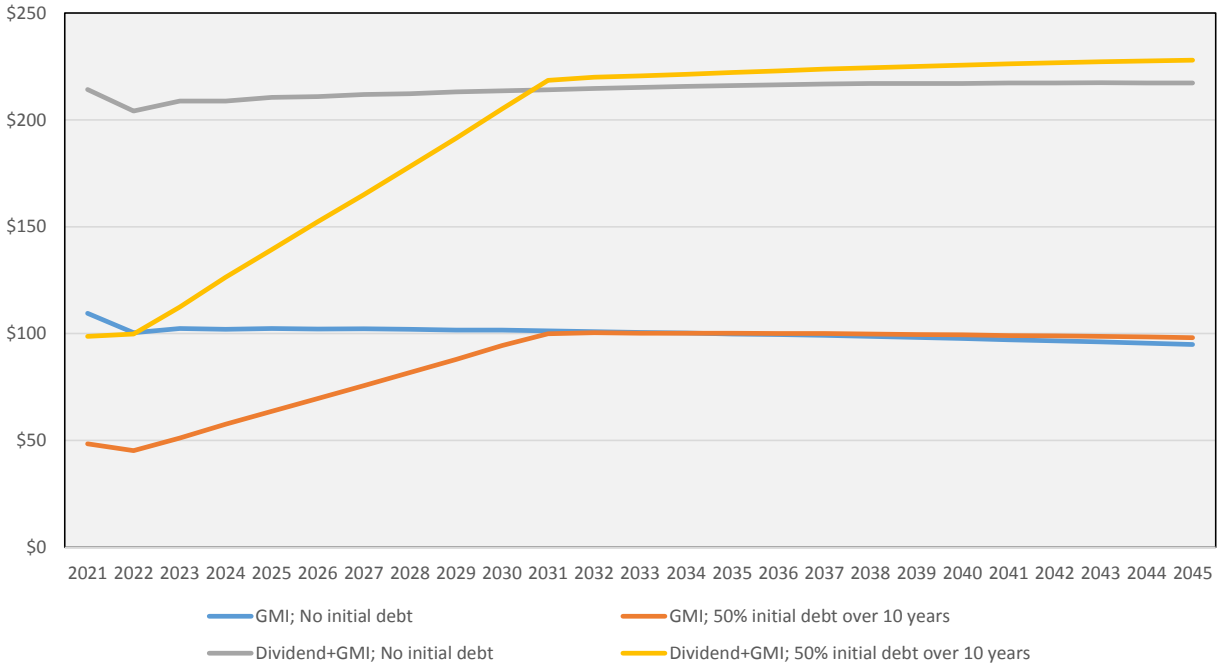


Figure 25 shows the transfers from households to government in absolute terms, for the same funding options, i.e. with 50% government debt and households covering 100% of remaining costs, and without initial debt and households covering 100% of costs. We can understand these figures as showing the amount of tax revenue that government would have to raise from households to cover the costs of the basic income programs in these funding scenarios (assuming the program costs are not covered by re-allocating other government funds).

Figure 25 Payments by households to government when 100% of remaining costs covered by households (in billions of dollars)



3.2.5 GROSS OPERATING SURPLUS OF BUSINESS SECTORS

The GOS of businesses—or the funds available for them to re-invest, pay taxes, and take profits—would be impacted by a basic income program's effects on economic activity and consumption, and also by the share of program costs covered by businesses in different funding scenarios.

Table 17 shows the potential change in annual GOS and private capital investment by businesses in year five and year 25 for the GMI program, under our usual four funding scenarios. Private capital investment is the capital purchased by businesses to support their operation and growth, including purchases of buildings, machinery, and equipment. When the program is entirely funded by households it could result in 1.5% additional GOS in year 5 and 2.8% additional GOS in year 25, with 1.4% and 2.7% additional private investment, respectively. With 50% initial debt funding, the additional GOS and private investment after five years is larger, at 2.3% for both; but, at 25 years these are at 2.1% and 2%, respectively, which are both lower than projected when the program is entirely funded by households. Table 18 shows the average annual change in GOS and private investment in real dollars over five years and 25 years.

Table 17 Change in GOS and private investment with the GMI program

Funding Mix	% Change in Gross Operating Surplus		% Change in Private Investment	
	By year 5	By year 25	By year 5	By year 25
no debt, 100% HH	1.5%	2.8%	1.4%	2.7%
no debt, 90% HH	1.3%	0.8%	1.2%	0.6%
50% debt, 100% HH	2.3%	2.1%	2.3%	2.0%
50 % debt, 90% HH	2.2%	0.4%	2.2%	0.3%

HH = Households

Table 18 Average annual change in GOS and private investment with the GMI program

Funding Mix	Average Annual Change in Gross Operating Surplus ($B)		Average Annual Change in Private Investment ($B)	
	By year 5	By year 25	By year 5	By year 25
no debt, 100% HH	$13	$23	$6	$10
no debt, 90% HH	$13	$12	$6	$5
50% debt, 100% HH	$23	$22	$11	$10
50 % debt, 90% HH	$23	$14	$11	$6

HH = Households

Table 19 shows the potential change in annual GOS and private investment by businesses in year five and year 25 for the Dividend-plus-GMI program, relative to baseline projections, for the same four funding scenarios. As we can see below, when the program is entirely funded by households it could result in 1.8% additional GOS after five years and 4% additional GOS after 25 years. Under this funding scenario, we could see 1.6% additional private investment in year five and 3.7% in year 25. With 50% initial debt funding, the additional GOS and private investment after five years is larger, at 3.1% for both; however, at 25 years these are at 2.5% and 2.3%, respectively, which are both lower than the no-debt scenario where households cover all program costs. Table 20 shows the average annual change in GOS and private investment in real dollars over five years and 25 years, for the same funding scenarios.

Table 19 Change in GOS and private investment with the Dividend-plus-GMI program

Funding Mix	% Change in Gross Operating Surplus		% Change in Private Investment	
	By year 5	By year 25	By year 5	By year 25
no debt, 100% HH	1.8%	4.0%	1.6%	3.7%
no debt, 90% HH	1.3%	-0.1%	1.2%	-0.4%
50% debt, 100% HH	3.1%	2.5%	3.1%	2.3%
50 % debt, 90% HH	2.9%	-1.0%	2.8%	-1.3%

HH = Households

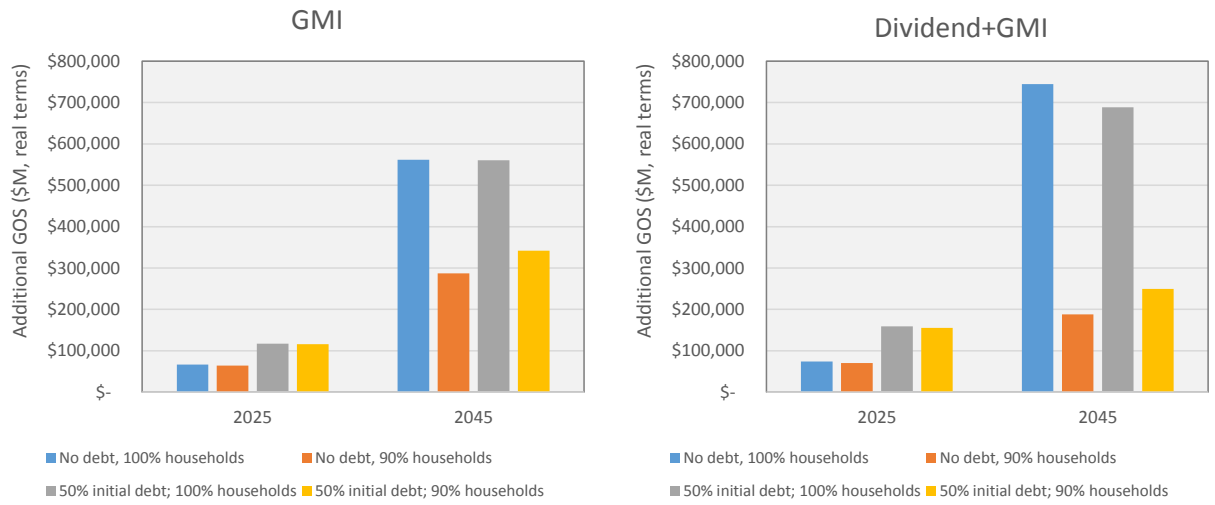
Table 20 Average annual change in GOS and private investment with Dividend-plus-GMI program

Funding Mix	Average Annual Change in Gross Operating Surplus ($B)		Average Annual Change in Private Investment ($B)	
	By year 5	By year 25	By year 5	By year 25
no debt, 100% HH	$15	$30	$7	$14
no debt, 90% HH	$14	$8	$6	$2
50% debt, 100% HH	$32	$28	$15	$13
50 % debt, 90% HH	$31	$10	$15	$4

HH = Households

Figure 26 shows the potential cumulative GOS that could result with the two basic income programs under our four different funding scenarios, in real terms. For further results, see Appendix B.

Figure 26 Cumulative additional GOS (in millions of dollars, real terms)



Over a five-year period, the GMI program could create an additional $117 billion in GOS and the Dividend-plus-GMI program could result in an additional $159 billion in GOS. Over the long term, the Dividend-plus-GMI program outperforms the GMI program in terms of additional GOS when remaining program costs are covered by households. However, when businesses cover 10% of remaining program costs, the Dividend-plus-GMI program could result in less additional GOS than the GMI program over a 25-year period.

As we see below in Figure 27, different industries benefit to varying degrees. Notably, the rental housing sector and manufacturing (which includes many necessities such as groceries) are primary beneficiaries of basic income programs, as these are significant areas of spending for low income families, as shown in Figure 28. Note that beyond the small inflationary effects included in the analysis, the results below do not mean that people are paying significantly more for the same products, but that families may be able to afford more. For example, families which were initially unable to afford suitable housing may, as a result of a basic income program, be able to spend more on rent for a higher quality and more suitable home. Similarly, families are able to spend more on other necessities such as groceries, which contribute the benefits in the manufacturing sector.

Figure 27 Average annual additional GOS by industry sector for the two basic income programs after 25 years (real terms, millions of dollars)

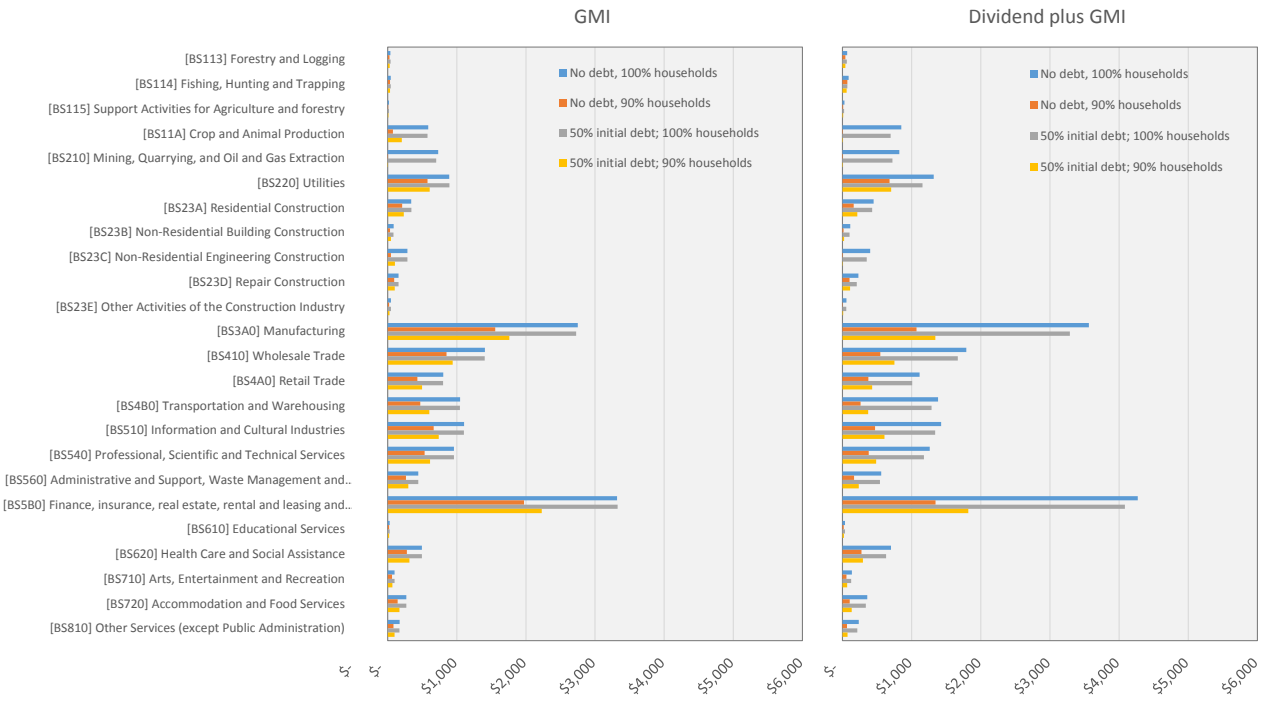
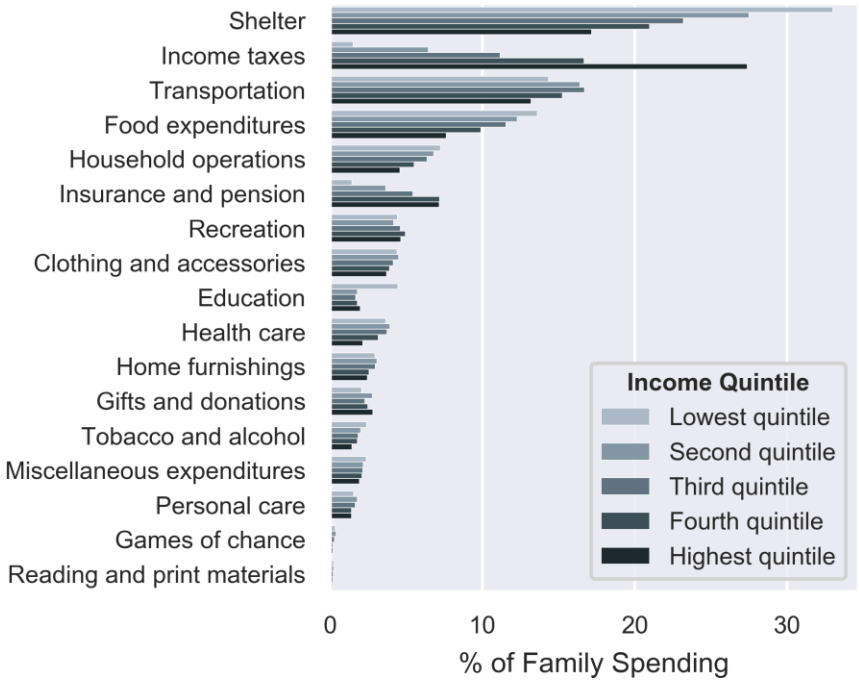


Figure 28 Share of spending by area for families (2020), by income quintile

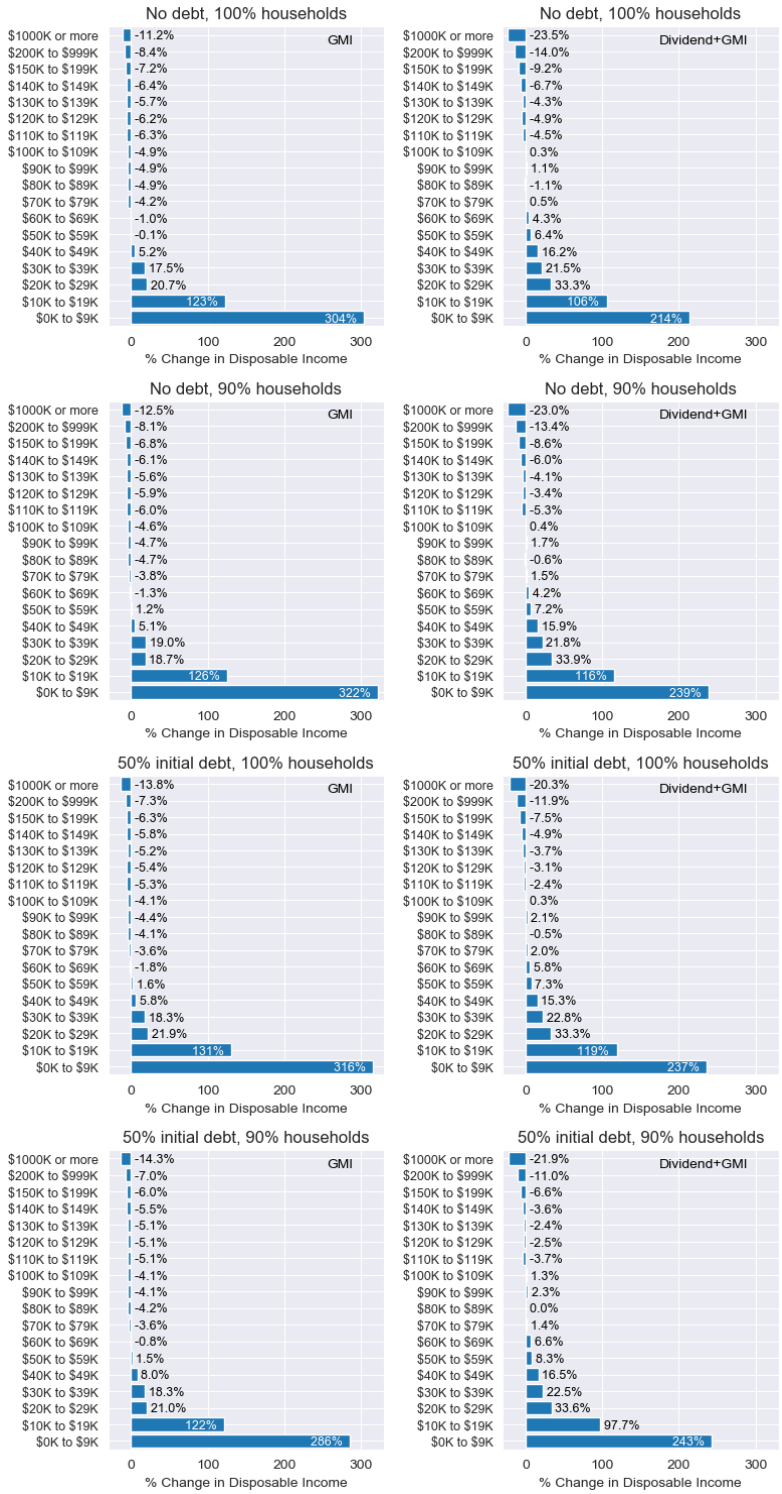


3.2.6 INCREMENTAL COST TO FAMILIES AND ECONOMIC INEQUALITY

The overall financial impact of a basic income program on families within different income brackets is highly dependent on how the program is funded and also on how a particular funding option is implemented. The latter is beyond the scope of this research, thus the potential impacts of the two programs on economic inequality will be discussed only in very general terms.

Figure 29 shows how families in different income brackets could see their disposable income change with a basic income program. The figure shows the net change in disposal income with the GMI program and the Dividend-plus-GMI program under our four funding scenarios, averaged by family over the 25-year period of the analysis. Disposable income is total income (including payments received under the basic income program) minus taxes and transfers to government. As noted in Section 2.4, the analysis assumes no structural changes to Canada's tax system; that is, the assumption is that those in higher income brackets will pay a larger share of the program cost, in proportion to the degree to which their income is above the poverty line (as set by the Market Basket Measure).

Figure 29 Net change in disposable income for the GMI program (left) and the Dividend-plus-GMI program (right) under the four funding options considered, averaged over 25 years



As we see above, with the GMI program, families in the lower income groups are net beneficiaries. With the Dividend-plus-GMI program, families with higher incomes become net beneficiaries of the program as well. What the above shows is the segment of families that will, to different degrees, shoulder the costs of each program. Just how these contributions are obtained by government would depend on how a funding scenario is implemented and which tax reforms are enacted—depending on these, the net changes in disposable income depicted above could certainly shift.

When the GMI program is 50% funded by government debt, families earning up to $60,000 are net beneficiaries, both when households cover 90% of remaining program costs and when they cover 100% of remaining costs. When the Dividend-plus-GMI program is initially 50% debt funded, families earning up to $110,000 are almost always net beneficiaries—the exception being that families earning between $80,000 and $90,000 see an average decrease of 0.5% in disposable income when 100% of remaining costs are covered by households.[22]

The greater use of debt tends to reduce the cost to households, resulting in smaller changes to disposable income for the middle and upper income groups, and slightly more increases in the benefits received by lower income families. However, it is important to recall that the scenarios with greater levels of government debt have lower economic growth, which necessitates greater transfers to lower income families.

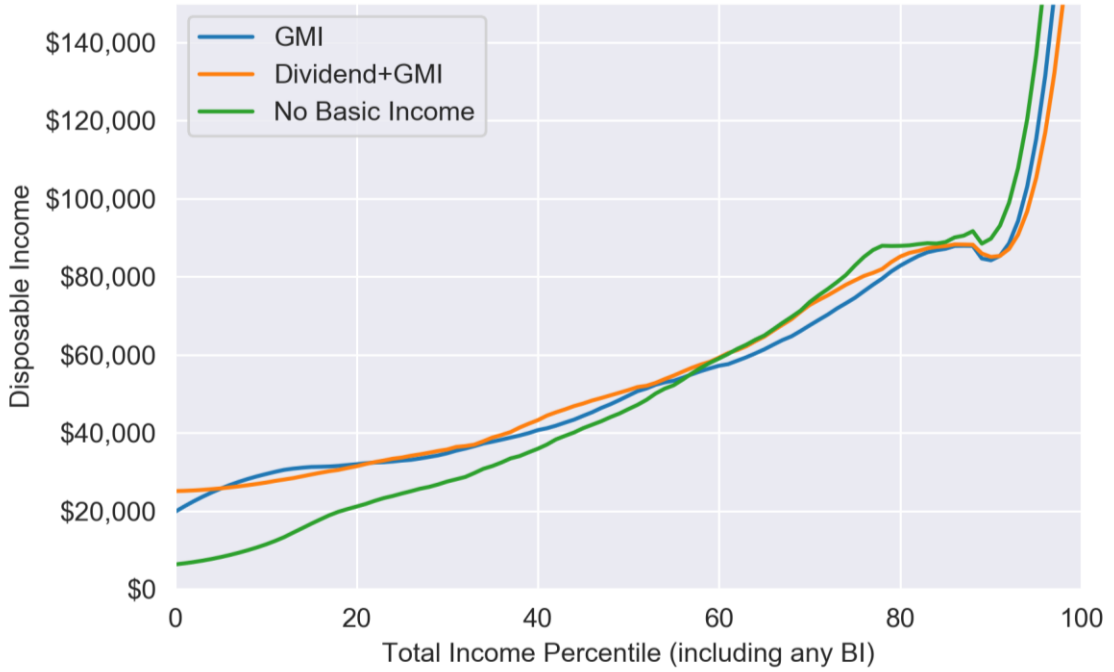
Note that it is not being suggested that a basic income program would be funded largely by increases in income tax. Those in higher income brackets typically (though not always) have more wealth than those in lower income brackets, and there are a variety of specific mechanisms—like a wealth tax or financial transaction tax, or changes to capital gains taxation—that would largely target those in higher income brackets. While Figure 29 presents program impacts in terms of net change to disposable income, we can also think of it as showing the shape of the contribution that would be required from different segments of the population under this specific funding scenario, however it is implemented.

Basic income programs have been proposed as a way to help reduce economic inequality and, as we can see here, they certainly have the potential to significantly increase incomes of those in lower income brackets. Meanwhile, insofar as the programs are funded by families in proportion to how much disposable income they have above the poverty line—whether the funding mechanism is actually in terms of income, wealth, both, or via other reforms—then both programs considered have the potential to decrease economic inequality.

Figure 30 shows the distribution of disposable income without basic income and after the first year of a program, when a basic income program is funded entirely by households.

[22] This is due to the relative frequency of couples in higher income brackets, as discussed in 3.1.

Figure 30 Distribution of disposable income by percentile with and without basic income



As we can see above, disposable income is boosted at the lower end of the income distribution with the basic income programs. Meanwhile, both basic income programs shift the line in the figure toward the right, meaning that there are fewer families at a given level of disposable income at the highest levels. If we compare the two basic income programs, we can see that the Dividend-plus-GMI program results in increased incomes across the middle of the income distribution, as compared to the GMI program.

Table 21 shows the share of national disposable income going to families below the 60th and 80th percentiles currently, as well as the shares projected to go to those families with each basic income program after one year, when the programs are funded entirely by households. As we can see, both basic income programs could increase the share of total disposable income that families below these cut-offs account for. Whereas families below the 60th percentile now account for only 31.1% of total disposable income, they would account for 39.1% to 39.9% with basic income. The bottom 80% of families by disposable income now account for 57.5% of total disposable income; with basic income this could increase to 62.9% to 64.9%. This demonstrates how the two basic income programs could reduce inequality and the concentration of disposable income amongst those at the top.

Table 21 Disposable income %, families below 60th & 80th percentiles, with/without basic income for the no debt, and 100% household scenario

	Families below 60th total income percentile	Families below 80th total income percentile
No Basic Income	31.1% of disposable total income	57.5% of disposable total income
GMI	39.1% of disposable total income Net Increase of $111B in disposable income	62.9% of disposable total income Net Increase of $89B in disposable income
Dividend-plus-GMI	39.9% of disposable total income Net Increase of $122B in disposable income	64.9% of disposable total income Net Increase of $114B in disposable income

Whether a basic income program could help reduce wealth inequality and the concentration of wealth we now see in Canada is more difficult to say. According to the PBO, the bottom 40% only have 1.2% of Canada's wealth, whereas the top 1% have 25.6% of the wealth and the top 20% have 73.5% of the wealth (Parliamentary Budget Officer, 2020). Increasing the incomes of those in lower income brackets may not do much to increase their wealth, given that lower income families typically do not save a large share of their incomes. How a basic income program impacts the wealth of those at the top depends largely on how the relevant funding option is implemented. Furthermore, we lack adequate data when it comes to wealth in Canada, as the PBO itself acknowledged. Given this lack of accurate data regarding how wealth is currently distributed, and without specifying how a particular funding scenario may be implemented, it is hard to estimate how a basic income program could impact this distribution.

3.2.7 GENERAL DISCUSSION

A basic income program that provides individuals with a guaranteed annual income of $2,000 per month could make contributions to GDP and jobs, while increasing government revenues. The GMI program could result in the economy being at least 2.4% larger after the first five years of the program, under certain funding scenarios. It could also result in several hundred thousand additional jobs per year and up to $18 billion in additional annual tax revenue after five years. The Dividend-plus-GMI program could result in additional real GDP of 3.2% above baseline after the first five years of the program and create hundreds of thousands of additional jobs per year, depending on how the program is funded. Meanwhile, it could generate an additional $23 billion in annual government revenues in five years.

As the results discussed here highlight, funding scenarios shape macroeconomic impacts in different ways, depending on the metric. In general, the results of our analysis indicate that:

- Scenarios with little or no debt funding provide more sustainable long-term outcomes with increasing growth. While initial debt funding could result in more short-term economic growth and job creation, in the long run the carrying cost of debt can result in less positive outcomes in in these funding scenarios.
- Funding options that rely too much on businesses could hamper economic growth.
- The Dividend-plus-GMI program could make larger economic contributions than the GMI program; however, its larger size and scope means that in funding scenarios that produce less

economic growth the program's economic contributions could lag behind those made by the GMI program.

- Funding scenarios that involve a lower proportion of government debt and rely primarily on high income families to fund a basic income program could also help reduce economic inequality more effectively than other funding options.

While the magnitude of the economic impacts change, the general conclusions are unchanged by varying the assumptions regarding the potential price and wage effects resulting from the increase in aggregate demand, as indicated by the sensitivity analysis performed. The overall conclusion that a basic income program can support economic growth and job creation even in the long-term is supported by most price and wage effect scenarios. Given that under all scenarios examined the maximum increase in the number of jobs above the baseline growth is comparable to the 2019 unemployment numbers and below the "high-employment" forecasts from Statistics Canada, and inflation rates remain small and within the Bank of Canada target range of 1% to 3%, we expect the price and wage impacts to be on the lower end of the sensitivity analysis. Thus, it is reasonable to assume moderate price and wage affects, at most.

This section focused on the economic impacts of the two basic income programs that are funding-dependent, highlighting not only the possible contributions of the programs but how they vary by funding scenario. No single funding option will maximize every metric over both the short and long term, and which basic income program may be seen as performing best in terms of generating economic outcomes will likely depend on which economic outcomes one prioritizes and how different metrics are comparatively weighed. Just how a particular program and funding option performs across all metrics analyzed can be seen by examining the full results in the Appendix B.

3.3 Self-Funding Example Under Minimum Tax Increases

As demonstrated in Section 3.2, the economic impacts of a basic income program are sensitive to the way in which a program is funded. Under different funding scenarios, a program will have different economic impacts in the short and long term, while the incremental costs to certain families will vary as well. Hence, any discussion about whether a basic income program can be self-sustaining, or about what its potential payback period for the government may be is difficult to answer, given the preference for different debt levels over different time periods might vary across stakeholders in the system in accordance. Such evaluations of a program are bounded by two extremes, whether a program is entirely funded by households and businesses or entirely funded by government debt. Within those extremes, whether one prioritizes short-term or long-term economic contributions, reducing the additional revenues that initially need to be raised to fund a program, a payback to government, and other considerations, preferences for funding mixes are essentially normative in nature.

In this section, a reference to a self-sustaining program is used to refer to whether a funding mix has a payback over a specified period. A payback period is measured as the time it takes for the present value of any government debt used to initially fund a basic income program to equal the present value of the additional tax revenue generated as a result of transfers from households and/or increased economic

activity. Put differently, it is the point in time when the net present value of the program is, from the perspective of government, zero. Beyond this time, the program will have a positive return on investment.

As noted, the preference for a program funding mix is bounded by the two limits of: (1) a program is entirely funded by households and businesses with no government debt; or, (2) a program is entirely funded by government debt.

> **Program is funded entirely by households and businesses:** In this type of scenario, there is no debt raising by government, with government acting purely as an intermediary between households. All money disbursed through the program is recouped via taxes; as such, there is no cost to government. This scenario means the program has a payback period of zero years. However, as Section 3.2 showed, when programs are entirely funded by households and result in positive long-term economic outcomes, this also results in certain middle income families seeing a decline in disposable income.
>
> **Program is funded entirely by government debt:** This scenario has no payback for government because the economy does not grow as fast as the accumulation of debt over time. While such debt-heavy scenarios were not discussed in Section 3.2, the impact of debt and the long-term outcomes with 50% initial debt funding and a 10-year ramp make it clear that a scenario where a program was entirely funded by debt would have no payback. However, in this scenario, many fewer families see a decline in disposable income.

The consideration of how a basic income program could have a payback under a balance of different factors can be thought of as an optimization problem. As such, it requires the maximization or minimization of a value of interest under some constraints. The challenge is that the optimization criteria that should be met when implementing a basic income program—or, roughly, what our priorities should be—remains controversial and is essentially normative.

As a demonstration of how optimization simulations could be performed, consider an analysis to find a solution that satisfies the following criteria:

1. Payback to government within 25 years
2. Minimize aggregate new taxation revenues raised under the condition that:
    a. Lower income and middle-class families are net beneficiaries of the program or net neutral [23]
    b. Incremental additional taxation revenues are a constant percentage of incomes over the period, i.e. any increase in transfers from households will be set in the first year and will not change throughout the period of evaluation
3. Economic outcomes are at least equal to or greater than the baseline projections in all years
4. Lowest government debt solution

[23] Once again, middle class is defined here as between two-thirds and twice median family incomes.

Performing such a simulation confirmed that a self-sustaining scenario exists that meets these criteria under the same moderate price and wage assumptions as in Section 3.2, for each basic income program. Before presenting the funding scenario that meets these criteria for each program and examining the economic impacts under that scenario, some observations can be made in light of the optimization analysis:

- In order to successfully pay back government within 25 years, or have zero net present value within 25 years, there must be sufficient long-term economic growth to provide the additional tax revenue needed to offset any initial government debt funding. As shown in Section 3.2 funding options which rely largely or entirely on households could result in more positive, long-term economic growth. However, given that the criteria is not seeking maximum economic growth, but simply performance above baseline projections, debt can be used to reduce the upfront cost of a program.
- Different funding options satisfy the criteria for the two basic income programs due to that fact that the programs have different gross costs and result in different economic outcomes. The GMI program be funded by a greater percentage of debt, over a longer period and still satisfy the payback criteria since the program is smaller in size. The dividend-plus-GMI program, in contrast, starts to fall below baseline projections if too much debt funding is used for too long a period of time, since this hampers economic growth.
- Larger debt amounts or longer borrowing periods can prevent the payback criteria from being met. Less debt and shorter debt periods require a greater upfront contribution from households, which increases the total tax burden on households. Payback periods of less than 25 years would require significant restrictions on the amount of debt than can be used to fund a program.
- Greater reliance on businesses for funding a program reduces economic growth and the corresponding additional tax revenue required to meet the payback criteria.

The funding scenario that satisfies our criteria with the GMI program is where the program is initially funded 57% by government debt, which decreases over a 21-year ramp, and households cover 98% of remaining program costs in each year, with businesses covering 2% of remaining program costs. Table 22 shows the economic impacts of the GMI program under this funding scenario. While the cost to households is reduced relative to the 100% household funding with no debt scenario, the economic outcomes are different.

Table 22 Economic impacts of the GMI program payback scenario

GMI								
	Annual				Cumulative			
	Impacts above the baseline		% Above Baseline		Impacts above the baseline		% Above Baseline	
	By year 5	By year 25	5 yr	25 yr	Year 5	Year 25	5 yr	25 yr
Real GDP ($B)	$57	$51	2.3%	1.5%	$207	$1,264	1.7%	1.8%
Jobs	436,000	344,000	2.3%	1.5%	n/a	n/a	n/a	n/a
Real GOS ($B)	$21	$19	2.2%	1.5%	$79	$489	1.7%	1.8%
Real Private Investment ($B)	$10	$9	2.2%	1.4%	$38	$234	1.7%	1.8%
Real Aggregate Wages ($B)	$22	$14	1.8%	0.9%	$97	$574	1.7%	1.8%

As can be seen in Table 22, the GMI program has a payback and can be funded by a mix of debt and taxes while leaving lower income and middle class families as net beneficiaries of the program or net neutral. Moreover, there is also economic expansion associated with the solution. By 25 years, the economy is generally 1.8% larger than baseline projections and there are 344,000 additional jobs created, with $14 billion more wages in the system in year 25.

The funding scenario that satisfies our criteria with the Dividend-plus-GMI scenario is one where the program is initially 48% debt funded, with a 12-year debt ramp and households covering 100% of remaining program costs in each year. Table 23 shows the economic impacts of the Dividend-plus-GMI program under this funding scenario.

Table 23 Economic impacts of the Dividend-plus-GMI program payback scenario

Dividend-plus-GMI								
	Annual				Cumulative			
	Impacts above the baseline		% Above Baseline		Additional		% Above Baseline	
	By year 5	By year 25	5 yr	25 yr	By year 5	By year 25	5 yr	25 yr
Real GDP ($B)	$65	$69	2.6%	2.1%	$222	$1,417	1.8%	2.0%
Jobs	498,000	463,000	2.6%	2.1%	n/a	n/a	n/a	n/a
Real GOS ($B)	$25	$26	2.5%	2.0%	$85	$544	1.8%	2.0%
Real Private Investment ($B)	$12	$12	2.5%	1.9%	$41	$262	1.8%	2.0%
Real Aggregate Wages ($B)	$25	$19	2.1%	1.3%	$104	$642	1.8%	2.0%

As can be seen in Table 23, the Dividend-plus-GMI program also has a payback and can be funded by a mix of debt and taxes while leaving lower income and middle class families as net beneficiaries of the program or net neutral. As with the GMI program results, there is also economic expansion associated with the solution. By year 25, the economy is 2% larger than baseline and there are over 463,000 jobs created, with $19 billion more wages in the system in year 25.

As the amount of debt funding is reduced over the years, the result is that in some years government has excess revenue, which is assumed to be used to offset the cost in years which have revenue shortfalls. To achieve the net return to government over the 25-year period, policy makers would have to be diligent about balancing current and future revenues and expenditures in the basic income accounts.

While these scenarios may not project to deliver short- or long-term economic results that are as positive as those resulting from the basic income programs under certain funding scenarios, they satisfy the criteria set out above and provide a guide to funding each of the proposed basic income program in a way that meets such a set of criteria.

4.0 CONCLUSIONS

This report seeks to add to the conversation around basic income in Canada by examining the reach and potential economic impacts of two basic income programs, under a variety of different funding options. The objectives of the research were to understand the benefits to families resulting from the programs and analyze the potential economic contributions of the programs, examining how different funding options impact outcomes with respect to key economic metrics.

Both the GMI program, which would disburse $122 billion to families in its first year, and the Dividend-plus-GMI program, which would initially disburse $235 billion to families, could lift more than 3.2 million families out of poverty. If adequately implemented, and as long as it was not accompanied by cuts to public services and other social spending, each program has the potential to essentially eliminate poverty in Canada.

The reductions in poverty resulting from a basic income program would reduce the costs associated with poverty, whether these are health care costs, criminal justice costs, or others. Such economic benefits are beyond the scope of this report, and from a purely economic point of view could be seen as offsetting some of the cost of a basic income program.

The economic impacts of a basic income program over time can vary considerably depending on how a program is funded. Our analysis demonstrates that relying too much on government debt or on businesses to fund a basic income program could diminish the economic impacts of the program in the long run. However, when a program is funded largely or entirely by households, which in our analysis meant largely high-income households, a basic income program could support positive, long-term economic returns. As an initial examination of the potential contributions of a basic income program, the analysis can inform debates around basic income and provide policy makers with data regarding the macroeconomic trends that could be wedded to a basic income program.

With respect to funding a basic income program, the analysis seeks to avoid making additional assumptions. While the impacts of drawing on households, businesses, and government to different degrees are considered, precisely how a funding scenario is implemented—e.g. just how the funds are raised from that source—is beyond the scope of this project. Conceivably, different ways of implementing a single funding option could have somewhat different economic consequences. It is also possible that government could offset some of the cost of a basic income program by reducing spending elsewhere—particularly reducing spending that is not related to public services or social supports. However, in order to minimize the assumptions involved in the analysis and avoid any discussion of which spending may be non-essential, we did not incorporate this possibility into our analysis.

Normative considerations enter into the picture when weighing the relative importance of certain economic metrics, short- or long-term outcomes, different levels of government debt, and varying incremental costs to different households. The criteria used to evaluate a program and determine favourable funding scenarios for the program may vary from person to person. If consensus develops around a certain set of criteria, additional analysis can assist in understanding the optimal funding mix to

satisfy the criteria. As a demonstration, we performed a simulation to determine the funding scenarios that ensure the GMI program and Dividend-plus-GMI program support positive economic impacts, see all government debt funding be paid back through additional tax revenues resulting from this increased economic activity, and leave lower income and middle class families without a net decrease in disposable income, as a result of a basic income program.

5.0 REFERENCES

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A. GLOSSARY

CCB: Canada Child Benefit, a federally funded program to help eligible families with the cost of raising children under 18 years of age, whereby eligible families receive a non-taxable amount paid monthly.

CERB: Canada Emergency Response Benefit, a temporary federally funded program offering a taxable amount of up to $2,000 per month to individuals impacted by COVID-19, conditional on previous employment.

CPP: Canada Pension Plan, the federally administered pension program providing a monthly, taxable benefit to qualifying retirees.

Debt ramp: the time over which government debt funding decreases to zero in a particular funding scenario.

Disposable income: total income, including payments received under the proposed basic income programs, minus taxes and transfers to government.

Dividend: in the context of a basic income program, an unconditional payment made to all individuals of a certain age, typically all adults (sometimes called “demogrant”).

EI: Employment Insurance, a federal program providing income support to unemployed workers.

Family: for the purposes of this analysis a family is a nuclear family, comprised of either a married couple or common-law couple with or without a child or children, or a lone-parent with a child or children, or a single adult aged 18 and over.

GDP: gross domestic product, which is the value of all final goods and services produced in a country during a given time period.

GMI: guaranteed minimum income, which is an income that is guaranteed to all, setting an income floor at whatever amount is guaranteed as part of a basic income program

GOS: gross operating surplus, which is the value added by a firm minus the personnel cost. It is the balance available to a unit which allows it to recompense the providers of own funds and debt to pay taxes and to finance all or a part of its investment.

Household: a household can include one or more families living in a dwelling. Taken as a group, households are a source of government revenue via income taxes and other transfers to government, distinct from businesses.

MBM: Market Basket Measure, which is the official standard of living metric developed by Employment and Social Development Canada. The threshold represents the costs of specified qualities and quantities of food, clothing, footwear, transportation, shelter and other expenses for a reference family of two adults and two children, which is then adjusted according to other family sizes.

Means-testing: a program is means tested when eligibility for the program or the benefits received depends on whether individuals are judged to have the means to make do without the program. A common form of means-testing is an income test, whereby benefits under a program depend on an individual's or family's income.

NIT: negative income tax, which is a program in which individuals below a certain income threshold receive payments from government (rather than making tax payments to government).

Ontario Works: a provincial program providing financial support to eligible Ontario residents 16 and over who need help covering essential living expenses or education and job training.

Ontario Disability Support: a provincial program providing financial support to eligible Ontario residents 18 and over with a disability.

PBO: Parliamentary Budget Officer, an office of the Parliament of Canada that provides independent financial and economic analysis.

Real terms: Changes in future dollar values are in real terms when they exclude the effects of inflation. In the report, when 2020 constant $ is used, this is reference to the results in real terms.

UBI: universal basic income, typically understood as a basic income program whereby all individuals receive equal unconditional payments sufficient for meeting at least basic needs. However, the expression is commonly used to refer to basic income programs more generally.

Unemployment trap: an unintended consequence of the structure of social programs on which recipients are actually financially better off not working at all than working a certain number of hours and having their benefits aggressively clawed back. Sometimes called "welfare traps" or "poverty traps."

B. DETAILED SCENARIO METRICS

The following tables highlight the economic impacts of varying the funding parameters over different contributions from households, businesses, and government, as well as varying the number of years which the government will borrow. All scenarios are performed under the moderate wage and price increase assumptions used in Section 3.2.

B.1. ADDITIONAL FUNDING SCENARIOS

Table 24 Annual Real GDP ($M, real)

			GMI										Dividend-plus-GMI									
	Household	Debt	Additional Real GDP ($M)					Additional Real GDP (% of Baseline)					Additional Real GDP ($M)					Additional Real GDP (% of Baseline)				
Initial Debt	Funding	Rampdown	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045
0%	85%	n/a	$31,418	$24,066	$15,969	$6,934	-$3,064	1.24%	0.88%	0.55%	0.22%	-0.09%	$27,416	$7,267	-$15,466	-$41,007	-$69,129	1.09%	0.27%	-0.53%	-1.31%	-2.07%
0%	90%	n/a	$34,084	$32,690	$31,078	$29,943	$28,741	1.35%	1.20%	1.06%	0.96%	0.86%	$35,275	$28,021	$20,027	$10,823	$334	1.40%	1.03%	0.68%	0.35%	0.01%
0%	95%	n/a	$36,591	$42,092	$48,169	$54,861	$62,618	1.45%	1.55%	1.65%	1.75%	1.88%	$41,405	$46,460	$52,499	$59,352	$66,977	1.64%	1.71%	1.79%	1.90%	2.01%
0%	100%	n/a	$39,707	$50,707	$63,401	$77,600	$93,673	1.57%	1.86%	2.17%	2.48%	2.81%	$46,147	$64,669	$84,870	$107,972	$133,654	1.83%	2.37%	2.90%	3.45%	4.01%
10%	85%	5	$32,624	$24,659	$15,598	$5,982	-$6,117	1.29%	0.91%	0.53%	0.19%	-0.18%	$29,694	$9,327	-$14,430	-$40,589	-$69,572	1.18%	0.34%	-0.49%	-1.30%	-2.09%
10%	85%	10	$34,793	$25,348	$16,071	$5,955	-$4,969	1.38%	0.93%	0.55%	0.19%	-0.15%	$33,382	$11,017	-$13,176	-$40,620	-$70,726	1.32%	0.40%	-0.45%	-1.30%	-2.12%
10%	85%	20	$36,606	$28,050	$16,883	$6,155	-$6,020	1.45%	1.03%	0.58%	0.20%	-0.18%	$36,260	$13,822	-$13,805	-$42,046	-$74,023	1.44%	0.51%	-0.47%	-1.34%	-2.22%
10%	90%	5	$33,061	$30,600	$28,620	$26,605	$24,272	1.31%	1.12%	0.98%	0.85%	0.73%	$36,817	$28,353	$18,619	$8,048	-$3,080	1.46%	1.04%	0.64%	0.26%	-0.09%
10%	90%	10	$39,208	$34,387	$31,672	$29,377	$24,469	1.55%	1.26%	1.08%	0.94%	0.73%	$43,212	$30,101	$19,316	$7,738	-$5,087	1.71%	1.11%	0.66%	0.25%	-0.15%
10%	90%	20	$39,259	$38,691	$34,994	$30,138	$26,901	1.56%	1.42%	1.20%	0.96%	0.81%	$46,917	$36,802	$24,431	$7,765	-$7,430	1.86%	1.35%	0.84%	0.25%	-0.22%
10%	95%	5	$36,932	$41,115	$46,407	$52,090	$59,089	1.46%	1.51%	1.59%	1.67%	1.77%	$42,629	$46,167	$50,666	$55,849	$61,762	1.69%	1.70%	1.73%	1.79%	1.85%
10%	95%	10	$42,008	$42,955	$47,669	$53,117	$59,668	1.66%	1.58%	1.63%	1.70%	1.79%	$50,675	$47,294	$50,807	$55,193	$59,627	2.01%	1.74%	1.74%	1.76%	1.79%
10%	95%	20	$43,963	$47,283	$50,205	$52,852	$57,434	1.74%	1.74%	1.72%	1.69%	1.72%	$52,654	$55,864	$56,305	$55,220	$57,673	2.09%	2.05%	1.92%	1.77%	1.73%
10%	100%	5	$39,403	$49,698	$61,743	$75,295	$90,381	1.56%	1.83%	2.11%	2.41%	2.71%	$47,573	$64,289	$83,555	$105,464	$129,048	1.89%	2.36%	2.86%	3.37%	3.87%
10%	100%	10	$44,240	$51,057	$62,657	$76,248	$90,920	1.75%	1.87%	2.14%	2.44%	2.73%	$55,884	$64,623	$82,176	$102,019	$124,265	2.21%	2.37%	2.81%	3.26%	3.73%
10%	100%	20	$46,249	$54,871	$64,192	$74,470	$88,054	1.83%	2.02%	2.19%	2.38%	2.64%	$59,268	$72,773	$86,015	$100,651	$120,178	2.35%	2.67%	2.94%	3.22%	3.61%
50%	85%	5	$39,049	$28,641	$17,961	$6,365	-$6,427	1.55%	1.05%	0.61%	0.20%	-0.19%	$38,773	$12,231	-$16,237	-$46,781	-$81,621	1.54%	0.45%	-0.56%	-1.50%	-2.45%
50%	85%	10	$55,708	$31,664	$17,782	$2,806	-$13,369	2.21%	1.16%	0.61%	0.09%	-0.40%	$71,104	$22,378	-$10,830	-$47,297	-$87,213	2.82%	0.82%	-0.37%	-1.51%	-2.62%
50%	85%	20	$65,253	$55,056	$36,251	$9,946	-$11,663	2.59%	2.02%	1.24%	0.32%	-0.35%	$88,094	$61,758	$17,060	-$38,986	-$89,223	3.49%	2.27%	0.58%	-1.25%	-2.68%
50%	90%	5	$37,204	$30,940	$25,532	$19,930	$14,147	1.47%	1.14%	0.87%	0.64%	0.42%	$41,120	$26,266	$11,119	-$5,399	-$23,605	1.63%	0.96%	0.38%	-0.17%	-0.71%
50%	90%	10	$57,022	$38,430	$31,351	$23,596	$15,842	2.26%	1.41%	1.07%	0.75%	0.48%	$73,565	$35,674	$15,918	-$4,990	-$28,341	2.92%	1.31%	0.54%	-0.16%	-0.85%
50%	90%	20	$66,199	$60,351	$46,336	$27,819	$14,262	2.62%	2.22%	1.58%	0.89%	0.43%	$90,644	$71,963	$38,782	-$7,953	-$39,657	3.59%	2.64%	1.33%	-0.25%	-1.19%
50%	95%	5	$40,578	$41,403	$44,036	$46,849	$50,392	1.61%	1.52%	1.51%	1.50%	1.51%	$44,761	$41,641	$41,043	$40,769	$40,260	1.77%	1.53%	1.40%	1.30%	1.21%
50%	95%	10	$58,983	$44,923	$44,568	$45,239	$46,167	2.34%	1.65%	1.52%	1.45%	1.39%	$77,222	$48,366	$41,821	$36,391	$30,362	3.06%	1.78%	1.43%	1.16%	0.91%
50%	95%	20	$68,524	$65,884	$57,169	$45,655	$40,673	2.72%	2.42%	1.95%	1.46%	1.22%	$94,449	$82,096	$59,245	$30,099	$11,470	3.74%	3.01%	2.03%	0.96%	0.34%
50%	100%	5	$41,850	$48,586	$57,985	$68,251	$80,461	1.66%	1.78%	1.98%	2.18%	2.42%	$48,441	$57,501	$71,083	$86,826	$104,636	1.92%	2.11%	2.43%	2.78%	3.14%
50%	100%	10	$59,883	$49,815	$55,683	$63,479	$72,412	2.37%	1.83%	1.90%	2.03%	2.17%	$79,407	$58,087	$64,921	$74,680	$85,630	3.15%	2.13%	2.22%	2.39%	2.57%
50%	100%	20	$68,778	$69,111	$64,697	$59,045	$61,336	2.73%	2.54%	2.21%	1.89%	1.84%	$98,332	$92,509	$84,462	$63,394	$61,054	3.90%	3.40%	2.89%	2.03%	1.83%
90%	85%	5	$40,839	$25,128	$10,788	-$5,160	-$22,614	1.62%	0.92%	0.37%	-0.16%	-0.68%	$45,408	$13,384	-$20,031	-$56,837	-$97,580	1.80%	0.49%	-0.68%	-1.82%	-2.93%
90%	85%	10	$74,930	$39,807	$21,647	$2,372	-$18,637	2.97%	1.46%	0.74%	0.08%	-0.56%	$101,474	$31,059	-$10,406	-$56,782	-$109,018	4.02%	1.14%	-0.36%	-1.82%	-3.27%
90%	85%	20	$89,957	$78,054	$52,432	$11,968	-$20,010	3.56%	2.87%	1.79%	0.38%	-0.60%	$128,072	$100,972	$44,253	-$45,116	-$125,044	5.08%	3.71%	1.51%	-1.44%	-3.75%
90%	90%	5	$43,039	$34,719	$28,082	$20,762	$12,999	1.71%	1.27%	0.96%	0.66%	0.39%	$46,906	$26,179	$7,271	-$13,939	-$37,401	1.86%	0.96%	0.25%	-0.45%	-1.12%
90%	90%	10	$73,308	$41,616	$29,622	$17,509	$4,096	2.90%	1.53%	1.01%	0.56%	0.12%	$102,200	$39,909	$10,841	-$20,410	-$54,712	4.05%	1.47%	0.37%	-0.65%	-1.64%
90%	90%	20	$87,081	$80,625	$57,372	$23,980	$1,111	3.45%	2.96%	1.96%	0.77%	0.03%	$127,876	$106,121	$54,884	-$21,855	-$86,480	5.07%	3.90%	1.88%	-0.70%	-2.60%
90%	95%	5	$42,557	$40,189	$40,382	$40,699	$41,327	1.69%	1.48%	1.38%	1.30%	1.24%	$45,671	$36,585	$30,384	$24,105	$17,369	1.81%	1.34%	1.04%	0.77%	0.52%
90%	95%	10	$75,382	$46,617	$41,453	$36,989	$31,728	2.99%	1.71%	1.42%	1.18%	0.95%	$104,414	$45,940	$28,650	$12,563	-$5,223	4.14%	1.69%	0.98%	0.40%	-0.16%
90%	95%	20	$86,247	$77,131	$59,632	$31,224	$15,153	3.42%	2.83%	2.04%	1.00%	0.45%	$127,868	$112,067	$65,491	$1,366	-$46,606	5.07%	4.12%	2.24%	0.04%	-1.40%
90%	100%	5	$42,495	$45,986	$52,588	$60,481	$68,657	1.68%	1.69%	1.80%	1.93%	2.06%	$45,472	$47,339	$55,144	$63,381	$73,152	1.80%	1.74%	1.89%	2.03%	2.20%
90%	100%	10	$76,527	$48,937	$49,786	$52,333	$55,329	3.03%	1.80%	1.70%	1.67%	1.66%	$107,342	$51,494	$47,627	$46,618	$45,567	4.25%	1.89%	1.63%	1.49%	1.37%
90%	100%	20	$90,245	$83,944	$68,504	$45,514	$37,743	3.58%	3.08%	2.34%	1.46%	1.13%	$130,323	$119,515	$77,658	$24,510	-$5,693	5.16%	4.39%	2.65%	0.78%	-0.17%

Table 25 Additional Jobs

			GMI										Dividend-plus-GMI									
	Household	Debt	Additional Jobs ($M)					Additional Jobs (% of Baseline)					Additional Jobs ($M)					Additional Jobs (% of Baseline)				
Initial Debt	Funding	Rampdown	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045
0%	85%	n/a	247,226	196,648	151,367	110,382	73,696	1.27%	0.98%	0.73%	0.51%	0.33%	228,532	95,760	-39,017	-177,683	-317,852	1.18%	0.48%	-0.19%	-0.83%	-1.43%
0%	90%	n/a	263,554	251,525	245,963	251,910	266,123	1.36%	1.25%	1.18%	1.17%	1.20%	279,464	229,738	185,684	144,398	105,893	1.44%	1.14%	0.89%	0.67%	0.48%
0%	95%	n/a	278,931	311,891	354,126	406,139	472,544	1.44%	1.55%	1.70%	1.89%	2.12%	317,800	347,684	390,109	443,944	510,430	1.64%	1.73%	1.88%	2.07%	2.29%
0%	100%	n/a	298,021	366,047	448,986	545,590	659,972	1.53%	1.82%	2.16%	2.54%	2.97%	346,157	463,888	593,828	744,289	915,542	1.78%	2.31%	2.86%	3.46%	4.11%
10%	85%	5	259,216	204,134	152,237	107,436	55,621	1.33%	1.02%	0.73%	0.50%	0.25%	246,709	112,242	-29,573	-172,229	-318,200	1.27%	0.56%	-0.14%	-0.80%	-1.43%
10%	85%	10	271,821	208,074	154,781	106,443	63,924	1.40%	1.04%	0.75%	0.50%	0.29%	272,830	122,959	-21,683	-172,774	-325,842	1.40%	0.61%	-0.10%	-0.80%	-1.46%
10%	85%	20	284,190	223,998	157,426	106,880	56,611	1.46%	1.12%	0.76%	0.50%	0.25%	292,468	141,710	-26,977	-182,882	-347,401	1.51%	0.71%	-0.13%	-0.85%	-1.56%
10%	90%	5	257,851	238,704	230,694	231,096	238,586	1.33%	1.19%	1.11%	1.08%	1.07%	295,734	237,294	181,436	131,185	88,533	1.52%	1.18%	0.87%	0.61%	0.40%
10%	90%	10	302,237	266,052	252,916	251,130	240,026	1.56%	1.32%	1.22%	1.17%	1.08%	339,026	248,653	185,559	128,630	75,234	1.75%	1.24%	0.89%	0.60%	0.34%
10%	90%	20	300,641	294,624	274,323	255,538	256,901	1.55%	1.47%	1.32%	1.19%	1.15%	364,567	293,057	218,514	128,510	60,030	1.88%	1.46%	1.05%	0.60%	0.27%
10%	95%	5	284,826	308,345	345,202	391,170	452,608	1.47%	1.54%	1.66%	1.82%	2.03%	332,576	351,754	383,643	427,035	482,837	1.71%	1.75%	1.85%	1.99%	2.17%
10%	95%	10	319,794	320,994	353,816	397,680	456,346	1.65%	1.60%	1.70%	1.85%	2.05%	387,871	359,453	384,738	422,896	469,380	2.00%	1.79%	1.85%	1.97%	2.11%
10%	95%	20	332,772	349,602	369,623	395,521	442,452	1.71%	1.74%	1.78%	1.84%	1.99%	401,535	416,631	420,599	423,122	457,138	2.07%	2.07%	2.02%	1.97%	2.05%
10%	100%	5	299,888	363,020	441,792	534,312	642,534	1.54%	1.81%	2.13%	2.49%	2.89%	363,719	468,472	591,523	734,326	892,424	1.87%	2.33%	2.85%	3.42%	4.01%
10%	100%	10	333,153	372,471	447,719	540,360	645,913	1.72%	1.85%	2.16%	2.51%	2.90%	420,513	471,160	583,124	712,923	862,417	2.17%	2.35%	2.81%	3.32%	3.88%
10%	100%	20	346,975	397,891	457,991	529,154	627,942	1.79%	1.98%	2.20%	2.46%	2.82%	443,698	524,926	607,548	703,754	836,915	2.28%	2.61%	2.92%	3.27%	3.76%
50%	85%	5	310,545	237,315	173,667	115,048	60,262	1.60%	1.18%	0.84%	0.54%	0.27%	315,467	136,332	-37,665	-208,258	-390,408	1.62%	0.68%	-0.18%	-0.97%	-1.75%
50%	85%	10	423,117	257,194	172,231	91,985	16,337	2.18%	1.28%	0.83%	0.43%	0.07%	537,625	202,426	-4,466	-214,198	-428,545	2.77%	1.01%	-0.02%	-1.00%	-1.93%
50%	85%	20	487,509	409,056	287,424	133,981	23,469	2.51%	2.04%	1.38%	0.62%	0.11%	654,965	465,391	176,901	-163,434	-444,334	3.37%	2.32%	0.85%	-0.76%	-2.00%
50%	90%	5	295,417	249,249	218,368	195,671	181,563	1.52%	1.24%	1.05%	0.91%	0.82%	330,007	227,063	135,663	47,929	-37,532	1.70%	1.13%	0.65%	0.22%	-0.17%
50%	90%	10	431,241	301,020	257,944	220,380	193,738	2.22%	1.50%	1.24%	1.03%	0.87%	553,546	289,327	166,195	49,524	-68,838	2.85%	1.44%	0.80%	0.23%	-0.31%
50%	90%	20	493,981	443,876	351,878	245,904	182,205	2.54%	2.21%	1.69%	1.14%	0.82%	668,978	531,891	313,431	28,702	-141,467	3.45%	2.65%	1.51%	0.13%	-0.64%
50%	95%	5	319,918	319,551	338,386	365,484	405,647	1.65%	1.59%	1.63%	1.70%	1.82%	354,437	327,817	326,689	335,807	352,637	1.83%	1.63%	1.57%	1.56%	1.58%
50%	95%	10	443,505	342,673	341,306	354,518	378,004	2.28%	1.71%	1.64%	1.65%	1.70%	578,303	372,461	331,341	307,281	290,053	2.98%	1.85%	1.59%	1.43%	1.30%
50%	95%	20	508,922	479,567	420,500	356,727	343,332	2.62%	2.39%	2.02%	1.66%	1.54%	696,591	598,484	443,578	266,260	170,577	3.59%	2.98%	2.14%	1.24%	0.77%
50%	100%	5	328,532	366,709	427,250	498,708	588,921	1.69%	1.83%	2.06%	2.32%	2.65%	379,699	431,904	518,147	622,472	745,665	1.96%	2.15%	2.49%	2.90%	3.35%
50%	100%	10	449,882	374,901	412,316	468,374	538,441	2.32%	1.87%	1.98%	2.18%	2.42%	593,002	435,994	478,217	545,289	626,836	3.05%	2.17%	2.30%	2.54%	2.82%
50%	100%	20	510,570	500,794	468,206	439,559	468,766	2.63%	2.49%	2.25%	2.04%	2.11%	722,064	665,763	603,822	472,889	472,709	3.72%	3.31%	2.91%	2.20%	2.12%
90%	85%	5	320,841	211,136	124,061	38,593	-44,090	1.65%	1.05%	0.60%	0.18%	-0.20%	359,488	142,461	-64,152	-274,300	-492,317	1.85%	0.71%	-0.31%	-1.28%	-2.21%
90%	85%	10	554,757	310,179	195,713	87,262	-19,021	2.86%	1.54%	0.94%	0.41%	-0.09%	744,575	258,162	-5,340	-278,713	-568,479	3.83%	1.29%	-0.03%	-1.30%	-2.55%
90%	85%	20	657,653	562,188	390,980	145,409	-30,813	3.39%	2.80%	1.88%	0.68%	-0.14%	925,237	722,426	347,315	-209,501	-674,762	4.76%	3.60%	1.67%	-0.97%	-3.03%
90%	90%	5	337,508	276,358	236,552	202,115	175,583	1.74%	1.38%	1.14%	0.94%	0.79%	369,119	225,410	109,389	-7,938	-125,640	1.90%	1.12%	0.53%	-0.04%	-0.56%
90%	90%	10	543,724	322,324	246,528	181,323	119,691	2.80%	1.60%	1.19%	0.84%	0.54%	748,918	316,266	131,076	-50,758	-235,874	3.86%	1.57%	0.63%	-0.24%	-1.06%
90%	90%	20	638,839	578,716	422,834	220,232	98,514	3.29%	2.88%	2.04%	1.02%	0.44%	924,254	756,320	414,275	-65,690	-440,581	4.76%	3.77%	1.99%	-0.31%	-1.98%
90%	95%	5	334,167	312,283	314,992	326,395	348,581	1.72%	1.55%	1.52%	1.52%	1.57%	360,480	293,547	256,780	229,140	208,803	1.86%	1.46%	1.24%	1.07%	0.94%
90%	95%	10	557,039	354,439	321,168	301,860	287,706	2.87%	1.76%	1.55%	1.40%	1.29%	765,611	355,539	244,755	154,469	66,421	3.94%	1.77%	1.18%	0.72%	0.30%
90%	95%	20	632,058	555,189	435,801	264,571	183,082	3.25%	2.76%	2.10%	1.23%	0.82%	924,096	795,784	482,124	80,070	-195,544	4.76%	3.96%	2.32%	0.37%	-0.88%
90%	100%	5	334,257	350,787	393,506	450,560	516,377	1.72%	1.75%	1.89%	2.10%	2.32%	358,922	363,619	414,026	472,598	548,223	1.85%	1.81%	1.99%	2.20%	2.46%
90%	100%	10	565,282	369,965	374,650	397,871	432,552	2.91%	1.84%	1.80%	1.85%	1.94%	783,011	391,745	365,507	366,425	376,309	4.03%	1.95%	1.76%	1.70%	1.69%
90%	100%	20	658,924	600,547	493,273	353,620	321,290	3.39%	2.99%	2.37%	1.65%	1.44%	941,488	844,229	559,546	223,876	54,058	4.85%	4.20%	2.69%	1.04%	0.24%

Table 26 Annual Real GOS ($M, real)

			GMI										Dividend-plus-GMI									
	Household	Debt	Additional Real GOS ($M)					Additional Real GOS (% of Baseline)					Additional Real GOS ($M)					Additional Real GOS (% of Baseline)				
Initial Debt	Funding	Rampdown	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045
0%	85%	n/a	$11,525	$8,526	$5,205	$1,479	-$2,644	1.19%	0.82%	0.46%	0.12%	-0.21%	$9,858	$1,818	-$7,275	-$17,501	-$28,828	1.02%	0.17%	-0.65%	-1.45%	-2.25%
0%	90%	n/a	$12,590	$11,924	$11,153	$10,531	$9,882	1.30%	1.14%	0.99%	0.88%	0.77%	$12,948	$9,939	$6,601	$2,737	-$1,649	1.34%	0.95%	0.59%	0.23%	-0.13%
0%	95%	n/a	$13,568	$15,578	$17,806	$20,270	$23,122	1.40%	1.49%	1.58%	1.68%	1.80%	$15,354	$17,160	$19,316	$21,771	$24,511	1.59%	1.64%	1.72%	1.81%	1.91%
0%	100%	n/a	$14,825	$18,994	$23,819	$29,234	$35,377	1.53%	1.82%	2.12%	2.43%	2.76%	$17,251	$24,286	$31,984	$40,827	$50,657	1.78%	2.32%	2.85%	3.39%	3.95%
10%	85%	5	$11,982	$8,743	$5,060	$1,105	-$3,766	1.24%	0.84%	0.45%	0.09%	-0.29%	$10,754	$2,655	-$6,843	-$17,325	-$28,966	1.11%	0.25%	-0.61%	-1.44%	-2.26%
10%	85%	10	$12,880	$9,025	$5,251	$1,119	-$3,365	1.33%	0.86%	0.47%	0.09%	-0.26%	$12,194	$3,311	-$6,346	-$17,311	-$29,382	1.26%	0.32%	-0.56%	-1.44%	-2.29%
10%	85%	20	$13,601	$10,157	$5,681	$1,264	-$3,694	1.41%	0.97%	0.51%	0.11%	-0.29%	$13,300	$4,420	-$6,473	-$17,815	-$30,605	1.38%	0.42%	-0.58%	-1.48%	-2.38%
10%	90%	5	$12,276	$11,200	$10,300	$9,346	$8,248	1.27%	1.07%	0.92%	0.78%	0.64%	$13,563	$10,073	$6,072	$1,692	-$2,937	1.40%	0.96%	0.54%	0.14%	-0.23%
10%	90%	10	$14,566	$12,587	$11,388	$10,329	$8,316	1.51%	1.20%	1.01%	0.86%	0.65%	$15,994	$10,746	$6,350	$1,596	-$3,680	1.65%	1.03%	0.57%	0.13%	-0.29%
10%	90%	20	$14,636	$14,234	$12,666	$10,637	$9,200	1.51%	1.36%	1.13%	0.88%	0.72%	$17,406	$13,312	$8,336	$1,636	-$4,537	1.80%	1.27%	0.74%	0.14%	-0.35%
10%	95%	5	$13,725	$15,245	$17,189	$19,250	$21,828	1.42%	1.46%	1.53%	1.60%	1.70%	$15,849	$17,052	$18,634	$20,433	$22,517	1.64%	1.63%	1.66%	1.70%	1.75%
10%	95%	10	$15,648	$15,916	$17,628	$19,625	$22,028	1.62%	1.52%	1.57%	1.63%	1.72%	$18,941	$17,501	$18,693	$20,194	$21,702	1.96%	1.68%	1.66%	1.68%	1.69%
10%	95%	20	$16,420	$17,591	$18,640	$19,547	$21,168	1.70%	1.68%	1.66%	1.62%	1.65%	$19,675	$20,802	$20,802	$20,207	$20,956	2.03%	1.99%	1.85%	1.68%	1.63%
10%	100%	5	$14,725	$18,629	$23,196	$28,379	$34,138	1.52%	1.78%	2.06%	2.36%	2.66%	$17,798	$24,150	$31,498	$39,868	$48,910	1.84%	2.31%	2.80%	3.31%	3.81%
10%	100%	10	$16,556	$19,125	$23,538	$28,721	$34,323	1.71%	1.83%	2.09%	2.39%	2.67%	$20,996	$24,250	$30,945	$38,536	$47,067	2.17%	2.32%	2.75%	3.20%	3.67%
10%	100%	20	$17,329	$20,601	$24,128	$28,046	$33,238	1.79%	1.97%	2.15%	2.33%	2.59%	$22,298	$27,414	$32,455	$38,021	$45,497	2.31%	2.62%	2.89%	3.16%	3.55%
50%	85%	5	$14,486	$10,315	$6,004	$1,308	-$3,883	1.50%	0.99%	0.53%	0.11%	-0.30%	$14,276	$3,811	-$7,466	-$19,608	-$33,495	1.48%	0.36%	-0.66%	-1.63%	-2.61%
50%	85%	10	$20,963	$11,513	$5,985	$3	-$6,491	2.17%	1.10%	0.53%	0.00%	-0.51%	$26,718	$7,810	-$5,271	-$19,674	-$35,492	2.76%	0.75%	-0.47%	-1.64%	-2.77%
50%	85%	20	$24,657	$20,637	$13,249	$2,881	-$5,678	2.55%	1.98%	1.18%	0.24%	-0.44%	$33,221	$22,937	$5,466	-$16,397	-$36,101	3.44%	2.20%	0.49%	-1.36%	-2.81%
50%	90%	5	$13,877	$11,345	$9,122	$6,802	$4,397	1.44%	1.09%	0.81%	0.57%	0.34%	$15,272	$9,371	$3,311	-$3,336	-$10,694	1.58%	0.90%	0.29%	-0.28%	-0.83%
50%	90%	10	$21,474	$14,157	$11,294	$8,164	$4,986	2.22%	1.36%	1.01%	0.68%	0.39%	$27,715	$13,003	$5,181	-$3,135	-$12,439	2.87%	1.24%	0.46%	-0.26%	-0.97%
50%	90%	20	$25,024	$22,695	$17,189	$9,853	$4,467	2.59%	2.17%	1.53%	0.82%	0.35%	$34,328	$26,947	$14,057	-$4,071	-$16,685	3.55%	2.58%	1.25%	-0.34%	-1.30%
50%	95%	5	$15,111	$15,344	$16,262	$17,251	$18,492	1.56%	1.47%	1.45%	1.43%	1.44%	$16,717	$15,389	$15,009	$14,725	$14,336	1.73%	1.47%	1.34%	1.22%	1.12%
50%	95%	10	$22,279	$16,736	$16,518	$16,679	$16,936	2.30%	1.60%	1.47%	1.39%	1.32%	$29,135	$17,959	$15,300	$13,051	$10,532	3.01%	1.72%	1.36%	1.08%	0.82%
50%	95%	20	$25,953	$24,872	$21,442	$16,854	$14,837	2.68%	2.38%	1.91%	1.40%	1.16%	$35,738	$30,902	$22,106	$10,697	$3,368	3.70%	2.96%	1.97%	0.89%	0.26%
50%	100%	5	$15,628	$18,169	$21,742	$25,668	$30,329	1.62%	1.74%	1.93%	2.13%	2.36%	$18,137	$21,574	$26,748	$32,766	$39,576	1.88%	2.07%	2.38%	2.72%	3.08%
50%	100%	10	$22,638	$18,652	$20,868	$23,825	$27,236	2.34%	1.79%	1.86%	1.98%	2.12%	$30,002	$21,803	$24,392	$28,104	$32,282	3.10%	2.09%	2.17%	2.34%	2.52%
50%	100%	20	$26,070	$26,150	$24,414	$22,136	$22,989	2.70%	2.50%	2.17%	1.84%	1.79%	$37,287	$34,998	$31,905	$23,785	$22,859	3.86%	3.35%	2.84%	1.98%	1.78%
90%	85%	5	$15,264	$9,088	$3,386	-$2,976	-$9,959	1.58%	0.87%	0.30%	-0.25%	-0.78%	$16,872	$4,332	-$8,824	-$23,393	-$39,547	1.74%	0.41%	-0.79%	-1.94%	-3.08%
90%	85%	10	$28,383	$14,720	$7,557	-$62	-$8,383	2.94%	1.41%	0.67%	-0.01%	-0.65%	$38,452	$11,137	-$4,991	-$23,170	-$43,729	3.98%	1.07%	-0.44%	-1.93%	-3.41%
90%	85%	20	$34,124	$29,526	$19,617	$3,795	-$8,713	3.53%	2.83%	1.75%	0.32%	-0.68%	$48,681	$38,261	$16,191	-$18,388	-$49,536	5.03%	3.66%	1.44%	-1.53%	-3.86%
90%	90%	5	$16,081	$12,760	$10,075	$7,101	$3,927	1.66%	1.22%	0.90%	0.59%	0.31%	$17,537	$9,413	$1,912	-$6,516	-$15,873	1.81%	0.90%	0.17%	-0.54%	-1.24%
90%	90%	10	$27,756	$15,443	$10,712	$5,909	$572	2.87%	1.48%	0.95%	0.49%	0.04%	$38,767	$14,674	$3,310	-$8,976	-$22,474	4.01%	1.40%	0.29%	-0.75%	-1.75%
90%	90%	20	$33,024	$30,533	$21,486	$8,474	-$472	3.42%	2.92%	1.91%	0.70%	-0.04%	$48,639	$40,231	$20,402	-$9,248	-$34,379	5.03%	3.85%	1.82%	-0.77%	-2.68%
90%	95%	5	$15,924	$14,926	$14,916	$14,940	$15,067	1.65%	1.43%	1.33%	1.24%	1.17%	$17,065	$13,457	$10,937	$8,359	$5,582	1.76%	1.29%	0.97%	0.69%	0.43%
90%	95%	10	$28,594	$17,418	$15,356	$13,543	$11,425	2.96%	1.67%	1.37%	1.13%	0.89%	$39,630	$17,057	$10,282	$3,952	-$3,079	4.10%	1.63%	0.92%	0.33%	-0.24%
90%	95%	20	$32,783	$29,343	$22,483	$11,379	$5,113	3.39%	2.81%	2.00%	0.95%	0.40%	$48,603	$42,511	$24,546	-$205	-$18,802	5.03%	4.07%	2.18%	-0.02%	-1.47%
90%	100%	5	$15,875	$17,157	$19,650	$22,637	$25,754	1.64%	1.64%	1.75%	1.88%	2.01%	$17,011	$17,683	$20,642	$23,785	$27,494	1.76%	1.69%	1.84%	1.98%	2.14%
90%	100%	10	$29,025	$18,331	$18,625	$19,572	$20,676	3.00%	1.75%	1.66%	1.63%	1.61%	$40,795	$19,261	$17,734	$17,312	$16,876	4.22%	1.84%	1.58%	1.44%	1.32%
90%	100%	20	$34,273	$31,818	$25,894	$16,958	$13,944	3.54%	3.05%	2.30%	1.41%	1.09%	$49,619	$45,421	$29,307	$8,891	-$2,759	5.13%	4.35%	2.61%	0.74%	-0.22%

Table 27 Annual Labour Income ($M, real)

			GMI										Dividend-plus-GMI									
	Household	Debt	Additional Real Labour Income($M)					Additional Real Labour Income (% of Baseline)					Additional Real Labour Income($M)					Additional Real Labour Income (% of Baseline)				
Initial Debt	Funding	Rampdown	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045
0%	85%	n/a	$11,788	$7,898	$3,823	-$570	-$5,372	1.01%	0.63%	0.29%	-0.04%	-0.36%	$9,914	$1,465	-$7,818	-$18,053	-$29,139	0.85%	0.12%	-0.59%	-1.28%	-1.96%
0%	90%	n/a	$12,633	$10,779	$8,804	$7,070	$5,340	1.08%	0.86%	0.66%	0.50%	0.36%	$12,676	$8,837	$4,700	$174	-$4,768	1.08%	0.71%	0.35%	0.01%	-0.32%
0%	95%	n/a	$13,366	$13,888	$14,669	$15,679	$17,145	1.14%	1.11%	1.11%	1.12%	1.16%	$14,295	$14,646	$15,362	$16,514	$17,848	1.22%	1.17%	1.16%	1.18%	1.20%
0%	100%	n/a	$14,081	$16,875	$19,949	$23,628	$28,086	1.20%	1.35%	1.50%	1.68%	1.89%	$15,688	$20,798	$26,444	$33,083	$41,018	1.34%	1.67%	1.99%	2.35%	2.76%
10%	85%	5	$12,484	$8,403	$3,846	-$836	-$6,600	1.07%	0.67%	0.29%	-0.06%	-0.44%	$11,027	$2,657	-$6,944	-$17,389	-$28,819	0.94%	0.21%	-0.52%	-1.24%	-1.94%
10%	85%	10	$13,073	$8,630	$4,065	-$791	-$5,839	1.12%	0.69%	0.31%	-0.06%	-0.39%	$12,144	$3,178	-$6,394	-$17,174	-$28,928	1.04%	0.25%	-0.48%	-1.22%	-1.95%
10%	85%	20	$13,775	$9,419	$4,143	-$661	-$6,192	1.18%	0.75%	0.31%	-0.05%	-0.42%	$13,110	$3,864	-$7,052	-$17,839	-$30,452	1.12%	0.31%	-0.53%	-1.27%	-2.05%
10%	90%	5	$12,310	$10,140	$8,038	$6,029	$3,848	1.05%	0.81%	0.61%	0.43%	0.26%	$13,549	$9,269	$4,557	-$354	-$5,624	1.16%	0.74%	0.34%	-0.03%	-0.38%
10%	90%	10	$14,730	$11,726	$9,374	$7,198	$3,833	1.26%	0.94%	0.71%	0.51%	0.26%	$15,892	$9,821	$4,699	-$666	-$6,529	1.36%	0.79%	0.35%	-0.05%	-0.44%
10%	90%	20	$14,548	$13,232	$10,629	$7,608	$5,260	1.24%	1.06%	0.80%	0.54%	0.35%	$17,436	$12,046	$6,420	-$897	-$7,412	1.49%	0.96%	0.48%	-0.06%	-0.50%
10%	95%	5	$13,548	$13,928	$14,414	$15,031	$16,164	1.16%	1.12%	1.09%	1.07%	1.09%	$15,482	$15,372	$15,668	$16,131	$16,951	1.32%	1.23%	1.18%	1.15%	1.14%
10%	95%	10	$15,705	$14,700	$15,026	$15,682	$16,755	1.34%	1.18%	1.13%	1.12%	1.13%	$18,328	$15,670	$15,510	$15,752	$16,068	1.57%	1.26%	1.17%	1.12%	1.08%
10%	95%	20	$16,278	$16,057	$15,716	$15,302	$15,643	1.39%	1.29%	1.18%	1.09%	1.05%	$19,121	$18,753	$17,622	$15,958	$15,530	1.63%	1.50%	1.33%	1.14%	1.05%
10%	100%	5	$14,590	$16,842	$19,747	$23,269	$27,328	1.25%	1.35%	1.49%	1.66%	1.84%	$16,871	$21,274	$26,891	$33,264	$40,420	1.44%	1.70%	2.03%	2.37%	2.72%
10%	100%	10	$16,347	$17,386	$20,149	$23,723	$27,666	1.40%	1.39%	1.52%	1.69%	1.86%	$20,033	$21,272	$26,071	$31,711	$38,421	1.71%	1.70%	1.97%	2.26%	2.59%
10%	100%	20	$17,073	$18,707	$20,644	$23,071	$26,647	1.46%	1.50%	1.56%	1.64%	1.80%	$21,504	$24,589	$27,807	$31,692	$37,377	1.84%	1.97%	2.10%	2.26%	2.52%
50%	85%	5	$15,398	$10,788	$5,902	$674	-$4,914	1.32%	0.86%	0.44%	0.05%	-0.33%	$14,539	$4,128	-$7,126	-$18,978	-$32,481	1.24%	0.33%	-0.54%	-1.35%	-2.19%
50%	85%	10	$20,889	$11,300	$5,288	-$1,209	-$8,080	1.78%	0.91%	0.40%	-0.09%	-0.54%	$26,863	$7,329	-$5,155	-$19,164	-$34,159	2.29%	0.59%	-0.39%	-1.36%	-2.30%
50%	85%	20	$24,203	$19,198	$11,397	$1,104	-$7,566	2.07%	1.54%	0.86%	0.08%	-0.51%	$33,710	$21,126	$4,526	-$15,885	-$34,446	2.88%	1.69%	0.34%	-1.13%	-2.32%
50%	90%	5	$14,373	$11,064	$7,827	$4,581	$1,284	1.23%	0.89%	0.59%	0.33%	0.09%	$15,056	$8,919	$2,414	-$4,531	-$12,034	1.29%	0.71%	0.18%	-0.32%	-0.81%
50%	90%	10	$21,409	$13,799	$10,140	$6,094	$2,115	1.83%	1.11%	0.76%	0.43%	0.14%	$27,671	$11,705	$3,703	-$4,723	-$14,178	2.36%	0.94%	0.28%	-0.34%	-0.96%
50%	90%	20	$24,662	$21,188	$14,836	$7,240	$1,276	2.11%	1.70%	1.12%	0.52%	0.09%	$34,449	$24,389	$11,747	-$6,028	-$17,779	2.94%	1.95%	0.89%	-0.43%	-1.20%
50%	95%	5	$15,610	$14,710	$14,248	$13,843	$13,793	1.33%	1.18%	1.07%	0.99%	0.93%	$16,391	$14,108	$12,513	$11,186	$9,788	1.40%	1.13%	0.94%	0.80%	0.66%
50%	95%	10	$22,133	$16,071	$14,790	$13,768	$12,825	1.89%	1.29%	1.11%	0.98%	0.86%	$29,165	$16,590	$13,098	$9,916	$6,535	2.49%	1.33%	0.99%	0.71%	0.44%
50%	95%	20	$25,594	$23,229	$18,852	$13,667	$10,761	2.19%	1.86%	1.42%	0.97%	0.73%	$36,083	$27,939	$18,696	$7,465	-$152	3.08%	2.24%	1.41%	0.53%	-0.01%
50%	100%	5	$15,823	$17,105	$19,183	$21,508	$24,580	1.35%	1.37%	1.45%	1.53%	1.66%	$17,763	$19,659	$23,109	$27,354	$32,406	1.52%	1.57%	1.74%	1.95%	2.18%
50%	100%	10	$22,242	$17,564	$18,428	$19,918	$21,771	1.90%	1.41%	1.39%	1.42%	1.47%	$30,079	$19,738	$20,914	$22,959	$25,525	2.57%	1.58%	1.58%	1.63%	1.72%
50%	100%	20	$25,456	$23,946	$21,071	$17,875	$17,424	2.17%	1.92%	1.59%	1.27%	1.17%	$37,685	$31,849	$28,083	$19,453	$17,546	3.22%	2.55%	2.12%	1.38%	1.18%
90%	85%	5	$15,377	$8,815	$2,492	-$4,371	-$11,779	1.31%	0.71%	0.19%	-0.31%	-0.79%	$16,439	$4,409	-$8,590	-$22,812	-$38,268	1.40%	0.35%	-0.65%	-1.62%	-2.58%
90%	85%	10	$28,134	$14,187	$6,751	-$1,283	-$9,864	2.40%	1.14%	0.51%	-0.09%	-0.66%	$39,088	$9,866	-$4,988	-$21,995	-$40,932	3.34%	0.79%	-0.38%	-1.57%	-2.76%
90%	85%	20	$34,156	$27,681	$17,406	$1,626	-$10,752	2.92%	2.22%	1.31%	0.12%	-0.72%	$49,948	$34,585	$13,527	-$18,069	-$46,087	4.27%	2.77%	1.02%	-1.29%	-3.11%
90%	90%	5	$16,546	$12,723	$9,202	$5,408	$1,497	1.41%	1.02%	0.69%	0.38%	0.10%	$17,050	$8,824	$1,114	-$7,542	-$16,878	1.46%	0.71%	0.08%	-0.54%	-1.14%
90%	90%	10	$27,533	$14,617	$9,285	$3,717	-$2,320	2.35%	1.17%	0.70%	0.26%	-0.16%	$39,286	$13,350	$2,414	-$9,647	-$22,941	3.36%	1.07%	0.18%	-0.69%	-1.55%
90%	90%	20	$33,097	$28,441	$18,883	$6,234	-$2,695	2.83%	2.28%	1.42%	0.44%	-0.18%	$49,889	$36,009	$16,984	-$10,283	-$33,646	4.26%	2.88%	1.28%	-0.73%	-2.27%
90%	95%	5	$16,150	$14,343	$13,191	$12,079	$11,080	1.38%	1.15%	0.99%	0.86%	0.75%	$16,586	$12,258	$8,831	$5,328	$1,665	1.42%	0.98%	0.67%	0.38%	0.11%
90%	95%	10	$28,266	$16,376	$13,404	$10,490	$7,279	2.41%	1.31%	1.01%	0.75%	0.49%	$40,326	$15,224	$8,245	$1,414	-$6,032	3.44%	1.22%	0.62%	0.10%	-0.41%
90%	95%	20	$32,669	$26,760	$19,446	$8,464	$1,688	2.79%	2.14%	1.47%	0.60%	0.11%	$49,880	$38,512	$20,739	-$2,355	-$19,410	4.26%	3.08%	1.56%	-0.17%	-1.31%
90%	100%	5	$16,150	$16,399	$17,309	$18,856	$20,417	1.38%	1.31%	1.30%	1.34%	1.38%	$16,401	$15,920	$17,232	$19,239	$21,457	1.40%	1.28%	1.30%	1.37%	1.45%
90%	100%	10	$28,731	$17,151	$16,173	$16,145	$15,967	2.45%	1.37%	1.22%	1.15%	1.08%	$41,381	$17,288	$15,000	$13,420	$11,867	3.53%	1.38%	1.13%	0.96%	0.80%
90%	100%	20	$34,360	$29,513	$22,736	$13,543	$9,614	2.93%	2.36%	1.71%	0.96%	0.65%	$50,923	$41,269	$25,226	$6,060	-$4,839	4.35%	3.31%	1.90%	0.43%	-0.33%

Table 28 Annual Private Capital Investment ($M, real)

			GMI										Dividend-plus-GMI									
	Household	Debt	Additional Real Private Capital Investment ($M)					Additional Real Private Capital Investment (% of Baseline)					Additional Real Private Capital Investment ($M)					Additional Real Private Capital Investment (% of Baseline)				
Initial Debt	Funding	Rampdown	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045
0%	85%	n/a	$5,097	$3,488	$1,689	-$305	-$2,523	1.09%	0.69%	0.31%	-0.05%	-0.41%	$3,848	-$357	-$5,087	-$10,464	-$16,402	0.83%	-0.07%	-0.94%	-1.80%	-2.64%
0%	90%	n/a	$5,628	$5,161	$4,624	$4,145	$3,593	1.21%	1.02%	0.85%	0.71%	0.58%	$5,470	$3,767	$1,861	-$288	-$2,745	1.17%	0.75%	0.34%	-0.05%	-0.44%
0%	95%	n/a	$6,106	$6,976	$7,936	$9,021	$10,290	1.31%	1.38%	1.46%	1.55%	1.66%	$6,636	$7,266	$8,143	$9,274	$10,358	1.42%	1.44%	1.50%	1.60%	1.67%
0%	100%	n/a	$6,717	$8,801	$11,049	$13,640	$16,550	1.44%	1.75%	2.04%	2.35%	2.67%	$7,656	$10,911	$14,532	$18,461	$23,211	1.64%	2.16%	2.68%	3.18%	3.74%
10%	85%	5	$5,395	$3,665	$1,678	-$436	-$3,031	1.16%	0.73%	0.31%	-0.07%	-0.49%	$4,343	$35	-$4,900	-$10,389	-$16,456	0.93%	0.01%	-0.90%	-1.79%	-2.65%
10%	85%	10	$5,744	$3,761	$1,716	-$501	-$2,928	1.23%	0.75%	0.32%	-0.09%	-0.47%	$4,974	$274	-$4,591	-$10,282	-$16,595	1.07%	0.05%	-0.85%	-1.77%	-2.67%
10%	85%	20	$6,132	$4,295	$1,966	-$356	-$2,960	1.32%	0.85%	0.36%	-0.06%	-0.48%	$5,475	$888	-$4,547	-$10,414	-$17,015	1.17%	0.18%	-0.84%	-1.79%	-2.74%
10%	90%	5	$5,469	$4,843	$4,283	$3,686	$2,989	1.17%	0.96%	0.79%	0.63%	0.48%	$5,745	$3,815	$1,687	-$731	-$3,402	1.23%	0.76%	0.31%	-0.13%	-0.55%
10%	90%	10	$6,547	$5,588	$4,737	$3,990	$2,821	1.40%	1.11%	0.87%	0.69%	0.45%	$7,024	$4,177	$1,776	-$785	-$3,685	1.51%	0.83%	0.33%	-0.14%	-0.59%
10%	90%	20	$6,610	$6,322	$5,432	$4,280	$3,404	1.42%	1.25%	1.00%	0.74%	0.55%	$7,786	$5,500	$2,818	-$849	-$4,001	1.67%	1.09%	0.52%	-0.15%	-0.64%
10%	95%	5	$6,114	$6,868	$7,718	$8,605	$9,740	1.31%	1.36%	1.42%	1.48%	1.57%	$7,015	$7,369	$7,950	$8,512	$9,209	1.51%	1.46%	1.47%	1.46%	1.48%
10%	95%	10	$7,250	$7,290	$8,009	$8,876	$9,900	1.56%	1.45%	1.48%	1.53%	1.60%	$8,423	$7,573	$7,944	$8,571	$9,095	1.81%	1.50%	1.46%	1.47%	1.47%
10%	95%	20	$7,554	$8,024	$8,395	$8,714	$9,377	1.62%	1.59%	1.55%	1.50%	1.51%	$8,813	$9,067	$8,893	$8,419	$8,580	1.89%	1.80%	1.64%	1.45%	1.38%
10%	100%	5	$6,702	$8,512	$10,679	$13,149	$15,843	1.44%	1.69%	1.97%	2.26%	2.55%	$7,927	$10,885	$14,306	$18,051	$22,455	1.70%	2.16%	2.64%	3.10%	3.62%
10%	100%	10	$7,670	$8,853	$10,925	$13,363	$16,004	1.65%	1.76%	2.01%	2.30%	2.58%	$9,407	$10,878	$13,819	$17,407	$21,519	2.02%	2.16%	2.55%	2.99%	3.47%
10%	100%	20	$8,058	$9,545	$11,180	$13,032	$15,474	1.73%	1.89%	2.06%	2.24%	2.49%	$10,166	$12,448	$14,777	$17,388	$20,937	2.18%	2.47%	2.72%	2.99%	3.37%
50%	85%	5	$6,699	$4,534	$2,308	-$176	-$2,894	1.44%	0.90%	0.43%	-0.03%	-0.47%	$6,215	$725	-$5,072	-$11,336	-$18,430	1.33%	0.14%	-0.93%	-1.95%	-2.97%
50%	85%	10	$9,778	$5,105	$2,278	-$762	-$4,088	2.10%	1.01%	0.42%	-0.13%	-0.66%	$12,544	$2,710	-$3,806	-$11,018	-$19,023	2.69%	0.54%	-0.70%	-1.90%	-3.07%
50%	85%	20	$11,511	$9,407	$5,703	$554	-$3,787	2.47%	1.87%	1.05%	0.10%	-0.61%	$16,209	$10,236	$1,539	-$9,384	-$19,393	3.48%	2.03%	0.28%	-1.61%	-3.13%
50%	90%	5	$6,318	$4,990	$3,781	$2,502	$1,156	1.36%	0.99%	0.70%	0.43%	0.19%	$6,479	$3,351	$175	-$3,328	-$7,169	1.39%	0.66%	0.03%	-0.57%	-1.16%
50%	90%	10	$10,051	$6,427	$4,911	$3,254	$1,570	2.16%	1.28%	0.91%	0.56%	0.25%	$13,088	$4,936	$927	-$3,047	-$7,830	2.81%	0.98%	0.17%	-0.52%	-1.26%
50%	90%	20	$11,663	$10,377	$7,660	$3,980	$1,236	2.50%	2.06%	1.41%	0.68%	0.20%	$16,687	$12,207	$5,748	-$3,426	-$9,774	3.58%	2.42%	1.06%	-0.59%	-1.58%
50%	95%	5	$6,890	$6,897	$7,273	$7,630	$8,139	1.48%	1.37%	1.34%	1.31%	1.31%	$7,211	$6,304	$5,928	$5,678	$5,306	1.55%	1.25%	1.09%	0.98%	0.86%
50%	95%	10	$10,451	$7,717	$7,520	$7,462	$7,484	2.24%	1.53%	1.39%	1.28%	1.21%	$13,947	$7,911	$6,470	$5,226	$3,804	2.99%	1.57%	1.19%	0.90%	0.61%
50%	95%	20	$12,121	$11,516	$9,751	$7,516	$6,454	2.60%	2.29%	1.80%	1.29%	1.04%	$17,337	$14,081	$9,598	$3,934	$200	3.72%	2.79%	1.77%	0.68%	0.03%
50%	100%	5	$6,999	$8,228	$9,915	$11,720	$13,894	1.50%	1.63%	1.83%	2.02%	2.24%	$8,016	$9,553	$11,849	$14,702	$18,000	1.72%	1.90%	2.18%	2.53%	2.90%
50%	100%	10	$10,597	$8,555	$9,583	$10,966	$12,548	2.27%	1.70%	1.77%	1.89%	2.02%	$14,407	$9,740	$10,853	$12,531	$14,493	3.09%	1.93%	2.00%	2.16%	2.34%
50%	100%	20	$12,160	$12,064	$11,357	$10,206	$10,561	2.61%	2.39%	2.09%	1.76%	1.70%	$18,299	$16,183	$14,529	$10,488	$9,994	3.93%	3.21%	2.68%	1.80%	1.61%
90%	85%	5	$6,940	$3,791	$858	-$2,390	-$5,988	1.49%	0.75%	0.16%	-0.41%	-0.96%	$7,557	$1,266	-$5,522	-$12,883	-$21,143	1.62%	0.25%	-1.02%	-2.22%	-3.41%
90%	85%	10	$13,494	$6,701	$3,115	-$715	-$4,940	2.90%	1.33%	0.57%	-0.12%	-0.80%	$19,143	$4,487	-$3,693	-$12,710	-$22,972	4.11%	0.89%	-0.68%	-2.19%	-3.70%
90%	85%	20	$16,503	$13,882	$9,007	$1,189	-$5,008	3.54%	2.75%	1.66%	0.20%	-0.81%	$24,192	$17,728	$6,891	-$9,982	-$25,516	5.19%	3.52%	1.27%	-1.72%	-4.11%
90%	90%	5	$7,440	$5,758	$4,351	$2,768	$1,082	1.60%	1.14%	0.80%	0.48%	0.17%	$7,944	$3,604	-$231	-$4,475	-$9,284	1.70%	0.72%	-0.04%	-0.77%	-1.50%
90%	90%	10	$13,276	$7,021	$4,628	$2,170	-$560	2.85%	1.39%	0.85%	0.37%	-0.09%	$19,251	$6,300	$608	-$5,563	-$12,420	4.13%	1.25%	0.11%	-0.96%	-2.00%
90%	90%	20	$16,057	$14,345	$9,951	$3,534	-$941	3.45%	2.85%	1.83%	0.61%	-0.15%	$24,155	$18,634	$8,958	-$5,719	-$18,265	5.18%	3.70%	1.65%	-0.98%	-2.94%
90%	95%	5	$7,310	$6,700	$6,599	$6,522	$6,465	1.57%	1.33%	1.22%	1.12%	1.04%	$7,772	$5,849	$4,367	$2,943	$1,395	1.67%	1.16%	0.80%	0.51%	0.22%
90%	95%	10	$13,583	$8,008	$6,932	$5,965	$4,845	2.91%	1.59%	1.28%	1.03%	0.78%	$19,736	$7,219	$3,845	$631	-$2,958	4.23%	1.43%	0.71%	0.11%	-0.48%
90%	95%	20	$15,785	$13,513	$10,256	$4,885	$1,760	3.39%	2.68%	1.89%	0.84%	0.28%	$24,154	$19,978	$11,035	-$1,030	-$10,082	5.18%	3.96%	2.03%	-0.18%	-1.62%
90%	100%	5	$7,292	$7,853	$8,992	$10,407	$11,796	1.56%	1.56%	1.66%	1.79%	1.90%	$7,601	$7,761	$9,072	$10,707	$12,258	1.63%	1.54%	1.67%	1.84%	1.98%
90%	100%	10	$13,719	$8,427	$8,482	$9,008	$9,501	2.94%	1.67%	1.56%	1.55%	1.53%	$20,299	$8,657	$7,930	$7,660	$7,405	4.36%	1.72%	1.46%	1.32%	1.19%
90%	100%	20	$16,826	$15,104	$12,047	$7,745	$6,279	3.61%	3.00%	2.22%	1.33%	1.01%	$24,608	$21,153	$13,335	$3,615	-$1,932	5.28%	4.20%	2.46%	0.62%	-0.31%

Table 29 Cumulative Real GDP ($M, real)

			GMI										Dividend-plus-GMI									
	Household	Debt	Additional GDP ($M)					Additional GDP (% of Baseline)					Additional GDP ($M)					Additional GDP (% of Baseline)				
Initial Debt	Funding	Rampdown	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045
0%	85%	n/a	$170,106	$305,558	$401,967	$454,823	$455,415	1.39%	1.20%	1.01%	0.83%	0.64%	$173,186	$250,599	$219,915	$66,681	-$221,450	1.42%	0.98%	0.55%	0.12%	-0.31%
0%	90%	n/a	$172,588	$339,008	$497,315	$649,166	$795,303	1.41%	1.33%	1.25%	1.18%	1.12%	$189,123	$343,875	$460,303	$533,197	$556,586	1.55%	1.35%	1.16%	0.97%	0.78%
0%	95%	n/a	$173,652	$372,954	$601,403	$862,115	$1,158,941	1.42%	1.47%	1.52%	1.57%	1.63%	$196,842	$419,172	$669,225	$951,879	$1,271,016	1.61%	1.65%	1.69%	1.73%	1.79%
0%	100%	n/a	$178,166	$409,618	$701,060	$1,059,873	$1,495,853	1.46%	1.61%	1.77%	1.93%	2.10%	$198,971	$484,222	$867,517	$1,360,394	$1,976,540	1.63%	1.90%	2.19%	2.48%	2.78%
10%	85%	5	$184,310	$323,234	$419,847	$469,153	$465,199	1.51%	1.27%	1.06%	0.85%	0.65%	$198,663	$285,389	$261,957	$112,291	-$176,682	1.62%	1.12%	0.66%	0.20%	-0.25%
10%	85%	10	$192,337	$338,443	$437,063	$487,571	$484,699	1.57%	1.33%	1.10%	0.89%	0.68%	$207,527	$314,771	$298,178	$151,019	-$141,000	1.70%	1.24%	0.75%	0.28%	-0.20%
10%	85%	20	$196,958	$355,701	$463,308	$519,792	$513,776	1.61%	1.40%	1.17%	0.95%	0.72%	$213,752	$331,499	$320,524	$173,201	-$131,927	1.75%	1.30%	0.81%	0.32%	-0.19%
10%	90%	5	$181,843	$339,255	$486,711	$623,610	$749,932	1.49%	1.33%	1.23%	1.14%	1.05%	$218,306	$376,606	$489,685	$551,403	$558,683	1.79%	1.48%	1.23%	1.00%	0.79%
10%	90%	10	$199,658	$381,685	$545,641	$697,117	$830,293	1.63%	1.50%	1.38%	1.27%	1.17%	$234,287	$413,067	$530,744	$593,136	$593,795	1.92%	1.62%	1.34%	1.08%	0.83%
10%	90%	20	$199,489	$395,894	$578,919	$739,661	$880,412	1.63%	1.56%	1.46%	1.35%	1.24%	$244,544	$449,550	$595,267	$669,581	$662,586	2.00%	1.77%	1.50%	1.22%	0.93%
10%	95%	5	$190,720	$386,961	$608,050	$857,276	$1,138,749	1.56%	1.52%	1.53%	1.56%	1.60%	$229,552	$451,752	$696,377	$964,897	$1,261,880	1.88%	1.78%	1.76%	1.76%	1.77%
10%	95%	10	$205,562	$418,877	$646,949	$901,388	$1,185,835	1.68%	1.65%	1.63%	1.64%	1.67%	$251,386	$495,846	$741,712	$1,008,490	$1,297,544	2.06%	1.95%	1.87%	1.84%	1.82%
10%	95%	20	$211,905	$442,290	$686,984	$946,039	$1,224,288	1.73%	1.74%	1.73%	1.72%	1.72%	$256,491	$531,458	$813,120	$1,092,051	$1,375,075	2.10%	2.09%	2.05%	1.99%	1.93%
10%	100%	5	$193,454	$419,733	$703,195	$1,052,019	$1,472,988	1.58%	1.65%	1.77%	1.92%	2.07%	$236,124	$521,451	$899,427	$1,382,569	$1,978,404	1.93%	2.05%	2.27%	2.52%	2.78%
10%	100%	10	$206,886	$448,125	$736,999	$1,090,342	$1,515,271	1.69%	1.76%	1.86%	1.99%	2.13%	$259,748	$566,763	$940,975	$1,411,223	$1,986,718	2.12%	2.23%	2.37%	2.57%	2.79%
10%	100%	20	$212,411	$469,034	$771,586	$1,122,919	$1,534,719	1.74%	1.84%	1.95%	2.05%	2.16%	$268,492	$605,779	$1,009,228	$1,482,866	$2,043,995	2.20%	2.38%	2.54%	2.70%	2.87%
50%	85%	5	$259,907	$422,531	$534,062	$589,728	$583,281	2.13%	1.66%	1.35%	1.07%	0.82%	$314,612	$427,003	$404,328	$235,041	-$101,778	2.57%	1.68%	1.02%	0.43%	-0.14%
50%	85%	10	$305,824	$514,896	$630,969	$675,423	$640,642	2.50%	2.02%	1.59%	1.23%	0.90%	$405,964	$614,187	$627,226	$464,552	$110,872	3.32%	2.41%	1.58%	0.85%	0.16%
50%	85%	20	$331,540	$630,821	$854,073	$955,989	$941,822	2.71%	2.48%	2.15%	1.74%	1.32%	$443,691	$815,161	$997,697	$926,585	$579,136	3.63%	3.20%	2.52%	1.69%	0.81%
50%	90%	5	$247,282	$411,756	$550,680	$661,736	$744,228	2.02%	1.62%	1.39%	1.21%	1.05%	$316,497	$474,694	$561,570	$568,570	$486,918	2.59%	1.87%	1.42%	1.04%	0.68%
50%	90%	10	$306,228	$537,343	$706,869	$839,685	$934,546	2.50%	2.11%	1.78%	1.53%	1.31%	$410,128	$665,520	$783,452	$801,499	$707,550	3.35%	2.62%	1.98%	1.46%	0.99%
50%	90%	20	$326,138	$642,961	$905,164	$1,081,911	$1,179,949	2.67%	2.53%	2.28%	1.97%	1.66%	$449,888	$852,679	$1,115,779	$1,172,640	$1,036,141	3.68%	3.35%	2.81%	2.14%	1.46%
50%	95%	5	$257,786	$459,817	$674,743	$903,658	$1,148,152	2.11%	1.81%	1.70%	1.65%	1.61%	$323,811	$533,444	$739,955	$944,389	$1,146,789	2.65%	2.10%	1.87%	1.72%	1.61%
50%	95%	10	$310,059	$563,909	$785,742	$1,010,427	$1,239,574	2.54%	2.22%	1.98%	1.84%	1.74%	$418,856	$723,261	$942,641	$1,135,689	$1,299,863	3.43%	2.84%	2.38%	2.07%	1.83%
50%	95%	20	$336,259	$673,474	$979,537	$1,233,691	$1,446,298	2.75%	2.65%	2.47%	2.25%	2.03%	$452,683	$890,665	$1,235,739	$1,454,504	$1,548,070	3.70%	3.50%	3.12%	2.65%	2.18%
50%	100%	5	$258,999	$484,476	$755,051	$1,076,005	$1,453,244	2.12%	1.90%	1.90%	1.96%	2.04%	$327,867	$590,263	$917,705	$1,319,518	$1,806,870	2.68%	2.32%	2.31%	2.40%	2.54%
50%	100%	10	$308,993	$580,197	$844,785	$1,146,293	$1,490,127	2.53%	2.28%	2.13%	2.09%	2.09%	$419,287	$760,072	$1,066,979	$1,420,653	$1,826,396	3.43%	2.99%	2.69%	2.59%	2.57%
50%	100%	20	$334,330	$681,293	$1,015,593	$1,327,320	$1,628,027	2.73%	2.68%	2.56%	2.42%	2.29%	$471,748	$949,639	$1,386,024	$1,750,196	$2,057,860	3.86%	3.73%	3.49%	3.19%	2.89%
90%	85%	5	$306,549	$458,865	$541,899	$548,330	$470,830	2.51%	1.80%	1.37%	1.00%	0.66%	$394,948	$521,040	$489,425	$279,157	-$125,404	3.23%	2.05%	1.23%	0.51%	-0.18%
90%	85%	10	$393,950	$668,888	$812,413	$863,767	$813,185	3.22%	2.63%	2.05%	1.57%	1.14%	$532,004	$846,248	$873,816	$685,850	$247,586	4.35%	3.33%	2.20%	1.25%	0.35%
90%	85%	20	$429,390	$850,006	$1,170,702	$1,313,893	$1,278,428	3.51%	3.34%	2.95%	2.39%	1.80%	$602,911	$1,172,267	$1,532,494	$1,490,687	$1,027,969	4.93%	4.61%	3.86%	2.72%	1.44%
90%	90%	5	$314,755	$500,544	$654,468	$773,079	$853,625	2.57%	1.97%	1.65%	1.41%	1.20%	$391,745	$557,442	$632,531	$606,052	$466,741	3.20%	2.19%	1.59%	1.10%	0.66%
90%	90%	10	$388,933	$669,503	$840,202	$952,385	$999,927	3.18%	2.63%	2.12%	1.73%	1.41%	$537,553	$876,041	$986,140	$947,934	$743,953	4.40%	3.44%	2.49%	1.73%	1.05%
90%	90%	20	$418,560	$838,763	$1,177,635	$1,366,167	$1,417,606	3.42%	3.30%	2.97%	2.49%	1.99%	$599,041	$1,178,052	$1,568,900	$1,622,999	$1,319,370	4.90%	4.63%	3.96%	2.96%	1.85%
90%	95%	5	$311,424	$511,712	$713,378	$916,257	$1,121,492	2.55%	2.01%	1.80%	1.67%	1.58%	$389,608	$582,952	$746,699	$880,165	$980,714	3.19%	2.29%	1.88%	1.60%	1.38%
90%	95%	10	$393,804	$688,877	$903,971	$1,098,375	$1,267,926	3.22%	2.71%	2.28%	2.00%	1.78%	$537,730	$896,890	$1,069,932	$1,165,364	$1,175,136	4.40%	3.53%	2.70%	2.12%	1.65%
90%	95%	20	$421,093	$830,272	$1,170,340	$1,387,242	$1,494,416	3.44%	3.26%	2.95%	2.53%	2.10%	$596,319	$1,194,271	$1,626,876	$1,772,657	$1,635,746	4.88%	4.69%	4.10%	3.23%	2.30%
90%	100%	5	$310,562	$527,922	$777,210	$1,063,393	$1,390,344	2.54%	2.08%	1.96%	1.94%	1.95%	$389,543	$612,087	$871,715	$1,171,988	$1,518,258	3.19%	2.41%	2.20%	2.13%	2.13%
90%	100%	10	$398,318	$702,916	$946,442	$1,202,932	$1,473,359	3.26%	2.76%	2.39%	2.19%	2.07%	$536,625	$912,553	$1,153,701	$1,388,965	$1,618,862	4.39%	3.59%	2.91%	2.53%	2.28%
90%	100%	20	$431,196	$867,809	$1,246,376	$1,522,371	$1,724,975	3.53%	3.41%	3.14%	2.77%	2.42%	$602,048	$1,229,704	$1,708,604	$1,943,706	$1,972,549	4.92%	4.83%	4.31%	3.54%	2.77%

Table 30 Cumulative GOS ($M, real)

			GMI										Dividend-plus-GMI									
			Additional GOS ($M)					Additional GOS (% of Baseline)					Additional GOS ($M)					Additional GOS (% of Baseline)				
Initial Debt	Household Funding	Debt Rampdown	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045
0%	85%	n/a	$62,928	$111,724	$144,555	$159,464	$153,058	1.34%	1.15%	0.95%	0.76%	0.56%	$63,682	$89,191	$71,498	$4,734	-$116,233	1.36%	0.91%	0.47%	0.02%	-0.43%
0%	90%	n/a	$64,019	$125,043	$182,240	$236,101	$286,823	1.37%	1.28%	1.20%	1.12%	1.05%	$70,033	$125,811	$165,622	$187,196	$188,023	1.50%	1.29%	1.09%	0.89%	0.69%
0%	95%	n/a	$64,466	$138,274	$222,759	$319,093	$428,674	1.38%	1.42%	1.46%	1.51%	1.57%	$73,145	$155,365	$247,508	$351,303	$468,194	1.56%	1.59%	1.63%	1.67%	1.71%
0%	100%	n/a	$66,373	$152,975	$262,353	$397,392	$561,916	1.42%	1.57%	1.72%	1.89%	2.06%	$74,207	$181,161	$325,439	$511,577	$744,910	1.58%	1.86%	2.14%	2.43%	2.73%
10%	85%	5	$68,517	$118,601	$151,469	$164,981	$156,788	1.46%	1.22%	1.00%	0.78%	0.57%	$73,540	$102,750	$88,024	$22,763	-$98,396	1.57%	1.05%	0.58%	0.11%	-0.36%
10%	85%	10	$71,731	$124,776	$158,479	$172,555	$164,769	1.53%	1.28%	1.04%	0.82%	0.60%	$76,935	$114,037	$102,004	$37,792	-$84,405	1.64%	1.17%	0.67%	0.18%	-0.31%
10%	85%	20	$73,614	$131,838	$169,556	$186,249	$177,594	1.57%	1.35%	1.11%	0.88%	0.65%	$79,244	$120,615	$111,226	$47,134	-$79,872	1.69%	1.24%	0.73%	0.22%	-0.29%
10%	90%	5	$67,931	$125,892	$179,357	$227,935	$271,510	1.45%	1.29%	1.18%	1.08%	0.99%	$81,182	$138,383	$176,967	$194,325	$189,080	1.73%	1.42%	1.16%	0.92%	0.69%
10%	90%	10	$74,544	$141,620	$201,053	$254,825	$300,823	1.59%	1.45%	1.32%	1.21%	1.10%	$87,388	$152,399	$192,795	$210,520	$202,845	1.87%	1.56%	1.27%	1.00%	0.74%
10%	90%	20	$74,617	$147,260	$213,988	$271,368	$320,165	1.59%	1.51%	1.41%	1.29%	1.17%	$91,213	$166,258	$217,392	$239,832	$229,411	1.95%	1.71%	1.43%	1.14%	0.84%
10%	95%	5	$71,149	$143,958	$225,872	$318,091	$422,082	1.52%	1.48%	1.49%	1.51%	1.54%	$85,837	$168,102	$258,210	$356,625	$465,034	1.83%	1.72%	1.70%	1.69%	1.70%
10%	95%	10	$76,722	$155,936	$240,321	$334,354	$439,391	1.64%	1.60%	1.58%	1.59%	1.61%	$94,152	$185,006	$275,658	$373,484	$478,896	2.01%	1.90%	1.81%	1.77%	1.75%
10%	95%	20	$79,209	$165,079	$255,970	$351,927	$454,658	1.69%	1.69%	1.68%	1.67%	1.66%	$96,053	$198,634	$303,025	$405,523	$508,646	2.05%	2.04%	1.99%	1.92%	1.86%
10%	100%	5	$72,329	$157,057	$263,459	$394,781	$553,655	1.54%	1.61%	1.73%	1.87%	2.03%	$88,518	$195,531	$337,825	$520,293	$745,930	1.89%	2.01%	2.22%	2.47%	2.73%
10%	100%	10	$77,398	$167,735	$276,134	$409,093	$569,354	1.65%	1.72%	1.82%	1.94%	2.08%	$97,580	$212,865	$353,566	$530,986	$748,754	2.08%	2.18%	2.32%	2.52%	2.74%
10%	100%	20	$79,538	$175,821	$289,488	$421,693	$576,983	1.70%	1.80%	1.90%	2.00%	2.11%	$100,954	$227,958	$380,092	$558,919	$771,149	2.16%	2.34%	2.50%	2.65%	2.82%
50%	85%	5	$97,801	$157,191	$195,992	$212,190	$203,212	2.09%	1.61%	1.29%	1.01%	0.74%	$118,346	$157,641	$143,515	$71,194	-$67,861	2.53%	1.62%	0.94%	0.34%	-0.25%
50%	85%	10	$115,484	$193,105	$233,843	$246,014	$226,477	2.47%	1.98%	1.54%	1.17%	0.83%	$153,609	$229,995	$230,141	$160,955	$16,104	3.28%	2.36%	1.51%	0.76%	0.06%
50%	85%	20	$125,462	$238,097	$320,817	$355,916	$345,001	2.68%	2.44%	2.11%	1.69%	1.26%	$168,203	$307,438	$372,729	$339,117	$197,384	3.59%	3.15%	2.45%	1.61%	0.72%
50%	90%	5	$93,307	$154,060	$204,292	$243,023	$269,897	1.99%	1.58%	1.34%	1.15%	0.99%	$119,307	$176,892	$205,957	$202,959	$164,222	2.55%	1.81%	1.35%	0.96%	0.60%
50%	90%	10	$115,735	$201,911	$263,571	$310,431	$341,785	2.47%	2.07%	1.73%	1.47%	1.25%	$155,316	$250,212	$291,326	$292,766	$249,605	3.32%	2.57%	1.92%	1.39%	0.91%
50%	90%	20	$123,548	$242,990	$340,924	$405,182	$438,162	2.64%	2.49%	2.24%	1.92%	1.60%	$170,734	$322,427	$419,433	$436,611	$377,811	3.65%	3.31%	2.76%	2.07%	1.38%
50%	95%	5	$97,002	$171,972	$251,457	$335,835	$425,664	2.07%	1.76%	1.65%	1.59%	1.56%	$122,300	$200,049	$275,897	$350,097	$422,594	2.61%	2.05%	1.81%	1.66%	1.55%
50%	95%	10	$117,328	$212,577	$294,946	$377,958	$462,189	2.51%	2.18%	1.94%	1.79%	1.69%	$158,691	$272,772	$353,538	$423,394	$481,215	3.39%	2.80%	2.32%	2.01%	1.76%
50%	95%	20	$127,385	$254,876	$370,037	$464,552	$542,500	2.72%	2.61%	2.43%	2.21%	1.99%	$171,801	$337,028	$466,190	$546,207	$577,322	3.67%	3.46%	3.07%	2.59%	2.11%
50%	100%	5	$97,599	$181,828	$283,175	$403,732	$545,810	2.08%	1.86%	1.86%	1.92%	2.00%	$123,837	$222,180	$345,277	$496,738	$680,922	2.64%	2.28%	2.27%	2.36%	2.49%
50%	100%	10	$116,965	$218,976	$318,067	$431,169	$560,392	2.50%	2.25%	2.09%	2.05%	2.05%	$159,009	$287,421	$402,659	$535,660	$688,520	3.40%	2.95%	2.65%	2.54%	2.52%
50%	100%	20	$126,728	$258,117	$384,422	$501,563	$614,272	2.71%	2.65%	2.53%	2.38%	2.25%	$179,138	$360,140	$525,087	$662,245	$777,511	3.83%	3.69%	3.45%	3.14%	2.85%
90%	85%	5	$116,061	$172,051	$200,559	$198,562	$163,010	2.48%	1.76%	1.32%	0.94%	0.60%	$149,719	$194,654	$177,538	$89,893	-$74,772	3.20%	2.00%	1.17%	0.43%	-0.27%
90%	85%	10	$149,440	$252,721	$304,434	$319,737	$294,693	3.19%	2.59%	2.00%	1.52%	1.08%	$202,443	$319,827	$325,806	$247,582	$70,973	4.32%	3.28%	2.14%	1.18%	0.26%
90%	85%	20	$163,136	$322,535	$443,305	$494,986	$476,702	3.48%	3.31%	2.91%	2.35%	1.74%	$229,879	$446,000	$580,815	$560,145	$375,810	4.91%	4.57%	3.82%	2.66%	1.38%
90%	90%	5	$119,124	$187,840	$243,688	$285,214	$311,207	2.54%	1.93%	1.60%	1.35%	1.14%	$148,808	$209,601	$234,530	$219,138	$158,807	3.18%	2.15%	1.54%	1.04%	0.58%
90%	90%	10	$147,590	$253,069	$315,558	$354,876	$368,508	3.15%	2.60%	2.07%	1.68%	1.35%	$204,679	$331,580	$370,023	$350,255	$265,285	4.37%	3.40%	2.43%	1.66%	0.97%
90%	90%	20	$159,046	$318,468	$446,102	$515,306	$530,925	3.40%	3.27%	2.93%	2.45%	1.94%	$228,478	$448,711	$595,747	$612,674	$490,895	4.88%	4.60%	3.92%	2.91%	1.80%
90%	95%	5	$117,960	$192,493	$267,152	$341,813	$416,844	2.52%	1.97%	1.76%	1.62%	1.53%	$147,931	$219,454	$278,960	$326,067	$359,628	3.16%	2.25%	1.83%	1.55%	1.32%
90%	95%	10	$149,592	$260,861	$340,807	$412,363	$473,858	3.19%	2.68%	2.24%	1.96%	1.73%	$204,764	$339,883	$403,005	$435,612	$434,424	4.37%	3.49%	2.65%	2.07%	1.59%
90%	95%	20	$160,171	$315,804	$444,564	$525,214	$563,050	3.42%	3.24%	2.92%	2.49%	2.06%	$227,186	$454,458	$617,876	$670,530	$613,800	4.85%	4.66%	4.06%	3.18%	2.25%
90%	100%	5	$117,502	$198,557	$291,643	$398,688	$521,228	2.51%	2.04%	1.92%	1.89%	1.91%	$148,039	$231,092	$328,207	$440,791	$570,878	3.16%	2.37%	2.16%	2.09%	2.09%
90%	100%	10	$151,239	$266,187	$357,291	$453,223	$554,303	3.23%	2.73%	2.35%	2.15%	2.03%	$204,523	$346,446	$436,328	$523,791	$609,028	4.37%	3.55%	2.87%	2.49%	2.23%
90%	100%	20	$163,881	$329,535	$472,883	$576,535	$651,652	3.50%	3.38%	3.11%	2.74%	2.39%	$229,730	$468,532	$649,932	$737,739	$746,092	4.91%	4.81%	4.27%	3.50%	2.73%

Table 31 Cumulative Private Capital Investment ($M, real)

			GMI										Dividend-plus-GMI									
	Household	Debt	Additional Private Capital Investment ($M)					Additional Private Capital Investment (% of Baseline)					Additional Private Capital Investment ($M)					Additional Private Capital Investment (% of Baseline)				
Initial Debt	Funding	Rampdown	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045
0%	85%	n/a	$27,994	$48,743	$60,868	$63,366	$54,445	1.24%	1.04%	0.83%	0.62%	0.41%	$26,078	$32,874	$17,143	-$24,260	-$94,126	1.15%	0.70%	0.23%	-0.24%	-0.71%
0%	90%	n/a	$28,641	$55,425	$79,573	$101,243	$120,331	1.27%	1.18%	1.08%	1.00%	0.91%	$29,858	$52,144	$65,336	$68,280	$59,626	1.32%	1.11%	0.89%	0.67%	0.45%
0%	95%	n/a	$28,912	$62,029	$99,752	$142,653	$191,431	1.28%	1.32%	1.36%	1.40%	1.45%	$31,455	$66,563	$105,465	$149,500	$199,037	1.39%	1.42%	1.44%	1.47%	1.51%
0%	100%	n/a	$29,923	$69,736	$120,453	$183,322	$260,207	1.33%	1.48%	1.64%	1.80%	1.97%	$32,555	$80,407	$145,701	$230,013	$336,416	1.44%	1.71%	1.99%	2.26%	2.55%
10%	85%	5	$30,978	$52,721	$65,193	$67,287	$57,790	1.37%	1.12%	0.89%	0.66%	0.44%	$31,138	$39,843	$25,465	-$15,292	-$85,238	1.38%	0.85%	0.35%	-0.15%	-0.65%
10%	85%	10	$32,212	$55,086	$67,718	$69,754	$60,009	1.43%	1.17%	0.92%	0.69%	0.45%	$32,537	$44,710	$31,673	-$8,129	-$78,187	1.44%	0.95%	0.43%	-0.08%	-0.59%
10%	85%	20	$33,322	$58,740	$73,401	$77,069	$67,443	1.48%	1.25%	1.00%	0.76%	0.51%	$33,540	$47,872	$36,541	-$2,575	-$74,225	1.49%	1.02%	0.50%	-0.03%	-0.56%
10%	90%	5	$30,491	$55,872	$78,488	$98,093	$114,499	1.35%	1.19%	1.07%	0.96%	0.87%	$35,190	$58,072	$70,875	$72,139	$60,576	1.56%	1.24%	0.97%	0.71%	0.46%
10%	90%	10	$33,511	$63,456	$88,892	$110,350	$126,992	1.48%	1.35%	1.21%	1.09%	0.96%	$38,623	$65,604	$79,219	$80,534	$68,012	1.71%	1.40%	1.08%	0.79%	0.52%
10%	90%	20	$33,738	$66,269	$95,343	$119,123	$137,865	1.49%	1.41%	1.30%	1.17%	1.05%	$40,899	$73,136	$92,392	$95,906	$82,173	1.81%	1.56%	1.26%	0.94%	0.62%
10%	95%	5	$31,795	$64,447	$101,276	$142,558	$188,994	1.41%	1.37%	1.38%	1.40%	1.43%	$38,228	$74,090	$112,740	$154,124	$198,789	1.69%	1.58%	1.54%	1.52%	1.51%
10%	95%	10	$35,502	$71,959	$110,414	$153,017	$200,327	1.57%	1.53%	1.50%	1.51%	1.52%	$41,889	$81,691	$120,469	$161,997	$206,393	1.86%	1.74%	1.64%	1.59%	1.56%
10%	95%	20	$36,397	$75,695	$116,844	$159,797	$205,404	1.61%	1.61%	1.59%	1.57%	1.56%	$42,954	$88,178	$133,188	$176,366	$218,874	1.90%	1.88%	1.82%	1.73%	1.66%
10%	100%	5	$32,942	$71,584	$120,428	$181,128	$254,811	1.46%	1.52%	1.64%	1.78%	1.93%	$39,443	$87,456	$151,910	$234,616	$337,655	1.75%	1.86%	2.07%	2.31%	2.56%
10%	100%	10	$35,783	$77,606	$127,861	$189,666	$264,341	1.58%	1.65%	1.74%	1.87%	2.00%	$43,549	$95,255	$158,189	$238,013	$337,127	1.93%	2.03%	2.16%	2.34%	2.56%
10%	100%	20	$36,888	$81,552	$134,227	$195,598	$267,844	1.63%	1.73%	1.83%	1.92%	2.03%	$45,816	$103,578	$172,778	$254,430	$351,883	2.03%	2.20%	2.35%	2.50%	2.67%
50%	85%	5	$45,500	$72,258	$88,331	$92,557	$83,559	2.02%	1.54%	1.20%	0.91%	0.63%	$53,476	$67,777	$54,333	$10,866	-$66,767	2.37%	1.44%	0.74%	0.11%	-0.51%
50%	85%	10	$54,000	$89,382	$106,330	$108,701	$94,875	2.39%	1.90%	1.45%	1.07%	0.72%	$72,114	$105,177	$99,345	$58,866	-$19,734	3.19%	2.24%	1.35%	0.58%	-0.15%
50%	85%	20	$58,610	$110,534	$147,284	$160,292	$150,229	2.60%	2.35%	2.01%	1.58%	1.14%	$81,649	$146,687	$173,254	$150,383	$73,137	3.62%	3.12%	2.36%	1.48%	0.55%
50%	90%	5	$42,974	$70,082	$91,500	$106,616	$115,135	1.90%	1.49%	1.25%	1.05%	0.87%	$52,996	$75,503	$82,930	$73,493	$45,340	2.35%	1.61%	1.13%	0.72%	0.34%
50%	90%	10	$54,225	$93,952	$121,294	$140,765	$152,019	2.40%	2.00%	1.65%	1.38%	1.15%	$73,320	$114,599	$127,055	$119,993	$90,626	3.25%	2.44%	1.73%	1.18%	0.69%
50%	90%	20	$57,504	$112,595	$156,800	$184,190	$195,799	2.55%	2.39%	2.14%	1.81%	1.48%	$82,829	$153,924	$196,127	$197,960	$161,508	3.67%	3.27%	2.67%	1.95%	1.22%
50%	95%	5	$44,667	$78,529	$114,145	$151,642	$191,252	1.98%	1.67%	1.56%	1.49%	1.45%	$54,642	$87,105	$117,525	$146,429	$173,728	2.42%	1.85%	1.60%	1.44%	1.32%
50%	95%	10	$55,114	$99,382	$137,062	$174,464	$211,877	2.44%	2.11%	1.87%	1.72%	1.61%	$75,827	$128,395	$163,117	$191,791	$213,725	3.36%	2.73%	2.22%	1.89%	1.62%
50%	95%	20	$59,513	$118,775	$171,585	$214,171	$248,437	2.64%	2.53%	2.34%	2.11%	1.88%	$83,090	$160,582	$218,139	$251,004	$259,294	3.68%	3.42%	2.97%	2.47%	1.97%
50%	100%	5	$44,280	$82,224	$128,320	$183,353	$248,353	1.96%	1.75%	1.75%	1.80%	1.88%	$56,010	$99,413	$153,919	$221,563	$304,920	2.48%	2.11%	2.10%	2.18%	2.31%
50%	100%	10	$54,822	$102,061	$147,535	$199,546	$259,057	2.43%	2.17%	2.01%	1.96%	1.96%	$76,182	$135,686	$186,983	$246,245	$314,690	3.37%	2.89%	2.55%	2.42%	2.39%
50%	100%	20	$59,119	$120,023	$178,584	$232,886	$284,725	2.62%	2.55%	2.43%	2.29%	2.16%	$87,793	$173,684	$249,272	$310,744	$361,278	3.89%	3.69%	3.40%	3.06%	2.74%
90%	85%	5	$53,673	$78,068	$88,317	$82,941	$60,338	2.38%	1.66%	1.20%	0.82%	0.46%	$68,866	$86,904	$73,219	$23,613	-$65,202	3.05%	1.85%	1.00%	0.23%	-0.49%
90%	85%	10	$71,085	$119,246	$141,819	$146,097	$129,974	3.15%	2.54%	1.93%	1.44%	0.99%	$100,209	$155,389	$152,700	$107,802	$13,936	4.44%	3.30%	2.08%	1.06%	0.11%
90%	85%	20	$78,767	$154,657	$210,806	$232,861	$220,352	3.49%	3.29%	2.87%	2.29%	1.67%	$113,956	$217,509	$278,387	$263,192	$167,216	5.05%	4.63%	3.79%	2.59%	1.27%
90%	90%	5	$55,643	$86,987	$111,610	$128,656	$137,452	2.46%	1.85%	1.52%	1.27%	1.04%	$68,821	$94,325	$101,029	$87,307	$50,669	3.05%	2.01%	1.38%	0.86%	0.38%
90%	90%	10	$70,553	$119,880	$147,559	$163,413	$166,129	3.12%	2.55%	2.01%	1.61%	1.26%	$101,106	$161,239	$175,269	$160,067	$111,886	4.48%	3.43%	2.39%	1.57%	0.85%
90%	90%	20	$77,177	$153,129	$212,703	$243,570	$247,859	3.42%	3.26%	2.90%	2.40%	1.88%	$113,240	$218,444	$285,189	$287,818	$221,531	5.02%	4.65%	3.89%	2.83%	1.68%
90%	95%	5	$54,830	$88,565	$121,793	$154,565	$186,984	2.43%	1.88%	1.66%	1.52%	1.42%	$68,700	$100,376	$125,086	$142,730	$152,854	3.04%	2.13%	1.70%	1.40%	1.16%
90%	95%	10	$71,082	$123,118	$159,477	$191,341	$217,885	3.15%	2.62%	2.17%	1.88%	1.65%	$101,508	$165,038	$190,136	$199,813	$192,273	4.50%	3.51%	2.59%	1.97%	1.46%
90%	95%	20	$77,072	$150,193	$209,271	$245,186	$260,111	3.41%	3.19%	2.85%	2.41%	1.97%	$112,737	$222,165	$297,471	$318,459	$286,205	4.99%	4.73%	4.05%	3.13%	2.17%
90%	100%	5	$54,637	$91,751	$134,351	$183,473	$239,680	2.42%	1.95%	1.83%	1.80%	1.82%	$68,026	$104,598	$147,251	$197,477	$255,683	3.01%	2.22%	2.01%	1.94%	1.94%
90%	100%	10	$71,549	$125,161	$166,780	$210,748	$257,224	3.17%	2.66%	2.27%	2.07%	1.95%	$101,410	$169,304	$209,534	$248,405	$285,934	4.49%	3.60%	2.86%	2.44%	2.17%
90%	100%	20	$80,407	$160,201	$227,523	$275,315	$309,338	3.56%	3.41%	3.10%	2.71%	2.35%	$113,796	$228,122	$311,723	$350,407	$351,268	5.04%	4.85%	4.25%	3.45%	2.66%

Table 32 Cumulative Labour Income ($M, real terms)

			GMI										Dividend-plus-GMI									
	Household	Debt	Additional Labour Income ($M)					Additional Labour Income (% of Baseline)					Additional Labour Income ($M)					Additional Labour Income (% of Baseline)				
Initial Debt	Funding	Rampdown	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045	2025	2030	2035	2040	2045
0%	85%	n/a	$65,571	$112,880	$140,148	$145,965	$126,594	1.13%	0.95%	0.76%	0.58%	0.39%	$65,582	$89,967	$69,757	$118	-$123,072	1.14%	0.76%	0.38%	0.00%	-0.38%
0%	90%	n/a	$65,373	$122,929	$170,640	$209,244	$239,242	1.13%	1.04%	0.93%	0.83%	0.74%	$69,911	$121,688	$153,461	$163,356	$149,513	1.21%	1.03%	0.84%	0.65%	0.46%
0%	95%	n/a	$64,323	$132,548	$204,108	$280,266	$362,626	1.11%	1.12%	1.11%	1.11%	1.12%	$68,679	$141,159	$216,247	$296,191	$382,384	1.19%	1.19%	1.18%	1.18%	1.18%
0%	100%	n/a	$63,460	$142,085	$235,482	$345,788	$477,002	1.10%	1.20%	1.28%	1.37%	1.47%	$66,864	$160,115	$280,666	$432,344	$621,069	1.16%	1.35%	1.53%	1.72%	1.91%
10%	85%	5	$72,231	$122,148	$150,559	$155,656	$135,124	1.25%	1.03%	0.82%	0.62%	0.42%	$77,267	$106,893	$91,704	$25,869	-$95,159	1.34%	0.90%	0.50%	0.10%	-0.29%
10%	85%	10	$74,409	$126,471	$155,660	$161,451	$142,221	1.29%	1.07%	0.85%	0.64%	0.44%	$79,035	$115,714	$103,091	$39,056	-$81,683	1.37%	0.98%	0.56%	0.15%	-0.25%
10%	85%	20	$76,120	$132,335	$163,793	$171,903	$151,730	1.32%	1.12%	0.89%	0.68%	0.47%	$80,645	$119,778	$107,292	$42,084	-$84,717	1.40%	1.01%	0.59%	0.17%	-0.26%
10%	90%	5	$69,837	$124,541	$168,959	$202,899	$226,445	1.21%	1.05%	0.92%	0.80%	0.70%	$83,407	$138,001	$170,260	$178,280	$160,694	1.44%	1.16%	0.93%	0.71%	0.49%
10%	90%	10	$76,431	$141,103	$192,577	$232,759	$258,909	1.32%	1.19%	1.05%	0.92%	0.80%	$88,586	$150,562	$183,932	$191,375	$170,458	1.53%	1.27%	1.00%	0.76%	0.53%
10%	90%	20	$75,602	$145,097	$203,585	$247,643	$278,364	1.31%	1.22%	1.11%	0.98%	0.86%	$93,002	$164,201	$206,908	$217,751	$193,459	1.61%	1.38%	1.13%	0.86%	0.60%
10%	95%	5	$71,696	$140,071	$210,900	$284,690	$363,101	1.24%	1.18%	1.15%	1.13%	1.12%	$85,823	$162,128	$239,868	$319,322	$402,267	1.49%	1.37%	1.31%	1.27%	1.24%
10%	95%	10	$78,214	$153,778	$227,778	$304,603	$385,725	1.35%	1.30%	1.24%	1.21%	1.19%	$92,586	$176,627	$253,898	$331,831	$411,275	1.60%	1.49%	1.38%	1.32%	1.27%
10%	95%	20	$79,781	$160,608	$239,585	$316,793	$394,187	1.38%	1.35%	1.31%	1.26%	1.21%	$94,606	$189,862	$280,515	$363,718	$441,856	1.64%	1.60%	1.53%	1.44%	1.36%
10%	100%	5	$73,020	$151,920	$244,260	$353,176	$481,221	1.26%	1.28%	1.33%	1.40%	1.48%	$85,383	$181,747	$304,337	$457,611	$644,289	1.48%	1.53%	1.66%	1.82%	1.98%
10%	100%	10	$77,445	$161,985	$256,590	$367,602	$497,767	1.34%	1.37%	1.40%	1.46%	1.53%	$93,964	$198,264	$318,310	$465,365	$643,292	1.63%	1.67%	1.74%	1.85%	1.98%
10%	100%	20	$79,253	$169,199	$268,521	$378,688	$504,078	1.37%	1.43%	1.46%	1.50%	1.55%	$97,969	$214,814	$347,248	$497,620	$672,675	1.70%	1.81%	1.89%	1.97%	2.07%
50%	85%	5	$105,215	$167,666	$206,935	$220,851	$207,311	1.82%	1.41%	1.13%	0.88%	0.64%	$124,442	$164,948	$152,282	$82,387	-$52,522	2.15%	1.39%	0.83%	0.33%	-0.16%
50%	85%	10	$117,980	$194,339	$232,439	$239,402	$212,435	2.04%	1.64%	1.27%	0.95%	0.65%	$157,145	$232,415	$231,723	$164,069	$24,123	2.72%	1.96%	1.26%	0.65%	0.07%
50%	85%	20	$125,667	$232,984	$307,180	$332,689	$312,410	2.18%	1.96%	1.68%	1.32%	0.96%	$171,899	$306,530	$365,336	$331,126	$195,014	2.98%	2.58%	1.99%	1.31%	0.60%
50%	90%	5	$99,059	$159,694	$205,365	$234,682	$247,600	1.71%	1.35%	1.12%	0.93%	0.76%	$123,161	$178,689	$204,015	$195,477	$150,084	2.13%	1.51%	1.11%	0.78%	0.46%
50%	90%	10	$118,002	$202,660	$259,981	$298,082	$316,485	2.04%	1.71%	1.42%	1.18%	0.97%	$157,969	$248,824	$282,705	$276,224	$224,484	2.73%	2.10%	1.54%	1.10%	0.69%
50%	90%	20	$123,722	$237,841	$325,576	$376,864	$394,808	2.14%	2.00%	1.78%	1.50%	1.22%	$173,469	$317,732	$402,917	$409,364	$343,100	3.00%	2.68%	2.20%	1.62%	1.06%
50%	95%	5	$102,422	$176,270	$248,296	$318,282	$387,018	1.77%	1.49%	1.35%	1.26%	1.19%	$125,302	$198,303	$263,956	$322,409	$373,996	2.17%	1.67%	1.44%	1.28%	1.15%
50%	95%	10	$119,334	$211,989	$287,649	$358,293	$424,208	2.07%	1.79%	1.57%	1.42%	1.31%	$161,562	$271,399	$342,529	$398,391	$437,771	2.80%	2.29%	1.87%	1.58%	1.35%
50%	95%	20	$127,924	$249,707	$353,712	$433,482	$492,613	2.21%	2.10%	1.93%	1.72%	1.52%	$174,728	$331,785	$445,023	$508,698	$522,524	3.02%	2.80%	2.43%	2.02%	1.61%
50%	100%	5	$101,311	$182,502	$273,900	$376,745	$493,062	1.75%	1.54%	1.49%	1.49%	1.52%	$126,298	$217,765	$325,940	$453,732	$605,396	2.19%	1.84%	1.78%	1.80%	1.86%
50%	100%	10	$117,568	$215,378	$304,807	$401,116	$505,931	2.03%	1.82%	1.66%	1.59%	1.56%	$161,770	$284,066	$384,499	$494,991	$617,087	2.80%	2.39%	2.10%	1.96%	1.90%
50%	100%	20	$125,907	$249,366	$361,119	$459,040	$546,296	2.18%	2.10%	1.97%	1.82%	1.68%	$182,716	$355,083	$502,035	$618,435	$708,836	3.16%	2.99%	2.74%	2.45%	2.18%
90%	85%	5	$121,324	$176,400	$201,520	$193,347	$149,342	2.10%	1.49%	1.10%	0.77%	0.46%	$153,450	$197,362	$180,924	$95,244	-$64,638	2.66%	1.66%	0.99%	0.38%	-0.20%
90%	85%	10	$151,213	$251,938	$300,006	$309,868	$277,773	2.62%	2.12%	1.64%	1.23%	0.86%	$207,584	$322,607	$325,752	$250,905	$84,909	3.59%	2.72%	1.78%	1.00%	0.26%
90%	85%	20	$165,215	$319,094	$429,488	$469,747	$440,812	2.86%	2.69%	2.34%	1.86%	1.36%	$236,551	$444,410	$564,454	$539,054	$365,529	4.09%	3.75%	3.08%	2.14%	1.13%
90%	90%	5	$125,620	$194,944	$247,940	$282,434	$297,580	2.17%	1.64%	1.35%	1.12%	0.92%	$152,163	$209,792	$231,005	$210,743	$145,150	2.63%	1.77%	1.26%	0.84%	0.45%
90%	90%	10	$149,417	$251,696	$308,080	$337,794	$338,183	2.59%	2.12%	1.68%	1.34%	1.04%	$209,495	$334,016	$366,831	$343,070	$255,138	3.63%	2.82%	2.00%	1.36%	0.79%
90%	90%	20	$161,167	$314,104	$429,710	$486,552	$490,750	2.79%	2.65%	2.34%	1.93%	1.51%	$235,072	$444,579	$573,194	$580,094	$458,167	4.07%	3.75%	3.13%	2.30%	1.41%
90%	95%	5	$123,217	$196,226	$264,394	$326,845	$384,002	2.13%	1.65%	1.44%	1.30%	1.18%	$151,514	$218,125	$268,772	$302,399	$317,965	2.62%	1.84%	1.47%	1.20%	0.98%
90%	95%	10	$150,930	$258,052	$329,831	$388,158	$430,966	2.61%	2.18%	1.80%	1.54%	1.33%	$209,979	$341,322	$394,377	$415,103	$399,766	3.63%	2.88%	2.15%	1.65%	1.23%
90%	95%	20	$161,920	$309,605	$424,060	$489,723	$511,187	2.80%	2.61%	2.31%	1.94%	1.57%	$234,096	$451,671	$595,462	$633,831	$570,721	4.05%	3.81%	3.25%	2.51%	1.76%
90%	100%	5	$122,997	$202,103	$286,512	$377,358	$476,160	2.13%	1.70%	1.56%	1.50%	1.47%	$150,889	$227,029	$310,240	$402,179	$504,865	2.61%	1.91%	1.69%	1.60%	1.56%
90%	100%	10	$152,891	$263,451	$344,616	$425,180	$505,094	2.65%	2.22%	1.88%	1.69%	1.56%	$209,236	$346,580	$424,045	$494,203	$556,438	3.62%	2.92%	2.31%	1.96%	1.71%
90%	100%	20	$166,416	$325,323	$454,504	$541,361	$596,405	2.88%	2.74%	2.48%	2.15%	1.84%	$236,359	$465,512	$626,410	$697,331	$693,413	4.09%	3.92%	3.42%	2.77%	2.14%

B.2. Regional Economic Impact Results

The following tables summarize economic impact results for the four scenarios examined in Section 3.2.

Table 33 Annual regional results, 2025

		Additional Annual Values								% Above Baseline							
		GMI				Dividend+GMI				GMI				Dividend+GMI			
Year	Economic Region	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH
	Jobs																
2025	Canada	298,021	263,554	449,881	431,241	346,158	279,465	593,003	553,545	1.53%	1.36%	2.32%	2.22%	1.78%	1.44%	3.05%	2.85%
2025	Atlantic Canada	18,813	19,286	24,969	24,726	40,926	42,441	29,554	31,270	1.59%	1.63%	2.11%	2.09%	3.45%	3.58%	2.49%	2.64%
2025	British Columbia	30,999	32,518	63,708	62,933	55,909	51,670	118,124	117,979	1.26%	1.33%	2.60%	2.57%	2.28%	2.11%	4.82%	4.81%
2025	Ontario	152,265	160,002	213,777	213,863	133,644	86,981	287,486	270,851	2.02%	2.12%	2.83%	2.84%	1.77%	1.15%	3.81%	3.59%
2025	Prairies	7,615	-8,117	45,732	38,676	-11,889	-35,805	59,049	28,220	0.20%	-0.21%	1.21%	1.02%	-0.31%	-0.95%	1.56%	0.75%
2025	Quebec	88,329	59,865	101,695	91,043	127,568	134,178	98,790	105,225	1.98%	1.34%	2.28%	2.04%	2.86%	3.01%	2.22%	2.36%
	Real GDP ($M)																
2025	Canada	$39,707	$34,084	$59,883	$57,022	$46,147	$35,275	$79,407	$73,565	1.57%	1.35%	2.37%	2.26%	1.83%	1.40%	3.15%	2.92%
2025	Atlantic Canada	$2,431	$2,421	$3,203	$3,089	$5,460	$5,624	$3,767	$4,081	1.76%	1.75%	2.32%	2.24%	3.95%	4.07%	2.73%	2.95%
2025	British Columbia	$4,305	$4,263	$8,040	$7,914	$7,858	$6,867	$16,033	$16,202	1.33%	1.32%	2.49%	2.45%	2.44%	2.13%	4.97%	5.02%
2025	Ontario	$20,697	$22,027	$29,445	$29,451	$18,292	$11,667	$39,534	$37,568	2.09%	2.23%	2.98%	2.98%	1.85%	1.18%	4.00%	3.80%
2025	Prairies	$656	-$2,590	$6,183	$4,948	-$2,370	-$7,028	$8,032	$2,550	0.11%	-0.45%	1.07%	0.85%	-0.41%	-1.21%	1.39%	0.44%
2025	Quebec	$11,618	$7,963	$13,013	$11,620	$16,907	$18,144	$12,042	$13,165	2.35%	1.61%	2.63%	2.35%	3.41%	3.66%	2.43%	2.66%
	Real GOS ($M)																
2025	Canada	$14,825	$12,590	$22,638	$21,474	$17,251	$12,948	$30,002	$27,715	1.53%	1.30%	2.34%	2.22%	1.78%	1.34%	3.10%	2.87%
2025	Atlantic Canada	$945	$918	$1,240	$1,175	$2,108	$2,143	$1,463	$1,601	1.75%	1.70%	2.30%	2.18%	3.91%	3.97%	2.71%	2.97%
2025	British Columbia	$1,830	$1,822	$3,356	$3,301	$3,302	$2,906	$6,592	$6,700	1.38%	1.37%	2.53%	2.49%	2.49%	2.19%	4.97%	5.05%
2025	Ontario	$7,537	$8,035	$10,629	$10,623	$6,708	$4,377	$14,092	$13,495	2.14%	2.28%	3.02%	3.01%	1.90%	1.24%	4.00%	3.83%
2025	Prairies	$357	-$1,070	$2,780	$2,236	-$893	-$2,954	$3,628	$1,247	0.14%	-0.42%	1.09%	0.88%	-0.35%	-1.16%	1.43%	0.49%
2025	Quebec	$4,156	$2,885	$4,633	$4,140	$6,027	$6,476	$4,227	$4,672	2.39%	1.66%	2.67%	2.38%	3.47%	3.73%	2.43%	2.69%
	Real Labour Income($M)																
2025	Canada	$14,081	$12,633	$22,242	$21,409	$15,688	$12,676	$30,079	$27,671	1.20%	1.08%	1.90%	1.83%	1.34%	1.08%	2.57%	2.36%
2025	Atlantic Canada	$793	$829	$1,070	$1,052	$1,951	$2,073	$1,287	$1,396	1.22%	1.28%	1.65%	1.62%	3.01%	3.20%	1.99%	2.15%
2025	British Columbia	$1,406	$1,562	$3,180	$3,167	$2,798	$2,710	$6,257	$6,283	0.97%	1.08%	2.20%	2.19%	1.94%	1.88%	4.33%	4.35%
2025	Ontario	$8,208	$8,918	$11,590	$11,703	$6,804	$4,396	$15,840	$14,909	1.73%	1.87%	2.44%	2.46%	1.43%	0.92%	3.33%	3.13%
2025	Prairies	-$412	-$1,334	$1,837	$1,444	-$1,958	-$3,228	$2,480	$462	-0.17%	-0.55%	0.75%	0.59%	-0.80%	-1.32%	1.02%	0.19%
2025	Quebec	$4,087	$2,658	$4,565	$4,043	$6,093	$6,724	$4,216	$4,621	1.69%	1.10%	1.88%	1.67%	2.52%	2.78%	1.74%	1.91%
	Real Private Capital Investment ($M)																
2025	Canada	$6,717	$5,628	$10,597	$10,051	$7,656	$5,470	$14,407	$13,088	1.44%	1.21%	2.27%	2.16%	1.64%	1.17%	3.09%	2.81%
2025	Atlantic Canada	$379	$360	$518	$480	$869	$871	$616	$670	1.60%	1.52%	2.18%	2.02%	3.66%	3.67%	2.59%	2.82%
2025	British Columbia	$920	$911	$1,718	$1,691	$1,679	$1,468	$3,427	$3,463	1.33%	1.32%	2.49%	2.45%	2.44%	2.13%	4.97%	5.02%
2025	Ontario	$3,562	$3,791	$5,067	$5,068	$3,148	$2,008	$6,804	$6,465	2.09%	2.23%	2.98%	2.98%	1.85%	1.18%	4.00%	3.80%
2025	Prairies	$56	-$668	$1,277	$1,011	-$661	-$1,688	$1,694	$450	0.04%	-0.53%	1.01%	0.80%	-0.52%	-1.34%	1.34%	0.36%
2025	Quebec	$1,800	$1,234	$2,017	$1,801	$2,620	$2,812	$1,866	$2,040	2.35%	1.61%	2.63%	2.35%	3.41%	3.66%	2.43%	2.66%

Table 34 Annual regional results, 2045

		Additional Annual Values								% Above Baseline							
		GMI				Dividend+GMI				GMI				Dividend+GMI			
Year	Economic Region	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH
	Jobs																
2045	Canada	659,971	266,123	538,441	193,738	915,541	105,893	626,836	-68,837	2.97%	1.20%	2.42%	0.87%	4.11%	0.48%	2.82%	-0.31%
2045	Atlantic Canada	38,861	24,197	30,043	16,591	68,408	45,935	51,404	30,571	3.32%	2.06%	2.56%	1.42%	5.84%	3.92%	4.39%	2.61%
2045	British Columbia	82,844	46,906	72,112	44,874	134,404	63,024	92,696	33,256	2.94%	1.66%	2.56%	1.59%	4.77%	2.23%	3.29%	1.18%
2045	Ontario	298,538	185,192	249,059	146,474	335,493	55,255	259,245	10,330	3.43%	2.13%	2.86%	1.68%	3.86%	0.64%	2.98%	0.12%
2045	Prairies	78,757	-89,114	48,842	-77,473	72,376	-213,570	24,943	-234,094	1.64%	-1.86%	1.02%	-1.61%	1.51%	-4.45%	0.52%	-4.88%
2045	Quebec	160,971	98,942	138,385	63,272	304,860	155,249	198,548	91,100	3.38%	2.08%	2.90%	1.33%	6.40%	3.26%	4.17%	1.91%
	Real GDP ($M)																
2045	Canada	$93,673	$28,741	$72,412	$15,842	$133,654	$334	$85,630	-$28,341	2.81%	0.86%	2.17%	0.48%	4.01%	0.01%	2.57%	-0.85%
2045	Atlantic Canada	$5,384	$3,082	$4,142	$1,953	$9,853	$6,167	$7,306	$4,094	3.54%	2.03%	2.73%	1.29%	6.49%	4.06%	4.81%	2.70%
2045	British Columbia	$12,240	$6,613	$9,515	$5,338	$20,820	$9,490	$13,191	$4,267	2.88%	1.56%	2.24%	1.26%	4.91%	2.24%	3.11%	1.01%
2045	Ontario	$43,506	$26,815	$35,648	$19,813	$50,615	$7,220	$37,916	-$400	3.34%	2.06%	2.73%	1.52%	3.88%	0.55%	2.91%	-0.03%
2045	Prairies	$10,702	-$21,673	$4,335	-$19,787	$9,544	-$45,555	-$479	-$50,035	1.26%	-2.54%	0.51%	-2.32%	1.12%	-5.34%	-0.06%	-5.87%
2045	Quebec	$21,842	$13,903	$18,773	$8,525	$42,822	$23,010	$27,696	$13,733	3.64%	2.32%	3.13%	1.42%	7.15%	3.84%	4.62%	2.29%
	Real GOS ($M)																
2045	Canada	$35,377	$9,882	$27,236	$4,986	$50,657	-$1,649	$32,282	-$12,439	2.76%	0.77%	2.12%	0.39%	3.95%	-0.13%	2.52%	-0.97%
2045	Atlantic Canada	$2,060	$1,130	$1,591	$695	$3,817	$2,267	$2,823	$1,524	3.48%	1.91%	2.69%	1.18%	6.45%	3.83%	4.77%	2.58%
2045	British Columbia	$5,099	$2,916	$3,998	$2,328	$8,709	$4,187	$5,579	$2,041	2.92%	1.67%	2.29%	1.33%	4.99%	2.40%	3.20%	1.17%
2045	Ontario	$15,685	$10,084	$12,934	$7,418	$18,435	$3,323	$13,928	$614	3.38%	2.17%	2.78%	1.60%	3.97%	0.72%	3.00%	0.13%
2045	Prairies	$4,788	-$9,365	$2,021	-$8,608	$4,485	-$19,849	$43	-$21,785	1.28%	-2.50%	0.54%	-2.30%	1.20%	-5.29%	0.01%	-5.81%
2045	Quebec	$7,746	$5,118	$6,692	$3,153	$15,210	$8,423	$9,909	$5,168	3.68%	2.43%	3.18%	1.50%	7.24%	4.01%	4.71%	2.46%
	Real Labour Income($M)																
2045	Canada	$28,086	$5,340	$21,771	$2,115	$41,018	-$4,768	$25,525	-$14,178	1.89%	0.36%	1.47%	0.14%	2.76%	-0.32%	1.72%	-0.96%
2045	Atlantic Canada	$1,518	$774	$1,092	$398	$3,127	$2,089	$2,258	$1,316	2.16%	1.10%	1.55%	0.57%	4.44%	2.97%	3.21%	1.87%
2045	British Columbia	$3,500	$1,685	$3,021	$1,702	$6,517	$3,034	$4,190	$1,313	1.91%	0.92%	1.65%	0.93%	3.56%	1.66%	2.29%	0.72%
2045	Ontario	$14,516	$8,358	$11,811	$6,179	$16,092	$410	$12,005	-$2,042	2.40%	1.38%	1.96%	1.02%	2.66%	0.07%	1.99%	-0.34%
2045	Prairies	$1,857	-$9,269	$161	-$8,070	$534	-$17,928	-$1,939	-$18,888	0.54%	-2.71%	0.05%	-2.36%	0.16%	-5.25%	-0.57%	-5.53%
2045	Quebec	$6,694	$3,793	$5,686	$1,905	$14,749	$7,627	$9,011	$4,124	2.35%	1.33%	1.99%	0.67%	5.17%	2.67%	3.16%	1.45%
	Real Private Capital Investment ($M)																
2045	Canada	$16,550	$3,593	$12,548	$1,570	$23,211	-$2,745	$14,493	-$7,830	2.67%	0.58%	2.02%	0.25%	3.74%	-0.44%	2.34%	-1.26%
2045	Atlantic Canada	$852	$396	$650	$220	$1,585	$820	$1,147	$525	3.28%	1.53%	2.51%	0.85%	6.10%	3.16%	4.42%	2.02%
2045	British Columbia	$2,616	$1,413	$2,034	$1,141	$4,450	$2,028	$2,819	$912	2.88%	1.56%	2.24%	1.26%	4.91%	2.24%	3.11%	1.01%
2045	Ontario	$7,487	$4,615	$6,135	$3,410	$8,711	$1,243	$6,525	-$69	3.34%	2.06%	2.73%	1.52%	3.88%	0.55%	2.91%	-0.03%
2045	Prairies	$2,211	-$4,985	$820	-$4,522	$1,829	-$10,402	-$290	-$11,327	1.18%	-2.67%	0.44%	-2.42%	0.98%	-5.57%	-0.16%	-6.07%
2045	Quebec	$3,385	$2,154	$2,909	$1,321	$6,636	$3,566	$4,292	$2,128	3.64%	2.32%	3.13%	1.42%	7.15%	3.84%	4.62%	2.29%

Table 35 Cumulative regional results, 2025

		Additional Cumulative Values								% Above Baseline							
		GMI				Dividend+GMI				GMI				Dividend+GMI			
Up To and Including Year	Economic Region	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH
	Cumulative Real GDP ($M)																
2025	Canada	$178,166	$172,588	$308,993	$306,228	$198,971	$189,123	$419,287	$410,128	1.46%	1.41%	2.53%	2.50%	1.63%	1.55%	3.43%	3.35%
2025	Atlantic Canada	$11,000	$12,141	$16,550	$16,605	$25,079	$28,273	$20,133	$22,711	1.64%	1.81%	2.47%	2.48%	3.75%	4.23%	3.01%	3.39%
2025	British Columbia	$19,046	$21,606	$41,365	$42,178	$34,907	$35,615	$82,174	$85,499	1.22%	1.38%	2.65%	2.70%	2.23%	2.28%	5.26%	5.47%
2025	Ontario	$94,679	$109,663	$150,092	$154,512	$78,977	$63,651	$205,197	$203,240	1.98%	2.29%	3.13%	3.23%	1.65%	1.33%	4.28%	4.24%
2025	Prairies	-$34	-$10,868	$34,226	$30,750	-$17,001	-$29,978	$46,705	$24,380	0.00%	-0.39%	1.22%	1.10%	-0.61%	-1.07%	1.67%	0.87%
2025	Quebec	$53,477	$40,046	$66,761	$62,182	$77,009	$91,562	$65,078	$74,297	2.23%	1.67%	2.78%	2.59%	3.21%	3.82%	2.71%	3.10%
	Cumulative Real GOS ($M)																
2025	Canada	$66,373	$64,019	$116,965	$115,735	$74,207	$70,033	$159,009	$155,316	1.42%	1.37%	2.50%	2.47%	1.58%	1.50%	3.40%	3.32%
2025	Atlantic Canada	$4,273	$4,618	$6,415	$6,344	$9,678	$10,798	$7,845	$8,930	1.64%	1.77%	2.46%	2.43%	3.71%	4.14%	3.00%	3.42%
2025	British Columbia	$8,120	$9,240	$17,259	$17,599	$14,700	$15,085	$33,837	$35,402	1.27%	1.44%	2.69%	2.74%	2.29%	2.35%	5.27%	5.52%
2025	Ontario	$34,512	$40,031	$54,163	$55,753	$29,078	$23,865	$73,286	$73,111	2.02%	2.35%	3.17%	3.27%	1.70%	1.40%	4.30%	4.29%
2025	Prairies	$324	-$4,392	$15,368	$13,878	-$6,729	-$12,425	$21,120	$11,465	0.03%	-0.36%	1.25%	1.13%	-0.55%	-1.01%	1.71%	0.93%
2025	Quebec	$19,144	$14,521	$23,759	$22,161	$27,480	$32,711	$22,921	$26,409	2.28%	1.73%	2.82%	2.63%	3.27%	3.89%	2.72%	3.14%
	Cumulative Real Labour Income($M)																
2025	Canada	$63,460	$65,373	$117,568	$118,002	$66,864	$69,911	$161,770	$157,969	1.10%	1.13%	2.03%	2.04%	1.16%	1.21%	2.80%	2.73%
2025	Atlantic Canada	$3,578	$4,261	$5,713	$5,876	$9,035	$10,646	$7,086	$8,071	1.12%	1.33%	1.79%	1.84%	2.83%	3.33%	2.22%	2.52%
2025	British Columbia	$6,194	$8,082	$16,658	$17,157	$12,498	$14,290	$32,547	$33,698	0.87%	1.13%	2.34%	2.41%	1.75%	2.01%	4.57%	4.73%
2025	Ontario	$38,042	$45,247	$60,384	$62,801	$29,284	$24,680	$83,623	$82,340	1.62%	1.93%	2.57%	2.67%	1.25%	1.05%	3.56%	3.51%
2025	Prairies	-$3,270	-$5,962	$10,671	$9,667	-$11,812	-$14,431	$14,973	$6,644	-0.27%	-0.50%	0.89%	0.80%	-0.98%	-1.20%	1.25%	0.55%
2025	Quebec	$18,917	$13,745	$24,141	$22,501	$27,859	$34,727	$23,541	$27,215	1.58%	1.15%	2.02%	1.88%	2.33%	2.91%	1.97%	2.28%
	Cumulative Real Private Capital Investment ($M)																
2025	Canada	$29,923	$28,641	$54,822	$54,225	$32,555	$29,858	$76,182	$73,320	1.33%	1.27%	2.43%	2.40%	1.44%	1.32%	3.37%	3.25%
2025	Atlantic Canada	$1,704	$1,816	$2,685	$2,605	$3,974	$4,395	$3,310	$3,753	1.48%	1.58%	2.33%	2.26%	3.45%	3.82%	2.88%	3.26%
2025	British Columbia	$4,071	$4,618	$8,841	$9,015	$7,461	$7,612	$17,563	$18,274	1.22%	1.38%	2.65%	2.70%	2.23%	2.28%	5.26%	5.47%
2025	Ontario	$16,294	$18,873	$25,830	$26,591	$13,592	$10,954	$35,314	$34,977	1.98%	2.29%	3.13%	3.23%	1.65%	1.33%	4.28%	4.24%
2025	Prairies	-$432	-$2,871	$7,121	$6,378	-$4,405	-$7,291	$9,910	$4,803	-0.07%	-0.47%	1.16%	1.04%	-0.72%	-1.19%	1.62%	0.78%
2025	Quebec	$8,287	$6,205	$10,345	$9,636	$11,933	$14,188	$10,084	$11,513	2.23%	1.67%	2.78%	2.59%	3.21%	3.82%	2.71%	3.10%

Table 36 Cumulative regional results, 2045

		Additional Cumulative Values								% Above Baseline							
		GMI				Dividend+GMI				GMI				Dividend+GMI			
Up To and Including Year	Economic Region	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH	no debt, 100% HH	no debt, 90% HH	50% debt, 100% HH	50 % debt, 90% HH
	Cumulative Real GDP ($M)																
2045	Canada	$1,495,853	$795,303	$1,490,127	$934,546	$1,976,540	$556,586	$1,826,396	$707,550	2.10%	1.12%	2.09%	1.31%	2.78%	0.78%	2.57%	0.99%
2045	Atlantic Canada	$90,405	$66,687	$90,330	$63,405	$185,860	$147,909	$146,290	$123,793	2.51%	1.85%	2.51%	1.76%	5.16%	4.11%	4.06%	3.44%
2045	British Columbia	$181,614	$134,805	$194,295	$155,747	$291,857	$198,481	$313,938	$235,968	2.00%	1.48%	2.14%	1.72%	3.21%	2.19%	3.46%	2.60%
2045	Ontario	$749,108	$589,749	$749,830	$606,591	$791,959	$250,991	$829,672	$475,406	2.68%	2.11%	2.69%	2.17%	2.84%	0.90%	2.97%	1.70%
2045	Prairies	$113,847	-$249,963	$94,974	-$132,389	$49,059	-$541,872	$25,915	-$534,850	0.66%	-1.46%	0.55%	-0.77%	0.29%	-3.16%	0.15%	-3.12%
2045	Quebec	$360,878	$254,026	$360,699	$241,192	$657,805	$501,077	$510,581	$407,234	2.70%	1.90%	2.69%	1.80%	4.91%	3.74%	3.81%	3.04%
	Cumulative Real GOS ($M)																
2045	Canada	$561,916	$286,823	$560,392	$341,785	$744,910	$188,023	$688,520	$249,605	2.06%	1.05%	2.05%	1.25%	2.73%	0.69%	2.52%	0.91%
2045	Atlantic Canada	$34,691	$24,851	$34,720	$23,612	$71,653	$55,518	$56,733	$47,677	2.47%	1.77%	2.47%	1.68%	5.10%	3.95%	4.04%	3.40%
2045	British Columbia	$76,137	$58,375	$81,509	$66,023	$122,645	$85,664	$131,504	$101,462	2.04%	1.56%	2.18%	1.77%	3.29%	2.30%	3.52%	2.72%
2045	Ontario	$270,911	$218,087	$271,592	$221,510	$289,333	$100,197	$302,200	$181,250	2.72%	2.19%	2.73%	2.23%	2.91%	1.01%	3.04%	1.82%
2045	Prairies	$51,683	-$107,331	$43,947	-$56,487	$27,091	-$234,313	$15,849	-$229,287	0.69%	-1.42%	0.58%	-0.75%	0.36%	-3.11%	0.21%	-3.04%
2045	Quebec	$128,494	$92,841	$128,625	$87,127	$234,189	$180,957	$182,235	$148,504	2.74%	1.98%	2.74%	1.85%	4.99%	3.85%	3.88%	3.16%
	Cumulative Real Labour Income($M)																
2045	Canada	$477,002	$239,242	$505,931	$316,485	$621,069	$149,513	$617,087	$224,484	1.47%	0.74%	1.56%	0.97%	1.91%	0.46%	1.90%	0.69%
2045	Atlantic Canada	$27,167	$19,939	$27,785	$19,102	$62,736	$52,755	$48,453	$42,510	1.61%	1.18%	1.65%	1.13%	3.73%	3.13%	2.88%	2.52%
2045	British Columbia	$53,957	$41,825	$70,529	$59,063	$93,590	$71,067	$112,911	$87,678	1.35%	1.04%	1.76%	1.47%	2.34%	1.77%	2.82%	2.19%
2045	Ontario	$269,810	$213,304	$274,964	$226,348	$265,831	$70,817	$297,173	$165,786	2.04%	1.61%	2.08%	1.71%	2.01%	0.54%	2.25%	1.25%
2045	Prairies	$10,979	-$111,394	$15,248	-$61,247	-$29,277	-$221,712	-$15,437	-$210,259	0.16%	-1.58%	0.22%	-0.87%	-0.41%	-3.14%	-0.22%	-2.98%
2045	Quebec	$115,089	$75,567	$117,405	$73,219	$228,190	$176,587	$173,985	$138,768	1.77%	1.17%	1.81%	1.13%	3.52%	2.72%	2.68%	2.14%
	Cumulative Real Private Capital Investment ($M)																
2045	Canada	$260,207	$120,331	$259,057	$152,019	$336,416	$59,626	$314,690	$90,626	1.97%	0.91%	1.96%	1.15%	2.55%	0.45%	2.39%	0.69%
2045	Atlantic Canada	$14,143	$9,252	$14,309	$8,902	$29,603	$21,487	$23,256	$18,625	2.29%	1.50%	2.32%	1.44%	4.79%	3.48%	3.77%	3.02%
2045	British Columbia	$38,817	$28,812	$41,527	$33,288	$62,379	$42,422	$67,099	$50,434	2.00%	1.48%	2.14%	1.72%	3.21%	2.19%	3.46%	2.60%
2045	Ontario	$128,919	$101,494	$129,043	$104,393	$136,294	$43,195	$142,784	$81,816	2.68%	2.11%	2.69%	2.17%	2.84%	0.90%	2.97%	1.70%
2045	Prairies	$22,406	-$58,590	$18,284	-$31,938	$6,208	-$125,124	$2,433	-$123,353	0.60%	-1.56%	0.49%	-0.85%	0.17%	-3.34%	0.06%	-3.29%
2045	Quebec	$55,921	$39,363	$55,893	$37,375	$101,932	$77,646	$79,119	$63,104	2.70%	1.90%	2.69%	1.80%	4.91%	3.74%	3.81%	3.04%