

# BALANCING THE BUDGET: CAN THE SWISS DEBT BRAKE END ENDLESS U.S. DEFICITS?

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## Abstract

The United States is the world's leading issuer of treasury bonds, and according to current forecasts there is no end in sight to annual budget deficits. Evidence strongly suggests that persistent deficits are closely associated with depressed growth, raising the possibility that a permanent end to U.S. deficits would permanently increase the country's economic growth. However, with nearly a half-century long, almost unbroken line of deficits it is unlikely that Congress will rise to the occasion and end borrowing on its own. Suggesting that the United States needs budget-balancing regulations, possibly at the constitutional level, this paper explores two types of balanced-budget measures: deficit-elimination and debt-capping.

**Keywords:** Budget Deficit, US Treasury Bonds, Budget-Balancing Regulation, Budget Deficit Elimination, Debt-Capping

## 1. INTRODUCTION

For almost half a century the government of the United States has been amending tax revenue with borrowed money in order to cover its expenditures. The long line of deficits was briefly interrupted in the late 1990s but resumed with the Millennium recession. The federal debt has doubled under the Obama administration and leading forecasters predict that annual deficits will continue to build up the debt over the next ten years.

The United States is not the only country with a chronic deficit problem. The euro zone, taken together, has run deficits for at least 20 years. For example, since 1995:

- Germany has only had four years with budget surpluses;
- France, with not a single year of budget surplus, has borrowed 65bn euros on average;
- Italy has borrowed an average of 47bn euros annually;
- Despite three years with budget surpluses (2006-2008) the Spanish government has accumulated 734.9bn euros of debt.

Of all 28 member states of the European Union, only four have, on average, run budget surpluses over the past 20 years. There, just like in the United States, budget deficits have de facto become a permanent, third source of government funding, in addition to taxes and fees.

However, the U.S. deficit problem stands out for two reasons: it is now half-a-century old, with no sign of ending; and the U.S. government is the largest issuer of treasury bonds in the world. Negative consequences from borrowing therefore emanate from the United States, whose annual borrowing of \$500bn per year affect not only the domestic economy but also the rest of the world.

Historically, government debt, especially when issued by the U.S. Treasury, has been a secure investment. That is no longer the case. Not only did the United States suffer two credit downgrades early

on in the Great Recession, but the federal government has also failed to regain perfect credit. This means that for the first time in history, the United States will enter a recession with less than perfect credit.

This is an unprecedented situation for financial investors and macroeconomic analysts to consider. It also presents legislators in Congress, as well as the next President, with a new and far more difficult budget situation when the next recession hits. Once the budget deficit starts to increase as a result of the recession, it will not take long before interest rates start rising and questions are again raised about the credit worthiness of the U.S. government.

At that point, Congress will be faced with a new, and dire fiscal situation. It is entirely possible that for the first time in history global financial markets will dictate fiscal priorities in the world's largest economy. So far such strait jackets have only been placed on smaller economies, such as Greece, but that may well change in the next recession, unless the U.S. government radically changes its budget policies.

The question at hand is: should the United States adopt a balanced-budget amendment to its Constitution?

## 2. DEFICITS, THEORY AND REALITY

Economists have been debating balanced-budget regulations since at least the 1950s. The debate gained momentum during the Reagan administration and the comparatively large deficits during Reagan's first term. In the 1990s the discussion about statutes or constitutional measures to mandate budget balancing rose to prominence in Europe, primarily because of Article 104c in the Maastricht Treaty which mandated a cap on national budget deficits at three percent of GDP. Together with its 60-percent-of-GDP debt cap the Article came to be a cornerstone in European fiscal policy (Buiter et al

1993; see also Ahtiala 2000 and Gali and Perotti 2003 for analyses of policy implications).

The European fiscal-union experience, which Goldstein (1992) and Feldstein (1993) predicted would be problematic, and its budget-balancing efforts in particular, critically examined by Pasinetti (1998), Prskawetz et al (1998) and Polasek and Amplatz (2003), raise two serious questions. The first pertains to the theoretical foundation of balanced-budget constitutional amendments, and the second question focuses on the realism in amending the U.S. constitution for the purposes of budget balancing. Economic theory generally supports the idea of a balanced budget, though the design of the regulation itself plays a crucial role for its success.

Generally, economic theory suggests that persistent government borrowing is harmful to the economy. Standard macroeconomics, based on the so-called IS-LM model, associates budget deficits with a so called "crowding out" of private investments. Endogenous-money theorists have disputed this (Moore 1988) while monetarists link high levels of borrowing to high inflation. In Austrian theory, persistent borrowing distorts intertemporal assessments of risk and investments.

Modern Keynesianism is unequivocally friendly toward deficits. However, Keynes himself was vague on the virtues and vices of deficits. The only time when a deficit is clearly virtuous is when government spending generates enough new macroeconomic activity to pay for the costs of borrowing. Keynes firmly believed that this was always the case in a depression, such as the one of 1929-1933.

Assuming that the protracted economic crisis in Europe, and the sharp decline in macroeconomic activity in the United States in 2008-2011, are interpreted as signs of a macroeconomic depression, Keynesian theory would suggest that current deficits are the results of appropriate fiscal policies. This point, however, has been challenged by others who give the financial system a prominent role in explaining depressions in general, and the Great Depression in particular. Friedman and Schwartz (1963) provide a general outline of this argument. Bernanke (1983) explains in detail how a troubled financial industry can escalate a recession into a protracted economic crisis.

Bernanke suggests that a depression can be caused by a combination of lost faith in financial institutions and a surge in debtor insolvency. His argument helps explain why deficit spending can continue over an extended period of time without having notably positive effects on the economy. A collapse of faith in financial institutions leads to a decline in liquidity of the banking system, which in turn dramatically raises the bank default risk. At the same time, a rise in debtor insolvency sharply raises the bar for financial institutions in stopping credit losses that, in turn, can destroy public faith in them. This creates a vicious, downward spiral against which Keynesian deficit-spending measures are inadequate.

Public trust in financial institutions is not restored by increased government spending or tax cuts. While it is distinctly possible that government deficit spending can help stem, even turn around, debtor insolvency, Bernanke's financial-crisis

argument clearly restricts the scope of Keynesian policies in protracted economic crises.<sup>20</sup>

Empirically, the argument over the positive and negative effects of deficit spending is settled by the long-term effect that deficits have on the economy. More specifically: if the pro-deficit argument is to hold firm, then deficits must at least correlate positively with economic growth. By contrast, arguments against sustained deficits are valid if, as a minimum condition, sustained deficits correlate negatively with economic growth.

In a literature review for the National Tax Journal, Gale and Orzag (2003) find that:

First, all other things equal, deficits reduce national saving and future national income, even if international capital inflow avert an increase in interest rates. Second, the recent fiscal deterioration implies significant declines in future national income.

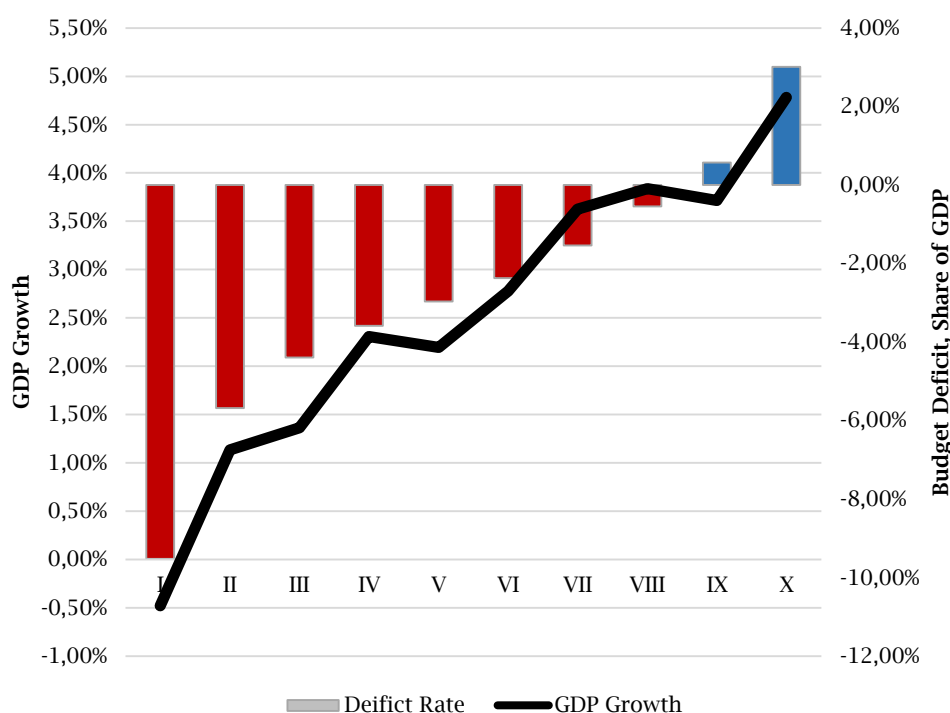
Figure 1 seems to confirm their results. It reports data for GDP growth and budget deficits from all 28 EU member states, most of them covering the period 1995-2015. A total of 546 pairs of observations (GDP growth and a budget deficit or surplus as share of GDP) are organized into deciles by the size of the deficit as share of GDP. The largest observed deficits are in Decile I, with deficits shrinking until in the last two deciles the deficit is replaced with a surplus.

The black function represents average GDP growth per decile. The strong correlation between growth and deficits does not in itself constitute a reason to declare causality. However, it is reasonable to assume that a causal relationship exists. Its meaning from a governance viewpoint is that over time, lax budget policies lead to slow economic growth.

A corresponding conclusion is that the policies that balance the budget would increase growth compared to policies that lead to persistent deficits. However, this does not automatically imply that a balanced-budget amendment is the right kind of regulation for the United States to adopt. As the European experience shows, a constitutional mandate to cap deficits and debt is not the magic wand that perhaps many thought it was when Article 104c was written.

Member states of the European Union have in fact been notoriously weak on budget balancing. In addition to the aforementioned examples it is worth noticing that in 2006, at the top of the growth period between two recessions, 18 member states ran deficits. Six of those countries had deficits in excess of the three-percent cap.

<sup>20</sup> As Bernanke points out, debtor insolvency is caused, at the macroeconomic level, by a decline in debtors' income-to-debt ratio. His argument is consistent with the Keynes effect, opening his theory for the possibility that non-fiscal measures to save financial institutions can be combined with fiscal measures relying on deficits to restore debtor solvency. However, the scope for Keynesian policies within the framework of Bernanke's contribution has not been firmly established in the macroeconomic literature.

**Figure 1. GDP Growth and Budget Balancing in the European Union**

Source: Eurostat.

The sustained nature of deficits in Europe and the United States is a new phenomenon by historic standards, suggesting that these deficits are structural in nature (Larson 2014, chapters 4a and 4b). During the first 20-30 years after World War II deficits were predominantly cyclical. Generally, deficits confined to recessions do not constitute long-term problems for governments; structural deficits, which by definition prevail over at least a full business cycle, lead to a permanent build-up of government debt.

As many countries experienced during the early years of the most recent recession, structural deficits and the resulting, sustained build-up of debt negatively affect government credit rating. Interest rates rise, sometimes sharply, driving up the cost of government borrowing. In response, legislatures tend to shorten the decision horizon for fiscal policy measures, which in turn can lead to macroeconomic instability (Larson 2002). Instead of focusing on longer-term measures, legislatures change spending and taxes with the hope to immediately affect interest rates and the government cost of borrowing.

The question of whether or not budget-balancing regulations can be effective against budget deficits should be approached in the context of the distinction between cyclical and structural deficits. As the following section indicates, not all research takes this distinction into consideration, one reason being that the prevalence of structural deficits is a comparatively new phenomenon.

### 3. TYPES OF BUDGET-BALANCE REGULATIONS

The debate over a balanced U.S. budget is old, with Stigler (1947) probably being the first to mention the issue in the modern context. The issue was revived

in the 1970s (Burns 1979), and one of the first formal proposals for a balanced-budget amendment was introduced in 1984. This proposal sparked an intense debate (Suits et al 1985; Thomas 1985) and since then at least a dozen different regulatory measures have been introduced in Congress with the purpose of forcing an end to budget deficits. Report Saturno and Lynch (2011):

For more than six decades, Congress has shown an interest in a balanced budget requirement. Because balanced budget proposals are often in the form of proposed constitutional amendments, which are under the jurisdiction of the House and Senate Judiciary Committees, these committees have been in the forefront of the debate. ... [The] Senate Committee on the Judiciary has conducted hearings on balanced budget amendments on at least 23 days extending back to the 84<sup>th</sup> Congress. It also reported nine joint resolutions between the 97<sup>th</sup> and 105<sup>th</sup> Congresses. The House has held hearings less often, but its Members have considered balanced budget constitutional amendments on seven separate occasions: in the 97<sup>th</sup>, 101<sup>st</sup>, 102<sup>nd</sup>, 103<sup>rd</sup>, 104<sup>th</sup>, 105<sup>th</sup> and 112<sup>th</sup> Congresses.

In order to conclude whether or not a balanced-budget amendment is in the economic interest of the United States, a closer examination is necessary. More specifically, that examination would have to concentrate on the potential economic consequences of the regulatory measure. This section suggests an evaluation method for the impact of balanced-budget requirements on the economy. The premise is that of Figure 1, namely that balanced budgets over time are associated with higher rates of growth than sustained deficits.

The economic merits of a balanced budget are well laid out in many contributions, academic as well

as public policy (Mitchell 1993). The differences tend to be concentrated on what type of regulation is used to end deficits and over time maintain budget balance. They also differ in terms of how easily they can be used in practice, e.g., with reference to deficit forecasting (Ormerod 2010).

There are two types of regulations: "deficit elimination" and "debt cap".

The first type: Deficit Elimination. Put simply, the balanced-budget regulations that fall into this category force the legislature to balance the government budget annually. The criticism of this type of regulation is primarily based on macroeconomic performance, suggesting that it could amplify business cycles swings, destabilize the economy and depress economic activity over time. Aaron (1994) voices this criticism: few policies are better calculated to turn economic shocks into major calamities than a balanced budget requirement. One need not be a primitive Keynesian to believe that a requirement forcing tax increases or spending cuts to balance the budget in the middle of a recession could be catastrophic.

Aaron's criticism is valid with reference to budget deficits caused by the business cycle. Others amplify his criticism: Schmitt-Grohe and Uribe (1997) explain that a balanced budget amendment will amplify business cycle swings if income taxes dominate government revenue. They recommend that a balanced-budget amendment...should be combined either with restrictions on the government's ability to change tax rates in response to innovations in the state of the economy or with a reduction in the level of income tax rates currently in place.

The implication for the design of a balanced-budget regulatory measure is that it will destabilize the economy unless it couples a budget-balancing mandate with Laffer-friendly tax reform. Giannitsarou (2007) specifically suggests that budget balancing is facilitated by a shift in tax base from income taxes to consumption taxes.

In conclusion, if a balanced-budget regulatory measure is coupled with consumption-tax reform it is likely that it will not destabilize the economy as Aaron suggests.

While the tax-reform component can alleviate or even eliminate the destabilizing effects, a balanced-budget regulation that eliminates annual deficits cannot sustain without such reforms. This presents legislators with a delicate problem, namely that the effort needed to pass a balanced-budget regulation in itself can be exhaustive. Adding comprehensive tax reform can become prohibitively expensive in terms of the necessary legislative workload.

This problem is particularly important in the United States, where the federal government gets 80 percent of its tax revenue from personal incomes. While there have been many suggestions over the years of a consumption-tax reform, no such reforms have gained traction in Congress. It is unlikely that it would have a better chance if coupled with a balanced-budget regulatory measure. To further raise the bar, tax reform combined with a constitutional balanced-budget amendment is probably the least likely way to impose anti-deficit regulations on the Congressional budget process.

There is, however, an alternative form of balanced-budget regulation that does not run the

risk of destabilizing business cycles. Therefore, it is not in need of major tax reform to work. That, however, does not mean it can be applied entirely without reforms to the existing tax system.

The Second Type: A Debt Cap. The key regulatory measure here is not the deficit itself but the debt. Several versions of the debt-cap measure have already been proposed (Larson and Schломach 2013), but only one has so far been implemented. Called the Swiss Debt Brake, it focuses primarily on the non-cyclical, i.e., structural part of the deficit in Switzerland (Geier 2011). By focusing on the long-term debt outlook rather than the short-term or annual ebbs and flows, the debt brake allows the economy to move through a business cycle without disruptive fiscal-policy incursions.

The debt brake goes into effect when the deficit does not fully go away over one business cycle. Since it was introduced in 2003 it appears to have worked as intended. Beljean and Geier (2013) present evidence suggesting that the brake has ended a long period of sustained government deficits. However, it is worth keeping in mind that since the brake has only been in place for a decade, it has effectively only been applied to one business cycle. This fact together with the forecasting issues reported by Beljean and Geier implies some caution in concluding that the brake has been an unmitigated success.

There is some disagreement over this in the literature. Explains Mitchell (2012):

The reform, called a "debt brake" in Switzerland, has been very successful. Before the law went into effect in 2003, government spending was expanding by an average of 4.3% per year. Since then it's increased by only 2.6% annually. The Swiss debt brake does not require a balanced budget in the traditional sense. Tax receipts, as we know from the American experience, tend to increase rapidly when the economy is doing well and fall off when the economy stumbles. To smooth out the ups and downs, Switzerland's debt brake limits spending growth to average revenue increases over a multiyear period (as calculated by the Swiss Federal Department of Finance). This feature appeals to Keynesians, who like deficit spending when the economy stumbles and tax revenues dip. But it appeals to proponents of good fiscal policy, because politicians aren't able to boost spending when the economy is doing well and the Treasury is flush with cash.

The Swiss economy has produced some key evidence supporting Mitchell's conclusion. It appears to be the case that GDP growth has not suffered from the implementation of the debt brake. The Swiss economy grew faster in the first decade after the brake went into effect than in the decade immediately preceding its enactment:

**Table 1.** GDP Growth in Switzerland and the United States

	1994-2003	2004-2013
Switzerland	1.35%	2.07%
United States	3.38%	1.72%

Source: (Eurostat; 2005 chained euros)

These numbers corroborate the correlation reported in Figure 1 above. Together with the general experience from the Swiss Debt Brake this suggests that a measure for budget balancing that targets the debt, as opposed to the annual deficit, and focuses on the structural debt, can be positive for macroeconomic activity.

Does this mean that the debt brake is suitable for the United States? The answer to that question requires a more detailed analysis of the brake's mechanics in a macroeconomic context.

### 3.1 Debt Brake Mechanics: The Spending Restriction

As Mitchell (2012) explains, the debt brake is not a spending brake or spending restriction per se. However, it makes structural government spending the independent variable:

$$\bar{G} = \frac{Y^*}{Y} tY \quad (1)$$

where:

$\bar{G}$  = structurally constant government spending;

$Y^*$  = trend real output;

$Y$  = actual real output;

$tY$  = total actual tax revenue where  $t$  is the aggregate tax rate.

Geier (2011) explains the design:

The debt brake is a structural deficit rule that limits expenditures to the amount of structural (or cyclically adjusted) revenues. The amount of annual federal government expenditures has a cap, which is calculated as a function of revenues and the position of the economy in the business cycle. It is thus aimed at keeping total federal government expenditures relatively independent of cyclical variations, whereas tax revenues are supposed to act as automatic stabilizers.

In practice, this means keeping government spending constant at the level  $\bar{G}$ . In recessions  $Y$  falls short of  $Y^*$ ; if the output gap ratio is in the right proportion to tax revenues, then the decline in tax revenue, inevitable during a recession, will still allow for the structural spending to continue. Likewise, in a growth period when actual output exceeds trend output and tax revenue is higher than trend, spending is maintained so long as the growth rate balances excess revenue.

Numerically, suppose trend output is \$10,000 and spending is \$2,000. The tax rate has been set to assure a balanced budget over time, hence  $t=20$  percent. In a recession, actual output is \$8,000:

$$2000 = \frac{10000}{8000} 1600 \quad (2a)$$

The budget is now \$400 in deficit as government spending is at its structural level. This deficit is made up for in the following growth period when actual output rises to \$12,000. As a result, tax revenue increases to \$2,400:

$$2000 = \frac{10000}{12000} 2400 \quad (2b)$$

There will be no change in the debt, either increase or decrease, provided that three conditions are met: the business cycle condition, the tax condition and the spending condition.

### 3.2 Debt-Brake Mechanics: The Business-Cycle Condition

One of the problems with the Debt Brake is that it relies on a specific sequencing of the business cycle: the growth period and the recession must be about equal in length. If not, the cyclical deficit will not go away. In the numerical example above, the equal length of the recession and the growth period guarantees that the \$800 deficit from the recession is canceled out exactly by the surplus during the growth period. If on the other hand the recession is twice as long as the growth period, then in order to avoid an increase in the debt the output gap must be half of the excess output during the growth period.

While there is historic precedent for symmetrical business cycle, neither macroeconomic theory nor experience prescribes any symmetry for the future. Furthermore, the recession that began in 2008 has proven to be the exact opposite of the recessions in the early 1990s and at the turn of the Millennium: long and deep.

Changes to the business cycle imply structural changes of the economy. In order to remain valid over time, therefore, the debt brake has to incorporate a definition of trend output that accommodates structural changes. As defined, the debt brake does not automatically do so. There is some acknowledgement of this in the literature, with Geier (2011) conceding that GDP does not behave as mainstream Keynesian theory predicts, but may in fact follow a path more in line with Real Business Cycle theory.

There is at least a partial accommodation mechanism in the debt brake for irregular changes to GDP. Deviations in the budget balance are credited (or debited) in a so-called compensation account. However, it can only work as a buffer toward temporary deviations in the budget balance, especially on the deficit side. In order to meet sustained asymmetries between surpluses and deficits, the debt brake must be equipped with an adjustment mechanism for trend output.

### 3.3 Debt Brake Mechanics: The Taxation Condition

The second condition for the debt brake to work puts three requirements on taxes:

a) Taxes must remain unchanged through the business cycle. Changes to tax rates distort the relation between trend output and actual output: a rise in taxes compensates for an output gap in a recession while a tax cut serves the same purpose in a growth period. While the Swiss constitution makes it difficult for the legislature to change taxes in general, the same is not true for the United States. This is an element of the debt brake that cannot be directly applied to U.S. conditions. It suggests instead that some moderate tax reform may be needed.

b) Tax rates are set to guarantee an *a priori* balanced budget over a business cycle. If that were not the case, there would be constant payments into, and out of, the compensation account. Therefore, in

order to reduce the use of the compensation account to an exception to regular fiscal policy, taxes must be set to guarantee a budget in balance at the beginning of the first fiscal year of a new business cycle.

c) Taxes must be designed to automatically stabilize the business cycle (Geier 2011, p. 12). For this to happen, tax rates must be designed so that they moderate economic activity during growth periods while stimulating GDP in recessions. This can only be done if there are progressive taxes on income, private consumption or business investments; progressive consumption and investment taxes are extremely impractical, leaving the stabilization job to taxes on individual and corporate income.

A flat income tax increases tax revenue together with an increase in income, but it is neutral in terms of the amount a person or a business makes. Therefore, while increasing government revenue relative constant government spending it does not dampen an increase in consumption following a rise in income.

By contrast, a progressive income tax increases the amount government takes out of the next dollar earned, flattening out consumer spending. During a recession, as incomes fall taxpayers are moved to lower tax brackets, having more money to spend of every earned dollar. Private sector spending increases, helping bring the recession to an end.

Progressive income taxes serve two economic purposes that other tax models do not. One is to moderate business cycle swings, the other is to redistribute income between citizens. While the Swiss debt brake only relies on the former, it gets the latter in the bargain; the two purposes are de facto inseparable.

### 3.4 Debt-Brake Mechanics: The Spending Condition

Structural spending is the independent variable in the Swiss debt brake. This means that the model is set up to balance the government budget while maintaining a constant level of spending over more than one business cycle. However, the condition of structurally constant spending holds if and only if trend GDP is constant. Returning to the numerical example from above, suppose the economy starts out at trend output:

$$\text{In year 1, } 2000 = \frac{10000}{10000} 2000$$

Structural government spending is not \$2,000 strictly - it is 20 percent of trend output. This follows from the second requirement on taxes reported above. Therefore, it remains at \$2,000 for as long as trend output is \$10,000.

Suppose that there is an increase in exports, followed by a rise in corporate investments. Gross Domestic Product increases above trend:

$$\text{In year 2, } 2000 = \frac{10000}{12000} 2400$$

The increase in exports and investments are permanent, raising GDP to a new, higher trend level. A proportionate expansion of government spending follows:

$$\text{In year 3, } 2400 = \frac{12000}{12000} 2400$$

In a growing economy where tax rates remain constant over time, the Swiss debt brake necessitates growth in government spending on par with growth in private sector spending. If spending remains constant as trend output increases, the debt brake mandates deposits of excess tax revenues into the compensation account. These deposits would become permanent unless structural spending grew with trend output. Since deposits and withdrawals from the compensation account are supposed to be exceptions to the normal situation with a balanced budget, structural spending must grow with trend output.

To be clear, the debt brake also mandates a reduction in structural spending if trend output drops.

## 4. CONCLUSION

As structural deficits have come to replace cyclical deficits as the dominant kind of fiscal shortfall, credit has de facto become a permanent funding source for government funding. Given that borrowed money is an unsustainable funding source, the question is what measures are needed to end budget deficits. While the European Union has failed in applying a constitutional budget-balancing measure, Switzerland has had some success using a regulatory measure focused on the debt instead of the deficit. While the experience is not unequivocally positive, it is promising enough to be a good example for what type of budget-balancing regulation the United States could have use for.

To the extent that the Swiss Debt Brake would become a serious contender for the United States, it needs modifications primarily in the form of moderate changes to the tax system. This, together with the general reluctance to make constitutional amendments, raises questions about the legislative implementation of the debt brake. This breaks down the implementation to policy and economic priorities, where a functioning regulatory mechanism is of highest priority. If it can function at the statutory level, instead of as a constitutional amendment, and if the path to enactment is shorter, then that is preferable. However, if the enforcement mechanisms are such that it can only work effectively at the constitutional level, then the American economy may have to wait yet another few years for the amendment process to work.

Should Congress manage to pass and comply with an adapted version of the Swiss debt brake, it is reasonable to expect improvements in at least three areas of the U.S. economy. First, as the research cited early in this paper indicates, the elimination of permanent deficits should open for stronger economic growth. As an indication of the potential macroeconomic gains, a real growth rate of three percent as opposed to two percent over a period of ten years would add more than \$2.3 trillion in annual economic activity to the U.S. GDP.

Secondly, the combination of a balanced budget and stronger growth would ease the burden on monetary policy. Although the Federal Reserve has been reluctant to admit as much, they have de facto monetized U.S. debt since at least 2009. Over time this raises questions about the value of the dollar

and future inflation. With no more need for monetization the Federal Reserve can narrow its focus to more traditional monetary policy goals.

Third, a long-term balance in the U.S. government budget will lead to a restoration of the country's credit rating. Over time this has positive effects on foreign direct investment and financial stability. It also contributes to low interest rates in a monetary-policy environment without Quantitative Easing and other expansionary money-supply programs.

Further macroeconomic research is needed to explain in more detail what the effects would be on the U.S. economy from the application of the Swiss debt brake. From an institutional research viewpoint, further investigation is needed into the potentials and pitfalls with such a budget-balancing measure with regard to the U.S. federal structure. Approximately 40 percent of total government spending in the United States takes place at the state and local levels, which would not be affected by a federal balanced-budget measure. While almost all states have their own balanced-budget regulations, there is limited if any coordination of fiscal policy between the levels of government. Given the fiscal ties between the federal government and the states, with federal funds paying for almost a third of state expenditures, more research is needed on how those fiscal ties would affect state spending and state fiscal independence, if at all.

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