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Swedish and Swiss Fiscal-Rule Outcomes Contain Key Lessons for the United States

JOHN MERRIFIELD AND BARRY POULSON

Recent U.S. fiscal policy has created deficits and accumulated debt at an unprecedented rate. In contrast, during the same period a number of other economically advanced countries have pursued policies that have reduced deficits and the ratio of debt to gross domestic product (GDP) (Alesina and Ardagna 1998, 2010, 2013; Gobbin and Van Aarle 2001). In these countries, a key factor has been the adoption of new fiscal rules (Organization for Economic Cooperation and Development 2012, 2014). Some of these rules set limits on deficits and debt levels, and others require greater transparency and accountability for fiscal policies. The specific limits typically require structural balance aimed at preventing the accumulation of debt over the business cycle while providing exceptions for extraordinary or emergency expenditures. The most stringent new rules mandate a budget surplus over the business cycle to reduce the debt-to-GDP ratio in the medium term so that pension and health plans can be funded in the long term. Some countries have been able to significantly reduce government spending as a share of GDP and in some cases also to reduce tax burdens (Organization for Economic Cooperation and Development 2012, 2014).

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The Organization for Economic Cooperation and Development (OECD) countries that have launched the new era of fiscal rules have done so to impose fiscal discipline, stabilize budgets, and accelerate economic growth (OECD 2014). But the growing belief that expansion of government is responsible for long-term widening of the variance of economic growth rates in European countries and the United States (for a survey of this literature, see Bergh and Henrekson 2011) is the more fundamental reason for increased interest in improved fiscal discipline. Andreas Bergh and Magnus Henrekson (2011) estimated that, with government size equal to total taxes or expenditure relative to GDP, a 10 percentage point rise in government size lowers the annual growth rate by 0.5 to 1 percent.

In this study, we assess fiscal consolidation and fiscal rules in Switzerland and Sweden, arguably the most effective fiscal rules in OECD countries. The Swiss debt brake continues to have a broad consensus of support in both the government and the electorate. However, support for Sweden's expenditure limit appears to be eroding, and criticism focuses on both the design and implementation of the expenditure limit. The experience in these two countries provides important fiscal-rule design and implementation lessons for other countries, including the United States.

A Public-Choice Framework

The public-choice literature provides several explanations for a deficit bias and high levels of expenditure and taxation in fiscal policy (Persson and Tabellini 2000). A deficit bias exists if over the long run the debt-to-GDP ratio rises, as has occurred in many high-deficit/debt countries (Bohn 1998; Wyplosz 2005, 2012).

Common-Pool Problems

Intra- and intertemporal common-pool problems (Wyplosz 2012) underlie democratic societies' deficit bias. The "common pool" is the revenue generated by a given tax base. The principal–agent theory in public-choice economics identifies several problems that could lead to a deficit bias as elected officials, or the agents, represent the principals, or the taxpaying citizens. In the absence of an ex ante spending cap or coordinated decision making, the principal–agent problem and prisoner's dilemma circumstances yield fiscal outcomes other than the social optimum (Buchanan and Wagner 1977; Mueller 2003; Wagner 2012). The key underlying dynamic is that independent self-denial in a commons is not reciprocated. So elected officials increase spending because other elected officials are not constrained from doing so. Fiscal rules can be designed to escape this prisoner's dilemma by requiring agreement on a budget constraint at the outset of the budget process. If a deficit bias exists only because of a coordination problem, we expect that elected officials would have an incentive to voluntarily design and implement such a fiscal rule.

When legislators make decisions on expenditures, they respond to the benefits and costs to their constituents. Their constituents almost invariably represent only

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part of the whole group that will bear the cost, however. A deficit bias exists because legislators take into account the full benefits of expenditures to constituents and not the full cost to the extent that these costs are shifted to non-constituents. Of increasing importance in the United States is the rise in the share of citizens who pay no taxes but who benefit from increased government spending. This situation has shifted the balance of power from citizens who pay taxes to those who pay no taxes. Fiscal rules can be designed so that legislators must take into account the full tax implications of their decisions, which can reduce spending.

An alternative common-pool problem can arise when elected officials' spending preferences differ from their constituents' preferences (Alesina and Perotti 1995, 2004; Persson and Tabellini 2000; Wyplosz 2012). There are a number of reasons why elected officials may prefer higher levels of spending than the citizens they represent. Because the benefits of the higher spending can be concentrated on especially powerful special interests, whereas the costs of increased taxes and debt are spread over a larger group of citizens, self-interested elected officials may believe that a higher level of spending increases their chances of staying in office (Rowley, Shughart, and Tollison 1986; Poulson and Kaplan 1994). Elected officials may also respond to pressure for higher spending from bureaucrats who wish to maximize their agencies' budgets (Niskanen 1971). Naturally, such private and bureaucratic rent seekers will oppose fiscal rules that limit the growth of the common pool.

An intertemporal common-pool problem can occur when elected officials make tax and spending decisions that impact citizens after the officials have left office. Elected officials with a limited time in office face a moral hazard in the form of incentives to increase spending that benefits their constituents in the short run but to ignore the adverse effects of higher spending and debt on future generations. Depending on the principal–agent connection, policy makers may agree to fiscal rules that can provide the political cover to resist the rent-seeking pressures, or they may pretend to enact meaningful rules to deflect criticism of spending growth to create political cover for kowtowing to the rent seekers.

Another common-pool problem exists if the central government rescues fiscally profligate local governments (Alesina, Angelino, and Etro 2001; Krogstrup and Wyplosz 2010). Unless the central government seizes control over the local fiscal policy making, local deficit bias creates instability in central-government fiscal policy. Conversely, the unfunded-mandate temptation is a source of local fiscal instability. Central-government policy makers can gain politically from the mandated services by shifting the mandate costs to local taxpayers.

Time Inconsistency

Time inconsistency can undermine fiscal rules. Changing circumstances can make fiscal rules obsolete (Wyplosz 2012), or the consensus that supported enactment of the fiscal rules may not survive a change in circumstances. The challenge is to

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design and implement fiscal rules that are strong enough to address a deficit bias but flexible enough to adjust to changing circumstances and a changing consensus in support of the fiscal rules over time.

Time-inconsistency issues affect how fiscal rules attack deficits and stabilize the budget over the business cycle. The circumstances that yield cyclical deficits are somewhat predictable, so rules that aim to match deficits and surpluses over the cycle may be appropriate. But the causes and size of business cycles vary. For example, the financial crisis that triggered the Great Recession and that recession's magnitude were unpredictable. To be effective, fiscal rules must be flexible enough to address such surprises. For example, the rules could provide for countercyclical expenditures to partially offset revenue shortfalls, or they could create an emergency fund that can support financial institutions in crisis periods. An escape clause can provide for deficit spending in excess of deficit limits in a period of sharp economic contraction. In the absence of appropriate contingency provisions, support for the rules may erode enough to allow selective or wholesale evasion.

The issue of time inconsistency is even more important in designing and implementing fiscal rules for a sustainable fiscal policy in the long run (Wyplosz 2012). Fiscal rules must be stringent enough so that, despite periodic costly contingency spending, they still reduce intolerably high debt-to-GDP ratios in the long run. That is especially challenging in a now typical OECD country that faces especially strong public-pension and health-care cost pressures because of an aging population.

Fiscal Crises and Fiscal Rules

A fiscal crisis may alter the spending preferences of principal and agent (Wyplosz 2012). The instability created by a discontinuous rise in deficits and accumulation of debt will usually raise risk premiums and perhaps cause debt defaults. Citizens and elected officials may then agree on fiscal-rule revisions that will reduce deficits and debt accumulation. Even when there is a principal–agent problem in which elected officials prefer higher levels of spending than citizens, crises may yield fiscal-rule revisions motivated by the desire to preserve as much of the rent-seeking game as possible. Crisis-driven pressure to act appears to be the key reason why some OECD countries have adopted substantive fiscal-rule revisions. In this study, we focus on Swiss and Swedish fiscal rules that originated in fiscal crises in the late 1980s and early 1990s. (For the literature on Switzerland, see Danninger 2002; Geier 2011, 2012; Bruchez and Schlaffer 2012; Baur, Bruchez, and Schlaffer 2013; Beljean and Geier 2013; Kirchgassner 2013; Siegenthaler 2013. For the literature on Sweden, see Lindh and Ljungman 2007; Boije and Kainelainen 2011; Brusewitz and Lindh 2011; T. Andersen 2013.)

Building a consensus in support of fiscal rules to address long-term sustainability in fiscal policies involves different principal–agent problems. Intergenerational conflict results because the benefits of such fiscal rules accrue to future

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beneficiaries of public-pension and retiree health plans, but the current generation loses services.

Because design and implementation of fiscal rules to offset cyclical deficits and stabilization of the debt-to-GDP ratio in the long term usually requires a combination of rules (Debrun, Epstein, and Symansky 2008; Debrun and Kuma 2008; Debrun et al. 2008; Debrun 2015), we focus on fiscal-rule combinations. Certainly, the effect of each specific rule depends on other fiscal rules and the unique political institutions in each country.

Fiscal Rules Emerge to Anchor Fiscal Policy

In recent years, expenditure rules have been the focus of rules-based approaches to fiscal policy at both the national and supranational level (Ayuso-i-Casals 2012; International Monetary Fund 2014, 2015; Cordes et al. 2015; Debrun 2015). Expenditure rules have proven to be the most effective anchor for a sound public financial-management system. In combination with other fiscal rules, such as balanced-budget rules, expenditure rules align annual budget pressures and long-term fiscal goals. Legally binding ex ante limits on appropriations maximize rule enforceability. Thus, expenditure rules serve as an anchor for medium-term budget frameworks.

Possible expenditure rules include specific numerical targets fixed in legislation and expenditure ceilings for which targets can be revised. However, in the latter case the authorities may have to adjust the targets periodically so that the rules continue to provide a basis for fiscal restraint. That insight is especially important for countries such as the United States, where expenditure ceilings have been modified so often that they do not qualify as expenditure rules.

Expenditure rules at the national level usually target real or nominal expenditure. The target may be defined with reference to total expenditure, expenditure as a share of GDP, or the rate of growth of expenditures. At the state level, there is greater diversity in the targets for expenditure rules. Most states use state income growth as the expenditure limit. However, some states use population growth plus inflation as the basis for their expenditure limits.

The Political Economy of the Swiss and Swedish Fiscal Rules

The Swiss Debt Brake

The Swiss debt brake (SDB) originated in response to sharp increases in deficits and debt during the recessions of the late 1980s and early 1990s (Geier 2011, 2012; Beljean and Geier 2013; Kirchgassner 2013; Siegenthaler 2013). The experience with "debt brakes" at the cantonal level set the precedent for new fiscal rules at the national level in 1995. In 2001, Switzerland introduced a constitutional budget target to eliminate the structural budget deficit. Having been adopted in a referendum by

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85 percent of voters and all of the cantons, the SDB replaced the budget target in 2003 (Beljean and Geier 2013). The basic debt-brake formula is:

$$G_t^* = k_t R_t, \text{ with } k_t = Y_t^*/Y_t,$$

where G_t^* is the expenditures cap, k_t is a business-cycle adjustment factor, R_t is revenues, Y_t^* is trend real output, and Y_t is real output.

The debt brake requires that in any time period t the maximum expenditures G_t^* must equal revenues after multiplication by a business-cycle adjustment factor. The output gap—the ratio of trend real output (Y_t^*) to real output (Y_t)—determines the cyclically adjusted revenue. The Swiss use a Hodrick-Prescott filter[1] to calculate the trend real output.

If the Y_t^*/Y_t adjustment factor is greater than 1, a deficit is allowed. Otherwise, a surplus is required. Deviations from the spending limit result in a credit or debit to an account that provides a measure of the extent to which a cyclically balanced budget requirement is met. Deficits that are accrued when real output is less than trend real output must be offset by surpluses when real output exceeds trend real output. Deficits must be taken into account when setting the expenditures limit in following years. If the deficit exceeds 6 percent of expenditures, the excess must be eliminated over the next three budget cycles by lowering the spending limit.

The SDB has an escape clause that allows for spending more than permitted by cyclically adjusted revenues. An extraordinary budget exists separate from the primary budget. It functions much like a budget stabilization or "rainy day" fund. "Extraordinary budget" accumulations in years prior to the recent financial crisis were expended during the recession years. In those years, the rise in debt incurred due to "extraordinary budget" expenditures was more than offset by the surplus generated in the primary budget.

The SDB aims to maintain a stable trend in revenue and to stabilize expenditures around that revenue trend (Geier 2011, 2012), but it is not a cyclically adjusted budget-balance rule. The latter uses an adjustment factor equal to the ratio of potential output to actual output, which some analysts believe maintains aggregate demand at the full employment level. Although the SDB was not designed to keep aggregate demand at a full employment level, it has resulted in fiscal policies that are less pro-cyclical than the discretionary fiscal policies pursued in prior years.

The SDB required a fundamental change in the budget process. Before it was enacted, Switzerland had a traditional budget process in which the different ministries submitted proposed budgets to the Finance Ministry. There is an extensive literature on how bargaining in a coalition government creates an institutional bias toward deficits (see, e.g., von Hagen 1992; Kopits and Symansky 1998). A priority

1. "The Hodrick-Prescott filter is a mathematical tool used in macroeconomics, especially in real business cycle theory, to remove the cyclical component of a time series from raw data. It is used to obtain a smoothed-curve representation of a time series, one that is more sensitive to long-term than to short-term fluctuations" ("Hodrick-Prescott Filter" n.d.).

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budget process was introduced in which the expenditure ceiling is translated into expenditure targets for the individual ministries at the beginning of the budget process. Any change in the expenditure target for one government agency must be approved by the Parliament and offset by changes in spending for the other agencies to meet the expenditure ceiling.

After a decade of experience with the SDB, the Swiss Federal Council concluded that it had achieved the desired fiscal consolidation (Swiss Federal Department of Finance 2012, 2015). The government has not incurred a deficit since 2006. Gross debt as a share of GDP has fallen from higher than 60 percent to about 45 percent (OECD 2014, 292).

The Swedish Expenditure Limit

The origin of Sweden's fiscal rules can also be traced to a financial crisis in the early 1990s. An unprecedented rise in deficits and debt was seen as unsustainable, leading to the enactment of new fiscal rules over the period from 1997 to 2000. The new rules initially focused on priority budgeting and new voting procedures for approving budgets in Parliament. That step was followed by the development of expenditure rules. The Medium-Term Budgetary Framework set numerical targets (Boije and Kainelainen 2011; T. Andersen 2013). The original framework set a surplus target equal to 2 percent of GDP. After it was determined that a portion of the old-age pension system could be counted toward private savings, the surplus target was reduced to one percent in 2007.

The surplus target is taken into account in setting the expenditure ceiling. The surplus may deviate from the surplus target by one percent of GDP, which allows for a countercyclical fiscal policy. Expansionary fiscal policies that reduce the surplus in some years must be offset by contractionary fiscal policies that raise the surplus in other years (T. Andersen 2013). The Swedish government adopted the expenditure ceiling on a voluntary basis through 2009. Beginning in 2010, it had to propose an expenditure ceiling over a three-year budget period. The expenditure ceiling includes a buffer called the "budgetary margin," which gives the government the flexibility to fund expenditures for unforeseen cyclical factors and inflation and to meet the mandated one percent surplus target in the long run.

The expenditure ceiling applies to a comprehensive measure of government spending that includes expenditures for the pension system and grants to local governments. In 2000, a balanced-budget requirement was also imposed on local governments. The only expenditure excluded from the expenditure limit is interest on the public debt, which allows Sweden to finance investment expenditures with debt (T. Andersen 2013).

In the Swedish Medium-Term Budget Framework, the expenditure ceiling and surplus target are determined annually over a multiyear period. The fiscal rules are designed to achieve a structural balance over that time period (Boije and Kainelainen

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2011; T. Andersen 2013). Although a number of government agencies are involved in implementing the expenditure rule, a unique role is played by the Fiscal Policy Council established in 2007. The Fiscal Policy Council is a semiautonomous government agency similar to the Federal Reserve Board in the United States. The government appoints eight members to serve a three-year period. The council itself proposes new members, and the government has thus far accepted the proposed new members. The council has the responsibility of monitoring fiscal policy to assure that it is consistent with the expenditure ceiling and surplus targets. In addition to monitoring the fiscal rule, it has a broader mandate to assess macroeconomic conditions and macroeconomic policy in Sweden.

The Swedish Parliament's role in the budget process follows the top-down approach taken in Switzerland (Molander 2001; Mattson 2014). Parliament uses the approved budget to set spending limits in the different departments. The government does not need a majority vote in Parliament for the budget proposal. The budget is passed unless a majority in Parliament unites in support of an alternative budget proposal. In a coalition government, this system makes it easier for a minority government to pass the budget through Parliament.

The Swedes have adopted the Code of Conduct for Fiscal Policy (Boije and Kainelainen 2011). The Code of Conduct underscores the role of the Fiscal Policy Council as a "fiscal watchdog." When fiscal policy deviates from the expenditure ceiling and surplus targets established in the Medium-Term Budget Framework, the Fiscal Policy Council must report these deviations to the Parliament and make recommendations for appropriate corrective action. This process is especially important because the fiscal rules in Sweden do not require automatic corrective action as they do in Switzerland. Enforcement of fiscal rules in Sweden relies on reputational effects and the political risks to legislators when they choose to violate the fiscal rules.

Sweden designed its new fiscal rules to finance the generous pension and health benefits granted to its growing population of retirees. Through its fiscal-consolidation efforts, Sweden expects its debt-to-GDP ratio to fall to 10 percent by 2025. After that, increased entitlement spending is expected to raise the debt-to-GDP ratio and eventually to stabilize that ratio in 2050 at roughly the same level as that in 2000, lower than 50 percent (Lindh and Ljungman 2007; Brusewitz and Lindh 2011).

The success of the Swedish fiscal rules was even more dramatic than SDB in Switzerland. With the exception of a brief deficit in 2002, the central-government budget, including the social security sector, has achieved surpluses every year. Gross debt as a share of GDP has fallen from higher than 60 percent to about 48 percent (OECD 2014, 292). The government sector is now about the same size as that for other OECD countries. These fiscal policies enabled Sweden to respond to the recent financial crisis without much of the budget instability encountered in other OECD countries (T. Andersen 2013).

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Divergence between Switzerland and Sweden in Fiscal Policy and Fiscal Rules

The experience with fiscal rules in Switzerland and Sweden reveals the importance of political institutions and the budget process within which fiscal rules operate. Differences in political institutions help explain why interest groups seeking increased spending have successfully challenged fiscal rules in Sweden but not in Switzerland (Danninger 2002; T. Andersen 2013; Baur, Bruchez, and Schlaffer 2013; Beljean and Geier 2013; Kirchgassner 2013).

The consensus on fiscal rules has changed in Sweden but not in Switzerland (Duxbury 2014a, 2014b; Duxbury and Molin 2014; Mattson 2014; Molander 2014). In Sweden, the top income-tax rate (national plus local) is 60 percent. In the autumn of 2013, the minority government proposed a reduction in this top income-tax rate in a budget bill that had been approved by Parliament in accordance with budget law (Mattson 2014). Opposition parties disliked the government's proposal to cut taxes for high-income earners and proposed an amendment rescinding the tax cut. When this amendment was approved, it effectively undermined a budget process and fiscal rules that had been in place for two decades. The failure to reach an agreement on the budget was a major defeat for the minority government and was an important factor in the change of government in September 2014. The new Swedish government is not expected to constrain spending as governments in the past have (Duxbury 2014a, 2014b; Duxbury and Molin 2014; Mattson 2014; Molander 2014). When the ideological divide between parties in a coalition government widens, it is more difficult to credibly fix the targets set by a statutory expenditure rule.

There is an extensive literature on the bias toward deficit spending and debt in coalition governments (Hallerberg, Strauch, and von Hagen 2007; International Monetary Fund 2009; Hallerberg and Ylaoutinen 2010; Cordes et al. 2015). Both Switzerland and Sweden have relied on minority parties to form coalition governments in a parliamentary system. Both countries successfully enacted fiscal rules to diminish, if not eliminate, the bias toward deficit spending and debt in their coalition governments. But it is increasingly evident that the SDB has become a permanent part of the budget process, whereas the Swedish expenditure limit was a binding limit only during the life of the coalition government. Because both countries rely on coalition governments, the question is why there is a divergence in the durability of their fiscal rules.

Switzerland and Sweden took different approaches (B. Andersen and Minarak 2006; Lindh and Ljungman 2007; Boije and Kainelainen 2011; Brusewitz and Lindh 2011; T. Andersen 2013). Sweden incrementally enacted a set of fiscal rules designed to achieve multiple objectives. The need for frequent fine-tuning of the evolved set of complex, hard-to-implement rules invites reconsideration and facilitates sabotage. The simpler SDB did not arise incrementally.

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The SDB applies to total expenditures excluding social insurance funds, which account for about 25 percent of the federation budget (Bodmer 2006; Swiss Federal Department of Finance 2012; Beljean and Geier 2013). Based on the debt brake, Switzerland chose to address the long-term problems in social security as well as other age-related federal expenditures in legislation separate from the budget process. The assumption was that by eliminating deficits and stabilizing debt over time with growth of GDP and declining debt-to-GDP ratios, the government would be able to meet the demand for public services, including public pensions and retiree health plans.

Sweden's expenditure rules apply to total expenditures, including public pensions and retiree health plans. Further, the fiscal rules explicitly address the projected long-term costs of those plans. The rules sought a margin of surplus revenue in the near term. That surplus, although not explicitly earmarked for public pensions and retiree health plans, nonetheless was designed to address the long-term funding challenge of expected demographic change that would increase the demand for services provided by those plans. Sweden enacted some fundamental reforms in public-pension and retiree health-benefit plans to reduce the costs of the plans and the potential for higher debt linked to the plans in the long term. However, there was resistance to spending cuts and intergenerational conflict over rules that shift more of the cost of entitlement programs to the current generation.

Swedish interest groups in favor of increased spending may have seen the recent policy conflict on taxes as an opportunity to challenge Sweden's fiscal rules. Because Sweden's fiscal rules played a crucial role in the remarkably greater stability of the economy during the recent Great Recession, Swedes will probably continue to support the fiscal rules that require a cyclically balanced budget. But the more stringent fiscal rules mandating budget surpluses in the near term to reduce the debt-to-GDP ratio may wither or disappear.

Switzerland did not see a dramatic change in political control. Its less-aggressive approach to fiscal restraint could explain why the SDB continues to enjoy strong public support. Separate fiscal rules for public pensions and retiree health plans reduced the SDB's effectiveness as a fiscal restraint, but that separation made it easier to establish and sustain the political support for the SDB.

The key difference between Switzerland and Sweden—and, indeed, between Switzerland and all other OECD countries—is a vigorous federalist system that has evolved over centuries. The origin of the debt brake at the national level can be traced to successful debt brakes enacted at the canton level. Swiss citizens enacted the debt brake through a national referendum and incorporated the rule in their constitution to ensure that the rule would be effective in the long run.

The economic theory of rational expectations explains that the likely citizen response to larger deficits and debt accumulation is increased savings in anticipation of the higher future tax burden. In political economy, we can posit a theory of ultra-rational expectations. An alternative response to the potential for higher tax burdens

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is to prevent the government from persistently incurring deficits in the first place. Ultra-rational expectations would drive citizens to enact durable constitutional limits on deficits and debt. Switzerland's vigorous federalist system with direct democracy allows citizens to act more readily on their expectations. They can decide how much government they want and are willing to pay for, and then they can create fiscal rules to sustain that objective in the long run rather than see it suffer from the changing whims of successive coalition governments.

Peter Siegenthaler concludes that "decisive for the effectiveness of the 'debt brake' was certainly the overwhelming consent in the popular vote in 2001 with a majority of 85 percent" (2013, 137). He offers three lessons from SDB history:

> First, take profit of an adverse development in public finances. It is the right moment to find the necessary political support for a fiscal rule, which will in any case limit the discretionary scope of politics. Perhaps it is the noblest task of politics to construct intelligent rules.
>
> Second, you cannot expect to start the new rule-based world with a balanced budget. The ideal starting point will never come. Start and loosen the rule for the first few years of its implementation. But you have to fix clear limits for the allowed deficits.
>
> And third, look for the highest possible democratic legitimation. The Swiss direct democracy is in this respect a clear advantage. (137)

The prospects for the Swiss system are that the fiscal rules will continue to provide an effective constraint on spending required for fiscal consolidation.

The Political Economy of U.S. Fiscal Rules

The United States as a Major Debtor Nation

The United States has become a major debtor nation because of the fiscal-policy deterioration that began with the recession in 2001 (U.S. Congressional Budget Office 2015). Figure 1 shows how the debt-to-GDP ratio in the United States compares with the ratios in Switzerland, Sweden, the euro area, and OECD countries.

In the late 1990s, the United States briefly eliminated deficits and reduced the debt-to-GDP ratio. But since 2001 there has been a clear divergence between the fiscal policies pursued in the United States and those pursued in Switzerland and Sweden. U.S. deficits and debt grew at a rapid pace, and its debt-to-GDP ratio now is similar to those in the euro area and OECD countries. In contrast, the Swiss and Swedish policies decreased debt and mostly eliminated deficits.

The divergence in fiscal policies occurred alongside significant differences in economic performance. In the 1990s, U.S. economic growth was significantly higher than that in Switzerland, Sweden, the euro area, and OECD countries. Over the

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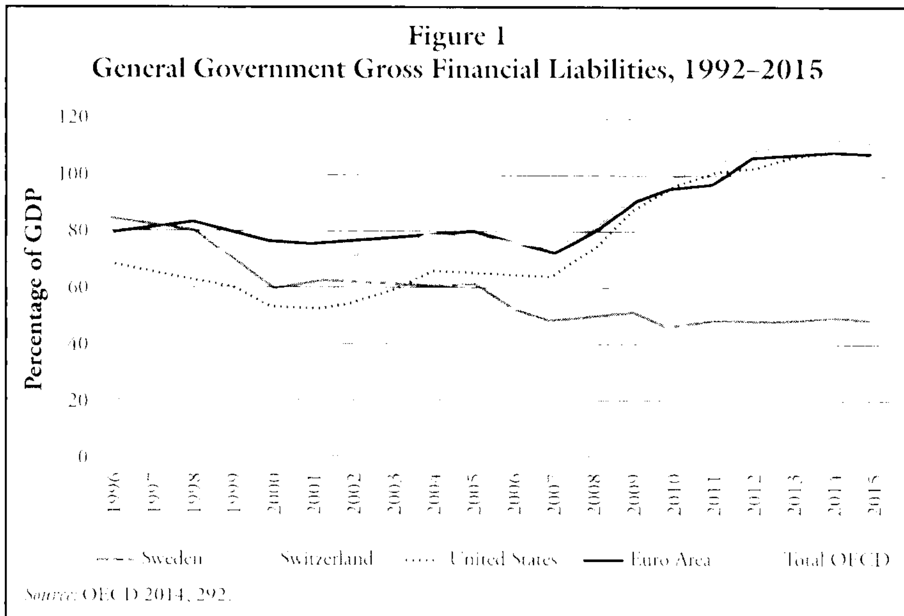

Figure 1
General Government Gross Financial Liabilities, 1992–2015

Source: OECD 2014, 292.

decade from 2001 to 2010, U.S. growth fell below that in Switzerland, Sweden, and most OECD countries. Then the U.S. growth rate rose after 2010, exceeding that in Switzerland, Sweden, and most OECD countries, but many measures of U.S. economic health have not yet regained their pre–Great Recession levels (see table 1).

Another measure of economic performance is these economies' stability in periods of recession. The recessions that began in 1991 and 2001 were relatively mild compared to the Great Recession that began in 2008 in the United States. During the less-severe recessions, the United States experienced greater economic stability than did Switzerland, Sweden, the euro area, and OECD countries. It experienced less contraction in output and recovered more rapidly from those recessions than it did after 2008.

Table 1
Real GDP Growth (Percentage)

	1989–99 (average)	2001–2010 (average)	2011	2012	2013	2014	2015
Sweden	1.7	2.2	3.0	1.3	1.5	2.8	3.1
Switzerland	1.1	1.7	1.8	1.0	2.0	2.0	2.5
United States	3.2	1.7	1.8	2.8	1.9	2.6	3.5
Euro area	2.1	1.2	1.6	−0.6	−0.4	1.2	1.7
OECD countries	2.7	1.7	2.0	1.5	1.3	2.2	2.8

Source: Data compiled from OECD 2014, 11, 261.

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The Great Recession brought much greater instability to the U.S. economy, which saw a financial crisis triggered by a real-estate-market collapse and failure of major financial institutions. The United States experienced a sharp contraction in output and recovered less rapidly than Switzerland and Sweden (OECD 2014, 261). U.S. economic instability during the Great Recession was comparable to that of the euro area. The unemployment rate more than doubled to about 10 percent, converging with unemployment rates in the euro area. The U.S response was an unprecedented increase in deficit spending accompanied by monetary expansion. As figure 1 shows, the debt-to-GDP ratio in the United States has now converged with that in the euro area and all OECD countries.

Over this same period, Switzerland and Sweden achieved remarkable improvements in economic stability (Bruchez and Schlaffer 2012; Baur, Bruchez, and Schlaffer 2013). Both countries experienced sharp economic contractions and slow recoveries during the mild recessions in 1991 and 2001. Their economic resilience during the Great Recession therefore caught many by surprise. Neither country experienced the boom and bust in real estate that occurred in peer countries. The Swiss and Swedish banking systems weathered the financial crisis without a major collapse of financial institutions. Both countries saw less output contraction and had a faster recovery from the recession than the United States and the euro area countries. The Swiss unemployment rate remained lower than 5 percent; less than half the rate in other euro area countries and the United States. The Swedish unemployment rate rose but remained lower than that in other euro area countries and the United States.

A key factor in the greater Swiss and Swedish economic stability was both countries' use of countercyclical fiscal policy (Bruchez and Schlaffer 2012; Baur, Bruchez, and Schlaffer 2013). In the years before the Great Recession, both countries had reduced deficits and debt-to-GDP ratios. They were able to pursue countercyclical fiscal policy without incurring the deficits or additional debt that the United States incurred. As figure 1 shows, since the Great Recession the debt-to-GDP ratio in Switzerland and Sweden has fallen to roughly half that of the United States, the euro area, and other OECD countries. Although Switzerland and Sweden incurred deficits during the recession, those deficits were offset by surpluses generated during years of economic expansion. Thus, a countercyclical fiscal policy is not inconsistent with fiscal consolidation. Both countries were able to pursue monetary expansion as well as countercyclical fiscal policies. Their adoption of stringent fiscal rules had been criticized because those rules were perceived as biased toward pro-cyclical fiscal policies. However, it is now clear that it was the adoption of these fiscal rules that gave these countries greater flexibility in responding to the economic shock of the Great Recession.

Long-Range Debt Forecasts

Despite the economic recovery of the past five years, the U.S. debt-to-GDP ratio continues to increase. Total debt exceeds 107 percent of GDP, and debt held by

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Table 2
Fiscal Consolidation Needed to Achieve a Debt-to-GDP Ratio of 60 Percent

	Consolidation		
	2010–13 (%)	2014–15 (%)	2016–30 (%)
Sweden	−2.2	0.2	0.7
Switzerland	−0.6	−0.2	−0.7
United States	4.5	1.5	3.3
Euro area	3.6	0.9	1.4
OECD countries	3.2	1.3	2.1

Source: Data compiled from OECD 2014, 239.

the public is in excess of 78 percent of GDP. The aging population and increased costs for pension and retiree health benefits will place significant burdens on the nation's finances. The OECD measures required fiscal consolidation as the immediate increase in tax or decline in expenditures (as a percentage of GDP) needed to bring debt to 60 percent of GDP in 2030 (OECD 2014). The United States is part of a small group of major debtor countries that will require average fiscal consolidation greater than 3 percent of GDP. Among OECD countries, only Spain, Great Britain, and Japan have fiscal-consolidation requirements greater than those for the United States (see table 2).

It may come as a shock to learn that the fiscal-consolidation requirements for the United States top those for all but a few OECD countries. How could the debt crisis in the United States be worse than that it is in Greece, which has defaulted on its debt? As table 2 shows, most OECD countries responded to the financial crisis with fiscal consolidation, and these fiscal-consolidation policies are projected to decrease these countries' debt–GDP ratios. After pursuing fiscal consolidation, however, Greece failed to constrain debt and again faces bankruptcy. Because the United States failed to pursue fiscal-consolidation policies, its debt-to-GDP ratio is projected to continue to rise even farther in the not-too-distant future.

The Swiss and Swedish fiscal-consolidation policies are reflected in the OECD's long-range debt-to-GDP projections. The expected Swiss debt-to-GDP ratio for 2030 is the same as the current 46 percent, and Sweden's ratio rises very little, from 47 percent to 54 percent. Switzerland doesn't need any further fiscal consolidation to stay at 46 percent, and Sweden needs consolidation of less than one percent of GDP (OECD 2014). Although both countries have struggled because of economic downturns, it is clear that the fiscal policies they have established will enable them to bear these burdens without the risks associated with a rising debt-to-GDP ratio. The high and rising debt-to-GDP ratio projected for the United States calls into

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serious question whether its fiscal policies are sustainable and whether the country will be able to meet the pension and health-care needs of an aging population.

A Major Flaw in the U.S. Approach to Fiscal Rules

U.S. fiscal rules have not curbed the spending biases that have produced growing deficits and debt because they have not been genuine fiscal rules. The International Monetary Fund defines a fiscal rule as "placing a numerical limit on a budget aggregator or a fiscal performance indicator, such as the deficit, the debt, or one of their components" (Kumar et al. 2009, 4). Kopits and Symansky (1998) maintain that the U.S. fiscal rules qualify only as contingency policy rules. They may be operative over a limited time frame but are not a permanent constraint on fiscal policy.

The United States has had a formal debt ceiling for almost a century, but Congress routinely raises the ceiling whenever the debt level approaches it, so the so-called ceiling has had little impact on the debt or budget (Schick 2007, 2010; U.S. Congressional Budget Office 2015; U.S. Office of Management and Budget 2015). The United States has paid lip service to a balanced-budget rule, as in the Balanced Budget and Emergency Deficit Control Act of 1985, but that rule is never meaningfully enforced (Schick 2007, 2010). The spending caps and pay-as-you-go rules as well as the sequestration triggered by those rules have had at most a temporary impact on budgets.

The growing consensus that it will take different fiscal rules to move the country to fiscal sustainability (see, e.g., Brookings-Heritage Fiscal Seminar 2008; Petersen-Pew Commission on Budget Reform 2010, 2011a, 2011b; Knudsen 2013, 2014) has not yet led to the adoption of genuine fiscal rules, as defined earlier. There have been calls for discretionary spending caps and pay-as-you-go rules (U.S. Government Accountability Office 2011; Posner et al. 2012) as well as for budget triggers for individual mandatory programs to signal when spending exceeds a threshold tolerance level (U.S. Government Accountability Office 2006). Once tripped, the new triggers would result in automatic spending reductions or a review of those programs by Congress or both.

Designing a New Fiscal Rule for the United States

There is a broad consensus that recent U.S. deficits and current debt exceed tolerable levels and that the United States is on an unsustainable fiscal path (Peterson-Pew Commission on Budget Reform 2010, 2011a, 2011b; Posner 2011; Posner et al. 2012; Kotlikoff and Burns 2012; Posner and Rubi 2014). Sweden and Switzerland provide a precedent for a politically durable, genuine fiscal-rules regime. Our survey of fiscal rules in OECD countries suggests that the most successful of these rules is the Swiss debt brake, and its success can be a blueprint for the United States. Mimicking

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the SDB, the new U.S. fiscal rules would apply to a comprehensive measure of spending that excludes only Social Security, Medicare, and interest on the debt, but braking would most likely arise from a comparison of *total* spending and resulting levels of debt and consensus-sustainable debt and deficit.

Enforcement of spending caps that arise from the proposed new fiscal rules would require a fundamental reform of the budget process. There must be agreement on a spending cap that satisfies the debt brake at the beginning of each budget cycle and a top-down budget process to bring expenditures for all government programs into line with the overall, ex ante cap on noninterest, non-major-entitlement spending. The top-down budget process may need an independent agency similar to Sweden's Fiscal Policy Council. At the beginning of the budget cycle, such a committee must calculate a spending cap consistent with the debt brake and then determine when budget proposals are consistent with the spending cap. Transparency would allow citizens to hold legislators responsible for their fiscal-policy decisions in a way that is not possible with current fiscal rules.

Comparisons of OECD fiscal-rule outcomes suggest that the most effective rules are constitutional. Swiss legislators that violate their constitutional fiscal rules expose themselves to considerable political risk. In Sweden, it is easier for legislators to circumvent and suspend their statutory rules, just as it is in the United States. Experience with constitutional and statutory fiscal rules in the individual states leads to the same conclusion (Merrifield and Poulson 2016).

Critics of fiscal rules argue that such rules limit the power of government to address emergencies or use discretionary fiscal policy to stabilize the economy during recessions (Erixon 2013). They argue that establishing such rules puts too much pressure on the use of monetary policy to stabilize the economy. For example, despite the large rise in spending for the federal stimulus in the United States during the Great Recession, some critics argue that the federal government should have pursued even more aggressive Keynesian fiscal policies and that doing so would have relieved pressure on the Fed to stimulate the economy using expansionary monetary policy.

But the Swiss and Swedish fiscal rules that helped drive noteworthy fiscal consolidation also provided for countercyclical fiscal policy. Their rules ensured that deficit spending in recession was offset by surplus revenue generated during economic expansions. Furthermore, the Swiss and Swedish experience with their new fiscal rules is that fiscal consolidation can improve their capacity to respond to economic shocks such as the Great Recession and can remove much of the uncertainty and risk associated with fiscal policy during recessions. The United States could create similar consistent expectations if it were to adopt similar fiscal rules.

Effective fiscal rules would also reduce pressure on the Fed to pursue expansionary monetary policies during recessions and would set a precedent for the adoption of monetary rules (Woodford 2001; Taylor 2010, 2014). There is a growing consensus of support for the adoption of monetary rules, such as the proposed Taylor Rule, to stabilize the economy over the business cycle (Poulson and Baghestani 2012).

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There is also growing support for adoption of monetary rules among economists. Janet Yellen (2015) agrees that well-crafted rules could improve monetary policy. We would argue that linking a monetary rule to a fiscal rule would obviate the need for extreme volatility in monetary policies like those pursued in response to the recent financial crisis.

Critics raise other objections to the kind of fiscal rules adopted in Sweden and Switzerland. Some would argue that the United States faces different fiscal challenges than those faced by other OECD countries (Alesina 2000). With regard to military spending, there are important differences, particularly in defense spending as a share of GDP. The United States has a leadership role in the North Atlantic Treaty Organization and other international organizations. Switzerland and Sweden have at times historically pursued policies of military neutrality, which limits the share of their budgets allocated to national defense. But in recent years they have demonstrated that the challenges of defense spending can be met within the constraints imposed by their fiscal rules. In both countries, allowance is made for extraordinary and emergency expenditures. A margin of surplus is built into their budgets each year to offset military crises and other emergencies. An important provision in the fiscal rules adopted in Switzerland and Sweden is an emergency fund, and the key to their success is that the fiscal rules provide funding for such emergencies ex ante, not ex post. There is also a provision in their rules allowing for suspension of the spending limits in a major crisis upon approval of a supermajority of the legislature.

Perhaps the greatest challenge facing elected officials in the United States is restoring a sustainable fiscal policy in the long term. Doing so will require fundamental reform of entitlement programs that account for most of the projected growth in federal spending in coming decades (Kotlikoff and Burns 2012). After the failure to adopt proposed reforms of Social Security during the George W. Bush administration, Congress made little progress in reforming entitlements. In fact, it increased entitlement spending by adding new Medicare drug benefits.

The new fiscal rules enacted in Switzerland and Sweden suggest alternative approaches to imposing fiscal rules on entitlement programs. The Swiss chose to exclude these entitlement expenditures from the spending subject to the debt brake. Sweden chose to include entitlement expenditures in the total spending subject to their expenditures limit. However, both countries followed the enactment of their fiscal rules with fundamental reforms to contain the cost of the public-pension and health plans. In both countries, the adoption of fiscal rules set the stage for reform of entitlement programs. It is much easier to make the case for reform of entitlement programs when other government programs are also subject to fiscal discipline.

It may be difficult to build a consensus in support of spending caps in the United States if Social Security and Medicare are also subject to the caps, and it may be even more difficult to maintain that consensus over time. So it may be prudent to take the route chosen by Switzerland to exclude Social Security and Medicare from the rule

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and at the same time to design separate rules to apply to these entitlement programs. In 2012, the Swiss Federal Department of Finance issued a report estimating the fiscal gap over a fifty-year time horizon to 2060 (Swiss Federal Department of Finance 2012). The department's estimates capture the impact of age-related spending on the debt-to-GDP ratio. Under current law, the ratio would likely rise to 130 percent in 2060. The Swiss government must enact reforms in age-related expenditure programs to prevent the debt-to-GDP ratio from being higher in 2060 than it was in 2009.

Conclusions

The experience with new fiscal rules in OECD countries suggests that it may take a fiscal crisis in the United States to create a consensus in favor of rules that require fiscal consolidation. The current circumstances probably qualify, but so far there has been no movement toward the adoption of such rules, and it may take a government proclamation to make it official.

The U.S. budgeting rules, which are not true fiscal rules, have not constrained growth in federal spending. The spending-cap provisions of the Budget Control Act of 2011 failed to force congressional agreement on a leaner budget. That lack of agreement triggered sequestration provisions that mandate cuts in discretionary spending that neither political party prefers. The recent budget agreement for 2016 adopted the spending caps in the Budget Control Act. But that agreement allows Congress to shift to off-budget spending and exempts certain programs from the spending caps (Boccia 2015; Moore and Griffith 2015). The agreement instructs Congress to address the problem of entitlement, but it does not provide any specific recommendations for entitlement reform. The expectation is that Congress will continue to lift the spending caps and suspend sequestration to avoid spending cuts.

The experience with fiscal rules in Congress suggests that the rules have had at best a temporary impact on fiscal policy and that the ideological divide over fiscal policy has actually widened in recent years. The outcome of this gridlock is likely to be unconstrained growth in federal spending as well as increasing deficits and debt in the long run.

The United States is now in much the same position that Switzerland and Sweden were in two decades ago. A financial crisis has resulted in deficit and debt levels far in excess of tolerance levels. The United States has no existing fiscal rules capable of imposing the fiscal discipline required for a sustainable fiscal policy. Going Swiss with a U.S. version of the SDB would likely deliver some much-needed consolidation, but the prospects for enacting stringent new fiscal rules are not promising. Stringent new fiscal rules have been proposed in Congress as both statutory and constitutional measures, but these measures have made little headway. Given the reluctance of Congress to enforce the weak and ineffective budget rules now in place, it is unrealistic to expect legislators to adopt the stronger Swiss-style fiscal rules without additional pressure from much more assertive leadership or from a

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financial crisis that could arise just from the effect of higher interest rates on debt-service costs. Naturally, we hope the former can avert the latter.

There is a precedent for incorporating stringent fiscal rules in state constitutions (Merrifield and Poulson 2014). Some states, such as Colorado, have enacted tax and expenditure limits as constitutional measures. Colorado's Taxpayer Bill of Rights (TABOR) Amendment imposes a stringent spending limit on both the state and local governments. Like the SDB, the TABOR Amendment was enacted as a constitutional referendum by a majority of Colorado citizens. Despite special interests' efforts to circumvent, weaken, and rescind TABOR, it continues to effectively constrain government spending in Colorado. Like Switzerland, Colorado is outperforming other states in economic growth (Merrifield and Poulson 2014).

Unfortunately, the positive experience with tax and expenditure limits enacted in Colorado and other states has not led to similar reform at the federal level. The United States has not followed the precedent set in Switzerland, where debt brakes at the cantonal level were followed by the constitutional debt brake at the federal level. Swiss citizens benefit from a vigorous direct democracy and federalist system that no longer exists in the United States. Swiss citizens exercise a great deal of direct control over fiscal policy at both the cantonal level and the federal level. Direct control over fiscal policy by U.S. citizens is limited to their state and local governments. Rapid growth in the federal government has been accompanied by deterioration in the federalist system. The federal government increasingly encroaches on powers that were once widely recognized as reserved to the states and citizens by the Tenth Amendment.

The U.S. Constitution does not provide for direct democracy in the form of referendum, whereas the Swiss Constitution includes referendum provisions. However, Article V of the Constitution does allow states to petition for an amendment convention. Twenty-seven states have passed resolutions calling for a balanced-budget amendment convention (BBA Task Force 2015). These resolutions have language that could provide for a cyclically balanced budget similar to the Swiss debt brake. The success of such resolutions may appear to be a long shot, but in fact there is a precedent for this approach to amending the Constitution. When it appeared that the requisite two-thirds of the state legislatures would approve resolutions calling for an amendment convention to propose the Seventeenth Amendment (establishing the election of U.S. senators by the people of the states), Congress responded with legislation to propose the amendment in order to preempt the states from holding a convention.

One can envision a similar outcome for a balanced-budget amendment, wherein Congress proposes such an amendment to preempt the states from proposing it through an Article V amendment convention. If Congress were to fail to propose the amendment, U.S. citizens might decide that it is time for them to exercise the rights granted to them in Article V. When citizens of Colorado and other states made the choice to decide how much government they want and are willing to pay for,

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they supported constitutional rules to constrain government spending. Ultra-rational behavior regarding fiscal rules is not unique to citizens in the Rocky Mountains and Swiss Alps. It is time to give all U.S. citizens this choice.

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