Improving stimulus after COVID-19: What can be learnt from the Australian fiscal response?

Elliot Thorp

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Elliot Thorp
elliotmthorp@gmail.com

Contents

Executive Summary

Prior to the Global Financial Crisis (GFC), there was widespread consensus that discretionary fiscal policy interventions were not useful in managing economic downturns.[1] However, since then discretionary fiscal policy intervention has quickly become a staple in the policymakers' toolbox. The rise of countries approaching zero-lower bounds or liquidity traps[2] has led to a transition away from the reliance on traditional monetary policy that dominated the economic literature for several decades.[3] This has led to a significant role for fiscal policy as a countercyclical instrument.[4] In response to the COVID-19 global pandemic, $14 trillion was spent globally on stimulus.[5] Australia followed this trend with the Morrison Government, spending $507 billion on fiscal stimulus.[6] Whilst the heavy reliance on fiscal stimulus in response to COVID-19 and the GFC is working to normalise stimulus in the policy arena, it is still a relatively novel area of policy. Considering the substantial expenditures associated with stimulus packages, getting fiscal stimulus wrong would incur substantial costs.

Discretionary fiscal policy is argued to stimulate economic recovery by increasing the overall demand for goods and services by domestic consumers and firms. By injecting money into the economy, fiscal stimulus increases the real incomes of consumers and the productive capacity of businesses, allowing them to purchase more goods and services. Consequently, there is an increase in the goods and services demanded from domestic businesses, leading to further increase in production to meet this demand.[7] Firms therefore have a greater demand for employees to facilitate this production, which in turn increases employment and real incomes. However, the use of fiscal policy is disputed. The primary concerns with using fiscal policy regard its ability to be implemented in a timely and apolitical way, as well as its actual efficacy in generating demand. Therefore, the use of discretionary fiscal policy in response to economic downturns aims to promote economic recovery by strengthening local demand for domestic goods and services.

There have been several reports accusing the Morrison government of mismanaging its fiscal response to COVID-19 regarding its treatment of women. Specifically, this literature argues that despite women bearing a relatively larger share of COVID's economic burdens, the government's stimulus packages disproportionately support men and consequently have actively contributed to gender inequality.[8] These critics argue that a more equitable distribution of direct industry expenditure across sectors that disproportionately employ women, such as the care sector, would have more equitable outcomes.[9] Moreover, they contend that it would have been more economically efficient to have done so. To do this, they employ a combination of qualitative and quantitative economic arguments rooted in a gender sensitive framework.

This report aims to contribute to the growing literature working to develop methods to constructively evaluate fiscal stimulus. To do this, the literature critiquing the Morrison Government's fiscal response will be reviewed and situated within both the quantitative and qualitative mainstream economic academic literature regarding fiscal policy evaluation.

The lack of economic support directed at addressing the exigencies of women during the global pandemic is concerning. The desire to prevent this from recurring or the genuine possibility of worse oversights in the future provides the impetus for this report. The use of discretionary fiscal policy is a relatively novel and complex policy problem; policymakers need better tools to help them navigate this difficult policy space. This report contends that there are valuable insights for policymakers from the set of literature reviewed. By identifying these insights and formulating them into policy recommendations, this report aims to assist in improving the set of instruments used in fiscal policy evaluation.

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[1] *Martin S Feldstein, Rethinking The Role of Fiscal Policy (NBER working paper 14684, Cambridge: National Bureau of Economic Research, Jan 2009), 1, doi: 10.3386/w14684.*

[2] *Marco Del Negro, Domenico Giannone, Marc P. Giannoni, and Andrea Tambalotti, "Global Trends In Interest Rates," Journal Of International Economics 118, no. 1 (May 2019): 248-262, doi: 10.1016/j.jinteco.2019.01.010.*

[3] *Mark Stone, Kenji Fujita and Kotaro Ishi, Should Unconventional Balance Sheet Policies be Added to the Central Bank Toolkit? A Review of the Experience So Far (IMF Working Paper 11/145, International Monetary Fund, June 2011), https://www.imf.org/external/pubs/ft/wp/2011/wp11145.pdf.*

[4] *Günter Coenen, Christopher J. Erceg, Charles Freedman, Davide Furceri, Michael Kumhof, René Lalonde, Douglas Laxton, Jesper Lindé, Annabelle Mourougane, Dirk Muir, Susanna Mursula, Carlos De Resende, John Roberts, Werner Roeger, Stephen Snudden, Mathias Trabandt, and Jan in't Veld, "Effects Of Fiscal Stimulus In Structural Models," American Economic Journal: Macroeconomics 4, no. 1 (Jan 2021): 23, http://www.jstor.org/stable/41426389.*

[5] *International Monetary Fund, Fiscal Monitor Update, January 2021 (Fiscal monitor reports. International Monetary Fund, Jan 2021), https://www.imf.org/en/Publications/FM/Issues/2021/01/20/fiscal-monitor-update-january-2021.*

[6] *Commonwealth of Australia 2020, "Budget Strategy and Outlook," in Budget Paper No. 1 2020–2, (Canberra: Commonwealth of Australia, Oct 2020), https://archive.budget.gov.au/2020-21/index.htm.*

[7] *Antonio Fatás and Ilian Mihov, "Why Fiscal Stimulus is Likely to Work," International Finance 12, no. 1 (Spring 2009): 59, doi: 10.1111/j.1468-2362.2009.01235.x.*

[8] *Danielle Wood, Kate Griffiths, and Tom Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women (Grattan Institute Report no. 2021-01, The Grattan Institute, March 2021), https://grattan.edu.au/report/womens-work; Elizabeth Hill, Reducing Gender Inequality and Boosting The Economy: Fiscal Policy After COVID-19 (Committee for Economic Development of Australia, Sept 2020), https://www.ceda.com.au/ResearchAndPolicies/Research/Workforce-Skills/Labour-market-policy-after-COVID-19; David Richardson and Richards Denniss, Gender Experiences During The COVID-19 Lockdown (The Australia Institute, July 2020) https://australiainstitute.org.au/report/gender-experiences-during-the-covid-19-lockdown/.*

[9] *Ibid.*

Introduction

The use of discretionary fiscal policy as a countercyclical instrument had been viewed with scepticism until only recently.[10] This was a reflection of the increased concern around stabilising inflation and the success that monetary policy had in effectively combating this concern.[11] Moreover, developments in economic theory were leading to increased concerns that estimates of the efficacy of fiscal policy were overstated.[12] Monetary policy, during this period, dominated the policy landscape to the point that Solow, in his presidential address to the American Economic Association, stated: "serious discussion of fiscal policy has almost disappeared".[13] However, there has been a dramatic change in perspective on this issue. The GFC posed a challenge unlike any the global economy had experienced. Specifically, in the United States, the recession was not caused by central bank policy, as usually had been the case, but rather was catalysed by the subprime mortgage crisis.[14] Despite the Federal Reserve reaching its effective capacity to prevent the downturn by dropping interest rates to their lower bound, monetary policy alone was not able to bring the US economy into recovery;[15] thereby sparking renewed interest in discretionary fiscal policy.[16] In the years since, discretionary fiscal policy intervention has become a staple in the policymakers' toolbox. In response to the COVID-19 global pandemic, $14 trillion was spent globally on stimulus.[17] Australia followed this trend with the Morrison Government, spending $507 billion on fiscal stimulus. The Australian fiscal response sparked several reports criticising its equity and economic outcomes. Specifically, this literature argues women received insufficient support from Australia's fiscal packages and that more equitable fiscal policy would have engendered economic efficiency gains. Henceforth, these reports will be referred to as the *Australian fiscal critique*.

This report, like the Australian fiscal critique, is motivated by the Morrison government's failure to ensure satisfactory fiscal policy for women in response to COVID-19. Poor fiscal policy causes direct harm to individuals during a time where they are most vulnerable and it is concerning that women were the demographic overlooked in the Morrison government's response. This oversight highlights the potential for fiscal policy responses to be blind to the complexities around how downturns affect disadvantaged demographics. It is deeply disappointing that individuals most vulnerable to economic downturns are often those overlooked by policy responses. As much as possible must be learned from this misstep to prevent the real possibility of negligent future fiscal responses. Therefore, the purpose of this report is to assist policymakers in developing fiscal policy that is sensitive to the variety of complex and discrete needs of those most exposed to the effects of downturns. Therefore, the purpose of this report is to add to the body of literature constructively evaluating fiscal stimulus. It differentiates itself by focusing on the links between mainstream economic literature and the developing gender-sensitive fiscal literature. This report will use the case example of the gendered critique of the Morrison government's fiscal response to COVID-19 to review how these two literatures relate. First, the Australian fiscal critique will be summarised. Then, these arguments will be compared to condensed overviews of both the quantitative and qualitative economic literature with a focus on fiscal multiplier estimation and the qualitative principles of timely, temporary, and targeted. The report will use its findings to make several policy recommendations.

The use of discretionary fiscal policy is a relatively novel policy problem. Compared with the consensus on the role and best practice of monetary policy,[20] fiscal stimulus is still an emerging body of literature. It is also a complex issue with policy outcomes resulting from a numerous, diverse, and complex set of variables. Policymakers need better tools to help them navigate this difficult policy space. This report contends that there are valuable insights from the reaction to the Morrison government's fiscal response to COVID-19 for the broader literature on fiscal policy evaluation. The Morrison government's failure to adequately use fiscal policy to address the exigencies of those in need is concerning. In developing a set of policy recommendations that are sensitive to the complex and discrete needs of differing demographics, this report hopes to assist in preventing oversights like this from recurring.

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[10] *Alan J. Auerbach, "The Fall And Rise Of Keynesian Fiscal Policy," Asian Economic Policy Review 7, no. 2 (Dec 2012): 2-8, doi: 10.1111/j.1748-3131.2012.01228.x.*

[11] *Marvin Goodfriend, "How The World Achieved Consensus on Monetary Policy," Journal of economic perspectives 21, no. 4 (Fall 2007): 47-48, https://www.jstor.org/stable/30033751.*

[12] *Martin S Feldstein, Rethinking The Role of Fiscal Policy (NBER working paper 14684, Cambridge: National Bureau of Economic Research, Jan 2009), 1-2, doi: 10.3386/w14684.*

[13] *Solow, Robert. 'Is Fiscal Policy Possible? Is It Desirable?', in Structural Reform and Economic Policy, ed. Robert Solow (London: Palgrave Macmillan, 2004), 23.*

[14] *Feldstein, Rethinking The Role of Fiscal Policy, 3-4.*

[15] *Ibid.*

[16] *Auerbach, "The Fall And Rise Of Keynesian Fiscal Policy," 3.*

[17] *International Monetary Fund, Fiscal Monitor Update, January 2021 (Fiscal monitor reports. International Monetary Fund, Jan 2021), https://www.imf.org/en/Publications/FM/Issues/2021/01/20/fiscal-monitor-update-january-2021.*

[18] *Commonwealth of Australia 2020, "Budget Strategy and Outlook," in Budget Paper No. 1 2020–2, (Canberra: Commonwealth of Australia, Oct 2020), https://archive.budget.gov.au/2020-21/index.htm.*

[19] *Danielle Wood, Kate Griffiths, and Tom Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women (Grattan Institute Report no. 2021-01, The Grattan Institute, March 2021), https://grattan.edu.au/report/womens-work; Elizabeth Hill, Reducing Gender Inequality and Boosting The Economy: Fiscal Policy After COVID-19 (Committee for Economic Development of Australia, Sept 2020), https://www.ceda.com.au/ResearchAndPolicies/Research/Workforce-Skills/Labour-market-policy-after-COVID-19; David Richardson and Richards Denniss, Gender Experiences During The COVID-19 Lockdown (The Australia Institute, July 2020) https://australiainstitute.org.au/report/gender-experiences-during-the-covid-19-lockdown/.*

[20] *Marvin Goodfriend, "How The World Achieved Consensus on Monetary Policy," Journal of economic perspectives 21, no. 4 (Fall 2007): 47-68, https://www.jstor.org/stable/30033751.*

Australian Fiscal Critique Review

The Australian government's response to COVID-19 has drawn criticism for overlooking the potential gender effects of its stimulus. Key examples of literature emphasising the importance of incorporating a gender lens into fiscal stimulus include Hill's report for the Committee for Economic Development of Australia (CEDA), *Reducing gender inequality and boosting the economy: fiscal policy after COVID-19*[21] Richardson and Denniss' report for The Australia Institute, *Gender experiences during the COVID-19 lockdown*[22] and, Wood, Griffiths, and Rowley's report for the Grattan Institute, *Women's work: The impact of the COVID crisis on Australian women*.[23] This literature makes the case that, in the Australian context, women were disproportionately negatively affected by COVID-19 and consequently should have received greater support from the government's fiscal response.[24] They argue that by increasing expenditure on social investment and service jobs, the government could have improved gender equity outcomes, as well as improved the economic efficiency of their response.[25] Two issues are raised by the findings of these reports. First, the issue of insensitivity towards the role of identity in determining fiscal outcomes in policy making. Second, how efficient economic policy that also promoted gender equity was overlooked. In this section, these arguments will be summarised, thereby providing the context for the rest of the analysis in the report, as well as its motivation.

Richardson and Denniss, Hill, and Wood, Griffiths, and Rowley argue that the Morrison government's economic response to the COVID-19 global pandemic was inequitable and economically inefficient.[26] They show that women in Australia were disproportionately impacted by the COVID-19 crisis because of their over-representation in the specific sectors hurt by COVID-19, as well as their overrepresentation in lower-paid, insecure, and casual jobs.[27] Moreover, they demonstrate that women in Australia were burdened with the increase in unpaid labour that resulted from the lockdowns and closures that the pandemic engendered.[28] The combination of these two factors led to women being at greater risk of losing their jobs, more likely to significantly increase the amount of unpaid labour they contributed, and less likely to receive government support.[29] Consequently, this literature argues that it was the government's moral responsibility to create fiscal policy that was sensitive to these gender disparities and that the government failed to do so. Accordingly, the government's response was shown to compound existing inequalities for women, worsening the lifetime gender wealth gap, by contributing $100,000 to the existing $2 million average difference in Australia.[30]

[21] *Hill, Reducing Gender Inequality and Boosting The Economy: Fiscal Policy After COVID-19.*

[22] *Richardson and Denniss, Gender Experiences During The COVID-19 Lockdown.*

[23] *Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women.*

[24] *Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women; Hill, Reducing Gender Inequality and Boosting The Economy: Fiscal Policy After COVID-19; Richardson and Denniss, Gender Experiences During The COVID-19 Lockdown.*

[25] *Ibid.*

[26] *bid.*

[27] *Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women, 9-18; Hill, Reducing Gender Inequality and Boosting The Economy; Richardson and Denniss, Gender Experiences During The COVID-19 Lockdown.*

[28] *Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women, 18-24; Hill, Reducing Gender Inequality and Boosting The Economy.*

[29] *Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women, 30-40.*

[30] *bid., 24.*

The impacts of the Morrison government's fiscal response to COVID-19 on women highlight the costs that fiscal stimulus can have when demographic sensitivity is not duly considered and holistically incorporated into policy design. The negative impacts of economic downturns vary greatly between individuals. Consequently, customised solutions are required to properly address the distinct impacts that differing demographics experience. By omitting the outcomes of policy on a broad range of identity markers from fiscal policy evaluation, policy analysts restrict their scope and become blind to effects outside their focus. In this way, incorporating demographic sensitivity into fiscal policy evaluation is essential to properly understand the outcomes of stimulus. Without doing so, policymakers risk making severe and detrimental oversights. The purpose of this report is to derive lessons from this literature that can improve future fiscal policy evaluations and prevent oversights like this from recurring.

The Australian fiscal critique relies heavily on quantitative estimates of employment rates to argue for the gains in economic efficiency by using stimulus to support women. Specifically, it points to relevant employment gains from investing in the female-dominated sectors that make up social infrastructure and service jobs, such as education, health, and hospitality.[31] Hill and Wood, Griffiths, and Rowley cite the estimated employment benefits of investing in social infrastructure by a 2020 report by Jerome De Henau and Susan Himmelweit.[32] This report showed that investment in care increased total employment, relative to construction, across seven OECD countries.[33] In the Australian context, they found that the employment rate would increase by 0.9% point for every 1% of GDP invested in construction, compared to an increase of 1.7% for the equivalent amount invested in the care sector.[34] Notably, the construction sector was where the vast majority of the sector-specific stimulus was directed in the Morrison's Government's COVID-19 fiscal response, with around $15 billion more in stimulus being allocated to construction over any other sector.[35] Estimates by this report also show that investment in care recovers significantly more in tax revenue than investment in construction.[36] The reasons for the increased employment and tax returns of investing in health, education, and other service sectors are their relative labour and import intensities.[37] Investing in sectors that depend heavily on workers to produce goods and services will yield more employment opportunities than investing in sectors that rely more on capital, all else being equal; capital refers to assets that are used to improve the efficiency of labour in the production process, such as machines or intellectual property. Similarly, investing in industries that use a large share of domestic goods and services in their production processes will support job creation domestically as their demand for domestic products will support local businesses' abilities to hire.

Hill, De Henau et al., and, Wood, Griffiths, and Rowley all point to the potential for an increase women's labour force participation through investment in childcare services and emphasise the potential economic value this would have.[38] For example, Wood, Griffiths, and Rowley use previous Grattan Institute research to show that childcare costs are the largest disincentive to work facing single parents and that more than half of parents who wish to do more paid work cite childcare as their primary barrier to do so.[39] De Henau and Himmelweit also identify the importance of investing in aged care services, which is particularly relevant given Australia's aging population.[40] Investing in both child and aged care services enables women to forego unpaid care-based labour to participate in the workforce.[41] This has economic efficiency gains as collectivised modes of care provision benefit from economies of scale and therefore are generally more productive than individualised care within the home.[42] Taking advantage of these increasing economies of scale frees up individual carers to enter the workforce, reallocating their labour to more economically productive means.[43] De Henau and Himmelweit argue that investing in care services has continued employment benefits even once economic recovery has occurred.[44] Therefore, if care services are under-provided at any stage of the business cycle, improving care provision will increase women's labour force participation and improve economic efficiency.

[31]Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women, 38-39; Hill, Reducing Gender Inequality and Boosting The Economy; Richardson and Denniss, Gender Experiences During The COVID-19 Lockdown.

[32]Jérôme De Henau and Susan Himmelweit, The Gendered Employment Gains Of Investing In Social Vs. Physical Infrastructure: Evidence From Simulations Across Seven OECD Countries (IKD working paper no. 84, The Open University, April 2020), https://www.open.ac.uk/ikd/publications/working-papers/84.

[33]De Henau and Himmelweit, The Gendered Employment Gains Of Investing In Social Vs. Physical Infrastructure: Evidence From Simulations Across Seven OECD Countries.

[34]Ibid., 12.

[35]Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women, 32.

[36]De Henau and Himmelweit, The Gendered Employment Gains Of Investing In Social Vs. Physical Infrastructure: Evidence From Simulations Across Seven OECD Countries, 20.

[37]Ibid., 21.

[38]Hill, Reducing Gender Inequality and Boosting The Economy, 4; Jérôme De Henau, Susan Himmelweit, Zofia Lapniewska and Diane Perrons, Investing In The Care Economy. A Gender Analysis Of Employment Stimulus in Seven OECD Countries (International Trade Union Confederation, Mar 2016), 12, http://oro.open.ac.uk/50547/; Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women, 45.

[39]Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women, 44.

[40]Australian Bureau of Statistics, Twenty Years Of Population Change (Canberra: Commonwealth of Australia, Dec 2020), https://www.abs.gov.au/articles/twenty-years-population-change.

[41]De Henau and Himmelweit, The Gendered Employment Gains Of Investing In Social Vs. Physical Infrastructure: Evidence From Simulations Across Seven OECD Countries, 4.

[42]De Henau et al., Investing In The Care Economy. A Gender Analysis Of Employment Stimulus in Seven OECD Countries, 12.

[43]De Henau et al., Investing In The Care Economy. A Gender Analysis Of Employment Stimulus in Seven OECD Countries.

[44]De Henau and Himmelweit, The Gendered Employment Gains Of Investing In Social Vs. Physical Infrastructure: Evidence From Simulations Across Seven OECD Countries.

Wood, Griffiths, and Rowley also highlight the potential for investment in Australia's care workforce to ease the transition towards a more care-focused economy.[45] They highlight that estimates from the National Skills Commission show that the vast majority of future job growth over the next five years is expected to come from the health, care, and education sectors.[46] The construction sector, meanwhile, is projected to significantly shrink over the next five years.[47] They argue that there is an economic benefit associated with facilitating this transition;[48] it is inefficient to support shrinking sectors or slow-growth sectors as they have lower benefits than investing in growth sectors. This is because the rising demand for goods and services that leads to sector growth represents society's increasing valuation, and therefore the perceived benefits, of these sectors. Therefore, fiscal investment should not be short-sighted. When evaluating stimulus, projections of future sector growth and consequently returns on investment should be properly considered.

Hill emphasises the beneficial impact that investing in early childhood education and care (ECEC) will have on children's health and educational outcomes, arguing that the interests of children have been largely missing from recent debates.[49] This sentiment is echoed by Wood, Griffiths, and Rowley.[50] This logic applies not only to the relationship between ECEC and children but to the provision of all goods and services that create and maintain the stock of human capital. Human capital is the set of skills, knowledge, and experiences that have economic value.[51] By investing in human capital, economic productivity is improved as individuals become more capable of contributing to the economy.[52] Human capital is also linked with positive externalities.[53] These are the benefits that third parties receive when private market transactions regarding human capital take place. For example, improvements in education can be argued to benefit the incomes of the educated and the productivity of the firms for whom they work. However, it is also argued that an educated workforce also engenders technological advances and civic engagement that has benefits for society at large.[54] In this way, there are multiple links connecting investment in human capital, like investment in care services, to productivity and economic gains.

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[45]Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women, 36-37.

[46]National Skills Commission, The shape of Australia's post COVID-19 workforce (Australian Government National Skills Commission, Dec 2020), 44, https://www.nationalskillscommission.gov.au/shape-australias-post-covid-19-workforce.

[47]National Skills Commission, The shape of Australia's post COVID-19 workforce, 44.

[48]Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women, 36-37.

[49]Hill, Reducing Gender Inequality and Boosting The Economy.

[50]Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women.

[51]Claudia Goldin, "Human Capital" In Handbook of Cliometrics, eds. Claude Diebolt and Michael Haupert (Heidelberg, Germany: Springer Verlag, 2016), 55-86.

[52]Claudia Goldin, "Human Capital."

[53]Ibid.

[54]Joshua C. Hall, "Positive Externalities and Government Involvement In Education," Journal of private enterprise 21, no. 2 (Spring 2006), https://www.proquest.com/docview/215104085?accountid=12372.

Literature Comparison

Quantitative Methods for Evaluating Fiscal Stimulus

The estimation of fiscal multipliers is the primary tool used in the literature to evaluate fiscal stimulus policy.[55] As stated by Leeper, Traum and Walker: "quantitative estimates of fiscal multipliers are the nub of the policy and academic debate about the efficacy of the fiscal stimulus packages implemented in response to the recent recession and financial crisis."[56] Whilst this was said in response to the GFC, this still very much summarises the current state of the literature. The bulk of this progress has been made in the research on the determinants of quantitative multiplier estimates,[57] in which there exists a high degree of heterogeneity.[58] The literature emphasises the role of both researcher choices and the underlying economic conditions in determining these estimates. This section will explore the issues associated with relying on fiscal multiplier estimates in their current state and what can be gained from incorporating key points from the Australian fiscal critique into the quantitative literature.

Fiscal multiplier estimates attempt to measure the multiplier effect of fiscal policy. The multiplier effect describes the relationship between an initial change in expenditure or taxes with the overall effect of this change on gross domestic product (GDP).[59] In this context, it is useful to think of GDP as a measure of total domestic expenditure. The reason that the initial impact (or impulse) of fiscal policy differs from its total effect on domestic expenditure is because money continues to be circulated through an economy after it is initially injected. If the government pays for a road, the suppliers of the road all receive income which is then spent on other goods and services, and which in turn provides more income for the suppliers of those goods and services, and the cycle continues. However, eventually the circulation of the original injection of money within the domestic economy will stop. This is because individuals can use money in ways other than using it for domestic expenditure, such as saving it or spending it on imports. When money is used for purposes other than domestic expenditure, that money is no longer passed on to others within the domestic economy to be spent locally. In this way, the multiplier effect describes the effect of an initial injection of money on the entire domestic economy. Specifically, the fiscal multiplier metric is the ratio between the initial fiscal impulse and its total impact on GDP.

GDP measures all domestic expenditure within the economy, which is also equivalent to all domestic production within an economy. During economic downturns, economic growth slows, reflecting decreases in the rates that goods and services are produced within the economy. Consequently, this leads to decreases in the demand for workers to produce these goods and services, leading to falls in employment rates and living standards. Stimulus can combat these negative outcomes by increasing the demand for goods and services. By injecting money into the economy, the stimulus increases the real incomes of consumers and the demand for goods and services. Firms respond by increasing output, which in turn leads to increases in GDP. Therefore, the effectiveness of stimulus in generating demand for goods and services—and consequently employment and living standards—can be measured through changes in GDP. As such, fiscal multipliers are seen as the gold standard for quantitative measurements of stimulus efficacy.

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[55] Thomas Warmedinger, Cristina Checherita-Westphal and Pablo Hernández de Cos, Fiscal Multipliers and Beyond, (ECB Occasional paper, no.162, Frankfurt, Germany: European Central Bank, June 2015), https://www.ecb.europa.eu/pub/pdf/scpops/ecbop162.en.pdf; Jan Čapek and Jesús C. Cuaresma, "We Just Estimated Twenty Million Fiscal Multipliers," Oxford Bulletin of Economics and Statistics 82, no. 3 (June 2020): 483 -502, doi: 10.1111/obes.12351.

[56] Eric M. Leeper, Nora Traum and Todd B. Walker, Clearing Up The Fiscal Multiplier Morass (NBER Working Paper no. 17444, Cambridge: National Bureau of Economic Research, Sept 2011), 1, doi: 10.3386/w17444.

[57] see Efrem Castelnuovo and Guay C. Lim, "What Do We Know About the Macroeconomic Effects of Fiscal Policy? A Brief Survey of the Literature on Fiscal Multipliers," Australian Economic Review 52, no.1 (Feb 2019): 78-93, doi: 10.1111/1467-8462.12313.

[58] Carlo A. Favero and Madina Karamysheva, What Do We Know About Fiscal Multipliers? (CEPR Discussion Paper no. 10986, The Centre for Economic Policy Research, Dec 2015), https://repec.cepr.org/repec/cpr/ceprdp/DP10986.pdf; Warmedinger, Chechertia-Westphal and Hernández de Cos, Fiscal Multipliers and Beyond.

[59] Marcus Hagedorn, Iourii Manovskii and Kurt Mitman, The Fiscal Multiplier (NBER Working Paper no. 25571, Cambridge: National Bureau of Economic Research, Feb 2019), 1, doi: 10.3386/w25571.

The literature on fiscal multipliers is still developing and has a long way to go before a meaningful consensus can be reached on how best to estimate them.[60] This is because the factors that produce multiplier estimates are numerous, diverse, and complex.[61] For example, Leeper, Traum, and Walker found that some multiplier estimates may reflect more about researcher choices than actual fiscal stimulus effects.[62] Similarly, Čapek and Cuaresma find that 'many seemingly harmless modelling choices' have a significant effect on fiscal multiplier estimation.[63] Consequently, the best practice for estimating fiscal multipliers and optimal fiscal policy design based on multiplier estimation remains an area of contention. Simply put, "more work is needed before we have a consensus about the size of fiscal policy multipliers." [64] This uncertainty, "make[s] it difficult for economists to formulate fiscal policy advice."[65] What there is consensus on, however, is that multipliers are not static.[66] As Carroll summarises: "asking what the government spending multiplier is, [...] is like asking what the temperature is. Both vary over time and space".[67] This must be taken into consideration when evaluating fiscal policy. Historical and international multiplier findings reflect a complex array of economic relationships that are not well understood and may not persist into the future.

The analysis by Richardson and Dennis, Hill and, Wood, Griffiths, and Rowley is not neatly reconcilable with the quantitative literature on fiscal policy evaluation. Fiscal multiplier estimation focuses solely on the total impact of stimulus on economic output, in the form of GDP, created by fiscal intervention. The literature reviewed, however, focuses heavily on how government expenditure changes employment. While there are clear economic connections between changes in GDP and employment rates, the two are not analogous. This is clear in the report by De Henau et al., which showed that whilst the same investment in care increased employment by 4.0% compared to 2.5% in construction, it would cause about a 6.5% increase in GDP for care and over 8% GDP for construction.[69]

The differences in the metrics utilised by mainstream economic literature and the Australian fiscal critical raise important questions about the use of employment and GDP as metrics for economic prosperity, especially in times of economic downturns. These metrics measure different forms of production from different agents within the economy and consequently when used to evaluate fiscal stimulus, they imply different arguments about what constitutes good or relevant economic outcomes. Importantly, the use of these different metrics to evaluate stimulus also has implications about how we weigh the benefits received from stimulus across different demographics. The makeup of demographics that constitute most of the changes in employment rates during economic downturns is likely to differ from those that benefit from changes in GDP, due to the differences in scale and focus of these two metrics. Therefore, questions of what and who should be the focus of economic recovery are essential in using these metrics. Citing the harm caused to women by the ill-considered response of the government's fiscal responsibility, it is this report's view that these questions must be at the heart of good fiscal policy decision-making. The use of metrics plays an important role in the fiscal policy design and evaluation processes, as choices in how they are employed likely influences fiscal outcomes.

The fiscal multiplier literature does not feature the other economic arguments raised by the Australian fiscal critique. Specifically, the Australian fiscal critique argues for the economic benefits of increased labour force participation; investment in human capital and the positive externalities associated with them; and the value associated with investing in growth sectors.[70] Whilst these benefits are only qualitatively referred to in the Australian fiscal critique, it is possible to quantitatively estimate the values associated with them. It is important considering the distributional effects of the provision of stimulus that fiscal policy is efficient. If the rates of return on different policy responses are undersold, then it is unlikely that optimal policy outcomes will be achieved. Therefore, it is essential for the quantitative fiscal literature to comprehensively capture all economic benefits associated with the variety of stimulus options available.

This section has used the Australian fiscal critique to assess the economic literature on the quantitative evaluation of fiscal policy. This process has exposed some limitations of the literature. Specifically, the quantitative literature focuses too heavily on the estimation of fiscal multiplier effects on GDP. By overlooking the use of other metrics the literature makes implicit value judgments on what constitutes valuable economic outcomes without explicitly considering how these value judgments impact policy outcomes. Moreover, the focus on multiplier estimation has led the literature to neglect researching important economic benefits whose value has the potential to perform an influential role in determining policy decisions. In the next section the qualitative methods for evaluating fiscal policy will be discussed and evaluated with respect to the Australian fiscal critique.

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[60]Sebastian Gechert and Henner Will, Fiscal Multipliers: A Meta Regression Analysis (IMK working paper, no. 97, Institut für Makroökonomie und Konjunkturforschung, July 2012), https://www.econstor.eu/bitstream/10419/105964/1/imk-wp_97_2012.pdf.

[61]see Castelnuovo and Lim, "What Do We Know About the Macroeconomic Effects of Fiscal Policy? A Brief Survey of the Literature on Fiscal Multipliers"; Warmedinger, Chechertia-Westphal and Hernández de Cos, Fiscal Multipliers and Beyond; Favero and Karamysheva, What Do We Know About Fiscal Multipliers?; Gechert and Will, Fiscal Multipliers: A Meta Regression Analysis; Leeper, Traum and Walker, Clearing Up The Fiscal Multiplier Morass; Valerie A. Ramey, "Can Government Purchases Stimulate The Economy?" Journal of economic literature 49, no. 3 (Sept 2011): 673-685, doi: 10.1257/jel.49.3.673.

[62]Leeper, Traum and Walker, Clearing Up The Fiscal Multiplier Morass.

[63]Čapek and Cuaresma, "We Just Estimated Twenty Million Fiscal Multipliers."

[64]Castelnuovo and Lim, "What Do We Know About the Macroeconomic Effects of Fiscal Policy? A Brief Survey of the Literature on Fiscal Multipliers, " 15.

[65]Leeper, Traum and Walker, Clearing Up The Fiscal Multiplier Morass, 1.

[66]Favero and Karamysheva, What Do We Know About Fiscal Multipliers?

[67]Christopher Carroll,"Comments and Discussion on 'By How Much Does GDP Rise If the Government Buys More Output?'" Brookings Papers on Economic Activity, no.2 (Fall 2009): 246, https://www.brookings.edu/wp-content/uploads/2009/09/2009b_bpea_hall.pdf.

[68]Martin F.J. Prachowny, "Okun's Law: Theoretical Foundations and Revised Estimates," The Review of Economics And Statistics 75, no. 2 (May 1993): 331-336, doi 10.2307/2109440.

[69]De Henau et al., Investing In The Care Economy. A Gender Analysis Of Employment Stimulus in Seven OECD Countries, 28.

[70]Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women; Hill, Reducing Gender Inequality and Boosting The Economy; Richardson and Denniss, Gender Experiences During The COVID-19 Lockdown.

Qualitative Methods for Evaluating Fiscal Stimulus

The primary qualitative tool for evaluating fiscal stimulus comes in the form of principles or guidelines. These principles reflect the tension between the macroeconomic goals of economic stability and fiscal discipline.[71] The widely accepted principles for effective stimulus are the three Ts: *temporary, targeted, and timely*.[72] Given the developing state of the literature on the quantitative analysis of fiscal policy, there is a significant role for qualitative evaluation in policy-making decisions. This section will analyse the quality of the three Ts with respect to the key arguments put forward in the Australian fiscal critique.

It is considered important for fiscal stimulus to be timely. The primary concern is that fiscal stimulus will increase economic production once the economy is already recovering or has recovered, whereby it may cause the economy to over-expand, increasing inflation, and worsening economic outcomes.[73] Moreover, fiscal stimulus is often expensive, and it is theorised that multipliers decrease as economies return to normal levels of production, decreasing the cost-effectiveness of the stimulus.[74] Finally, by implementing fiscal stimulus too late, there is a direct cost to the individuals who went without the support of the stimulus early in the economic crisis.

It is argued that stimulus should be targeted for two primary reasons. The first is to increase the economic efficiency of the stimulus.[75] If stimulus targets measures that maximise multiplier effects, then governments can maximise their bang-for-buck, lowering costs.[76] The second is an equity argument. Individuals who are the most negatively affected by the downturn should receive the greatest benefits.[77] It is argued that both of these arguments apply to providing support to liquidity-constrained individuals (low-income earners), who are more likely to spend more and produce greater multipliers compared to a higher-income earner who is more able to smooth their consumption over downturns.[78]

Thus, the targeted principle provides an economic efficiency and equity argument for supporting liquidity-constrained demographics during economic downturns.

The final principle for effective fiscal stimulus is that stimulus should be temporary. This is because, in the long run, boosting aggregate demand does not increase output on a sustained basis.[79] Instead, it is likely to result in higher inflation and stricter monetary policy from the Reserve Bank of Australia in response.[80] Moreover, fiscal stimulus can worsen long-term growth by increasing budget deficits, which reduces national savings and potentially decreasing the capital stock and investment needed for future growth.[81] High budget deficits can also induce risk premiums on its debt and push an economy closer to default, worsening economic stability.[82] This, combined with diminishing marginal returns of stimulus in the long run, is evidence for the need for stimulus to be temporary for it to be cost-effective.

The Australian fiscal critique also suggests that there is an argument for widespread or pervasive fiscal stimulus, as opposed to 'targeted' measures. Due to the high degree of uncertainty involved in both projecting social and economic outcomes in general, as well as in multiplier estimations, it is better to diversify fiscal measures to prevent extremes in unforeseen costs. This is illustrated by the Morrison Government's response to COVID-19 and the unforeseen costs experienced by women associated with its concentrated support for the construction sector. Simply put, there is value in diversifying investment to decrease risk. Consequently, this report highlights the value of research into whether 'targeted' fiscal packages produce better or worse economic outcomes than pervasive fiscal packages.

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[71] *Nicholas Carnot, Evaluating Fiscal Policy: A Rule Of Thumb (Economic Papers, no. 526. European Commission, Aug 2014), 5, https://ec.europa.eu/economy_finance/publications/economic_paper/2014/pdf/ecp526_en.pdf.*

[72] *see Jason E. Taylor and Andrea Castillo,"Timely, Targeted, and Temporary?" An Analysis of Government Expansions over the Past Century (Arlington, VA: Mercatus Research Center at George Mason University, Jan 2015), http://mercatus.org/publication/timely-targeted-and-temporary-analysis-government-expansions-over-past-century; Douglas W. Elmendorf and Jason Furman, If, When, How: A Primer On Fiscal Stimulus (The Hamilton Project Strategy Paper, The Brookings Institution, Jan 2008), https://www.brookings.edu/research/if-when-how-a-primer-on-fiscal-stimulus/; Chad Stone and Kris Cox, Economic Policy in a Weakening Economy: Principles of Fiscal Stimulus (Washington DC: Center on Budget and Policy Priorities, Jan 2008), https://www.cbpp.org/research/principles-for-fiscal-stimulus-economic-policy-in-a-weakening-economy; Alasdair Scott, IMF Survey: Making Fiscal Stimulus Effective During Downturns (International Monetary Fund Research Department, October 2008), https://www.imf.org/en/News/Articles/2015/09/28/04/53/sores100208b; Lawrence Summers, The State of the US Economy (Presentation at Brookings Institution forum on December 19 2007, The Brooking Institution, Dec 2007) https://www.brookings.edu/wp-content/uploads/2012/04/20071219_economy.pdf.*

[73] *Elmendorf and Furman, If, When, How: A Primer On Fiscal Stimulus, 10.*

[74] *Sebastian Gechert, Andrew H. Hallett and Ansgar Rannenberg, "Fiscal multipliers in downturns and the effects of Euro Area consolidation," Applied economics letters 23, no. 16 (Nov 2015), 1138-140. doi: 10.1080/13504851.2015.1137545.*

[75] *Taylor and Castillo, "Timely, Targeted, and Temporary? "An Analysis of Government Expansions over the Past Century, 5-6.*

[76] *Ibid.*

[77] *Elmendorf & Furman If, When, How: A Primer On Fiscal Stimulus, 14.*

[78] *Ibid.*

[79] *Ibid., 18.*

[80] *Ibid.*

[81] *bid.*

[82] *David Haugh, Patrice Ollivaudi and David Turneri, What Drives Sovereign Risk Premiums?: An analysis of recent evidence from the Euro area (OECD economics department working papers, no. 718, Paris: OECD Publishing, July 2009), doi: 10.1787/222675756166.*

The Australian fiscal critique challenges the principle that good fiscal stimulus should be inherently temporary. The primary way they do this is by highlighting the potential for their recommended forms of stimulus to increase labour force participation rates over a variety of different economic conditions, not just downturns.[83] If this were to occur, this would allow for the economic benefits of stimulus to persist, potentially, well into economic recovery. This alludes to the potential for social investment, as fiscal stimulus, to be net neutrals or net positives on budget balances over the long run. This argument also exists for investment in physical infrastructure and other forms of investment expenditure that have potential positive supply-side effects.[84] For example, Auerbach and Gorodnichenko found that for a sample of developed countries, government expenditure does not lead to long-term increases in public indebtedness and can instead improve fiscal sustainability during economic downturns.[85] As such, the temporary principle might lead to fiscal policy evaluators foregoing the consideration of stimulus packages that may be highly efficient due to their focus on short time horizons. Consequently, this report suggests that the 'temporary' qualitative principle might need further qualifying, to more accurately reflect the point outlined.

The three Ts ignore the potential for fiscal stimulus to be sensitive to how different demographics experience economic downturns. The primary equity component of the three Ts comes in the targeted principle, where it is argued that the individuals who are most impacted by downturns should be those to receive the most benefit from stimulus.[86] However, this neglects the diversity in the disadvantages experienced by differing demographics in response to downturns, as well as the role of fiscal stimulus in addressing them. The importance of sensitivity regarding lived experience in making good fiscal policy is one of the key takeaways from the Australian fiscal critique. For example, Wood, Griffiths, and Rowley highlight how even though the Morrison government attempted to target those most in need, their response resulted in low-income women being less likely to receive benefits from key stimulus components such as JobKeeper.[87] Evidently, it cannot be assumed that economic analysis will be sensitive to these interactions without direct guidance. Therefore, qualitative principles should explicitly detail the importance of accounting for lived experience heterogeneity when developing good fiscal policy.

Good qualitative principles should be comprehensive and encourage policymakers to consider the full array of economically viable policy options. The Australian fiscal critique emphasises the potential economic value in increasing labour participation rates, investing in human capital and using stimulus to invest in growth sectors.[88] If there are large economic benefits associated with these, omitting them from fiscal policy evaluations will lead to suboptimal findings. Qualitative principles should lead policy evaluators to explore a range of policy options with a variety of benefits. Overly simplifying qualitative principles risks omitting viable policy solutions, like those identified by the Australian fiscal critique, and leads to inefficient outcomes. This is especially the case given that the quantitative literature has yet to reach a reliable metric for policy comparison and consequently delineating policy options based on effectiveness is difficult. Policymakers should not risk wasting the substantial resources used for fiscal stimulus by foregoing their due diligence and simplifying the policy process.

The argument against developing more comprehensive and detailed qualitative policy guidelines is that simple principles enable quick policy responses to unforeseen economic downturns. This is a concern directly expressed by the 'timely' principle. However, what is worth noting is that implementation delays can be minimised with planning. Fiscal stimulus packages could be pre-prepared so that they are ready to be implemented as soon as possible, and implementation channels could be fine-tuned to increase the efficiency of future stimulus injections. This would allow a variety of policy options to be developed in advance for a range of different types of economic downturns. These could be periodically updated with new research and be ready for policymakers when needed. The need for ample time in the construction of fiscal policy is compounded by the current uncertainty within the literature and the dependence of fiscal policy outcomes on time and geography. Consequently, the adequate preparation through the creation of policy templates is essential to to minimise implementation delays and counteract the uncertainties that undermine effective fiscal policymaking.

This section has utilised insights from the Australian fiscal critique to review the current qualitative principles for evaluating fiscal policy within the economic literature. The Australian fiscal critique presents a number of challenges to the effectiveness of using the three T's for policy making. Specifically, the Australian fiscal critique raises questions about the potential costs associated with using these simplistic and narrow principles when addressing the complex policy problem of fiscal stimulus provision. Fiscal stimulus packages have immense opportunity costs and with this a great potential to produce disbenefits. The Australian fiscal critique makes a compelling case for ensuring that fiscal policy is comprehensive to prevent such disbenefits from being realised. In the following sections, this report will present its key findings and use these to suggest several policy recommendations.

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[83]De Henau and Himmelweit, The Gendered Employment Gains Of Investing In Social Vs. Physical Infrastructure: Evidence From Simulations Across Seven OECD Countries.

[84]Ross Milbourne, Glen Otto, and Graham M. Voss, "Public Investment And Economic Growth," Applied Economics 35, no. 5 (June 2003): 527-540, doi: 10.1080/0003684022000015883.

[85]Alan J. Auerbach and Yuriy Gorodnichenko, Fiscal Stimulus And Fiscal Sustainability (NBER Working Paper, no. 23789. Cambridge: National Bureau of Economic Research, Sept 2017), doi: 10.3386/w23789.

[86]Elmendorf & Furman If, When, How: A Primer On Fiscal Stimulus, 14.

[876]Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women, 9-13.

[88]Wood, Griffiths and Crowley, Women's Work: The Impact of the COVID Crisis on Australian Women; Hill, Reducing Gender Inequality and Boosting The Economy: Fiscal Policy After COVID-19.; Richardson and Denniss, Gender Experiences During The COVID-19 Lockdown.

Findings

One, most of the economic literature is concerned with the incomplete and developing field fiscal multiplier estimation. Fiscal multipliers are a metric that attempts to capture the impact of government expenditure or tax cuts on the entire economy. This is a complex task with an immense number of variables. Considerable amounts of research have been done to find out what variables are relevant in this process. So far, this research has not yet found an exhaustive list of potential variables that influence multiplier estimation and has also yet to reach a consensus on the relevance of several of them. This makes fiscal multiplier estimates highly uncertain and liable to change, with the potential to reflect as much about the choices made in their estimation as the real impacts of stimulus on GDP. Therefore, policy evaluators should be cautious when using historical or international multiplier estimates in their analysis.

Two, the role of metrics in determining fiscal objectives and outcomes are overlooked within the literature. Currently, the economic literature on fiscal evaluation focuses on the impacts of stimulus on GDP, whereas the Australian fiscal critique utilises employment rates as their primary mode of analysis. Not only does this make the comparison between these two literatures difficult, but it also raises questions about how these metrics influence them. Metrics have implied value judgments about what constitutes normatively good economic production and consequently how benefits should be distributed across different demographics. In this sense, metric selection has the potential to significantly influence how policy evaluations are made. It is clear, then, that more research should be done into the role of metrics in the fiscal policy design and evaluation processes.

Three, the state of the qualitative literature is insufficient to provide fiscal stimulus evaluators a rigorous and comprehensive framework for qualitatively assessing policy. The qualitative principles that feature most within the literature are those the three Ts: *timely, targeted,* and *temporary.* These principles simplify a process that should be complex and thorough and in doing so encourage policymakers to narrow their economic analysis. Given the current uncertainty within the literature, it is crucial that policymakers evaluate a wide range of policy options. Whilst time consuming, this is crucial to ensuring that good policy is not overlooked. This is especially the case considering the substantial costs associated with the provision of stimulus. Consequently, this stresses the importance of rigorous preparation and planning in creating good fiscal policy. Work should be done to expand the qualitative principles to provide a common foundation for effective fiscal policy evaluation and discussion.

Four, the Australian fiscal critique emphasised a set of economic benefits that were not meaningfully discussed in the mainstream economic literature reviewed by this report. Specifically, the Australian fiscal critique identified potential economic benefits associated with the investment in human capital, increases in labour force participation rates, and investment in growth sectors. There are likely gendered reasons for the underrepresentation of these arguments within these literatures. Whilst, the *why* behind the omission of these benefits is beyond the scope of this report, further research could be directed at understanding this issue. To ensure best practice for future policy decision-making, the economic benefits identified by the Australian fiscal critique must be included in fiscal evaluations.

Five, heterogeneity in lived experiences works to produce disadvantages during economic downturns and therefore plays an important role in determining fiscal outcomes. It cannot be assumed that fiscal policy analysts will be sensitive to this. When done poorly, fiscal stimulus imposes enormous costs upon society. Stimulus aims to support those in need during economic downturns, therefore these costs associated with negligent stimulus often land on the disadvantaged. Therefore, good qualitative guidelines should explicitly establish the need for policymakers to incorporate the role of differing lived experiences into their analysis.

Policy Recommendations

The impact of fiscal stimulus on the pursuit of social goals and the economic benefits associated with them should be integral to future fiscal policy design and evaluation debates.

Overlooking the value of investing in social goals will limit the efficacy of future fiscal policy. This is because by doing so policymakers unnecessarily limit the set of possible stimulus responses that they consider. This report has discussed the Morrison government's negligence to pursue gender-equitable fiscal policy, despite its potential economic efficiency. If social goals are not a central feature of fiscal policy debates, there is the potential for efficient economic policy promoting other social goals, like environmental protection, to also be neglected. Therefore, it is a part of policymaker's due diligence to consider the impact of fiscal stimulus on achieving social goals.

The distributional effects of stimulus on the diverse array of meaningful identity markers that constitute Australian society should also be integral to future fiscal policy design and evaluation debates.

Equity considerations are essential to all fiscal policy responses. However, informed equity decisions cannot be made along facile demographic lines. The negative impact of the Morrison government's response to COVID-19 on women demonstrates this. Income brackets cannot meaningfully summarise the varied lived experiences of the Australian people and how this influences fiscal policy outcomes. Moreover, improving the inclusivity of economic analysis also serves to promote recommendation 1. There is a significant overlap between economic policies that pursue social goals and those that promote social equity. In this way, identifying the struggles faced by those in need during economic downturns can lead to the identification of economically efficient fiscal policy.

Further research should be done on the benefits and limitations associated with using different evaluation metrics for fiscal stimulus policymaking and policy outcomes.

The mainstream economic literature relating to the evaluation of fiscal policy is focused on maximising increases in GDP from fiscal responses. Metrics have implied value judgments about what constitutes good or useful economic production and consequently how benefits should be distributed across different demographics. Research should be conducted on how utilising differing qualitative metrics to assess fiscal stimulus influences the policy design process and fiscal policy outcomes. This will allow informed decisions to be made about how to evaluate stimulus based on the specific, desired outcomes of the fiscal stimulus.

Investment into comprehensive qualitative guidelines for the development of good fiscal policy should occur.

Considering the developing and incomplete state of the mainstream economic quantitative literature, efforts should be made to bolster the qualitative literature. This should enable better-informed policy evaluations and consequently better policy outcomes. Improvements in the qualitative literature would also create a common reference point for evaluations of fiscal policy for a variety of stakeholders. Additionally, this should improve communication around these issues. Future qualitative guidelines for fiscal policy development should be sensitive to the benefits of pursuing social goods and the impacts fiscal policy has on a variety of demographics, consistent with principles 1 and 2.

Comprehensive minimum disclosure guidelines should be developed and implemented concerning the use of fiscal multipliers estimates for public policy design choices.

Choices made by researchers play a significant role in determining fiscal multiplier outcomes. Fiscal multipliers are currently the primary quantitative tool available to policymakers for evaluating stimulus. Because of this, minimum disclosure guidelines for multiplier estimates should be developed. This will allow other stakeholders to evaluate the reliability of these estimates. Considering the large monetary costs associated with stimulus packages, it is important for both academic and democratic integrity that such evaluations can occur.

Future fiscal policy decisions should require the commission of new fiscal multiplier estimates that are both contemporary and relevant.

There are many economic variables that influence true fiscal multipliers values. These variables change over both space and time. In addition, the fiscal multiplier literature is still developing, and it is therefore likely that more of these economic variables will be identified or antiquated in the future. Consequently, future policy decisions should not rely on historical or international fiscal multiplier estimates. Instead, policymakers should utilise current estimates based on Australian data to ensure that suitable information is used for fiscal policy evaluation and decision making.

Fiscal policy design processes should be continuous and ongoing.

The scale and uncertainty of fiscal policy evaluations engender poor policy outcomes when rushed. Considering the extensive costs of mishandling fiscal policy, the fiscal policy design process should be thorough and extensive. Rather than being reflexive, fiscal policy design should be a continuous and ongoing process. By continuing to create and update fiscal policy responses during good economic conditions, policymakers have the time to properly investigate policy options and streamline policy implementation to promote efficient and effective policy responses.

References

Auerbach, Alan J. and Gorodnichenko, Yuriy. *Fiscal Stimulus And Fiscal Sustainability*. NBER Working Paper, no. 23789. Cambridge: National Bureau of Economic Research, Sept 2017. doi: 10.3386/w23789.

Auerbach, Alan J. "The Fall And Rise Of Keynesian Fiscal Policy." *Asian Economic Policy Review* 7, no. 2 (Dec 2012):157-175. doi: 10.1111/j.1748-3131.2012.01228.x.

Australian Bureau of Statistics. *Twenty Years Of Population Change*. Canberra: Commonwealth of Australia, Dec 2020. https://www.abs.gov.au/articles/twenty-years-population-change.

Čapek, Jan and Cuaresma, Jesús C. "We Just Estimated Twenty Million Fiscal Multipliers." *Oxford Bulletin of Economics and Statistics* 82, no. 3 (June 2020): 483 -502. doi: 10.1111/obes.12351.

Carnot, Nicholas. *Evaluating Fiscal Policy: A Rule Of Thumb*. Economic Papers, no. 526. European Commission, Aug 2014. https://ec.europa.eu/economy_finance/publications/economic_paper/2014/pdf/ecp526_en.pdf.

Carroll, Christopher. "Comments and Discussion on 'By How Much Does GDP Rise If the Government Buys More Output?'" *Brookings Papers on Economic Activity*, no.2 (Fall 2009): 232-249. https://www.brookings.edu/wp-content/uploads/2009/09/2009b_bpea_hall.pdf.

Castelnuovo, Efrem and Lim, Guay C. "What Do We Know About the Macroeconomic Effects of Fiscal Policy? A Brief Survey of the Literature on Fiscal Multipliers." *Australian Economic Review* 52, no.1 (Feb 2019): 78-93. doi: 10.1111/1467-8462.12313.

Coenen, Günter, Erceg, Christopher J., Freedman, Charles, Furceri, Davide, Kumhof, Michael, Lalonde, René, Laxton, Douglas, Lindé, Jesper, Mourougane, Annabelle, Muir, Dirk, Mursula, Susanna, De Resende, Carlos, Roberts, John, Roeger, Werner, Snudden, Stephen, Trabandt, Mathias and Veld, Jan in't. "Effects Of Fiscal Stimulus In Structural Models." *American Economic Journal: Macroeconomics* 4, no. 1 (Jan 2021): 22-68. http://www.jstor.org/stable/41426389.

Commonwealth of Australia 2020, *"*Budget Strategy and Outlook*."* in *Budget Paper No. 1 2020–2*. Canberra: Commonwealth of Australia, Oct 2020. https://archive.budget.gov.au/2020-21/index.htm.

De Henau, Jérôme and Himmelweit, Susan. *The Gendered Employment Gains Of Investing In Social Vs. Physical Infrastructure: Evidence From Simulations Across Seven OECD Countries*. IKD working paper no. 84, The Open University, April 2020. https://www.open.ac.uk/ikd/publications/working-papers/84.

De Henau, Jérôme, Himmelweit, Susan, Lapniewska, Zofia and Perrons, Diane. *Investing In The Care Economy. A Gender Analysis Of Employment Stimulus In Seven OECD Countries*. International Trade Union Confederation, Mar 2016. http://oro.open.ac.uk/50547/.

Del Negro, Marco, Giannone, Domenico, Giannoni, Marc P. and Tambalotti, Andrea. "Global Trends In Interest Rates." *Journal Of International Economics* 118, no. 1 (May 2019): 248-262. doi: 10.1016/j.jinteco.2019.01.010.

Elmendorf, Douglas W. and Furman, Jason. *If, When, How: A Primer On Fiscal Stimulus*. The Hamilton Project Strategy Paper. The Brookings Institution, Jan 2008. https://www.brookings.edu/research/if-when-how-a-primer-on-fiscal-stimulus/.

Fatás, Antonio and Mihov, Ilian. "Why Fiscal Stimulus is Likely to Work." *International Finance 12*, no. 1 (Spring 2009): 57-73. doi: 10.1111/j.1468-2362.2009.01235.x.

Favero, Carlo A. and Karamysheva, Madina. *What Do We Know About Fiscal Multipliers?*. CEPR Discussion Paper no. 10986. The Centre for Economic Policy Research, Dec 2015. https://repec.cepr.org/repec/cpr/ceprdp/DP10986.pdf.

Feldstein, Martin S. *Rethinking The Role of Fiscal Policy*, NBER working paper 14684. Cambridge: National Bureau of Economic Research, Jan 2009. doi: 10.3386/w14684.

Gechert, Sebastian and Will, Henner. *Fiscal Multipliers: A Meta Regression Analysis*. IMK working paper, no. 97. Institut für Makroökonomie und Konjunkturforschung, July 2012. https://www.econstor.eu/bitstream/10419/105964/1/imk-wp_97_2012.pdf.

Gechert, Sebastian, Hallett, Andrew H. and Rannenberg, Ansgar. "Fiscal multipliers in downturns and the effects of Euro Area consolidation." *Applied economics letters* 23, no. 16 (Nov 2015). 1138-140. doi: 10.1080/13504851.2015.1137545.

Goldin, Claudia. "Human Capital." In *Handbook of Cliometrics*, edited by Claude Diebolt and Michael Haupert, 55-86. Heidelberg, Germany: Springer Verlag, 2016.

Goodfriend, Marvin. "How The World Achieved Consensus on Monetary Policy." *Journal of economic perspectives* 21, no. 4 (Fall 2007): 47-68. https://www.jstor.org/stable/30033751.

Hall, Joshua C. "Positive Externalities and Government Involvement In Education." *Journal of private enterprise* 21, no. 2 (Spring 2006). https://www.proquest.com/docview/215104085?accountid=12372.

Hagedorn, Marcus, Manovskii, Iourii and Mitman Kurt. *The Fiscal Multiplier*. NBER Working Paper no. 25571. Cambridge: National Bureau of Economic Research, Feb 2019. doi: 10.3386/w25571.

Haugh, David, Ollivaudi, Patrice and Turneri, David. *What Drives Sovereign Risk Premiums?: An analysis of recent evidence from the Euro area*. OECD economics department working papers, no. 718. Paris: OECD Publishing, July 2009. doi: 10.1787/222675756166.

Hill, Elizabeth. *Reducing Gender Inequality and Boosting The Economy: Fiscal Policy After COVID-19*. Committee for Economic Development of Australia, Sept 2020. https://www.ceda.com.au/ResearchAndPolicies/Research/Workforce-Skills/Labour-market-policy-after-COVID-19.

International Monetary Fund. *Fiscal Monitor Update, January 2021*. Fiscal monitor reports. International Monetary Fund, Jan 2021. https://www.imf.org/en/Publications/FM/Issues/2021/01/20/fiscal-monitor-update-january-2021.

Leeper, Eric M., Traum, Nora and Walker, Todd B. *Clearing Up The Fiscal Multiplier Morass*. NBER Working Paper no. 17444. Cambridge: National Bureau of Economic Research, Sept 2011. doi: 10.3386/w17444.

Milbourne, Ross, Otto, Glen and Voss, Graham M. "Public Investment And Economic Growth." *Applied Economics* 35, no. 5 (June 2003): 527-540. doi: 10.1080/0003684022000015883.

National Skills Commission. *The shape of Australia's post COVID-19 workforce*. Australian Government National Skills Commission, Dec 2020. https://www.nationalskillscommission.gov.au/shape-australias-post-covid-19-workforce.

Prachowny, Martin F.J. "Okun's Law: Theoretical Foundations and Revised Estimates." *The Review of Economics And Statistics* 75, no. 2 (May 1993): 331-336. doi 10.2307/2109440.

Ramey, Valerie A. "Can Government Purchases Stimulate The Economy?". *Journal of economic literature* 49, no. 3 (Sept 2011): 673-685. doi: 10.1257/jel.49.3.673.

Richardson, David and Denniss, Richard. *Gender Experiences During The COVID-19 Lockdown*. The Australia Institute, July 2020. https://australiainstitute.org.au/report/gender-experiences-during-the-covid-19-lockdown/.

Scott, Alasdair. *IMF Survey: Making Fiscal Stimulus Effective During Downturns*. International Monetary Fund Research Department, October 2008. https://www.imf.org/en/News/Articles/2015/09/28/04/53/sores100208b.

Solow, Robert. 'Is Fiscal Policy Possible? Is It Desirable?', in *Structural Reform and Economic Policy*, edited by Robert Solow, 23-39. London: Palgrave Macmillan, 2004.

Stone, Chad and Cox, Kris. *Economic Policy in a Weakening Economy: Principles of Fiscal Stimulus*. Washington DC: Center on Budget and Policy Priorities, Jan 2008. https://www.cbpp.org/research/principles-for-fiscal-stimulus-economic-policy-in-a-weakening-economy.

Stone, Mark, Fujita, Kenji and Ishi, Kotaro. *Should Unconventional Balance Sheet Policies be Added to the Central Bank Toolkit? A Review of the Experience So Far*. IMF Working Paper 11/145. International Monetary Fund, June 2011. https://www.imf.org/external/pubs/ft/wp/2011/wp11145.pdf.

Summers, Lawrence. *The State of the US Economy*. Presentation at Brookings Institution forum on December 19 2007. The Brooking Institution, Dec 2007. https://www.brookings.edu/wp-content/uploads/2012/04/20071219_economy.pdf.

Taylor, Jason E. and Castillo, Andrea.*"Timely, Targeted, and Temporary? "An Analysis of Government Expansions over the Past Century*. Arlington, VA: Mercatus Research Center at George Mason University, Jan 2015. http://mercatus.org/publication/timely-targeted-and-temporary-analysis-government-expansions-over-past-century.

Warmedinger, Thomas, Checherita-Westphal, Cristina and Hernández de Cos, Pablo. *Fiscal Multipliers and Beyond*. ECB Occasional paper, no.162. Frankfurt, Germany: European Central Bank, June 2015. https://www.ecb.europa.eu/pub/pdf/scpops/ecbop162.en.pdf.

Wood, Danielle, Griffiths, Kate and Crowley, Tom. *Women's Work: The Impact of the COVID Crisis on Australian Women*. Grattan Institute Report no. 2021-01. The Grattan Institute, March 2021. https://grattan.edu.au/report/womens-work.