Journal of Contemporary Issues in Business and Government Vol. 28, No. 04, 2022
https://cibgp.com/
P-ISSN: 2204-1990; E-ISSN: 1323-6903
DOI: 10.47750/cibg.2022.28.04.058

Recession: Government Policy Response and Inequality – Is there a Link?

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Abstract
Economic inequality within countries throughout the world is striking and has increased over the past 3 decades. Moreover, recessions are common and are often influenced by global interconnections. In this essay, we set out standard economic ideas on ways public policy might respond to a recession and how these policies might exacerbate or mitigate economic inequality. In addition, we present evidence on the link between government behaviour and inequality for the group of OECD nations, to shed some light on the potential role of government in advancing inequality.

Introduction

Every few years capitalist economies experience a recession – two consecutive ¼'s in which inflation-adjusted Gross National Product (i.e., the money value of all the goods and services produced) declines. Typically, this is due to a fall in expenditures by firms and households

P-ISSN: 2204-1990; E-ISSN: 1323-6903
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leading to what economists call insufficient aggregate demand. The source of the reduction in spending is usually a decrease in profit expectations on the part of firms leading them to reduce spending on new plants and equipment – an activity that economists refer to as investment. Often, this is coupled with lower expenditures by households owing to an expectation of poorer earnings as they see firms adopting a dour view of the future.

Recessions can also be the result of developments that reduce inputs – for instance, a pandemic that decreases labor or shortages of energy. However, over half of the 13 post-WW II U.S. recessions were initiated solely by a fall in spending (Roos 2020).

Economic inequality within countries throughout the world is striking and has increased over the past 3 decades (United Nations World Social Report 2020; Gradín et al. 2021; Hubmer et al. 2020). Moreover, there is now compelling evidence for the U.S. that – regardless of the source of the recession – inequality rises most during economic downturns (Jaimovich and Siu 2020). Thus, an interesting question is whether the combination of an economic downturn in conjunction with the policy response from public officials and institutions – which occurs over time – may play a role in this development of inequality.

In this essay, we set out standard economic ideas on ways public policy might respond to a recession and how these policies might exacerbate or mitigate economic inequality. In addition, we present evidence on the link between government behaviour and inequality for the group of OECD nations, to shed some light on the potential role of government in advancing inequality. This conceptual and empirical exercise is informative since it reveals why governments might take a particular policy posture – running a budget deficit or surplus – and we offer evidence that whatever that posture is they tend to maintain it year after year.

This paper is organized as follows. In Section two, we explain in simple terms, the three conventional alternative ways that the public sector can respond to an economic downturn – Classical, Keynesian, and Supply-Side perspectives – and how each is likely to influence economic inequality. In Section three we discuss the standard way that inequality is measured by economists. In addition, the established means of characterizing a governments economic policy orientation – fiscal balance (budget surplus) or imbalance (budget deficit) – is presented and discussed. In the subsequent Section, drawing on data from the OECD Nations, we offer evidence on the association between inequality in a nation and the policy orientation of its government. Concluding remarks are presented in Section five.

Recession, Government Response, and Inequality – Why Might There Be a Link?

There is a range of alternative views in the economics profession on the best way for the government to respond to a recession, and they differ in the effects they have on inequality. The conventional policy response options are: *Classical Self-Correction*, *Keynesian Aggregate*

P-ISSN: 2204-1990; E-ISSN: 1323-6903
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Demand Management, and *Supply-Side Economic*s. Given an understanding of these ideas, we examine data from 34 of the 38-member nations of the Organisation for Economic Co-operation and Development (OECD) – those reporting the relevant information – to investigate if there is a link between short and long-run measures of government policy action and inequality that fits with one or more of these approaches.

Classical Self-Correction

Classical Economics refers to the dominant school of thought for economics in the 18th and 19th centuries. A belief that market-based economies are self-regulating when the government does not interfere with the economy, is a foundational element of classical economic ideology. Before the rise of classical economics, most national economies followed a top-down, command-and-control, monarch-oriented governance system. Classical economics became closely associated with a commitment to, and reliance on, economic and political freedom and competition to guide society. Classical economic thinkers – Adam Smith, David Ricardo, Thomas Malthus – rejected government interference with market exchanges, preferring laissez-faire, or the "let it be" approach to policy.

Contemporary Classical thinkers allege that when a recession occurs the unemployed will resist, but ultimately accept, lower wages to find work and hence escape the economic and adverse psychological consequences of unemployment. The fall in wages, in turn, would lead to lower costs and greater profitability – fostering a rise in both employment and output. Thus, Classical Economists stress that recessions are eventually ended by the competitive actions of the jobless and employers – without any government intervention.

Although the “*Classical* “non-interventionist approach to eliminating a recession is compelling to many economists and policymakers, it takes time to unfold (Kniesner and Goldsmith 1987) – so there are socio-emotional costs to this strategy (Goldsmith and Diette 2012). Moreover, this “wait-it-out” approach can be expected to foster greater inequality, since highly educated workers are less likely to be laid-off and if released are more likely to be recalled. Hence, if laid-off they face less pressure to accept lower wages to find work – for two reasons. First, their firm views them as central to the production process and in short supply (Autor 2014), giving them some leverage in bargaining with employers. Second, firms are more likely to provide highly educated workers with costly on the job training (Becker 1964) and do not want to lose this investment if they take a position with another firm, while poorly educated persons often must accept a lower wage to return to their former position. In line with this perspective, there is ample evidence for the U.S. economy that when a recession arises the unemployment rate increases first (St. Louis Federal Reserve 2014), and more extensively (St. Louis Federal Reserve 2021) for those with less formal education – and the earnings gap rises sharply between these groups (Heathcote et al., 2020).

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The combination of prolonged unemployment prior to settling for lower wages –resulting in poor emotional well-being – along with greater inequality opened the door to alternative perspectives on how to end a recession that challenged the dominance of the Classical "*wait it out*" approach.

Expansionary Fiscal Policy – Keynesian Aggregate Demand Management

John Maynard Keynes, a British mathematician and economist, offered ideas in the 1930s that disputed the Classical notion that a contracting economy will self-correct. In addition, he presented a fresh idea – *Aggregate Demand Management* – on how to end a recession and restore full employment. Keynes asserted that poor information leading to uncertainty is endemic to the economy and regularly results in periods of panic or fear about the future, prompting firms to cut investment spending. This results in an economy-wide contraction – a deficient demand recession – due to falling aggregate spending.

Keynes asserted that if firms collectively held a dour view of the future their pessimism would quickly spread to households leading to a decline in consumer spending that would intensify managers' doubts about future profitability – resulting in further reductions in expenditures by firms. This would once again prompt household to curtail spending and deepen the recession. Thus, once expenditures begin to fall and a recession sets in, rather than self-regulate, economies perpetuate and expand the magnitude of the contraction – he famously referred to this as the "*multiplier effect* (Friedman 1992)."

Keynes argued that the only way to break this chain of events was for the government to raise its level of spending or cut income taxes to increase household disposable income inspiring greater family spending – to engage in an activist fiscal policy often called *Aggregate Demand Management*. He believed this surge in spending would ultimately foster a more positive view of the future leading to rising expenditures by firms and households – ending the recession.

The hallmark of Keynesian economics – set out in his seminal 1936 work, T*he General Theory of Employment, Interest, and Money* – is that governments should increase spending and lower taxes, to stimulate aggregate demand, in the face of a recession. His perspective, by the 1940s, had supplanted the Classical non-interventionist view as the new standard for how to respond to a recession. In practice, this can be accomplished by instituting spending programs that kick in when the economy falters – *automatic stabilizers* – or by passing legislation to boost government expenditures and cut taxes when the contraction is deemed severe – *discretionary fiscal policy*. Although automatic stabilizers provide a more rapid response they are typically not strong enough to fully offset a recession (Boushey, Nunn, and Shambaugh 2019) leaving most of the responsibility to discretionary policy.

Critics of Keynes argue that the expansionary fiscal policy intervention he advanced would lead to a budget deficit – tax revenue (T) falling short of public sector spending (G) – referred to as a "*fiscal imbalance*" (i.e., $T - G < 0$) forcing the government to borrow funds to cover the gap. In addition, the government would have to offer saver-lenders a higher level of interest to

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encourage them to save the additional funds the government seeks to borrow. With the government taking a larger share of society's scarce savings – since it is less risky to lend to the government than firms because the public sector can raise taxes and print money to make interest payments if necessary – private sector spending on investment will decline, dampening the magnitude of the increase in spending initiated by the government. This "*crowding out*" of investment spending generated by government borrowing to finance an expansionary fiscal policy will reduce economic growth as the stock of capital – the sum of investment spending over time beyond expenditures to replace plant and equipment worn out through use – falls along with investment spending. However, contemporary Keynesian thinkers (Goldsmith 2008) assert that growth need not decline, if a sufficient amount of the borrowed funds are spent by the government on activities that promote greater worker productivity such as health, education, and infrastructure.

Government spending, both mandatory and discretionary, tends to be allocated to activities that disproportionately contribute to the quality of life for individuals and families that are resource constrained. For instance, in the U.S. in 2020 the share of government expenditures going to health (mostly Medicare and Medicaid – public health insurance programs), public schools, and welfare were 21%, 13%, and 12% respectively.

Most federal public sector officials in the U.S. presiding over a debt financed expansionary fiscal policy – from the present going back to President Franklin D. Roosevelt's "*New Deal*" – are open about their desire to spend government funds to promote greater equality and inclusiveness for groups with a history of marginal status (Shalal 2022). Thus, when governments run fiscal imbalances, G > T, inequality is expected to fall.

Supply Side Economics

Supply Side Economics advances the idea that efforts by the government to expand the aggregate supply of goods and services produced, through tax cuts is the best way to address a recession and to foster economic growth. They believe Keynes and his modern-day followers are misguided in their notion that a sensible way to eliminate a recession caused by a decline in expenditures is for the government to increase spending – and cut income taxes to inspire households to increase spending – to restore aggregate demand. In their view, this entails rowing against the tide.

The fundamental ideas behind supply-side economics are four-fold. First, aggregate product supply could be increased in the short-run by cutting the tax on earning – essentially hourly wages – thereby raising hourly take home pay. This would motivate additional people to enter the labor force and motivate the unemployed to work for a lower wage rate – since hourly take home pay would fall less than the wage rate. Each of these developments would foster a greater supply of labor and promote a return to full employment as the wage declines.

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Second, aggregate supply could be elevated in the long run, fostering economic growth, by cutting the tax on the capital gains realized by savers who lend. A lower capital gains tax would increase the reward associated with saving, leading to greater saving called a rise in the supply of loanable funds. Third, supply-siders favor less government spending so that more of a nations scarce savings are available for firms to borrow to finance investment. Both of these would drive down the interest rate encouraging firms to borrow more funds to spend on investment, which would enlarge the nation's stock of physical capital. This will expand long-run aggregate supply, resulting in economic growth.

Finally, supporters of supply-side economic policies also support reducing the tax rate on corporate profits, to further encourage spending by firms on investment. They also back deregulation which raises profits – contributing to the formation and expansion of firms – thereby generating more output in the long-run.

Margaret Thatcher in the United Kingdom and Ronald Regain in the U.S. were strong advocates of economic policy guided by supply-side economic principles. Each of them, during their first term in office as Prime Minister and President, respectively, passed legislation resulting in lower taxes on – capital gains, income (i.e., wages), and corporate profits. Economists with a Keynesian orientation, worried that the supply-side policies they adopted would result in less tax revenue leading to higher interest rates and consequently less investment and a smaller capital stock thereby undermining the goal of promoting economic growth through the expansion of aggregate supply.

However, supply-siders rebuffed this critique relying on the notion advanced by Art Laffer – an economist who served on Reagan's Economic Policy Advisory Board from 1981-1989 – that lower tax rates would generate greater tax revenue. Essentially, Laffer believed that tax cuts would "*pay for themselves*" through strong economic growth (Wanniski 1978). His logic was that a smaller tax rate on hourly earnings and savings, would increase employment and savings, so much that workers and savers would pay more in taxes. He based this strong response to tax cuts on the view that these tax rates were currently so high they had severely dis-incentivized work and saving. Thus, when supply-side economics worked as advocates envisioned it – less government spending coupled with greater tax revenue – governments would run a budget (fiscal) surplus.

Thatcher and Reagan were able to cut taxes and curtail many business regulations but found it difficult to reduce government spending. Moreover, their tax cuts reduced government tax revenue – by 5 percent for Thatcher (Meyer 1982) and 9 percent for Reagan (Wessel 2017). The associated government budget deficits led to greater borrowing by the government, higher interests' rates and less investment in both the UK (Albertson and Stepney 2020) and the U.S. (Friedman 1992) as Keynesian critics of supply-side economics predicted.

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Relying on conventional supply-side tax cuts to promote a sufficient level of spending to eliminate a recession – rather than a direct increase in government spending as proposed by Keynesians – is likely to result in a slower recovery, and greater inequality. The logic here is that the investment process unfolds more slowly into expenditures than does a discretionary increase in public sector spending.

Regarding inequality, the tax cuts instituted by governments adhering to supply-side principles are primarily targeted at wealthier households who own business firms and save – and thus benefit from reductions in the corporate profit tax, and the capital gains tax. The wealthiest 10% of families in America hold about 70% of all of the nation's wealth (Federal Reserve Bank of St. Louis 2021) – financial assets (Kent, Ricketts, and Boshara 2019). Meanwhile the poorest 50% of households in terms of wealth own only 1% of the total wealth. In addition, when income (i.e. earnings) taxes have fallen – through tax reforms that often take place during recessions – they tend to reduce the absolute tax liability most for families in higher income brackets. Although supply-side policies and conventional Keynesian expansionary fiscal policy are both likely to create a budget deficit, supply-side policies are likely to increase inequality in contrast to demand management initiatives that tend to reduce inequality.

Measuring Inequality and Fiscal Imbalances

There is something that economists call a "*Gini Coefficient*" which is a single number that reflects the degree of inequality in a nation's distribution of income, or wealth, across its population. The coefficient ranges from 0, representing perfect equality, to 1 indicating perfect inequality – and is the conventional means of measuring inequality by economists (Shendruk 2021). For the 34 OECD nations, over the period from 1960 – 2020, the average Gini Coefficient is .34. Over this same period the mean Gini Coefficient for the – U.S., Germany, Italy, Sweden, Norway, and Denmark – respectively are: .40, .30, .34, .27, .27, and .27.

Fiscal imbalance can be measured in two ways: for a given year ($T_{2022} – G_{2022}$), or cumulatively by summing all the imbalances – both positive and negative – over a period. If the cumulative sum is positive the nation is in a surplus situation, its tax revenue over the period exceeded its government spending, while if negative the country is in debt and owes that sum to its lenders.
When a country has a negative fiscal balance, it is running a budget deficit for that year and can be assumed to be engaged in a Keynesian expansionary fiscal policy – which should over time reduce inequality. The more the budget is in deficit – the greater the negative fiscal balance – the larger the government intervention and presumably inequality would be even lower.

A positive fiscal balance for a nation reveals that it is running a budget surplus. This is consistent with the version of supply-side economics advanced by Laffer – that tax rate cuts lead to greater tax revenue – but historically has not been realized. It can also arise if a nation's

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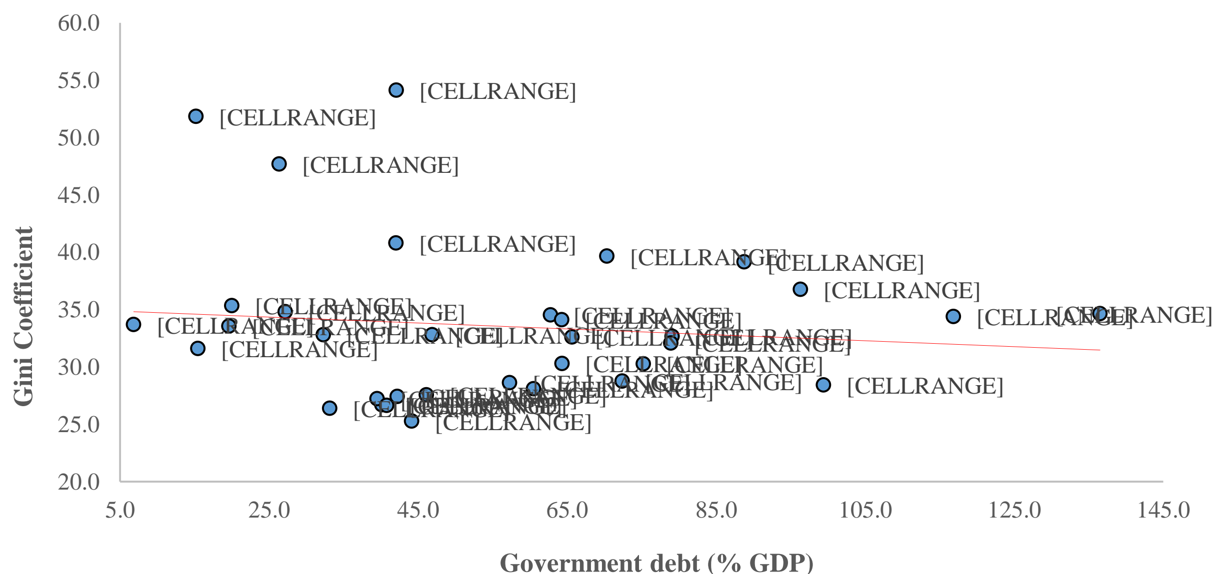
creditors indicate they are fearful the country's government will default on its loans, leading them to charge a higher interest rate. To avoid such a situation the government is effectively pressured to set government spending below their level of tax revenue. In both scenarios a budget surplus – positive fiscal balance – is expected to foster inequality, and this inequality will be even larger for countries running a greater budget surplus.

A nation that has accumulated debt over an extended period has taken a sustained Keynesian stance on fiscal policy, and thus is expected to exhibit less inequality than one that ran a balanced budget each year. If the cumulative debt is greater, then inequality is expected to be even smaller. Alternatively, if a nation has experienced a surplus budget over time – is historically a creditor or lender nation – inequality is likely to be a feature of its society. We turn now to data to assess if the evidence is consistent with the predicted link between fiscal balances – on a yearly basis and over time – and inequality generated by a nations fiscal policy orientation.

Is There an Empirical Association between Government Policy and Inequality?

To provide a snapshot of the relation between government policy and inequality we provide three graphs. Figure 1 depicts the relation between a nation's cumulative debt, as a share of GDP, over the period from 1960 - 2020 and a nation's level of inequality – measured by its Gini Coefficient – for each of the 34 OECD nations. A line calculated to fit this data best – is negative (Khan Academy 2022). Thus, nations that accumulated more debt over this period have a lower level of inequality. This is consistent with years of Keynesian expansionary fiscal policy accounting for the accumulated debt.

Figure 1: Government Debt (% GDP) and Income Inequality



Next, we separate nations into two groups – *Deficit Nations* and *Surplus Nations* – based on their annual budget tendency – percent of years they were in a budget deficit or surplus – which

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reflects their policy orientation. The *Deficit Nations* sub-sample contains those nations that over the sample period ran an annual budget deficit (T - G < 0) – a negative fiscal balance – more than half of the years. Nations who ran a positive fiscal balance (T - G > 0) more than half of the years are placed in the *Surplus Nations* sub-sample.

Seventy two percent of the 29 deficit nations ran a budget deficit at least 3 out of every 4 years, while 80% of the 5 surplus nations ran a surplus budget at least 69% of the years. Moreover, 41 percent of the nations were in the same budgetary situation (a deficit or a surplus) – every year and 56% were in that situation at least 9 out of every 10 years. In addition, for the OECD nations as a group we find that there is a 99% chance that a country running a budget deficit (surplus) in one year will experience the same budgetary situation the following year. These summary statistics reveal that countries tend to adopt a government policy orientation – and associated budget position – that is persistent.

Figure 2 depicts the relation between the size of a nation's budget deficit and its level of inequality for the *Deficit Nations*. For these countries – nations with a larger budget deficit (i.e., moving from right to left along the x-axis) exhibit smaller levels of inequality. This finding is in line with Keynesian intervention in the economy to promote greater aggregate demand being targeted toward lesser resourced households and communities.

Figure 2: Fiscal Balance And Income Inquality – OECD *Deficit Nations* (Economies With Negative Fiscal Balance)

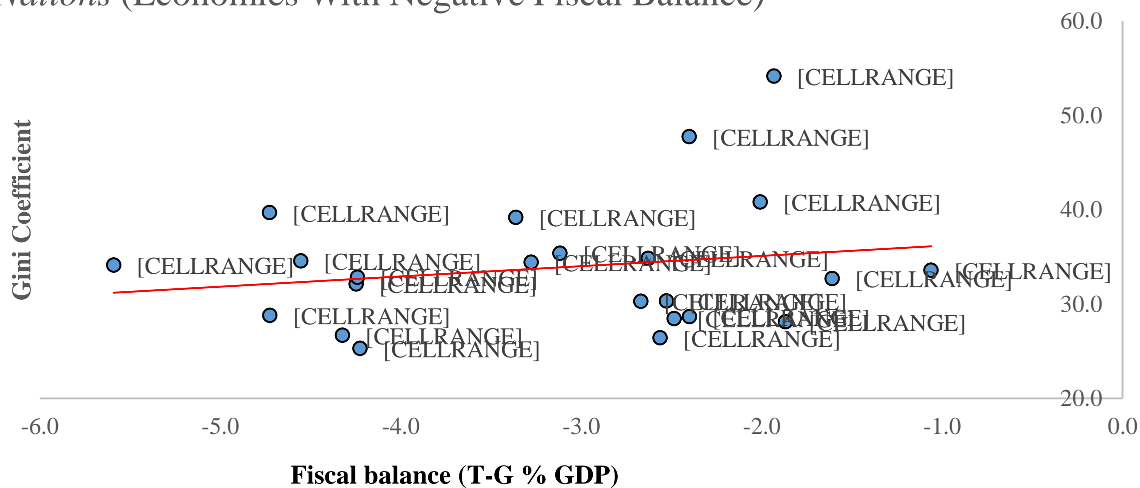

Figure 3 looks at the association between the size of a nation's budget surplus and the level of inequality for the *Surplus Nations*. For these countries, which are likely guided by notions advanced by supply-side economics, the larger the budget surplus (moving from left to right along the x-axis) the greater the level of inequality. This finding is in line with the types of tax cuts that supply-side economists promote – which target firms and more highly resourced households.

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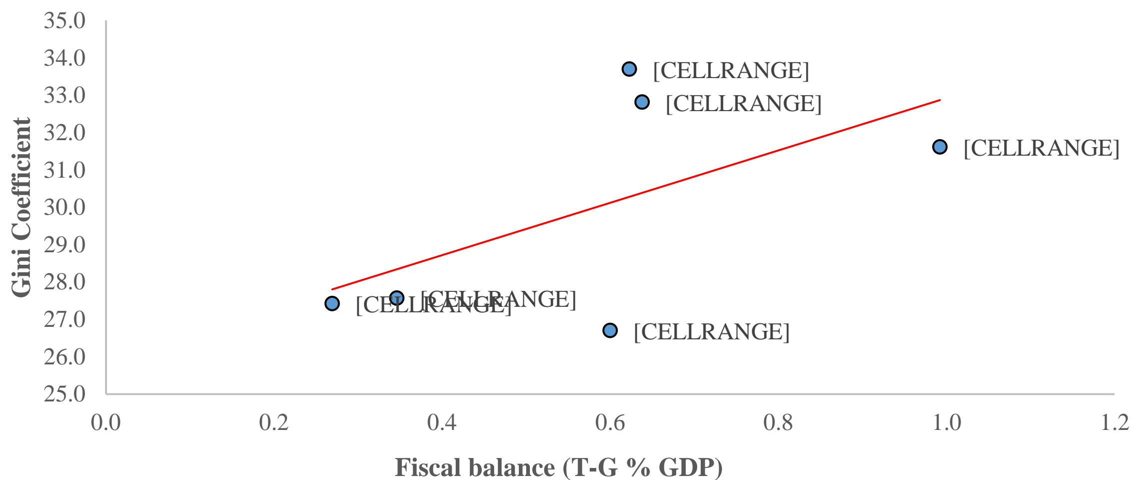
Figure 3: Fiscal balance and income equality OECD *Surplus Nations* (Economies With Positive Fiscal Balance)



Our analysis of data from the OECD nations reveals that a relation exists between a nation's government budget orientation and the countries level of inequality. Those nations that tend to consistently run a budget deficit (G > T, a fiscal imbalance [T – G < 0]) exhibit less inequality than those typically running a budget surplus (G < T). Moreover, we offer an explanation for this relation, linked to Keynesian and Supply-Side philosophies of how to stimulate economic activity. If having a lower level of inequality is a priority, the government can contribute to the realization of that goal by spending more than it collects in tax revenue on a regular basis.

Concluding Remarks

A key take-a-way is that about once per decade modern economies experience a recession (Investopedia 2022). Governments respond to economic contractions with fiscal policies – guided philosophically by either a demand management or supply-side perspective – in an effort to limit the extent and duration of the downturn. Evidence from OECD nations suggests that a demand-management response is associated with a decline in inequality over time. Recessions foster inequality and are costly – socially, psychologically, and economically. However, it appears that if nations adopt an even stronger demand management response to such downturns it is possible to promote greater equality. In turn, this will generate a more inclusive society where people are better positioned to make valued contributions to the well-being of their communities and society at large.

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