MERCATUS SPECIAL STUDY

FIFTEEN YEARS OF AGGRESSIVE DISCRETIONARY FISCAL POLICY

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ABSTRACT

Since the Great Recession, US discretionary fiscal policy has turned more countercyclical in response to negative output gaps. Previously, automatic stabilizers and discretionary fiscal policy contributed about equally to changes in the federal deficit. But discretionary policy worked against the effect of the automatic stabilizers as much as it reinforced them, and it likely erased most of the contribution of fiscal policy to stabilization policy. Over the past 15 years, discretionary policy has become a major player in countercyclical stabilization policy, adding almost four times as much countercyclical stimulus as the automatic stabilizers. Further, the timing of the stimulus has not been good, with a correlation coefficient of 0.55 and 0.54 for output gaps and the automatic stabilizers, respectively. Yet, despite the aggressive use of fiscal policy, overall stabilization policy has struggled. We have had significant slack in the economy with a continuously negative output gap for 13 years. And the use of discretionary fiscal policy has continued to provide strong stimulus for the economy despite significant overheating and the highest inflation rate in more than 40 years. The Federal Reserve has carried the entire burden of reversing this excess stimulus by raising the federal funds rate. The report makes several recommendations for addressing this situation.

JEL code: E6, H6

Keywords: macroeconomic policy, macroeconomic policy formation, policy making, rules versus discretion, stabilization

Economist views on the potential role of fiscal policy as stabilization policy have changed significantly. Until 15 years ago, there was near consensus that there was little role for the discretionary use of fiscal policy as part of stabilization policy. Discretionary fiscal policy is the deliberate effort to use the federal budget—specifically, changes in the level of public borrowing—to influence the economy. As Taylor states, "If the countercyclical goals of fiscal and monetary policy are the same, then why not simply let monetary policy do the job? If the Fed has the power to move the aggregate demand curve and uses this power wisely to try to keep real GDP in line with potential GDP, then countercyclical fiscal policy is not needed."[1] This consensus was more than just a high level of confidence in the exercise of monetary policy. There was genuine concern over the size of the federal debt, which had reached well over 40% of GDP during the mid-1990s, plus there was a well-recognized set of difficulties in effectively timing discretionary fiscal policy during the business cycle. These included lags in drafting and completing budget legislation, lags in implementing program changes, difficulty in keeping politics from adding unnecessary spending or tax cuts, and difficulty in accurately forecasting the economic impact of the policy so that it could be effective. As a result, discretionary use of the budget often moves the aggregate demand curve the wrong direction to be helpful for stabilization policy. That is, often, discretionary use of the budget is not countercyclical and this use provides economic stimulus when stimulus should be withdrawn, and vice versa.

Despite these issues, Congress revived the role of discretionary fiscal policy in 2007. The part of fiscal policy that functions well is the rules-based automatic stabilizers—changes in government revenue and spending that occur in response to cyclical increases or decreases in GDP. Rules-based automatic stabilizers have not changed much over the decade—they are consistently countercyclical, and

1. John B. Taylor, "Reassessing Discretionary Fiscal Policy," *Journal of Economic Perspectives* 14, no. 3 (2000): 21–23.

their impact on short-term economic growth is well known. That is not the case for discretionary fiscal policy. It has not been well-timed and it has contributed to enormous growth in the federal debt. It is time to reassess the way fiscal policy is conducted and, at the least, to reform it so that it is more rules-based and consistently countercyclical.

A variety of fiscal policy tools are available, many with effects beyond just the short term. Spending changes can affect government investment or government consumption for years. Tax changes can have different effects on labor income versus capital income and on how households work and save. The practical issues seem to be in large part with the "discretionary" part of discretionary fiscal policy. The political process for setting a federal budget is an absolute mess. Budgets are never done on time and there generally seems to be little consensus on spending or revenue levels. It takes time to implement program changes, sometimes years. This is significant when recessions may sometimes last only a few quarters. And politicians are tempted to add additional spending or revenue changes to stimulus legislation that have nothing to do with short-term stimulus.

There have been several reasons cited for the revival of discretionary fiscal policy, but the two most important reasons are a concern over the effectiveness of monetary policy and an increased tolerance for carrying a large federal debt. The Federal Reserve has conducted monetary policy primarily, but not exclusively, through the federal funds rate to affect aggregate demand. It does this by influencing other short-term interest rates and, ultimately, the cost of borrowing for businesses and consumers, the total amount of money and credit in the economy, employment, and inflation. However, beginning in 2008, these rates fell to near zero and there was concern that because the Fed could not lower the federal funds rate further, it would not be able to accomplish the desired stimulus of aggregate demand. In addition, the persistence of low interest rates convinced many that the fiscal space for the United States had grown significantly. The fiscal space for a country is the room left in a government´s budget that allows it to provide resources for a desired purpose, such as stimulus during an economic downturn, without jeopardizing the sustainability of its financial position or the long-run stability of the economy. Unfortunately, fiscal space is nothing more than a theoretical concept because there is little agreement over how to calculate when the level of debt becomes unsustainable.[2] Plus, whatever rise in theoretical fiscal space that was experienced earlier may be entirely gone

2. It is true, however, that the past four chairs of the Federal Reserve and the past five directors of the Congressional Budget Office have stated that debt is rising to an unsustainable level under current law.

with the recent rise in interest rates. Congress and the president should retreat from the increased tolerance for public debt. And, as this paper points out, the inevitable difficulties of effectively using discretionary fiscal policy should lead us back to a reliance on only monetary policy and automatic stabilizers for stabilization policy.

This paper notes that the main goal of stabilization policy is the reduction in the output gap and that automatic stabilizers have been an effective countercyclical policy tool. The paper discusses the four main shortcomings of discretionary fiscal policy, especially if the use of monetary policy is an option. It focuses on the difficulties related to the timing of changes in federal spending/taxes and their impact on aggregate demand. The paper measures the historical use of discretionary fiscal policy and discusses how poorly it has correlated with the size of the output gap and the effects of the automatic stabilizers. The paper finds that the timing of fiscal policy generally is far from helpful in stabilization policy, especially given the extreme cost in accumulated public debt. Further, discretionary fiscal policy continues to be significantly expansionary even now when the output gap has clearly turned positive since 2022. Like monetary policy, fiscal policy should have turned contractionary—meaning it has, instead, caused or at least contributed to recent inflationary pressures and made the stabilization efforts of the Federal Reserve more difficult.

STABILIZATION POLICY

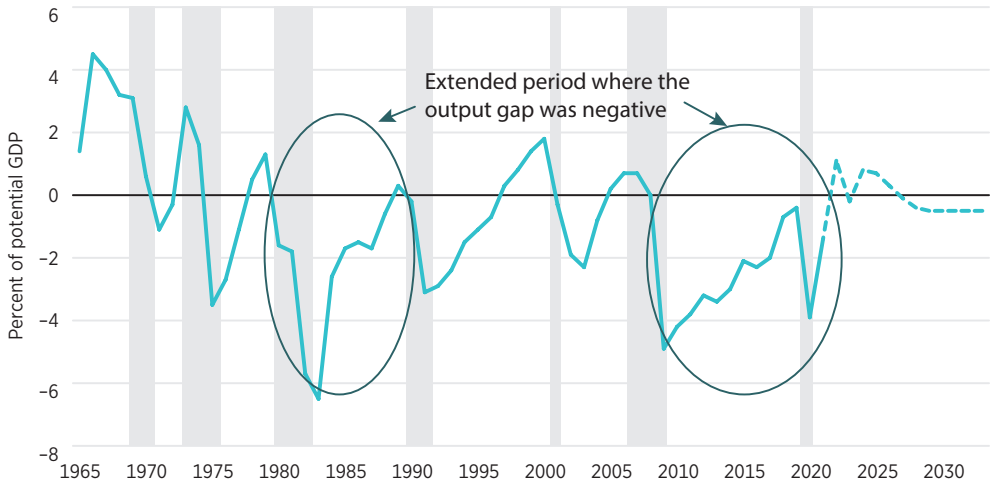
The main goal of stabilization policy is to maintain healthy, sustainable growth in economic output, and therefore, growth in income and employment along with price stability. In short, the goal of stabilization policy is to keep the economy as near as possible to its potential level of GDP, where the latter can be defined as the highest level that can be sustained over a long period without risking a rise in inflation above the Federal Reserve's goal. In defining the output gap as the difference between the actual and the potential level of real GDP, the goal of stabilization policy is to keep the output gap as near as possible to zero while inflation is maintained at its target rate. If the output gap is negative, then the economy is performing below its potential. If it goes too far negative, then the economy is in a recession and a decline in economic output, incomes, and employment will occur. If the output gap is positive, then the economy is overheating and there will be pressure for prices to rise. If it goes too far positive, then inflation will rise. Inflation reduces the purchasing power of consumers, which lowers real incomes. When the gap is negative, stabilization policy should stimulate aggregate demand

and push it back toward zero to avoid or at least shorten a recession. This is called expansionary policy. When the output gap is positive, then a reduction in stimulus is needed to lower aggregate demand and again push the gap back toward zero. This is called contractionary policy. Bad stabilization policy could apply expansionary or contractionary policy at the wrong time or have the wrong magnitude (too little or too large) and raise the chances of either a recession or out-of-control inflation.

The two main types of stabilization policy are monetary policy and fiscal policy. The Federal Reserve conducts monetary policy. Its most important tool is using the federal funds rate to affect aggregate demand. Lowering the funds rate is expansionary because it influences other short-term interest rates and lowers the cost of borrowing for businesses and consumers, which raises the total amount of money and credit in the economy and increases employment. Ideally, this will prevent a recession or, at the least, it will reduce the depth and length of a recession. Raising the funds rate is contractionary because it lowers aggregate demand. The result is not only higher short-term interest rates, a higher cost of borrowing, and a reduction in money and credit but also reduced inflationary pressure.

Congress and the president conduct fiscal policy through the federal budget. Raising the level of public borrowing through increased spending, decreased tax revenues, or both stimulates aggregate demand, so it is expansionary. The impact on the economy generally goes beyond government spending and broadly stimulates economic growth and raises employment. Economists think about and estimate multipliers that summarize how much GDP is raised in the short run for every dollar of fiscal stimulus. This is complicated by the fact that there are many types of government spending and revenue that could be part of the fiscal stimulus. Each type could have a different short-run multiplier and some could be very "weak" in that they get little GDP boost per additional dollar of federal deficit. In addition, different policy changes may have different long-run effects and not all those effects are good. Lowering public borrowing has the opposite effect on aggregate demand, so it is contractionary. Like contractionary monetary policy, the reduction in aggregate demand helps ease inflationary pressures. An important aspect of stabilization policy is that monetary and fiscal policies interact with each other. For instance, forecasting the boost to aggregate demand from an increase in federal borrowing requires a forecast of how the Federal Reserve will react. For example, the Fed might need to raise interest rates to counter inflation from an excessive amount of stimulus from fiscal policy (as was occurring at the time of this writing).

FIGURE 1. OUTPUT GAP



Note: Gray shaded areas denote recesions; dotted line denotes forecast.

Keeping a current estimate of the output gap is an important tool for stabilization policy making. To assist Congress in the exercise of fiscal policy, the Congressional Budget Office (CBO) publicly maintains current and historical empirical estimates of both potential real GDP and the output gap. Estimating potential real GDP requires a complicated supply-side analysis that accounts for the impact of business cycles on labor and productivity, fiscal policy, demographics, and other factors.[3] The CBO's estimate of the output gap from 1965 to 2021 can be seen in figure 1. The output gap is typically negative during and immediately following recessions, but it can be positive at other times. From 1965 to 2007, on an annual basis, the gap was negative 58.1% of the time and the gap averaged just −0.5% of GDP despite the fact that there was a nine-year period from 1980 to 1988 when it remained strongly negative at an average of −2.6%.[4] This extended period of a negative gap was very similar to the experience from 2008 to 2021, when the output gap was continuously negative for 14 straight years and averaged −2.5%.[5] On a quarterly basis, the gap was negative 96.5% of the time.

3. See the background paper, "A Summary of Alternative Methods for Estimating Potential GDP," Congressional Budget Office, March 1, 2004.
4. On a quarterly basis, the output gap was negative 59.6% of the time.
5. Some economists have characterized this period as one of "secular stagnation." See, for example, Larry Summers, "The Age of Secular Stagnation," *Foreign Affairs* March/April 2016, published online February 15, 2016, http://larrysummers.com/2016/02/17/the-age-of-secular-stagnation/.

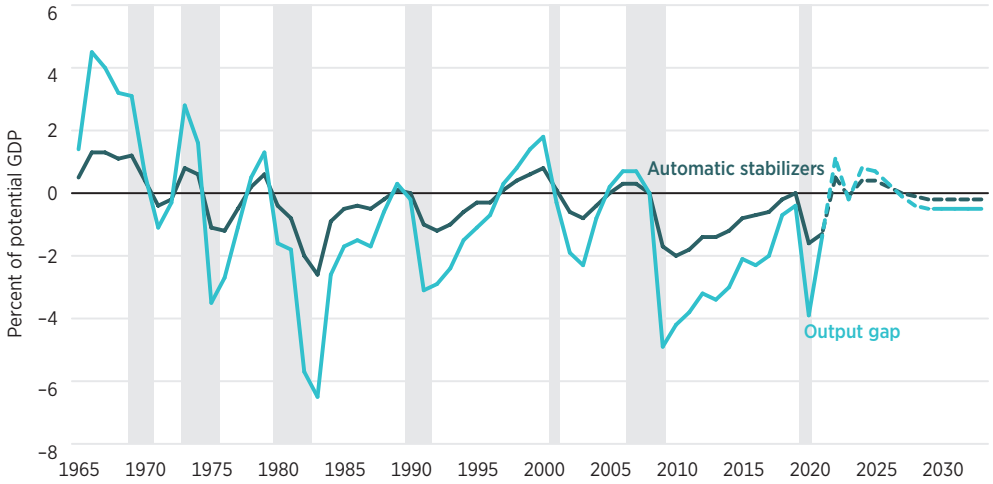
AUTOMATIC STABILIZERS AS FISCAL POLICY

Part of the complication of using fiscal policy for stabilization policy is that public borrowing affects the broader economy, but the broader economy affects the federal budget.[6] Specific parts of federal spending and revenues were designed to change as aggregate demand changes and to do so without any additional deliberate budgetary actions. Because they work without any changes in budget legislation and their effect is generally countercyclical (expansionary when the output gap is negative and contractionary when it is positive), they are called "automatic stabilizers." For example, slower economic growth automatically raises some types of government spending and lowers tax revenues. Spending rises through programs like unemployment insurance, food stamps, or Medicaid. Most of the effect of the stabilizers, however, comes from the revenue side, as lower or higher incomes lower or raise tax collections. Part of the appeal of automatic stabilizers is that their effect is well known, they do not overstimulate the economy when a negative output gap is present, and they are automatically withdrawn as the gap goes away. Although automatic stabilizers can be strengthened or weakened by making changes in how federal spending or taxes change with economic growth, they operate by rules rather than discretion.

The CBO's estimate of the effect of automatic stabilizers on the budget can be seen in figure 2.[7] When stabilizers pushed the federal budget toward a deficit (negative value), they were expansionary and helped stabilize the economy by raising output back toward its potential. When stabilizers pushed the budget toward a surplus, they were contractionary and lowered output. Figure 2 shows that the operation of the automatic stabilizers tracked closely with the output gap, being negative when the gap was negative and positive when the gap was positive throughout the period from 1965 to 2021. The only exception was 2001, when the output gap was −0.3 and the stabilizers slightly raised the budget balance 0.1% of GDP. The strength of their effect was highly correlated with the size of the output gap, with a correlation coefficient of 0.98.[8] Table 1 provides a summary of the behavior of the stabilizers during the seven recessions between 1965 and 2021. Note that between 58% and 88% of the effect of the stabilizers during recessions came from changes in tax revenue.

6. For a basic introduction of this relationship, see Congressional Research Service, "Deficits, Debt, and the Economy: An Introduction," December 20, 2022.
7. See Congressional Budget Office, *Automatic Stabilizers in the Federal Budget: 2022 to 2032*, October 27, 2022.
8. Although the CBO maintains an estimate of the impact of the real GDP on the federal budget to calculate the budgetary impact of the automatic stabilizers, the CBO does not publish an estimate of the resulting impact of the stabilizers on real GDP.

FIGURE 2. AUTOMATIC STABILIZERS AND THE OUTPUT GAP



Note: Gray shaded areas denote recessions; dotted line denotes forecast.

TABLE 1. AUTOMATIC STABILIZERS DURING RECESSIONS

	Budgetary Effect of Automatic Stabilizers				
	Total	Revenue		Outlays	
	Percentage of GDP	Percentage of GDP	Share of total (%)	Percentage of GDP	Share of total (%)
1969 Recession	−0.2	−0.6	—	−0.5	—
1973 Recession	−2.3	−1.6	73	0.6	27
1980/81 Recessions	−6.2	−4.4	70	1.8	30
1990 Recession	−4.2	−3.5	82	0.8	18
2001 Recession	−1.7	−1.5	88	0.2	12
2007 Recession	−8.7	−5.0	58	3.6	42
2020 Recession	−2.9	−2.2	76	0.7	24

Source: Congressional Budget Office, *Automatic Stabilizers in the Federal Budget: 2022 to 2032*, October 27, 2022.

Note: The budgetary effect of outlays was contractionary after the 1969 recession.

DISCRETIONARY FISCAL POLICY

Discretionary fiscal policy is often defined as the deliberate effort to influence the economy by adjusting the level of government spending or tax revenue. There are four problems with using discretionary fiscal policy as part of stabilization policy: (1) discretionary fiscal policy raises the federal debt level; (2) for a number of reasons, it is difficult to get the timing of discretionary fiscal stimulus correct; (3) there are significant challenges to estimating the economic impact of the

fiscal policy because it depends on which specific federal programs are changed out of the hundreds of possibilities; and (4) both discretionary fiscal policy and monetary policy work through changing short-term aggregate demand, so the former is just not needed if the latter is effective. This fourth problem is particularly true, because the first three issues make fiscal policy the inferior tool for stabilization policy.

Issue 1: Public Debt

The first problem with the use of discretionary fiscal policy is that it can raise—and has significantly raised—public debt. This does not have to be the case if discretionary fiscal policy is used symmetrically when it is employed fully countercyclically; however, over the past 15 years, it has never been used as a contractionary tool of stabilization policy. This was the case for the last two recessions, during which there were particularly high peaks in borrowing resulting from expansionary policy that were never matched by contractionary policy that would have lowered debt. This rise in public debt will, unfortunately, require a significant rise in taxes and/or reduction in federal spending at some point in the future.

Issue 2: Timeliness

The second issue with discretionary policy is the many well-known difficulties in effectively timing the use of discretionary fiscal policy during the business cycle. Part of this issue seems to be a problem with the "discretionary" part of discretionary fiscal policy. The political process for setting an annual federal budget has been an absolute mess for decades. Budgets are never done on time and there seems to be little consensus on spending, revenue, and borrowing levels. We even have had years when the government temporarily shut down from a lack of agreement on funding. Also, whether or not as part of the annual budget process, exercising discretionary fiscal policy requires new legislation. Even if it passes and becomes law, new legislation takes time to draft and complete, and then the implementation of program changes can take significant time. Because recessions create negative output gaps that need a policy response within months or quarters, delays raise the chances of backwards policy, where stimulus continues once an output gap is no longer negative or a reduction in borrowing occurs when stimulus is needed because of a negative output gap. In addition, Congress can be tempted to add additional spending or revenue changes in stimulus

legislation that have nothing to do with short-term stimulus.[9] The bottom line is that discretionary fiscal policy will generally be too slow to provide stimulus and will be too late to help. In addition, there will be times when the output gap turns from negative to positive and fiscal stimulus will occur when it should not. This is, at a minimum, wasteful, and at worst, it will create overheating in the economy and risk inflation.

Issue 3: Uncertainty

The third problem revolves around knowing how much stimulus is needed and then accurately forecasting the timing and economic effect of a specific discretionary fiscal policy. That is, how much of a negative output gap is there and, as in 2022, whether the output gap has turned from negative to positive. Even if the need for stimulus is certain, the actual timing of the economic effect and the magnitude of the stimulus are uncertain, and both of these factors are influenced by particular economic conditions that may change in the near term and by subsequent actions of the Federal Reserve. According to Beetsma,

> "[T]here is a lot of disagreement about the size of the short-run stimulating effect of a fiscal expansion. This may not be surprising because fiscal expansions can come in many forms and have theoretically different effects under different circumstances. Further, empirical analysis has a hard time identifying truly exogenous fiscal shocks and suffers from the potential presence of anticipation effects of fiscal policy changes."[10]

In practice, policymakers do not even have access to a timely projection of the future effect of specific pieces of legislation on the economy. Although Congress intended to have an estimate of the economic impact on legislation when it directed the CBO to conduct a "dynamic score" on proposed legislation,[11] only a few pieces of legislation have been dynamically scored before a vote. This is true even though, over the past several years, the CBO has devoted considerable effort to improving its dynamic methodologies and has employed a suite of economic models for the task. Most legislation is simply too modest in size to have much

9. See, for example, Committee for a Responsible Federal Budget, "COVID Bills Had $650 Billion in Extraneous Policies," April 19, 2021.
10. Roel M. W. J. Beetsma, "A Survey of the Effects of Discretionary Fiscal Policy" (working paper, Amsterdam School of Economics, University of Amsterdam, January 2008,) 29.
11. Dynamic scoring is the effort by the CBO to use economic models to estimate the short-term economic effects of proposed legislation and add them to budget effects.

TABLE 2. THE EFFECTS OF PANDEMIC-RELATED LEGISLATION ON THE DEFICIT AND ON GDP, FISCAL YEARS 2020–2023

Policy	Effect on the Deficit (billions of $)	Cumulative Effect on GDP (billions of $)	Cumulative Effect on GDP per Dollar of Effect on the Deficit ($)
Paycheck Protection Program and related provisions	628	226	0.36
Enhanced unemployment compensation	442	297	0.67
Recovery rebates for individuals	292	175	0.60
Direct assistance for state and local governments	150	132	0.88
Other spending provisions	700	548	0.78
Other revenue provisions	425	157	0.37
Total	2,637	1,535	0.58

Source: Congressional Budget Office, *The Effects of Pandemic-Related Legislation on Output*, September 2020, updated October 2020.

of an economic impact. Even when there is a large bill, Congress has often been too impatient to wait additional weeks to have an estimate before a vote. And, depending on the program impacted, the size of the effect on GDP can be disappointingly small. For example, four major pieces of legislation were designed to provide stimulus during the pandemic recession. All four bills were drafted, their budgetary effects were estimated by the CBO, they were debated, and they were fully enacted by March and April of 2020. However, an estimate of the size of the fiscal policy intervention on the economy, which would have further guided the decision on the fiscal stimulus, was not available until months too late in September 2020.[12] The estimate required a complicated, difficult analysis that took months to complete, and even after analysis, the estimate was still uncertain.

At the heart of an analysis of the economic impact of legislation is the statistical estimate of a multiplier for each different type of program that is changed or created. Each estimate is typically in the form of a dollar change in GDP per dollar increase in the federal budget deficit. In the example discussed earlier, the COVID bills required the CBO to estimate six distinct multipliers whose values ranged from 0.88 to 0.36. The smallest impact per dollar of deficit was for the Payroll Protection Program, and the CBO found that a $628 billion increase in federal borrowing would only raise GDP by $226 billion. This is a very low payoff in economic growth for a large increase in debt. Table 2 shows the summary table from the CBO report with all six multipliers.

12. See Congressional Budget Office, *The Effects of Pandemic-Related Legislation on Output*, September 2020.

Also, the value of the economic impact estimate was probably too uncertain to be helpful. The CBO estimated the error from the aggregate demand shift to be approximately +/− 80% of its estimate without even considering additional uncertainty from "the effects of changes in fiscal policy on the economy under current circumstances, the impact of social distancing, and the trajectory of the pandemic on the effectiveness of fiscal policy in stimulating economic activity."[13]

Issue 4: Monetary Policy

The fourth problem with discretionary fiscal policy is that, except perhaps for extreme periods when the federal funds rate is very near zero, monetary policy is much, much better than fiscal policy at stabilization. "If the countercyclical goals of fiscal and monetary policy are the same, then why not simply let monetary policy do the job? If the Fed has the power to move the aggregate demand curve and uses this power wisely to try to keep real GDP in line with potential GDP, then countercyclical fiscal policy is not needed."[14] When short-term rates fell to near zero and the Federal Reserve could not lower the federal funds rate, the Fed shifted to a new form of policy called quantitative easing to stimulate aggregate demand. Because of this, it is not clear how much assistance from fiscal policy was necessary.[15]

THE TIMING OF DISCRETIONARY FISCAL POLICY

This section focuses on the short-run use of fiscal policy to understand to what extent it helps stabilize the business cycle. The section examines how much discretionary fiscal policy has been used over time, whether the timing of its use during business cycles has at least been the right direction (i.e., providing positive stimulates to aggregate demand only when the output gap is negative), and how it has interacted with the effects of automatic stabilizers. That is, is it expansionary when there is a negative output gap and does it change spending or revenues in time to have a timely effect on the economy? And is it contractionary when there is a positive output gap or, as it often seems, does discretionary fiscal policy simply step aside and let monetary policy do all the contractionary

13. See figure 1 of Congressional Budget Office, *The Effects of Pandemic-Related Legislation on Output*, September 2020, 12.
14. See Taylor, "Reassessing Discretionary Fiscal Policy," 21–23.
15. See Wikipedia's "quantitative easing" entry, last modified April 8, 2023, https://en.wikipedia.org/wiki/Quantitative_easing.

work of stabilization policy? Because the effect of automatic stabilizers is based on estimates of the output gap, the two closely track each other, as noted earlier. Therefore, this section also explores whether discretionary policy supports or works against the automatic stabilizers. In addition, this section explores how the magnitudes of the discretionary budgetary changes compare with the effects of automatic stabilizers. For consistency, estimates of discretionary fiscal policy are made from the CBO's estimate of the automatic stabilizers from October 2022.[16] Most previous assessments of discretionary fiscal policy have found instances in which such a policy was used substantially as a countercyclical fiscal policy during a recession. That approach leaves out most of the routine uses of fiscal policy and relies on the understanding of political motivations behind the legislation. Also, in looking broadly at changes in federal spending and taxes during all phases of the business cycle, it is interesting to compare actual federal spending and revenue changes with what was intended. An alternate approach by Aeurbach used CBO estimates of future changes in spending and revenue due to newly enacted legislation.[17] Therefore, this alternate approach focuses only on changes the CBO made to its projections on account of new legislation rather than changes made because of a new economic forecast or some other "technical" reason.[18] The shortcomings of this approach, however, relate to the uncertainty issue described earlier. The approach relies on a projection of economic impact rather than actual federal spending and revenue levels. Also, Congress and the president generally do not have access to an estimate of the economic impact of their use of discretionary fiscal policy that is timely enough to guide policy decisions. In other words, if Congress and the president are going to exercise discretionary fiscal policy, then they will have to do it with a very limited ability to accurately project the impact.

Regular adjustments to federal spending and revenues matter and are as intentional as modest changes in monetary policy. That is, policymakers generally know the likely impact of proposed legislative changes on future borrowing through Office of Management and Budget (OMB) and CBO estimates of the

16. See Congressional Budget Office, *Automatic Stabilizers in the Federal Budget: 2022 to 2032*, October 27, 2022.
17. Alan J. Auerbach, "Is There a Role for Discretionary Fiscal Policy?" (NBER Working Paper No. 9306, National Bureau of Economic Research, Cambridge, MA, November 2002).
18. A few times a year the CBO updates its 10-year budget forecast and separates out new changes in the forecast that result from updating the economic forecast, technical changes, and newly enacted legislation. Technical changes are revisions to earlier projections that are neither legislative nor economic but are an effort to improve the accuracy of the projections. Often these technical changes result from recently collected spending and revenue data that differ from the CBO's earlier forecast.

president's budget submissions and the required CBO estimates for legislation as it is drafted by Congress. Whether policymakers mean to affect the economy or not, they generally know that increases in federal spending or decreases in tax revenue are expansionary by stimulating aggregate demand. Further, they know that slowing spending or raising taxes is contractionary and will have the opposite effect on aggregate demand.

This paper does not calculate the economic impact of discretionary fiscal policy. Policymakers generally do not know the likely impact of specific pieces of legislation on the economy. An estimate depends critically on the specific types of spending and revenue that are changed. Although that is Congress's intent when it asks the CBO to conduct a dynamic score, nearly all legislation is too modest to estimate and is subject to considerable uncertainty. Further, even when legislation is large enough to expect a measurable economic output effect, the analysis can be quite complex. The CBO has devoted considerable effort over several years to improve its dynamic methodologies and has employed a suite of economic models for the task. And, of course, changes in monetary policy occur all the time—and sometimes they occur in reaction to changes in the federal budget. Projecting those monetary policy reactions to changes in federal spending and revenue are not part of the CBO's estimates. This paper employs the routine estimates of the output gap and the effect of automatic stabilizers calculated by the CBO.[19] To isolate the discretionary portion of fiscal policy, this paper uses the cyclically adjusted primary balance (CAPB)—the most commonly used measure of discretionary fiscal policy. This measure is the federal budget balance net of interest payments and the effects of the business cycle.[20] Figure 3 summarizes how discretionary fiscal policy and automatic stabilizers have been used during recessions over the past 50 years. For example, before the Great Recession, the use of discretionary fiscal policy during recessions was limited and, when used, it was often procyclical rather than countercyclical. The only real exception was the 1973 recession, when its budget effect was slightly stronger than the automatic stabilizers. All this changed, however, for the last two recessions. For these two recessions combined, discretionary policy added debt equal to 44.7% of GDP—or $8 trillion. Table 3 summarizes the countercyclical effects of fiscal policy during recessions and their aftermath.

19. See Congressional Budget Office, A*utomatic Stabilizers in the Federal Budget: 2022 to 2032*, October 27, 2022. For a discussion of the CBO's methods, see Frank Russek and Kim Kowalewski, "How CBO Estimates Automatic Stabilizers" (Working Paper 2015-07, Congressional Budget Office, Washington, DC, November 2015).
20. See Beetsma, "A Survey of the Effects of Discretionary Fiscal Policy."

FIGURE 3. BUDGETARY IMPACT OF FISCAL POLICY

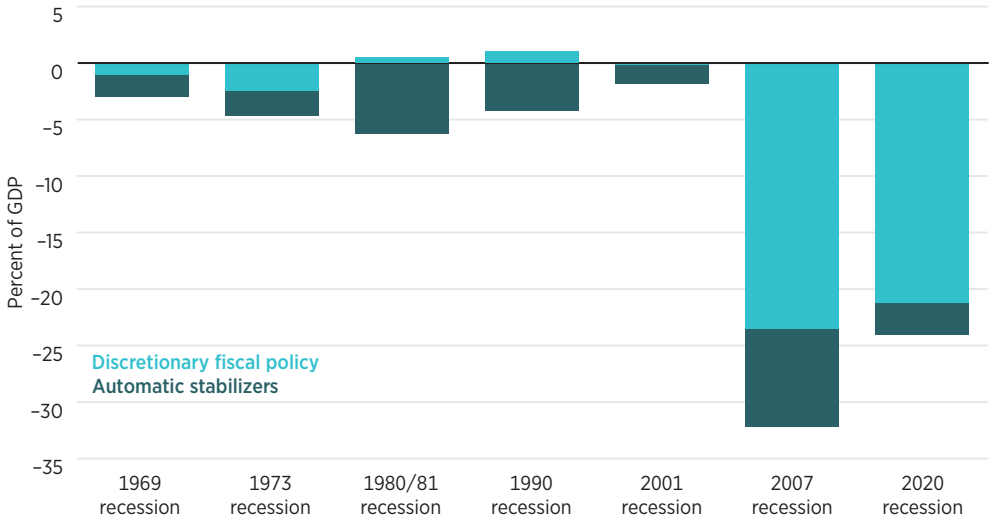


TABLE 3. RECESSIONS AND POLICY

A. 1969 Recession: Effect on Budget Balance (% of GDP)

Year	Primary Budget Balance (% of GDP)	Automatic Stabilizers			Cyclically Adjusted Primary Budget	Total Fiscal Stimulus (% of GDP)	Output Gap (% of GDP)	Average Annual Inflation (%)
		Balance	Revenue	Outlays	Balance			
1969	1.6	—			0.4		3.1	4.9
1970	1.1	0.4	0.0	−0.4	0.7	1.1	0.6	5.9
1971	−0.7	−0.4	−0.4	0.0	−0.3	−0.7	−1.1	5.1
1972	−0.7	−0.2	−0.2	0.0	−0.5	−0.6	−0.3	3.6
Stimulus 1970–1972		−0.2	−0.6	−0.5	−0.1	−0.3		
			354%					

B. 1973 Recession: Effect on Budget Balance (% of GDP)

Year	Primary Budget Balance (% of GDP)	Automatic Stabilizers			Cyclically Adjusted Primary Budget	Total Fiscal Stimulus (% of GDP)	Output Gap (% of GDP)	Average Annual Inflation (%)
		Balance	Revenue	Outlays	Balance			
1973	0.2	—			−0.6		2.8	4.0
1974	1.0	0.6	0.4	−0.2	0.4	1.0	1.6	9.0
1975	−1.9	−1.1	−0.9	0.2	−0.7	−1.9	−3.5	11.0
1976	−2.6	−1.2	−0.8	0.4	−1.4	−2.6	−2.7	7.1
1977	−1.2	-0.5	−0.3	0.2	−0.7	−1.2	−1.1	7.6
Stimulus 1974–1977		−2.3	−1.6	0.6	−2.4	−4.6		
			73%					

C. 1980/81 Recessions: Effect on Budget Balance (% of GDP)

Year	Primary Budget Balance (% of GDP)	Automatic Stabilizers			Cyclically Adjusted Primary Budget	Total Fiscal Stimulus (% of GDP)	Output Gap (% of GDP)	Average Annual Inflation (%)
		Balance	Revenue	Outlays	Balance			
1979	0.1	—			−0.5		1.3	10.3
1980	−0.8	−0.5	−0.4	0.1	−0.3	−0.8	−1.6	13.6
1981	−0.3	−0.9	−0.6	0.3	0.5	−0.3	−1.8	11.1
1982	−1.3	−2.1	−1.5	0.6	0.8	−1.3	−5.7	7.4
1983	−3.3	−2.8	−1.9	0.9	−0.5	−3.3	−6.5	3.5
Stimulus 1980–1983		−6.2	−4.4	1.8	0.5	−5.7		
			70%					

D. 1990 Recession: Effect on Budget Balance (% of GDP)

Year	Primary Budget Balance (% of GDP)	Automatic Stabilizers			Cyclically Adjusted Primary Budget	Total Fiscal Stimulus (% of GDP)	Output Gap (% of GDP)	Average Annual Inflation (%)
		Balance	Revenue	Outlays	Balance			
1989	0.3	—			0.2		0.3	4.7
1990	−0.6	0.0	−0.1	0.0	−0.6	−0.6	−0.2	5.0
1991	−1.2	−1.0	−0.9	0.2	−0.2	−1.2	−3.1	5.0
1992	−1.4	−1.2	−1.0	0.3	−0.2	−1.4	−2.9	3.0
1993	−0.8	−1.0	−0.7	0.2	0.1	−0.8	−2.4	3.1
1994	0.0	−0.6	−0.5	0.1	0.6	0.0	−1.5	2.6
1995	0.9	−0.3	−0.3	0.0	1.3	0.9	−1.1	2.8
Stimulus 1990–1995		−4.2	−3.5	0.8	1.0	−3.2		
			82%					

E. 2001 Recession: Effect on Budget Balance (% of GDP)

Year	Primary Budget Balance (% of GDP)	Automatic Stabilizers			Cyclically Adjusted Primary Budget	Total Fiscal Stimulus (% of GDP)	Output Gap (% of GDP)	Average Annual Inflation (%)
		Balance	Revenue	Outlays	Balance			
2000	4.5	—			3.7		1.8	3.2
2001	3.2	0.1	0.0	−0.2	3.0	3.2	−0.3	3.2
2002	0.1	−0.7	−0.6	0.1	0.8	0.1	−1.9	1.5
2003	−2.0	−0.8	−0.7	0.1	−1.1	−2.0	−2.3	2.4
2004	−2.1	−0.4	−0.3	0.1	−1.7	−2.1	−0.8	2.3
2005	−1.0	0.0	0.1	0.0	−1.1	−1.0	0.2	3.3
Stimulus 2001–2004		−1.7	−1.5	0.2	−0.1	−1.8		
			88%					

(*continued*)

TABLE 3. RECESSIONS AND POLICY (CONTINUED)

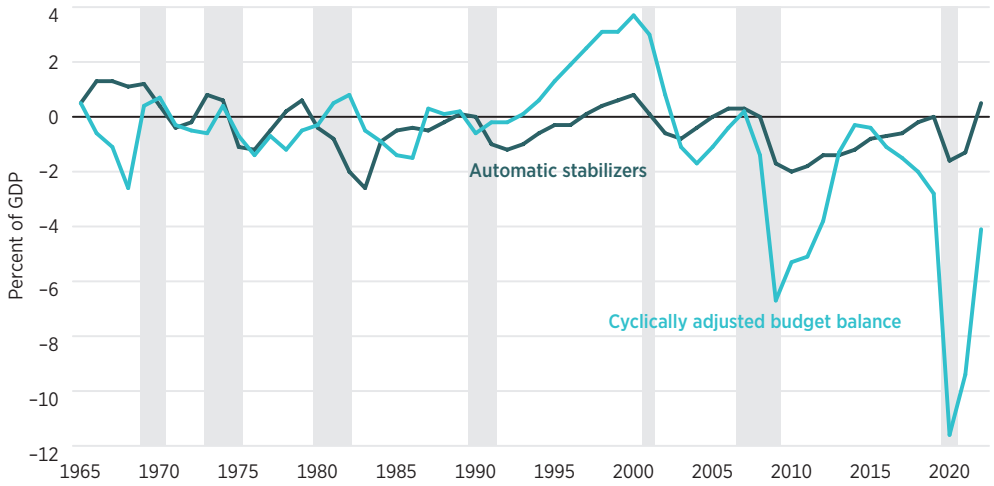
F. 2007 Recession: Effect on Budget Balance (% of GDP)								
Year	Primary Budget Balance (% of GDP)	Automatic Stabilizers			Cyclically Adjusted Primary Budget	Total Fiscal Stimulus (% of GDP)	Output Gap (% of GDP)	Average Annual Inflation (%)
		Balance	Revenue	Outlays	Balance			
2007	0.5	—			0.2		0.7	2.4
2008	−1.4	0.0	0.0	0.0	−1.4	−1.4	0.0	4.4
2009	−8.5	−1.8	−1.2	0.6	−6.7	−8.5	−4.9	−0.3
2010	−7.4	−2.1	−1.2	0.9	−5.3	−7.4	−4.2	1.7
2011	−6.9	−1.8	−1.0	0.8	−5.1	−6.9	−3.8	2.6
2012	−5.3	−1.5	−0.8	0.7	−3.8	−5.3	−3.2	2.4
2013	−2.8	−1.5	−0.9	0.6	−1.3	−2.8	−3.4	1.6
Stimulus 2008–2013		−8.7	−5.0	3.6	−23.5	−32.2		
			58%					

G. 2020 Recession: Effect on Budget Balance (% of GDP)								
Year	Primary Budget Balance (% of GDP)	Automatic Stabilizers			Cyclically Adjusted Primary Budget	Total Fiscal Stimulus (% of GDP)	Output Gap (% of GDP)	Average Annual Inflation (%)
		Balance	Revenue	Outlays	Balance			
2019	−2.9	—			−2.8		−0.5	1.9
2020	−13.3	−1.7	−1.2	0.4	−11.7	−13.3	−4.4	1.5
2021	−10.8	−1.3	−1.0	0.3	−9.5	−10.8	−2.6	3.3
Stimulus 2020–2021		−2.9	−2.2	0.7	−21.2	−24.1		
			76%					

FISCAL POLICY FROM 1965 UNTIL THE GREAT RECESSION

Figure 4 provides a continuous look at the effect of fiscal policy on the federal budget. There are two distinctly different periods between 1965 and 2021: 1965 to 2007 and 2008 to 2021. The magnitude of discretionary fiscal policy was much lower from 1965 to 2007 than from 2008 to 2021. However, within the earlier time frames, it was expansionary during some periods and contractionary during others. The magnitudes of the interventions were approximately the same as the budget effects of the automatic stabilizers except for strong contractionary policy in the late 1990s into the 2000 recession. Even though the effects of the interventions were stronger than the effect of the automatic stabilizers at that time, the direction of both fiscal policies was the same. Overall, however, this period saw the average federal debt held by the public fall as a percent of GDP

FIGURE 4. FISCAL POLICY, 1965–2021



Note: Gray shaded areas denote recesions.

from 37.2% to 35.7% of GDP. Table 3 shows that the average federal budget balance was −2.2% of GDP, but this was almost completely due to net interest payments on existing debt so that the primary budget balance[21] averaged just −0.1% of GDP. Overall, the average discretionary fiscal policy intervention was neutral.

Even though discretionary fiscal policy and the automatic stabilizers both ended up nearly balanced between expansionary and contractionary movements over the period, they were very different in their timing. The automatic stabilizers were "spot on" effective in providing countercyclical policy assistance for reducing the output gap as their correlation coefficient with the gap was a high 0.99 (see table 4). Unfortunately, discretionary fiscal policy was not helpful in reducing the output gap. Often, it enlarged the gap by being expansionary with a positive gap or contractionary with a negative gap. The correlation between the CAPB balance and the output gap was very low at 0.09, and it was only 0.15 with the automatic stabilizers.

THE PERIOD OF ACTIVE DISCRETIONARY POLICY

During the past 15 years, discretionary fiscal policy has been used much more aggressively as part of an overall stabilization policy in the United States. The first 14 years of this period (2008–2021) saw a constantly negative output gap.

21. The primary budget balance indicates the borrowing requirements of the government, excluding net interest costs.

TABLE 4. CORRELATION COEFFICIENTS

Annual Data	Automatic Stabilizers	Discretionary Fiscal Policy
1965–2007		
Output gap	0.99	0.09
Automatic stabilizers	—	0.15
2008–2021		
Output gap	0.96	0.55
Automatic stabilizers	—	0.54

Just as during the 1980s and part of the 1990s, the constant negative gaps led to constant expansionary automatic stabilizers. For monetary policy, short-term rates fell to near zero[22] and the Federal Reserve could not lower the federal funds rate.[23] The Fed shifted to a new form of policy called quantitative easing to stimulate aggregate demand when standard monetary policy instruments became ineffective. Despite this, many policymakers were concerned that the Fed alone could not accomplish the desired stimulus of aggregate demand alone. This concern changed the monetary policy issue discussed earlier and Congress and the president began using a very aggressive discretionary fiscal policy.

The persistence of low interest rates had a second effect in that, for many policymakers, it changed the debt issue and reduced their concerns over accumulating public debt. The logic was that low interest rates created additional fiscal space for the United States, and this should raise the policymaker tolerance for public debt. Fiscal space is a theoretical concept defined as the room for undertaking discretionary fiscal policy without endangering market access and debt sustainability. This rather imprecise definition means that there is a theoretical upper limit of public debt beyond which action would have to be taken to avoid default. There is little agreement on how to measure this upper limit for the United States and there is certainly no agreement on what exactly that limit is at any given point in time.

Predictably, federal deficits surged and the debt held by the public rose dramatically from 35.2% of GDP in 2007 to 99.6% of GDP in 2021. Discretionary fiscal policy was generally responsible for this. Average federal borrowing was extremely high at 6.3% of GDP and 4.9% of it was primary deficit. Discretionary policy was responsible for most of the primary deficit (3.8% of GDP) while the automatic stabilizers were responsible for the remaining 1.1% of GDP (see

22. The federal funds rate averaged 0.7% during this period after averaging 6.4% from 1965 to 2007.
23. This is the so-called zero lower bound problem for monetary policy that limits the Federal Reserve's ability to stimulate aggregate demand.

TABLE 5. ANNUAL AVERAGES OF FISCAL POLICY FROM 1965 TO 2021 AS PERCENTAGE OF GDP

	Federal Budget				Cyclically Adjusted Budget				Automatic Stabilizers
Years	Revenue	Outlays	Net Interest	Primary Balance	Revenue	Outlays	Balance	Primary Balance (CAPB)	Effect on Budget Balance
1965–2007	17.6%	19.8%	2.1%	−0.1%	17.8%	19.8%	−2.0%	0.1%	−0.2%
2008–2021	16.5%	22.8%	1.5%	−4.9%	17.2%	22.4%	−5.2%	−3.8%	−1.1%

Note: CAPB = cyclically adjusted primary balance.

table 5). The output gap was negative for all 14 years (and for 55 of 57 quarters) and discretionary policy contributed to the budget deficit every year.

Congress used extremely aggressive countercyclical discretionary policy after both the 2007 and 2020 recessions. In particular, from 2008 to 2013, the automatic stabilizers added deficit stimulus equal to about 8.7% of GDP (or $1.3 trillion) while discretionary actions added nearly three times that at 23.5% of GDP (or $3.6 trillion). Similarly, after the 2020 recession, the automatic stabilizers added 2.9% of GDP to the debt (or $634 billion) while discretionary actions added five times that at 21.2% (or $4.6 trillion).

Because output gaps were generally negative from 2008 until 2021, Congress continually used countercyclical discretionary fiscal policy, but the magnitudes (as measured by the change in the federal deficit) did not match well and there was a correlation coefficient of just 0.55 between the discretionary fiscal policy and the output gap. Similarly, discretionary policy had a correlation coefficient of 0.54 with the automatic stabilizers (see table 4).

INFLATIONARY PRESSURE FROM DISCRETIONARY FISCAL POLICY IN FY 2022

Heading into 2022, the CBO expected that output would rise enough to nearly eliminate the negative output gap. It projected that continued stimulus from discretionary policy in 2021 would spill over into 2022 and that the United States would experience another large deficit of about $1 trillion. Several others forecast that the stimulus would cause a stronger GDP growth and would cause the output gap to turn significantly positive and create inflationary pressure.[24] The

24. See the estimate by the Brookings Institution, "The Macroeconomic Implications of Biden's $1.9 Trillion Fiscal Package," *Up Front*, January 28, 2021. Also see "How Much Would the American Rescue Plan Overshoot the Output Gap?," *Committee for a Responsible Federal Budget* (blog), February 3, 2021.

deficit was much higher than the forecast $1.4 trillion and GDP also exceeded the forecast. The GDP was $300 billion above the potential GDP as forecast in May 2022 and indicated a positive output gap. As expected, the result was a significant pickup in inflation—in fact, inflation rose to its highest level in more than 40 years (7.9%). Inflation rose even though the Federal Reserve had begun to pursue an aggressive contractionary monetary policy to try to remove the overstimulus. The Fed dramatically raised short-turn interest rates from 0.08% to about 4.75%. Likely, the automatic stabilizers turned positive along with the output gap. Overall, for the year, the primary federal budget balance remained strongly in deficit at −3.6% of GDP.

CONCLUSIONS AND RECOMMENDATIONS

The debate about the use of rules versus the exercise of discretion in stabilization policy has mostly been limited to the actions of the Federal Reserve. Until the Great Recession, the debate was not extended to fiscal policy because discretionary fiscal policy was little used. Rules-based fiscal policy through the performance of automatic stabilizers has worked well for decades. They provide stimulus when there is a negative output gap and remove stimulus when the gap is gone. From 1965 until 2007, the output gap was "balanced" in the sense that it was positive almost as much as it was negative and the stabilizers followed suit and averaged a nearly balanced budget effect of just −0.2%. With a dormant discretionary fiscal policy that did not seem to try to influence the output gap (with a correlation coefficient of just 0.09), federal debt fell from 37.2% to 35.7% of GDP.

An active discretionary fiscal policy has had a much larger impact on stabilization policy since the Great Recession. It has had a much larger impact than the automatic stabilizers in terms of changes in the budget balance. There is certainly logic to the argument that historically low interest rates meant that there should be an enhanced role of fiscal policy, but the timing of discretionary fiscal policy has been predictably problematic. Even though there was a constantly negative output gap from 2008 through 2021—and fiscal policy generally should be expansionary—the timing of its impact has shown a considerable lag that does not always match changes in the output gap or the effect of the automatic stabilizers (with a correlation coefficient of 0.55 and 0.54, respectively). This mistiming means that discretionary fiscal policy has been unnecessarily costly in terms of a high accumulation of debt without an effective countercyclical stimulus. With debt rising from 35.2% to 97.0% of GDP, it will take generations to repay this

debt. The obvious solution is to return to a greater reliance on monetary policy and automatic stabilizers. Some specific recommendations follow.

1. If strong discretionary fiscal policy continues to be exercised during downturns in the business cycle, we must recognize that there may be a limited amount of fiscal space to use in the future, and thus we should use just those discretionary policies with a larger economic impact per dollar of increased borrowing.
2. Discretionary fiscal policy needs to work fully countercyclically. This means that when we return to a positive output gap, as we did in 2022, we must make a much greater effort to reduce borrowing, as we did in the late 1990s.
3. We need an explicit, neutral policy position for fiscal policy. This position should work much like the Federal Reserve's neutral federal funds rate, for which the Fed explicitly picks a long-run rate that is neither accommodative nor restrictive.[25] Doing this for fiscal policy would add significantly to the transparency of stabilization policy.
4. If interest rates return to very low levels and we want to reduce reliance on monetary policy, then we should strengthen automatic stabilizers rather than discretionary policy.

25. See, for example, Thiago Ferreira and Carolyn Davin, "Longer-Run Neutral Rates in Major Advanced Economies," FEDS Notes, Board of Governors of the Federal Reserve System, December 1, 2022, https://www.federalreserve.gov/econres/notes/feds-notes/longer-run-neutral-rates-in-major-advanced-economies-20221201.html.

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