

RULES FOR SUSTAINABLE FISCAL POLICY:

Three Perspectives

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Key Takeaways

- The sustainability of fiscal policy can be viewed from perspectives of solvency, the growth of debt, and the public purposes the policy serves.
- Insolvency is technically impossible for governments that borrow in their own currencies, but that is only the beginning of the story.
- As long as interest rates remain below the rate of growth of GDP, government debt can be held within sustainable limits even if there is a chronic budget deficit.
- A country's fiscal policy is functionally sustainable if it imposes a set of rules and decision making
 procedures that adjust fiscal parameters over time to serve some rational public purpose.

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veryone wants a fiscal policy that is sustainable, but just what does sustainability really mean? This policy essay considers three different perspectives—sustainability as solvency, sustainability as constraints on the growth of liabilities, and functional sustainability.
 Each of these perspectives is useful in formulating rules for sustainable fiscal policy.¹

Sustainability as Solvency

The first and simplest perspective makes sustainability a synonym for solvency—or strictly speaking, equitable solvency, which means the ability to meet financial obligations in full and on time. Individuals and private firms can easily become insolvent in this sense. If so, they may face legal sanctions or be forced into bankruptcy. Governments too can become insolvent if they fail to pursue responsible fiscal policy.

The adherents of modern monetary theory often emphasize the proposition that sovereign governments that follow certain rules are immune from equitable insolvency. As L. Randall Wray puts it, perpetual government sector deficits of any size are sustainable "in the sense that a sovereign government can continue to make all payments as they come due—including interest payments—no matter how big those payments become."

¹ Reprinted, with permission and minor updates, from Merrifield, John and Barry Poulson (eds), A Fiscal Cliff (Washington, D.C.: Cato Institute, 2020).

^{2 (}L. Randall Wray, Modern Money Theory, 2nd Edition (Basingstroke, ZULU: Palgrave Macmillan, 2015).

To qualify, governments must adhere to what we might call the Golden Rule of Solvency, namely, that all liabilities must be denominated in a currency that government itself issues. If so, the government can meet any obligation, such as a maturing bond, or an invoice for goods or services, by issuing monetary liabilities through the banking system or in the form of paper currency.

In contrast, countries that use a currency that they do not issue must have an external source for the currency that they will need to meet their obligations. Examples include members of the euro area and countries like Ecuador, which uses the U.S. dollar. Governments that issue their own currencies for domestic use but borrow in foreign currencies are a mixed case; they must have an external source to cover foreign-currency obligations, but they can meet their domestic obligations without limit. It is also important to note that the Golden Rule protects only a country's currency-issuing central government. It does not guarantee the solvency of local or regional units of government that issue liabilities denominated in the national currency.

Furthermore, the Golden Rule itself is subject to some important caveats. One is that even gov-

"Maintaining equitable solvency is only the starting point for a discussion of fiscal sustainability, not the whole story."

ernments that issue their own currencies need to avoid self-imposed constraints on their solvency. For example, the U.S. government typically operates under a nominal debt ceiling. According to the U.S. Treasury, "Failing to increase the debt limit would have catastrophic economic consequences. It would cause the government to default on its legal obligations."3 The debt ceiling is a "soft" constraint on solvency, since it can be, and regularly is, raised or suspended to ensure continuous service of the national debt. In the EU, not only euro area members but also countries like Sweden or Poland that have retained their own currencies are subject to similar soft debt ceilings.

Finally, although the Golden Rule protects a government against equitable insolvency, it does not protect it against other hazards of bad fiscal policy. Solvent governments can maintain an inappropriate degree of budget-

ary austerity, leading to inadequate aggregate demand, high unemployment, and slow growth. They can, instead, pursue inappropriately expansionary fiscal policy when their economies have reached the full-employment level of output, resulting in excessive inflation. They can pursue stop-go policies that alternate between these extremes, exacerbating rather than moderating the business cycle.

Finally, in extreme cases, sovereign governments that issue their own currency can fall victim to hyperinflation. Inflation, even hyperinflation, need not result in technical insolvency. It is always possible to honor all past nominal liabilities, no matter how large, by issuing currency or bank balances with a sufficiently large number of zeros. However, eventually people become unwilling to make new offers of goods or services in exchange for promises of any number of billions or octillions of nominal currency units. At that point, the game is over, and either the government falls or it relinquishes its unlimited power to issue currency in favor of some arrangement such as a dollarization or a currency board.

^{3 (}Treasury.gov, 2018)

In short, maintaining equitable solvency is only the starting point for a discussion of fiscal sustainability, not the whole story.

Sustainability as Constrained Growth of Liabilities

According to a second perspective, a fiscal policy is sustainable if it appropriately constrains the growth of government liabilities as a share of GDP. Just what the appropriate constraint should be is open to debate. Those whose only concern is maintaining equitable solvency might set the ceiling for liabilities at a substantial multiple of GDP. Others would like to see a ceiling well below 100 percent of GDP, fearing that high liability ratios might lead to with high interest rates, slow growth, or excessive inflation. Defining an optimal debt ratio is beyond the scope of this paper. Instead, the focus here is on the more general question of the conditions that constrain, or fail to constrain, changes in the liability ratio over time.

For purposes of this section, it is convenient to treat the entire central government of a country as a single unit. For the United States, that means consolidating the balance sheets of the Treasury and the Federal Reserve, along with other accounting entities such as government trust funds that hold government liabilities as assets. All liabilities of one government entity that are held as assets by another entity are netted out. What remains are government liabilities held by members of the public, that is, by households, financial and nonfinancial firms, and foreign private and government entities.

Liabilities of the consolidated government sector can be further divided into monetary and non-monetary liabilities. In the United States, monetary liabilities include Federal Reserve notes, commercial bank reserve deposits at the Fed, and Treasury coin, which together are known comprise the monetary base. Nonmonetary liabilities include Treasury bills, notes, and bonds, collectively known as government debt. The government also holds financial assets, such as student loans. In what follows, we will assume that such assets are netted out in computing the level of liabilities.

Over time, total liabilities outstanding change as a result of government expenditures and tax receipts. Expenditures, whether for purchasing goods and services, making interest payments, or making transfer payments, have the immediate impact of increasing monetary liabilities as payments by check or electronic transfer are cleared through the banking system. Tax payments by households and firms reduce outstanding monetary liabilities as they are deposited in the Treasury's account at the Fed.

Simultaneously with spending and taxation, or subsequently, the government may engage in further financial operations that affect the composition of its liabilities to public. For example, when the Treasury sells new securities at auction, the government's nonmonetary liabilities increase and its monetary liabilities decrease by an equal amount. Similarly, nonmonetary liabilities increase and monetary liabilities decrease when the central bank sells securities from its own portfolio of previously issued Treasury securities (open market sales). Redemption of maturing securities by the Treasury and open market purchases by the Fed decrease the government's outstanding nonmonetary liabilities and increase monetary liabilities.

When the government uses taxation to offset the monetary impact of its expenditures, it is popularly said to be "financing its spending with taxes." When it sells securities for the same purpose, it is said to be "financing spending by borrowing." When it does neither, it is said to be "monetizing the deficit" or "financing spending by issuing money" or, more figuratively, "printing money."

Since our topic is the long-run sustainability of fiscal policy, this section will pay less attention to short-term changes in the values of the budget balance and government liabilities than in their long-run relationships to GDP. Accordingly, we will focus on the *structural* or *cyclical adjusted* values of variables. Structural values are defined as those that would prevail when the economy is operating at "full employment," or more properly, at *potential GDP*. During downturns, GDP falls below its potential level, unemployment rises, spending on unemployment insurance and poverty programs rises, tax revenues fall, and the deficit increases. In boom times, unemployment temporarily falls below the level consistent with potential GDP, outlays fall, revenue rises, and the budget balance moves toward surplus.

With these points of terminology out of the way, we are ready to explore the simple mathematics related to the ratio of liabilities to GDP. Over any period, the change in total liabilities is equal to the budget balance with the sign reversed—increasing when there is a deficit and decreasing when there is a surplus. For any given values of GDP growth and the initial level of liabilities, there is some *steady-state structural balance* that will hold the ratio of liabilities to GDP constant, on average, over the business cycle. The steady-state structural balance, stated as a percentage of GDP, is equal to the negative of the liability ratio times the rate of growth of GDP.

$$SBAL^* = -G(LBR) \tag{1}$$

Where:

SBAL* is the equilibrium structural balance expressed as a percentage of potential GDP

LBR is the ratio of total government liabilities (monetary and nonmonetary) to potential GDP

G is the rate of growth of potential GDP.

For example, suppose GDP is initially \$10 trillion, the growth rate is 4 percent, and total liabilities are initially \$5 trillion, or 50 percent of GDP. A \$200 billion deficit, or 2 percent of GDP, would then be just enough to hold the liability ratio at 50 percent.

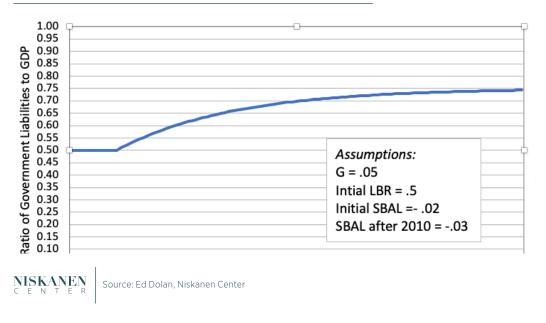
Instead, solving Equation 1 for the liability ratio, we can define a steady-state liability ratio, LBR*, for any fixed values of the structural balance and the growth rate:

$$LBR*=-SBAL/G$$
 (2)

Using the numbers from our previous example, the liability ratio remains constant at 50 percent of GDP when the growth rate is 4 percent and the structural balance is in deficit by 2 percent.

If there is a permanent change in the structural balance, the liability ratio will increase or decrease over time until it reaches its new equilibrium value. For example, beginning from our previous numbers, suppose that in 2010, the structural deficit increases to 3 percent of GDP in 2010 and stays there. If the value of GDP at the beginning of 2010 is, say, \$10 trillion, then over the course of the first year, it will increase to \$10.4 trillion while liabilities increase by \$300 billion to \$5.3 trillion. That will raise the liability ratio to about 51 percent of GDP. The liability ratio will continue to increase each year after that, gradually approaching a new equilibrium level of 75 percent of GDP. In graphical form, the process would be as shown in Figure 1:





The same math applies if the structural budget is permanently in surplus. For example, a change in the budget balance from a 2 percent deficit to a 2 percent surplus would gradually decrease the liability ratio over time. Following the practice of countries like Norway that have chronic budget surpluses, the annual surpluses would be invested in a sovereign wealth fund after any previously issued government debt had been paid off. By Equation 2, the steady-state value of the sovereign wealth fund would be 50 percent of GDP (LBR* = -50 percent).

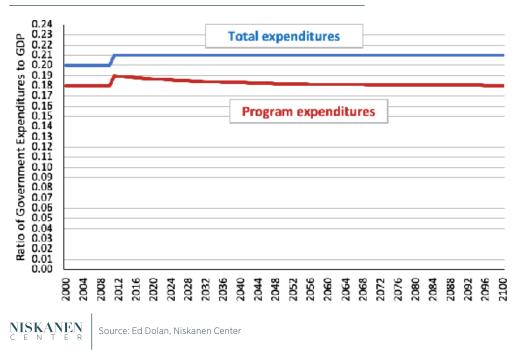
These conclusions suggest two possible rules for fiscal sustainability: One would be to select a desired target value for the liability ratio and hold the structural budget balance equal to the corresponding steady-state budget balance as given by Equation 1. The alternative would be to select a desired value for the budget balance, allowing the liability ratio to rise or fall over time to its steady state value. Mathematically speaking, any level for the structural deficit is sustainable so long as it is held constant as a share of GDP—even if growth is sluggish and the deficit is chroni-

cally large. For example, a deficit of 5 percent of GDP and nominal GDP growth of 2 percent would produce a steady-state liability ratio of 250 percent of GDP Those are roughly the numbers for Japan in recent years.

However, although mathematically valid, there is a major practical difficulty with a fiscal policy rule that tries to hold the overall structural budget balance constant. To understand why, we need to make a distinction between two types of government expenditures: *interest expenditures*, that is, the net interest paid or received by the consolidated government, that is, and *program expenditures*, which include all other outlays. Program expenditures, whether for civilian or military purposes, and whether for transfer payments or purchase of goods and services, are the part of the budget that produce the public benefits that motivate political decisionmakers. Interest expenditures produce no comparable political payoff.

With this distinction in mind, let's revisit the process of adjustment to a new equilibrium liability ratio following an increase in the deficit. As before, we assume GDP growth of 4 percent and an initial liability ratio of 50 percent. This time we will be more specific about the budget. We assume that tax revenue is 18 percent of GDP and total expenditures are initially 20 percent of GDP. We assume an interest rate of 4 percent, so that interest expense is initially 2 percent of GDP. Program expenditures are initially 18 percent of GDP. They increase to 19 percent in 2010, bringing total expenditures to 21 percent of GDP. Under these assumptions, what will happen over time to expenditures and taxes if the deficit is held steady at its new level of 3 percent?

FIGURE 2: Evolution of Expenditures After Change in Structural Balance



The answer is that something has to give. As soon as the deficit increases, total liabilities and interest expenses begin to rise. If taxes are held at 18 percent of GDP and the overall deficit is held at 3

percent, then program expenditures will be squeezed. As Figure 2 shows, by the time the liability ratio rises to its new equilibrium, program expenditures will be right back where they started.

Politically speaking, it would be much more desirable to maintain both a constant level of program expenditures and a constant level of taxes. To do that, the fiscal policy rule would need to target not the overall structural balance, but the *primary structural balance*, meaning taxes minus program expenditures, or equivalently, the overall structural balance minus interest expenditures. But such a rule raises a new question: Can we be sure that the liability ratio will have a finite steady-state value for any given primary structural balance, or is it possible that the liability ratio might increase (or decrease) without limit?

The answer, it turns out, depends on the relationship between the rate of growth of GDP and the interest rate. To see why, we can rewrite Equation 1, replacing the overall structural balance with the primary structural balance (PSB) minus interest expense, and writing interest expense as the interest rate R times the liability ratio LBR. That gives us

$$PSB - R(LBR) = -G(LBR)$$
 (3)

Let PSB* be the steady-state value of the primary structural deficit, that is, the level of the primary structural deficit that will hold the liability ratio constant over time. For a given value of the liability ratio, the steady-state value can be written as:

$$PSB*=(R-G)LBR \tag{4}$$

The interest rate and the growth rate can be expressed in either real or nominal terms, so long as both are done the same way. The examples that follow will use nominal values.

The first thing we see from Equation 4 is that when the interest rate is higher than the growth rate, PSB* has a positive value, that is, a primary structural surplus is required to keep the liability ratio from increasing over time. In contrast, if the growth rate is greater than the interest rate, the liability ratio can be held constant even when there is a primary structural deficit.

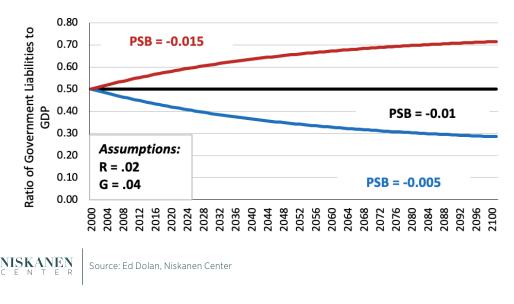
A second important implication of Equation 4 is that an increase in the liability ratio raises the steady-state primary structural balance when the interest rate is greater than the growth rate, whereas an increase in the liability ratio lowers the steady-state primary balance when the growth rate is greater than the interest rate. That relationship has important implications for the stability of the liability ratio, as the following numerical examples make clear:

Suppose first that the liability ratio is 0.5, the growth rate is 0.04, and the interest rate is 0.02. The steady-state primary structural balance will then be -0.01. Interest expenditures will also be 1 percent of GDP, so overall budget balance will be -0.02.

Suppose, now, that due to an increase in program spending, the primary balance falls a little farther into deficit, say, to -0.015. As a result, the liability ratio will begin to increase. In accordance with Equation 4, the greater liability ratio will begin to decrease the steady-state value of the primary

deficit, PSB*. Eventually, when the PSB* reaches 0.015, the liability ratio will stabilize at a new equilibrium value of 0.75, as shown by the top curve in Figure 3:

FIGURE 3: Evolution of Liability Ratio Following a Change in Primary Structural Balance



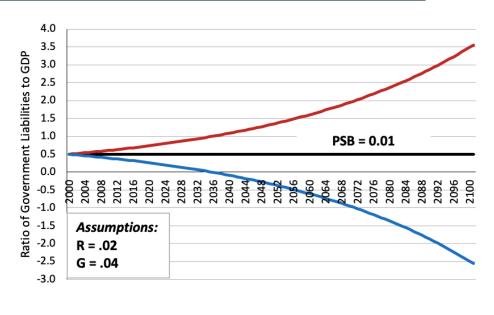
If, instead, the primary structural balance moved toward surplus from its initial steady state value, say from -0.01 to -0.005, the liability ratio would begin to decrease. As it did so, PSB* would also increase until it reaches -0.005. At that point, the liability ratio reached a new equilibrium value of -0.25 (net assets), as shown by the lower curve in Figure 3.

To generalize, as long as the rate of growth of GDP is greater than the interest rate on government liabilities, the liability ratio will adjust to a new, finite equilibrium value following any change in taxes or program expenditures that increase or decrease the primary structural balance, as long as the balance remains at its new value relative GDP.

In contrast, if the interest rate is greater than the rate of growth, then a departure from the steady-state primary structural balance will have quite a different effect. To illustrate this possibility, suppose that the initial liability ratio is 0.5 as before, but the growth rate is 0.02, and the interest rate is 0.04. In this case, holding the liability ratio steady will require a primary structural surplus of 1 percent of GDP.

Suppose now that a tax cut or increase in program expenditures moves the primary structural balance toward deficit, say from its initial value of 0.01 to 0. As a result, the liability ratio will begin to increase, and as it does so, PSB* will also increase. As time goes by, rather than converging, the gap between actual value and the steady state value of the primary structural deficit increases. The wider the gap, the more rapid the increase in the liability ratio. As shown by the upper curve in Figure 4, liabilities will grow without limit unless there is a new change in policy that will raise taxes or cut program spending.

FIGURE 4: Evolution of Liability Ratio Following a Change in Primary Structural Balance



 $\left. \begin{array}{ccc} NISKANEN \\ \text{C} & \text{E} & \text{N} & \text{T} & \text{E} & \text{R} \end{array} \right| \quad \text{Source: Ed Dolan, Niskanen Cente}$

Similarly, when the interest rate is greater than the growth rate, a policy change that raises taxes or cuts program spending will cause a decrease in the liability ratio. Liabilities will eventually fall to zero, after which, assuming there are no further policy changes, the ongoing budget surplus can be invested in a sovereign wealth fund that increases in value at an ever-increasing rate.

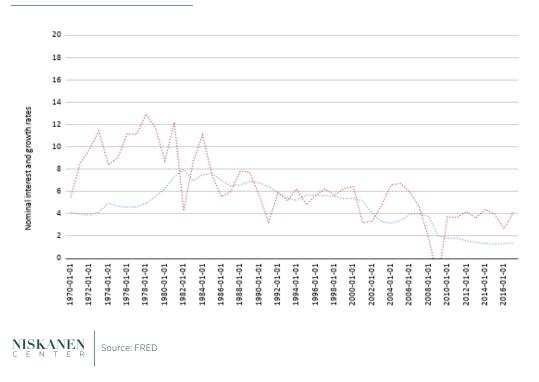
It appears, then, that the much-feared scenario in which taxes are so low or spending so high that government liabilities increase without limit is a real possibility only when the interest rate on government liabilities is greater than the rate of growth of GDP, when both parameters are averaged over the business cycle. If the growth rate is higher than the interest rate, any fixed target for the primary structural balance, whether surplus or deficit, will be sufficient to prevent unlimited increase or decrease in the liability ratio.

On the other hand, if the long-run value of the interest rate exceeds that of the growth rate, a primary structural balance target becomes more problematic. True, there will always be some value of the primary structural balance that is just right to keep the liability ratio at its current value, but the stability of the deficit ratio in that case would be less like that of a tripod and more like that of a unicycle. Any deviation from the initial conditions, unless corrected, would send the liability ratio off toward unlimited increase or decrease. True, unless the disturbance were very large, the initial rate of change of the liability ratio would be small, but it would not be self-correcting.

Which case, then, is more likely? Figure 5 shows the relationship between interest rates and growth rates for the United States over the half-century from 1970 to 2020. The growth rate is

the rate of increase in nominal GDP. The interest rate shown is federal interest outlays divided by debt held by the public plus the monetary base—an approximation of the variable R in our model.⁴ The dotted lines show annual data, while the solid lines show moving averages over an eight-year period, which is the average peak-to-peak duration of business cycles over this time span.

FIGURE 5: Interest Rates vs. Growth Rates



Over the entire period from 1970 to 2017, the average nominal interest rate on federal liabilities was 4.5 percent and the average growth rate of nominal GDP was 6.2 percent. During the 1970s, rapid inflation raised the rate of growth of nominal GDP, and also, with a lag, raised nominal interest rates. Inflation rates fell during the 1980s, but interest expenses did not, at first, fall as rapidly as inflation. That happened partly because fear that inflation might return kept rates high on newly issued securities, and partly because of the need to continue paying high interest rates on fixed-rate securities issued during the high inflation years. As a result, there was a period in the 1990s when interest expenses per dollar of liabilities slightly exceeded the rate of nominal GDP growth. In the 2000s, investor expectations adjusted to continued low inflation. As they did so, interest rates fell, and interest expenses again dropped below the rate of nominal GDP growth.

On the whole, then, experience with growth and interest rates over the past half-century has been consistent with scenarios in which a fixed target for the primary structural deficit would result

⁴ This estimate slightly overestimates the net interest expense of the consolidated federal government in recent years since it does not account for interest that the Fed pays on deposits by commercial banks or interest that the Fed earns from securities held other than those issued by the Treasury, mainly mortgage-backed securities. In 2017, the latter exceeded the former by about \$20 billion. If that amount were netted out from federal interest expenses, the estimate of R for 2017 would have been about a tenth of a percentage point lower than shown. Before 2008, this adjustment would have been insignificant, and it seems likely that it will decrease in coming years as the Fed carries out a planned reduction in its holdings of securities.

in a finite steady-state value for the liability ratio. Looking forward, based on past experience, we might reasonably assume a long-term nominal GDP growth rate of 4 percent (2 percent real plus 2 percent inflation) and an average nominal interest expenses on total liabilities of 1.5 percent. If so, then a primary structural deficit of 2.5 percent of GDP, equivalent to an overall structural deficit of 4 percent of GDP, would be sufficient to stabilize the liability ratio at 100 percent of GDP.

Are such favorable conditions likely to continue? A growing consensus among economists think

"Experience with growth and interest rates over the past half-century has been consistent with scenarios in which a fixed target for the primary structural deficit would result in a finite steady-state value for the liability ratio."

that they are. Harvard economists Jason Furman and Lawrence Summers point to several factors that are likely to keep inflation-adjusted interest rates low in coming decades, including higher savings associated with an aging population, increased inequality, and reduced corporate demand for capital.⁵

If policymakers in their wisdom decided on a more cautious approach, they could set a tighter target for the primary structural balance aim gradually to reduce the liability ratio to a value under 100 percent of GDP. Even if the gap between growth rates and interest rates narrows somewhat from recent experience, the steady-state level of debt could still be brought down by a primary structural balance target that was in deficit, but just not by so much as it is at present.

Metarules for Functional Sustainability

That brings us to our third perspective, that of *functional sustainability*. A country's fiscal policy can be said to be functionally sustainable if it imposes a set of rules and decisionmaking procedures that adjust fiscal parameters over time to serve some rational public purpose.

Unfortunately, the United States does not have a fiscal policy that is functionally sustainable in this sense. Little has changed in the decades since Herbert Stein, Chairman of the Council of Economic Advisers under Presidents Nixon and Ford, wrote that

we have no long-run budget policy—no policy for the size of deficits and for the rate of growth of the public debt over a period of years. Annually we make decisions about the size of the deficit that are entirely inconsistent with our professed long-run goals, with the explanation or hope that something will happen or be done before the long-run arises, but not yet.⁶

In his article, Stein goes on to argue for rules and procedures that would ensure that annual decisions regarding taxes and spending are constrained by explicit, long-term fiscal policy goals. Little progress toward that ideal has been made since he wrote. On the contrary, the traditional process of orderly budgeting and appropriation has broken down and been replaced by ad hoc measures such as continuing resolutions, sequestrations, and debt ceiling suspensions. This section will not

⁵ Jason Furman and Lawrence Summers (2020). A Reconsideration of Fiscal Policy in the Era of Low Interest Rates. Brookings Institution.

⁶ Herbert Stein, "After the Ball," The AEI Economist (December 1984): 2.

attempt to establish a full set of sustainable fiscal rules, but rather will propose some metarules with which any more specific rules should be consistent.

Metarule No. 1: Fiscal rules should be at least cyclically neutral and permit countercyclical measures depending upon political maturity and cross-party consensus.

This proposition is universally accepted in the serious literature on fiscal policy rules. It would hardly be worth mentioning were it not for the perennial political popularity, in the United States at least, of rules calling for annual balance of the federal budget. Over the past 80 years, such rules have been proposed again and again as constitutional amendments. These balanced budget amendments, some of which have come frighteningly close to passage, would be profoundly procyclical, since they would require tax increases or spending cuts during downturns and would allow spending increases and/or tax cuts when the economy was at or above full employment.

In contrast, a cyclically neutral rule, such as a fixed target for the primary structural balance, would take full advantage of automatic stabilizers to moderate the business cycle. As explained in the previous section, the specific target could be chosen to maintain a desired ratio of total government liabilities to GDP, or to ensure that the liability ratio would converge toward the desired level over time.

In theory, a rule that mandated a target value for the primary structural deficit on average over the business cycle, but that allowed temporary countercyclical tax and spending measures on a discretionary basis, would be even better. However, practical considerations might make such a rule unfeasible. For one thing, it is possible that lags and forecasting errors might be such that attempts to pursue discretionary fiscal stimulus or restraint would turn out to be counterproductive. There could also be political difficulties. The procedures and institutions necessary to implement a rule allowing for active countercyclical policies would be considerably more complicated than those for a cyclically neutral rule. That complexity could make it easier for the party in power to game the rule for short-term political advantage and harder to penalize attempts to do so.

Accordingly, countries like the United States that lack sufficient political maturity and cross-party consensus might do best to stick with a simple, cyclically neutral rule. Even such a rule, however, should include an exception allowing for added fiscal stimulus during periods in which interest rates fell to the zero bound. That situation, which renders conventional monetary stimulus ineffective, was once thought to be a remote possibility. However, since 2000, the Federal Reserve's principal policy rate has been at zero about 40 percent of the time. If the economy continues to experience shocks like the global financial crisis of 2007 and the Covid-19 pandemic, zero interest rates may become the new normal. If so, fiscal stimulus will become the only weapon to stave off long-term stagnation.

Metarule No. 2: Microeconomic aspects of fiscal policy should be subordinate to macroeconomic fiscal policy rules.

As specified by Metarule No. 1, a functionally sustainable fiscal rule should hold budget balances to a path that is at least cyclically neutral and consistent with a sustainable steady-state liability ratio. Doing so should serve the macroeconomic purposes of promoting stability and growth.

However, such a rule should not constrain microeconomic details of fiscal policy such as the structure of taxes and the composition of spending.

Even with a sustainable fiscal rule in place, tax reform would remain an important issue. However, specific initiatives, say reduction in distortionary payroll or corporate income taxes, should be proposed in a form that is revenue neutral over the business cycle. They should be offset by increases in taxes thought to be less distortionary, say, consumption or carbon taxes, or by spending decreases. Similarly, spending increases—even putatively growth enhancing ones such as infrastructure spending—should be accompanied by cuts in other spending programs or appropriate tax increases.

It could be objected that this metarule could hamper the introduction of appropriate countercyclical stimulus, such as a cut in personal tax rates, during a deep slump. That is why, as noted above, there would need to be an exception for periods when interest rates fell to their zero lower bound. In a country with a sufficiently mature and disciplined political system, fiscal policy rules could allow somewhat more discretion.

Metarule No. 3: A functionally sustainable fiscal rule should target sustainable paths for deficits and liability ratios, but it should not attempt to constrain the overall fiscal size of government.

This metarule would disallow measures such as a 2011 version of a balanced budget amendment that would have placed a ceiling on federal expenditures of 18 percent of GDP.⁷ Instead, it would require neutrality as to whether a given target, such as a 1 percent primary structural surplus, is, say, achieved with expenditures of 18 percent of GDP and taxes of 19 percent, or expenditures of 38 percent of GDP and taxes of 39 percent.

Some observers are sure to object to Metarule No. 3 on the grounds that a smaller size of government could enhance economic growth and is therefore an appropriate part of a rule for fiscal policy. Without getting into the complex debate over the empirical validity of the relationship between growth and size of government, let us stipulate for the sake of discussion that it is true. Even if it were, I see three reasons why a rule for fiscal sustainability should not attempt to constrain the overall size of government.

The first reason is that maximizing the growth of GDP is not the only objective of economic policy. The size of government that maximizes the growth rate is not necessarily the same as that which maximizes other aspects of freedom and prosperity. On the contrary, my own research indicates that around the world, larger governments tend to be associated with greater levels of material prosperity and, no less importantly, greater levels of personal freedom. Instead, quality of government, as measured by indicators of rule of law, protection of property rights, government integrity, and so on is more important for freedom and prosperity than the size of government.⁸

These are robust results that hold across subsamples of governments rich and poor, with a variety

^{7 (}S.J. Res 10., 2011)

⁸ Ed Dolan 2020, "Quality of Government: A Statistical Portrait," Niskanen Center, Nov. 11, 2020, https://www.niskanencenter.org/quality-of-government-a-statistical-portrait/.

of different measures of size, freedom, and prosperity, and with a variety of different controls and statistical specifications.

The second reason for maintaining flexibility with regard to the size of government is that spending and taxes of a certain minimum size may be necessary for maintaining the political sustainability of a market economy, even if that is, arguendo, greater than the size that maximizes growth. Niskanen Center's Sam Hammond calls attention to Joseph Schumpeter's belief that capitalism would become the ultimate victim of its own success, inspiring reactionary and populist move-

"Quality of government...is more important for freedom and prosperity than size of government." ments against its destructive side that would inadvertently strangle any potential for future creativity. Hammond argues that the countries that have eluded Schumpeter's dreary prediction have done so by combining free markets with robust systems of universal social insurance.9 Similarly, political theorist Kevin Vallier argues that liberal democratic political and economic institutions, including high-quality governance, procedural fairness, markets, freedom of association, democracy, and robust social welfare programs are essential to maintaining the trust on which freedom and prosperity depend.¹⁰

The third reason for fiscal rules that do not constrain the size of government does not depend on whether the first two are true or false, but only

on whether substantial political factions believe one or the other of them is. The most successful attempts to establish rules for fiscal sustainability, such as those in Sweden or Chile, have worked as well as they have because they have commanded broad support across political parties and coalitions. Without such support, no rule can survive a change of government. There is a much greater likelihood of finding cross-party political support for rules that say, "avoid insolvency," or "don't allow limitless growth of liabilities," or "moderate the business cycle, don't exacerbate it," than to seek broad support for a quantitative cap on the size of government.

In short, even if the growth-maximizing size of government is very small (a debatable proposition), growth is not everything. Maximum growth is not necessarily consistent with maximum freedom, and any rule for long-run fiscal sustainability needs to be able to survive regular changes in government.

Combining the Perspectives

This essay began with the assertion that a sustainable fiscal policy is one that sets rules for government expenditures, taxes, deficits, and debt that allow an economy to meet current needs without compromising the ability of future generations to do likewise. It then introduced three perspectives on this broad concept of fiscal sustainability.

The first perspective frames sustainability as a matter of maintaining equitable solvency—the ability to pay all financial obligations in full and on time. A country that issues its own currency, never

⁹ Samuel Hammond, "The Free Market Welfare State," Niskanen Center, May 2018, https://niskanencenter.org/wp-content/uploads/2018/04/Final Free-Market-Welfare-State.pdf.

¹⁰ Kevin Vallier, "Trust in a Polarized Age. (Oxford University Press 2020).

contracts debts in any other currency, and does not subject itself to extraneous self-imposed limits can unconditionally maintain equitable solvency. However, following such a rule does not protect a country from policy mistakes that cause harms that fall short of outright insolvency—austerity, high unemployment, slow growth, cycles of booms and busts, inflation, or even hyperinflation.

The second perspective frames sustainability a matter of avoiding the unconstrained growth of liabilities. The mathematical conditions for avoiding unconstrained growth of liabilities are fairly straightforward. The section shows that a rule that sets an appropriate target value for the primary structural balance of the government budget is sufficient to avoid the unconstrained growth of liabilities.

The third perspective frames sustainability in terms of rules for fiscal policy that serve a rational public purpose by establishing macroeconomic conditions conducive to the flourishing of freedom and prosperity. It notes that to be successful, fiscal rules must be sustainable, not just in terms of accounting or debt dynamics, but also politically sustainable under a democratic government.

Economics is not the only discipline that is concerned with sustainability. Environmentalists, for example, often invoke the so-called Brundtland definition, according to which environmentally sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Similarly, we could define sustainable fiscal policy as a set of rules for taxes, expenditures, budget balances, and liabilities that allows the present generation to meet its economic needs without compromising the ability of future generations to do the same. Working within the three complementary perspectives discussed in this chapter, it should be possible to devise specific rules to ensure real fiscal sustainability.

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Edwin G. Dolan holds a PhD in economics from Yale University. He has taught in the United States at Dartmouth College, the University of Chicago, George Mason University and Gettysburg College. From 1990 to 2001, Dolan taught in Moscow, Russia, where he and his wife founded the American Institute of Business and Economics (AIBEc), an independent, not-for-profit MBA program. After 2001, he taught economics in several European countries, including Central European University in Budapest, the University of Economics in Prague, and 15 years of annual courses at the Stockholm School of Economics in Riga.

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