New Constitutional "Debt Brakes" for Euroland Revisited

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Mause and Groeteke (2012) challenge the view that new constitutional debt brakes are needed to prevent fiscal crises and bailouts in Europe[1]*. In this study, we expand on their public choice framework to explore the effectiveness of debt brakes for fiscal stabilization. We focus on two case studies, Switzerland and Germany. The institutions of direct democracy and fiscal federalism have not empowered German citizens as they have citizens in Switzerland. If these institutional differences explain the effectiveness of the debt brakes enacted in European countries, this poses a greater challenge than is suggested by Mause and Groeteke.*

INTRODUCTION

In their (2012) study Mause and Groeteke are pessimistic regarding the prospects for new constitutional debt brakes in the European countries. They question whether the German debt brake introduced in 2009 is a credible commitment to fiscal stabilization, given the institutional environment in that country. Further, they question whether the new debt brake proposed for the European Union would prevent future fiscal crises and bailouts, absent fundamental institutional reform. They agree with Oates (2005), who concluded that for the German debt brake to be effective "a fundamental reform of political and fiscal institutions to alter the whole structure of incentives for budgetary decision – making would be necessary" (Oates 2005, quoted in Mause and Groeteke 2012, P 297).

Mause and Groeteke (2012) maintain that the effectiveness of a debt brake depends not only on its specific design, but also on the institutional environment. Rather than designing new fiscal rules, they argue that the focus should be on institutional reforms, including: "a functioning capital market, a functioning interjurisdictional competition (including jurisdictions with tax and spending autonomy), the existence of an insolvency law for jurisdictions, and a credible no-bailout rule…" (Mause and Groeteke 2012, p. 298).

In 2012 Germany and other members of the European Union, with the exception of the Czech Republic and the UK, agreed to a Fiscal Compact imposing a debt brake similar to that enacted in Germany. That commitment was included in the Treaty on Stability Coordination and Governance in the European Union (OECD 2014; Bundesbank 2011; Kelleners 2016). While the Fiscal Compact set a common framework, it was up to the individual European countries to enact debt brakes consistent with the requirements of the Compact. It is understandable why Mause and Groeteke were pessimistic regarding the prospects for these debt brakes. As they pointed out, Germany and France had breached the

deficit requirements of the 2005 Stability and Growth Pact. Germany and 23 other European countries had accumulated more public debt at that time than that prior to the Great Depression, despite fiscal rules to limit deficits and debt at both the supranational and national level.

Since the 2012 Fiscal Compact was enacted, the European countries have fulfilled these requirements to differing degrees. A progress report today suggests that Mause and Groeteke were too pessimistic regarding the debt brakes introduced in Germany and other European countries. However, disparities have emerged in the fiscal consolidation efforts of the different European countries, reflecting the effectiveness of their debt brakes. The most successful fiscal consolidation was enacted in Switzerland, which is not a member of the European Union, and hence not subject to the requirements of the Fiscal Compact. The German debt brake enacted in 2009 failed to achieve fiscal consolidation in the initial years after it was enacted, the deficit and debt levels continued to rise above the tolerance levels set in the Fiscal Compact. But, in the last few years Germany has had modest success in fiscal consolidation, the debt/GDP ratio in Germany has been reduced, and is projected to continue to fall in coming years. On the other hand, Greece and other Southern European members of the European Union have had limited success in fiscal consolidation. In 2016 the European Union warned six countries that their budget plans for the coming years exceeded the deficit and debt tolerance limits imposed by the Fiscal Compact, and called on them to reduce their deficits, including Spain, Croatia, Finland, Belgium, Italy, and Romania (European Commission 2016).

Most of the literature on debt brakes focuses on the substantive limits on the power of elected officials to tax and spend. Debt brakes maalso incorporate, and/or be linked to, procedural rules that constrain fiscal policy. Debt brakes are not just fiscal rules that signal the preferences of citizens, as suggested in much of the 'institutional irrelevance' literature. These fiscal rules can empower citizens as lawmakers, such that the preferences of citizens for fiscal discipline and fiscal stabilization dominate the preferences of special interests and lawmakers who prefer higher levels of taxes and spending, and who are willing to incur deficits and accumulate debt that results in fiscal instability. Debt brakes may be linked to institutions that empower citizens as lawmakers, most importantly, direct democracy and fiscal federalism.

Debt brakes in Switzerland were first enacted at the cantonal level, and more recently at the federal level. The initiative and referendum are incorporated in Swiss constitutions at all levels of government. The Swiss also have one of the most decentralized fiscal systems among the European countries. The linkage between direct democracy, fiscal federalism, and debt brakes means that each year Swiss citizens are empowered to vote on tax and expenditure measures at both the cantonal and federal level. The initiativeand referendum are rarely used at any level of government in Germany. Fiscal power in Germany is more concentrated in the central government relative to the state and local governments. Building stronger institutions of direct democracyand fiscal federalism in Germany and other Europe countries will require fundamental constitutional changes similar to those enacted at all levels of government in Switzerland. If the effectiveness of debt brakes depends upon these fundamental constitutional changes, this is a more difficult challenge than that suggested by Mause and Groeteke. The plan of the study is as follows. The theoretical rationale for debt brakes is introduced. This is followed by a discussion of the relationship between debt brakes and the institutions of direct democracy and federalism. The next section explores the relationship between debt brakes, direst democracy, and federalism in two case studies, Switzerland and Germany. The study concludes with some lessons learned from the experience with debt brakes in Switzerland and Germany for the European countries.

Modeling Debt Brakes in the Monopolist State

As Eusepi and Wagner (2012) argue, understanding the deficit bias in a democratic society requires piercing the veil of public debt to reveal its transactional structure. They contrast credit transactions in a cooperative state and monopolistic state. In a cooperative state, public debt, like taxation, is based on voluntary transactions; and public debt is increased only to the extent that extension of credit is more efficient than private market credit.

When monopolistic elements enter into the polity, the decisions of elected officials may deviate from the preferences of their constituents. Monopolistic elements are introduced when elected officials vote to

benefit special interests rather than their constituents. Economic and political elites may pursue fiscal policies that maximize their welfare at the expense of taxpayers in what Randall Holcombe (2015) describes as 'political capitalism'. In a 'political capitalist' system in which monopoly power is captured by economic and political elites, taxes are based on coercive rather than voluntary transactions. If the economic and political elites are biased toward deficit spending, rather than financing expenditure with current tax revenue, then the debt burdens imposed on taxpayers is also based on coercive transactions. In a 'political capitalist' system citizens may become coerced debtors, in contrast to a cooperative state in which they are voluntary debtors (Brennan and Buchanan 1980; Brennan and Wagner 2009; Brennan 2012).

There is an extensive empirical literature revealing systematic deviations of voting decisions of elected officials from the interests of their constituents (see e.g. Eichenberger et. al. 2012 p. 246). These empirical studies provide evidence that monopolistic elements influence voting decisions of elected representatives. Political parties and their respective ideologies are an important influence (see e.g. Denzau and Munger 1986; Alesina and Rosenthal 1989; Levitt 1996; Carey 2007; Stadelmann et al. 2012b). Some studies reveal how economic and political elites use campaign contributions to dominate a 'political capitalist' system (see e.g. Denzau and Munger 1986; Stratmann 1995). For a review of the literature on debt and democratic institutions see Kirchgaessner (2013, 2015).

Much of the controversy in this empirical literature focuses on matching the preferences of constituents with that of their elected representatives (Golder and Stramski 2010; Matsusaka 2010). The preferences of citizens and elected officials is usually measured using survey data (Kenny and Lotfinia 2005; Lopez ad Ramirez 2008). However, this empirical literature has been criticized because the surveys do not directly match the preferences of voters and elected officials (Krehbiel 1993; Matsusaka 2010).

An alternative approach in measuring the preferences of citizens and elected officials is based on evidence from direct democracy. Roll call votes on referenda by elected officials are compared to the median voter preferences of citizens on the same referenda. Eichenberger et al. (2012) compare the voting behavior of Swiss politicians on debt increasing and debt reducing legislation, with the voting of their constituents in referenda on the same issues. They find that legislators in both chambers of Parliament deviate on decisions regarding public debt from the preferences of their constituents. There is some evidence that politicians tend to vote for increasing debt at a higher rate than constituents.

More important than the differences in preferences, is the importance that elected officials in Switzerland place on the preferences of their constituent on referenda relating to public debt (Eichenberger et. al. 2012). When the support of their constituents for a referendum on public debt (either increasing or decreasing debt) increases, then politicians are more likely to vote yes too. Politicians in Switzerland pay attention to the preferences of constituents on debt issues because the referendum in effect empowers citizens as lawmakers on these issues.

Several studies have attempted to model fiscal rules in the monopolistic state (Romer and Rosenthal, 1979; Poulson and Kaplan, 1994; Merrifield and Poulson 2016a, 2016b; Feld and Kirchgaessner, 2001; Kirchgaessner, 2013b). For example, Kirchgaessner (2013b p.144) uses a median voter model to capture the effects of a spending referendum on fiscal policy. The assumption is that monopolistic elements influence elected officials who therefore have a preference for higher levels of spending than most citizens. If no fiscal decisions are made, spending reverts to the status quo. In the absence of a referendum the preferences of elected officials dominate the preferences of citizens, resulting in higher levels of spending than the status quo. With a referendum in place elected officials will be influenced by the preferences of citizens as well as special interests. The assumption is that citizens have a range of preferences regarding the optimum level of spending. The median voter is assumed to be indifferent between spending levels at the status quo, and some higher level of spending. Elected officials know that in a referendum citizens will reject a level of spending higher than this range, and will therefore choose the highest level of spending at which the median voter is indifferent.

Just as monopolist elements influence fiscal policy we should expect those interests to influence the design and implementation of fiscal rules as well. Poulson and Kaplan (1994) specify a rent seeking model to capture the influence of monopolistic elements in the design and implementation of fiscal rules.

The dynamics of this decision process is observed in the design and implementation of debt brakes in Europe. Debt brakes are an institutional innovation that increases the ability of citizens to impose budget constraints; that in turn increases the incentives for special interest groups to protect what they perceive as their rent rights. In a monopolistic state, politicians will be influenced by special interests as well as constituents in the design and implementation of debt brakes.

Poulson and Kaplan (1994) argue that it is possible for special interests in the monopolistic state to capture the design and implementation of a fiscal rule, such as a debt brake. The concept of 'capture' is well developed in the literature on 'regulatory capture'. If special interests are able to dominate a regulatory agency they can use regulatory rules to maximize their interests at the expense of citizens. If special interests dominate the design of fiscal rules they can use those rules to maximize their interests at the expense of citizens. For example, assume that there are competing interest groups vying for rent rights generated by higher levels of spending. If one interest group has more influence over politicians than another interest group we should anticipate that the influential interest group will manipulate spending constraints imposed by a debt brake such that they are exempt, while the less influential interest group is subject to the spending limits. The influential interest group may even carve out a privileged position in the budget that mandates even higher levels of spending than would have occurred in the absence of the debt brake. The budgeting impact of fiscal rules in the monopolist state is illustrated in Figure 1.

The context in which debt bakes have been enacted in Europe is one in which countries have experienced high levels of spending accompanied by unsustainably high levels of deficits and debt. This is represented by the status quo point SQ toward the high spending end of the figure.

FIGURE 1
FISCAL RULES IN THE MONOPOLIST STATE

Notes:
SB - Structural Balance Budget
MV - Median Voter Budget
XM - Median Voter Budget (upper range)
SQ - Status Quo Budget
MB - Monopoly Budget

In a Leviathan state, in the absence of a debt brake, the level of spending would be set by a monopolist government in excess of the status quo spending, represented by the point MB.

In a cooperative state in which citizens set the fiscal rules of the game we assume that a debt brake is enacted to maximize social welfare. To achieve structural balance in the long run the society must maintain lower levels of spending, and may need to incur surplus revenue in the near term in order to reduce and eliminate debt in the long term. The assumption in a cooperative state is that elected officials will propose, and citizens will enact, a debt brake to achieve this welfare maximizing level of spending. Thus the welfare maximizing level of spending in the near term is set at the lower structural budget balance point SB.

In a monopolistic state in which elected officials respond to special interests as well as citizens in the design of a debt brake, the institutions of direct democracy allow citizens to have input in the design of

fiscal rules as well as fiscal policies. If elected officials respond to the preferences of the median voter the outcome is similar to that specified in the Kirchgaessner median voter model (Kirchgaessner, 2013a p. 144). With a range of preference by citizens regarding the optimum level of spending the median voter preference exceeds the optimum spending level, represented by the median voter budget at MV. Assume that the median voter is indifferent between the spending level at MV and the structural budget balance point SB. Given this range of preferences the median voter will also be indifferent if the spending level is set at a higher spending point represented at XM. The points XM and SB are equidistant from the median voter budget point MV, i.e. reflecting the fact that half of the citizens have preferences to the left, and half to the right of this point. Absent additional transactions costs, elected officials will design a debt brake to set spending at the level represented by XM because a debt brake that set spending at a level higher than XM would be rejected by voters in a referendum. As Kirchgaessner (2013a) argues, citizens are likely to incur transactions costs in influencing elected officials in the design and implementation of debt brakes. To the extent that citizens incur these transactions costs, this will free up elected officials to design a debt brake that sets a somewhat higher level of spending (see Kirchgaessner 2013ap. 144).

In a monopolistic state the special interests who benefit from the rents generated by higher levels of spending will attempt to protect what they perceive as their rent rights. If politicians respond to these rent seeking pressures they may simply block any debt brake from being enacted, in which case the outcome will be the status quo spending level SQ. Even if they are not successful in blocking a debt brake, special interests might influence politicians to enact a weak and ineffective debt brake that has a modest impact in reducing the level of spending. It is possible, as noted above, that rent seekers capture the design and implementation of the debt brake and increase the level of spending above the status quo in the direction of the monopolist budget point MB.

Debt Brakes Direct Democracy and Federalism[2]

Constitutional economics explores the ways that economic and political elites may influence the design of fiscal rules, such as debt brakes, to their own advantage. If economic elites benefit from increased government spending, they would put pressure on political elites to block debt brakes and/or search for ways to circumvent these fiscal rules. If the power to design and implement the debt brake is in the hands of policy makers, and they respond to pressure from rent seekers, the outcome is likely to be an ineffective debt brake. With such a debt brake the spending limit will be set such that it has little, if any, impact on actual spending. It is even conceivable that actual spending exceeds the status quo spending that would occur without such a debt brake in place (Merrifield and Poulson 2016a, 2016b).

When citizens prefer lower levels of spending than their elected representatives, the question is how to enact a debt brake to reflect the preferences of citizens. One option of course is for citizens to elect representatives who respond to their preferences rather than that of the rent seekers. But, for reasons extensively explored in the public choice literature, citizens in a political capitalist system may find that economic and political elites dominate the electoral process (Merrifield and Poulson 2016a, 2016b). However, in a democracy there are two political institutions that can empower citizens relative to elites, direct democracy and federalism. With institutions of direct democracy and federalism citizens are more likely to have success in enacting effective debt brakes, as well as other fiscal rules, to constrain government spending. A major benefit of direct democracy is a "deliberative legislative process". The initiative and referendum slow the legislative process down, by placing citizens in the position of lawmakers. The initiative gives citizens the power to place an issue on the national agenda, and to have it debated and voted on by the people. Even if the issue is defeated, citizens perceive that they have a voice in the legislative process. The resulting education of citizens and legislators is unique to the initiative process. The referendum requires that legislators take into account the preferences of citizens in virtually every decision they make. The threat of a facultative challenge to proposed legislation requires politicians to carefully asses the preferences of citizens on the issue.

This power of citizens to influence the legislative process has a broader impact in society. Citizens perceive of themselves as lawmakers, and it is important to distinguish the role of citizens as lawmakers from that as constituents of elected assemblies. Absent a referendum on debt the only input of citizens on

the debt issue would be as constituents who elect representatives to legislative assemblies. A referendum on debt, on the other hand, allows citizens the opportunity to express their preferences on the debt issue. When the votes of elected officials on referenda are made public they can be compared to constituent votes on the same issue.

Legislators are held accountable for deviating from constituent preferences more stringently than would occur in the absence of the referendum. The expectation is that convergence of votes by elected officials and constituents on debt issues will be greater with the referendum in place.

With the institutions of direct democracy, the role of elected officials and voters is fundamentally altered. The votes taken by elected officials on initiative and referendum issues can't be viewed as revealing their preferences, indeed it is not possible to view these votes independently from the votes of their constituents. On referendum issues elected officials must anticipate that the votes taken in the legislative assemblies could be overridden by the votes of their constituents. Even when there is a facultative rather than a mandatory referendum, the potential for an override vote in a referendum will influence the decisions of elected officials on the issue.

An initiative empowers citizens as lawmakers even more forcefully than a referendum. With the power of initiative citizens in effect set the agenda for ballot measures as well as vote on them. This is especially important on fiscal issues when the priorities of elected officials may not be consistent with that of their constituents. Citizens may have the incentive to incur the costs and overcome the hurdles of placing a measure on the ballot through an initiative that would never see the light of day in the legislative process. In the case of initiatives, elected officials have even more incentive to pay attention to the preferences of constituents. Citizens will have expressed their preferences at several stages in the initiative process. Having an initiative placed on the ballot reveals that citizens have secured the minimum number of signatures, and met the legal requirements for the ballot to be presented to voters.

This decision process becomes even more complex when the legislature responds to a citizen initiative by proposing an alternative ballot measure which is then subject to approval by citizens in a referendum. The outcome of such a political process is likely to be strategic and interdependent decision making by elected officials and their constituents. In effect, the referendum and initiative place elected officials and citizens in a comparable, if not equal role as lawmakers. This means that the preferences of citizens will have more influence, even if those preferences don't dominate the preferences of elected officials, compared to the decision process in a polity absent these institutions of direct democracy.

Finally, the institutions of direct democracy will impact the democratic process. As lawmakers, citizens have an incentive to become knowledgeable and actively engaged in the measures they vote on, compared to a democratic process in which these decisions are left to the discretion of elected officials. Citizens also have an incentive to determine how their elected officials vote on these ballot measures. There is a transparency and accountability of elected officials to their constituents on ballot measures which is lacking when issues are left to the discretion of elected officials voting in representative assemblies. This is especially important on fiscal issues such as increased taxes, expenditures, and debt. Absent the initiative and referendum these fiscal measures would usually be incorporated in an omnibus budget bill voted on by the assembly (Merrifield and Poulson 2016a, 2016b).

In the long run, considerations regarding the optimum size of government and economic growth open up other possibilities in the design of fiscal rules. A major issue in evaluating the effectiveness of fiscal rules is fiscal federalism (Bednar 2009; Baur et al. 2013). There is an economic rationale for relying on a strong federalist system to achieve fiscal consolidation.

Transparency and accountability in government expenditures tends to be greater at the state and local level than at the national level. The close proximity of taxpayers and policy makers means that information regarding revenues and expenditures is available to citizensas well as state and local officials. Politicians can better tailor policies to the preferences of their constituents, while citizens are better able to identify the decision makers and the outcomes of their decisions. Polls consistently show that citizens have greater confidence that their tax dollars will not be wasted at the state and local level, compared to tax and spending at the national level (Merrifield and Poulson 2016a, 2016b).

At the state and local levels, if politicians fail to deliver quality services relative to costs, citizens can use the electoral system to pressure them. Citizens have recourse to other options in response to government inefficiency at the state and local level. The greater fiscal discipline observed at the state and local level in advanced countries reflects interstate competition.

Businesses as well as citizens weigh the benefits and costs of government services offered in different jurisdictions; they have greater mobility in responding to these differences at the state and local level than at the national level.

A flaw in the fiscal consolidation efforts of many countries is the inability of the central government to control the finances of state and local governments. When state and local governments exercise autonomy in fiscal policy and are not constrained by rules, they may incur sizeable deficits and debt. If the central government is then expected to bail out state and local governments, this liability can undermine fiscal consolidation efforts at the national level. Fiscal rules must be in place at both the state and national level for successful fiscal consolidation. A strong federalist system can play a crucial role in fiscal consolidation (Darby et al. 2005; Merrifield and Poulson 2014; Merrifield and Poulson 2016a, 2016b; Wagner 2014; IMF, 2006). Darby et al. (2005) find that this is true for successful fiscal consolidation in all advanced countries. In the long run, effective expenditure constraints must be imposed on subnational as well as central governments.

When state and local governments have great autonomy in fiscal decisions, and when they have well-developed public financial management systems, interstate competition can be very powerful. If efficient public financial management systems are in place, decentralization of government can strengthen the effectiveness of fiscal rules and fiscal consolidation. The IMF (2009) identifies essential aspects of government decentralization: The distribution of government responsibilities across government jurisdictions must be designed to maximize efficiency in the delivery of government services, while revenue autonomy of subnational governments must be optimized – state and local governments will spend funds more efficiently when they must tax their citizens to finance these programs. Transfers from the national government to state and local governments must be straightforward and not subject to manipulation. Block grants can provide autonomy and incentives for using transfers efficiently, especially when transfers are linked to the delivery of government services.

There is an extensive empirical literature analyzing the impact of debt brakes and other fiscal rules on fiscal policy (Merrifield and Poulson 2016, Anderson and Minarik 2006, Barnes et al 2012, Casals 2012, Blochliger and Kantorowicz 2015, Kumar et al 2009, Budina et al 2012, Schaechter et al 2012). In this study, we explore two countries with quite different institutions of direct democracy and federalism, Switzerland and Germany. The differences in these fundamental political institutions is reflected in the effectiveness of the debt brakes enacted in the two countries

The Case of Switzerland

The effectiveness of fiscal rules depends upon the unique political institutions in each country. A fundamental question is whether a country can achieve a sustainable fiscal policy in the long run with effective fiscal rules, and what political institutions are conducive to fiscal discipline. Full exploration of that question is beyond the scope of this study, but scholars have found that certain political institutions have been important factors in the successful design and implementation of fiscal rules. In the case of Switzerland, scholars point to federalism, direct democracy and constitutional change in explaining the success of the debt brake (for discussion of the political economy of fiscal rules in Switzerland, see Bodmer 2006, Bruchez and Schlaffer 2012, Baur et al. 2013; Fossedal, 2009; Merrifield and Poulson 2016a, 2016b).

The Swiss Constitution written in 1848 was amended in 1874, and again in 1999. The original constitution followed many of the precedents in the U.S. constitution. It established a federalist system in which cantons exercised power independently from the federal government. The Swiss constitution specifies certain limited powers exercised by the federal government, and reserves all other powers to the sovereign cantons and to the Swiss people. The Swiss constitution codified into law rights exercised by Swiss citizens at the local level for many years:

"The most striking aspect of the Swiss design, of course, is its use of direct democracy. Almost equally different, however, compared to other constitutions of the world, is the new constitution's federalism, the extent to which rights and prerogatives are delegated to the cantons and communities. Indeed, to the Swiss, such matters are not merely delegated, but reserved, having been retained by the local units of government all along (Fossedal, 2009 p. 46)."

When the Swiss Constitution was drafted in 1848, a provision for referendum was incorporated and used to legitimize the new federal government. Constitutional amendments require an obligatory referendum with a double majority vote of the Swiss people and cantons. Parliamentary Acts are subject to an optional referendum. Parliamentary Acts become law unless 50,000 citizens demand a popular vote within 90 days. Popular approval of Parliamentary legislation requires a simple majority vote.

Passage of the Swiss Constitution also set the stage for an alternative form of direct democracy, i.e., the initiative (Fossedal 2009). Several cantons introduced the initiative process, which gives citizens the right to propose changes in the constitution. Provision for the initiative at the federal level was incorporated in the amendments to the constitution in 1874. 100,000 citizens can petition for a constitutional amendment or a change in an existing provision of the constitution. Members of parliament must vote on the text of the initiative, which serves as a parliamentary recommendation to voters. Parliament cannot reject the initiative or change the text; however, parliament can propose an alternative initiative which is presented at the same time as the citizen initiative, in a referendum. Acceptance of the proposed constitutional change requires a double majority approval by voters and the cantons.

Critics of the initiative and referendum in Switzerland predicted that the outcome would be a tyranny of the majority, with a proliferation of ill-advised schemes and, potentially, a constitutional crisis. Fossedal (2009) maintains that Switzerland has never had a constitutional crisis caused by the initiative or referendum. Over the past 150 years, hundreds of constitutional amendments were proposed through initiative and referendum, addressing a wide range of social and economic issues, and many of them were enacted. Of special importance in the present study, are the amendments to the Swiss constitution relating to taxes and expenditures, which account for about 20 percent of the domestic issues addressed through constitutional amendment. As Matsusaka (2004) notes, one of the most controversial issues in this literature is the impact of the initiative on the size of government. The evidence for Switzerland is that the initiative and referendum process, both directly and indirectly, reduced the size of government (Fossedal (2009). Swiss citizens rejected tax increases in every decade in the twentieth century and used the referendum to cut taxes in the 1920s, 1950s, and 1980s. As a result, Switzerland has one of the lowest tax burdens at both the federal and cantonal level of any European country. Switzerland also has one of the most decentralized governments among its peers, with the federal government accounting for 30 percent of government spending, compared to 40 percent for the cantons and 30 percent for communes. The Swiss have a value-added tax that is less than half that of other European countries. They have maintained personal and corporate income taxes significantly below that of most European countries. The payroll and income tax are administered by the cantons and communes. The Swiss do not even have a federal tax collection agency, such as the IRS in theU.S.

These political institutions provided the framework for the design and implementation of Switzerland's debt brake (Bauer, 2013; Feld and Kirchgaessner, 2008; Kirchgaessner, 2013a, 2013b, 2015; Siegenthaler, 2013). In the late 1980s and early 1990s, Switzerland experienced a series of financial crises that resulted in a sharp increase in deficits and debt (Bodmer 2006; Beljian and Geier 2013; Geier 2011). Like many advanced countries, Switzerland had a deficit bias in the budget that resulted in pro-cyclical fiscal policies. In periods of rapid growth, the government allowed spending to increase more rapidly than income, financed in part by borrowing. In periods of recession and revenue shortfall, the government cut spending, but the deficits and debt ratcheted up from one business cycle to the next. In the long run, the Swiss anticipated increased government spending for pensions and health care as the population aged. Growing deficits and debt threatened the viability of these entitlement programs (Bodmer 2006).

The fiscal crises experienced in the in the 1980s and 1990s were accompanied by an erosion in fiscal discipline. Debt as a share of GDP increased from 12% to 20%. Polls conducted in the 1990s revealed

that Swiss citizens perceived the growing deficits and debt as unsustainable, and favored more prudent fiscal policies (Beljian and Geier 2013).

The Swiss Constitution mandated a balanced budget and elimination of debt in the medium term. However, there was no constitutional court or other legal body capable of sanctioning Parliament if it violated this balanced budget rule. Recognizing the limitations of the balanced budget rule, the Swiss debated new fiscal rules to constrain the growth of spending at the national level. One option was to mandate a referendum on expenditures at the national level similar to that imposed at the cantonal level (Kirchgaessner 2013a 2013b). The Swiss chose not to enact this referendum rule; the experience with debt brak5es at the cantonal level set the precedent for new fiscal rules at the national level.

In 1995, the Swiss introduced an expenditure limit at the national level. This fiscal rule requires majority vote approval in Parliament for any new expenditure program beyond CHF 20 million. In 2001, a Constitutional "budget target" was introduced to eliminate the structural budget deficit. The debt brake replaced the budget target in 2003 (Beljian and Geier 2013). The debt brake was approved in a referendum and incorporated in the constitution. The referendum was approved by all the Cantons, and by 85 % of those voting, although the turnout was only 35%. The debt brake links expenditures to revenue and requires automatic adjustments in spending when this requirement is not met. The basic debt brake formula is

$$G_t^* = k_t R_t \quad (1)$$

With

$k_t = Y_t^*/Y_t$

Where

G^* is expenditures cap

k_t is a business cycle adjustment factor

R_t is revenues

Y_t^* is trend real output

Y_t is real output

The 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 cyclically adjusted revenue is determined by the output gap, i.e. the ratio of trend real output Y_t^* to real output Y_t. Calculation of the output gap requires calculation of trend real output; the Swiss use a modified HP filter for this calculation.

If the adjustment factor is greater than one, a deficit is allowed, and if it is smaller than one, a surplus is required. Deviations from the spending limit result in a credit or debit to a notional account. Deficits 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% of expenditures, the excess must be eliminated over the next three budget cycles by lowering the spending limit.

A provision of the rule provides for an escape clause that allows for spending in excess of that permitted by cyclically adjusted revenues. While not referred to as such, the "extraordinary budget" 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 increase in debt incurred because of extraordinary budget expenditures were more than offset by the surplus generated in the primary budget.

The objective of the debt brake is to maintain a stable trend in revenue and to stabilize expenditures around that revenue trend (Geier 2011, 2012). We should distinguish the debt brake from other fiscal rules such as the cyclically adjusted budget balance rule (CAB). The latter rule uses an adjustment factor equal to the ratio of potential output to actual output. The CAB rule provides for an adjustment factor that maintains aggregate demand at a full employment level of output. However, calculation of potential output requires the use of a production function involving assumptions about model specification and

model parameters. While the Swiss debt brake is not designed to maintain aggregate demand at a full employment level of output it has resulted in fiscal policies that are less pro-cyclical than the discretionary fiscal policies pursued in prior years.

Thus far, the application of the debt brake at the federal level has achieved a budget that is close to balance over the long term (Geier 2012). The cyclical adjustment factor has been used to successfully offset deficits with surpluses over the business cycle. The extraordinary budget has been used to offset deviations from this cyclically balanced budget rule. It is possible that the debt brake will need to be fine-tuned in future business cycles; nevertheless, it has worked much as intended (Geier 2012).

The fiscal rules in Switzerland are considered the most stringent rules imposed in the European countries (Geier 2011, 2012).[3] The Swiss Constitution imposes a maximum rate for the value-added tax (VAT) and direct federal tax. The tax rates can be increased only by a double- majority referendum, i.e. a majority of voters in a majority of Cantons. Increasing spending requires a simple majority in the Parliament. The asymmetry in these fiscal rules imparts a deficit bias in fiscal policy, since increasing taxes requires a mandatory referendum, while increasing spending requires only a majority in Parliament. However, the spending limits combined with the debt brake have combined to impose stringent limits on deficits and debt.

In contrast to the experiences in some countries, implementation of fiscal rules in Switzerland has achieved fiscal consolidation while maintaining budget stability (Kraan and Ruffner 2005, Bodmer 2006; Beljian and Geier 2011, 2013). The effectiveness of the new fiscal rules in Switzerland is evident in the fiscal policies pursued since these rules were introduced. Debt has fallen CHF 12 billion, and debt as a share of GDP has fallen below the tolerance level. Since 2005, the country has incurred no deficits in the primary budget. In fact, the implementation of the fiscal rules has often resulted in surplus in the long term, which Swiss economists maintain they have corrected through budgetary procedures (Beljian and Geier 2013). Econometric studies provide evidence that cantonal 'debt brakes' have significantly constrained expenditures, revenue and debt (Feld and Kirchgaessner 2001; Feld and Kirchgaessner 2007; Dragstrip and Walti 2008).

In figure 2, we compare the debt/GDP ratio in Switzerland with that in Germany and the other European countries over the past two decades. The success of the Swiss debt brake is reflected in the trend in their debt/GDP ratio over this period. Switzerland began the period with a debt/GDP ratio below the 60% tolerance level. Over the period, Switzerland significantly reduced the debt/GDP ratio, which is projected to fall to 46% in 2017. It is important to point out that Switzerland was able to reduce the debt/GDP ratio during the Great Recession, years when most countries experienced a sharp increase in their debt/GDP ratio.

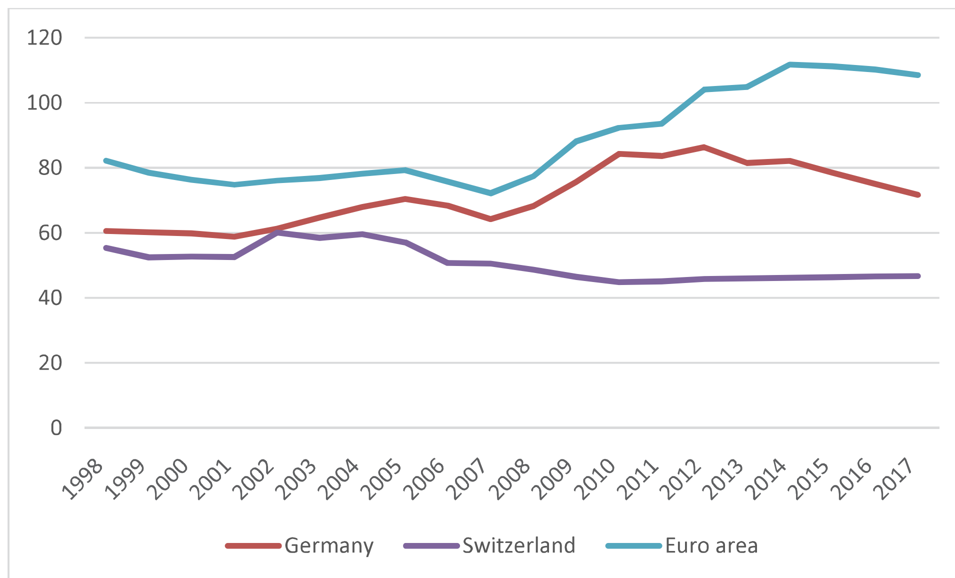
While the Swiss debt brake serves as a model for fiscal rules in other countries, many of these countries now have debt/GDP ratios much higher than that in Switzerland. These countries may need to impose more stringent constraints, such as the modified Swiss debt brake proposed in Merrifield and Poulson (2016a and 2016b).

There are a number of reasons for the Swiss success in implementing these stringent fiscal rules. The fiscal consolidation plans implemented when these rules were enacted in 2003 and 2004 allowed for a transition period up to 2006 during which a substantial structural deficit in the budget was gradually reduced. If the Swiss had imposed these stringent rules at the outset, the result could have been very destabilizing for the budget (Beljian and Geier 2013).

The Swiss have chosen fiscal rules that are straightforward and transparent, recognizing the tradeoffs compared to more complex fiscal rules introduced in other European countries (Bodmer 2006; Beljian and Geier 2011, 2013). The Swiss expenditure limit is applied to a comprehensive measure of spending, including investment expenditures. Other countries have enacted fiscal rules that exempt investment spending, i.e. the so-called golden rule, which allows for debt-financed investment spending. The problem with the golden rule is that it requires a distinction between investment spending and government consumption. The Swiss view this requirement as a loophole; the question is whether investment spending is narrowly defined or includes R&D expenditure, education, and so on. Critics argue that the Swiss rules are likely to result in underinvestment. If investment spending becomes a target for spending

cuts in periods of recession and revenue shortfall, the result is an underinvestment bias in fiscal policy. The Swiss, though, defend their investment policies, pointing to stability and growth in investment spending in the years since the rules were introduced (Merrifield and Poulson 2016, Beljian and Geier 2013).

FIGURE 2
DEBT-TO-GDP RATIO %



Source: OECD. (2016). *Global Economic Outlook and Interim Economic Outlook.*

The experience with fiscal rules in Switzerland demonstrates that a strong federalist system can play a crucial role in fiscal consolidation (Merrifield and Poulson 2016a, 2016b). Switzerland found it necessary to impose new fiscal rules to constrain spending at the state and local level. Local governments are required to balance their budgets. If a local government fails to balance their budget, they must present a plan for eliminating deficits.[4] Charles Blankart (2015) maintains that the strength of the Swiss federalist system is based on this 'no bailout' rule. When Swiss cantons encountered financial difficulties in the 1990s each canton was responsible for its own finance; there was no question that a canton would be bailed out by other cantons or by the federal government. Similarly, Swiss municipalities cannot rely on their Canton to bail them out. When the municipality of Leukerbad could not service its debt in 1998 it turned to the canton of Wallis to bail them out. The court ruled that the canton of Wallis was not liable for the debts incurred by the municipality; leaving Credit Suisse First Boston and other creditors to absorb the loss. Blankart concludes that a 'no bailout' rule is a necessary condition for fiscal rules to be effective in constraining debt at all levels of government.

Fiscal federalism is strengthened when citizens have a direct input into the budgetary process. In Switzerland, for example, local budget laws provide for a referendum on expenditures. In some cantons, the referendum is voluntary, while in others it is mandatory. New fiscal rules or revisions in existing rules must be approved by citizens, and when these rules are to be incorporated in the cantonal constitution, the referendum is mandatory.

Through interstate competition the success of fiscal rules in one jurisdiction is transmitted to other jurisdictions.[5] Interstate competition is most evident in Switzerland, which has, arguably, the most stringent fiscal federalism of any European country. Over time, the cantonal debt brakes combined with other fiscal rules, such as balanced budget requirements, provided the anchor for an effective public financial management system. These cantons were able to deliver better- quality government services at

lower cost compared to other cantons. As business investment, jobs, and population were attracted to these cantons, other cantons followed their lead adopting their own fiscal rules, including versions of the debt brake.

The Swiss debt brake and other fiscal rules introduced at the cantonal level were used as models for the fiscal brake introduced at the national level. When the Swiss government debated new fiscal rules at the national level in the early 1990s, one option considered was a national referendum on expenditures. The Swiss rejected this option in favor of a debt brake similar to that introduced in a number of cantons, suggesting that direct democracy through a referendum on expenditures may be more difficult at the national level. The Swiss rely on direct democracy to determine tax policy, where increasing spending requires a simple majority in parliament, whereas tax rates can only be increased by a double majority referendum, i.e. a majority of votes in a majority of cantons. The lesson from the Swiss experience is that a strong federalist system with stringent fiscal rules at both the state and national level may be a necessary condition for successful fiscal consolidation. The Swiss rely heavily on state and local governments for the delivery of government services. About one-third of all expenditures are incurred at the state and local level in OECD countries, and that share has been rising. Successful fiscal consolidation requires spending cuts at all levels of government.

An important reason for the success of the Swiss fiscal rules is that they are complemented by priority budgeting procedures. Before the fiscal rules were introduced, the Swiss relied on traditional budgeting procedures in which budgets were planned from the bottom up. Each ministry would submit a proposed budget based on the prior year budget adjusted for inflation and new programs. The bargaining between these ministries and elected officials resulted in a deficit bias in spending. With the new fiscal rules in place, the government determines medium-term expenditure targets, and then sets priorities for spending consistent with those targets. This top-down budgeting procedure eliminates much of the deficit bias. Fiscal rules require agreement on the budget at the outset of the budget cycle. This requirement has enabled coalition governments in the parliamentary system to conduct fiscal policy over several years, a source of political as well as economic stability. Incorporating the fiscal rule in the constitution has provided even greater political and economic stability.

The Swiss debt brake solved the time inconsistency problem in the traditional budget process. The Swiss anticipated that over time, special interests would attempt to erode and evade these fiscal rules, and that elected officials would have an incentive to support this rent seeking activity. The Swiss designed and implemented the debt brake in ways that did not prevent rent seeking, but which made it more difficult to successfully engage in that activity. The most important reason for the success of fiscal rules in Switzerland is the political institutions in which those rules are implemented. Switzerland has no constitutional court or other legal body capable of sanctioning parliament if it deviates from the fiscal rules. Nor does a supranational authority empowered to enforce the rules, such as the EU, mandate their stringent fiscal rules. Swiss citizens approved their fiscal rules through referendum, and it is citizen support that assures the rules are an effective constraint on fiscal policy.

Peter Siengenthaler (2013) concludes “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” (Siegenthaler, 2013 p.137). He offers three lessons from the history of the debt brake.

“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.” (Siegenthaler, 2013 p.137)

The Case of Germany

Economists contrast the institutions of direct democracy and fiscal federalism in Switzerland with that in Germany (Kirchgaessner 2013b, 2015; Stoles 1990). These differences can be traced to the different constitutions that emerged in the two countries in the nineteenth century. The constitutional principles enacted in Germany at that time were based on 'monarchist principles'; and until World War I political power was concentrated in the princely houses. Especially under Bismarck, political power was concentrated in the Prussian military state. As a result, the concept of citizens as active participants in the political process was weakly developed in Germany, compared to other countries such as Switzerland.

In the Weimar Republic established after World War I the constitution provided for a more active role for citizens (Kirchgaessner 2015). While democratic principles influenced the design of the constitution, the institutions of direct democracy made little headway; only two referenda were carried out during the Weimar Republic. Kirchgaessner argues that German antipathy toward the institutions of direct democracy can be traced to the rise of National Socialism. Some historians argue that the Reichstag election of March 5, 1933 was perceived as a plebiscite on Hitler. But, Kirchgaessner refutes that, arguing that the institutions of direct democracy were abandoned by economic and political elites in Germany when they passed the Enabling Act of March 23, 1933. Kirchgaessner (2015) and Holcombe (2015) maintain that a legacy of National Socialism is the perception that empowering citizens as lawmakers will result in irresponsible behavior, and that fiscal powers should be concentrated in the federal government.

The West German Constitution, the Basic Law, precluded the initiative and referendum at the federal level (Kirchgaessner 2015). After German reunification, the two major parties in the Grand Coalition, the Christian Democratic Union (CDU) and the Christian Social Union (CSU), modified the constitution, to provide for limited popular rights at the federal level. The institutions of direct democracy are referred to as Volksbegehren (petition) and Volksentscheid (popular decision). The petition is similar to the initiative process in other countries. With a minimum number of signatures, German citizens can petition Parliament to address a specific issue. If Parliament fails to act on the petition, a popular decision can be held, but Parliament has the power to reverse the popular decision. German law also provides for a plebiscitary referendum and consultative referendum. In the plebiscitary referendum, Parliament, can submit a proposed law to the vote of the people, to gain special legitimacy. In the consultative referendum, Parliament submits proposed laws to the vote of the people, but the vote is non-binding. Budget measures are reserved to the Parliament, and may not be the object of a referendum.

Antipathy toward direct democracy in Germany is most evident in the states (Leander) where a 'fiscal reservation' prohibits popular votes with financial consequences (Krafczyk 2005). At least with respect to fiscal issues, direct democracy in the Leander is limited to the initiative. Parliamentary consultation is required to approve a petition before it is presented to the voters. The Bavarian government has placed more stringent limitations on the use of the initiative, reducing the registration period from four to two weeks. Also, strict rules are imposed for both initiative and referenda in the form of signature requirements and quorum requirements. In 2000 the courts rejected as unconstitutional proposed reforms to relax these restrictions. It is not surprising that the initiative and referendum are rarely used in Germany; in Bavaria, for example, there have been only 20 popular petitions, and 19 referenda since World War II (Kirchgaessner 2015). Weak institutions of direct democracy and fiscal federalism have had a profound impact on German fiscal policy.

Prior to 2009 German debt was governed by a version of the 'golden rule' incorporated in both the Basic Law, and in state constitutions (Bundesbank 2011; Kelleners 2016). Borrowing, as a general rule, could not exceed total projected investment expenditures. The failure to enforce this rule to constrain debt reflected several flaws. The rules incorporated exception clauses that allowed the government to incur debt in periods of recession, without any provision for repayment of the debt. Major portions of revenue and expenditure were shifted off budget and not subject to the debt limit. Inadequate measures were in place to monitor and enforce compliance with the fiscal rules.

With ineffective rules in place to constraint debt Germany failed to pursue policies of fiscal stabilization. As shown in graph 1. The debt/GDP ratio in Germany followed a quite different path than that in Switzerland over the past two decades. Germany began the period with a debt/GDP ratio well

above the 60% tolerance level. Over time Germany allowed the debt/GDP ratio to increase well above the tolerance level, reaching a peak of 86%, following the fiscal crisis in 2012. Germany failed to pursue fiscal policies consistent with either supranational, or national fiscal rules. Along with most European countries, Germany failed to comply with the deficit and debt limits imposed by the Stability and Growth Pact of 2005 (OECD 2014, 2016).

Recognizing the deficiencies in their fiscal rules the German Parliament in 2009 agreed on new fiscal rules incorporated in Article 109 of the Constitution (OECD 2014; Bundesbank 2011; Kelleners 2016, Federal Ministry 2015). To conform to the provisions of the Stability and Growth Pact the structural general government budget would be at least close to balance. A debt brake similar to that in Switzerland was enacted, requiring both the federal and state government budgets to balance without incurring new debt. For the federal government exceptions to this debt limit were permitted in order to maintain a cyclically balance budget, with surpluses in periods of expansion used to offset deficits in periods of recession. Net borrowing could not exceed 0.35 percent of GDP. Exceptions to the debt limit were also permitted for specified defined emergencies, with a majority vote of Parliament. That debt was tied to explicit repayment rules. Due to the fiscal stress experienced during the Great Recession, an extended transition period provided for both the federal and Lander governments to comply with the new fiscal rules. Transitional assistance was provided to several highly-indebted Leander. A Stability Council was established consisting of the finance ministers of the Leander and the economic and finance ministers of the federation. The Council does not have the power to intervene or impose sanctions when there is non-compliance with the fiscal rules. However, the Council can warn of budgetary stress and hope that public pressure forces governments to comply with the rules.

When the German debt brake was enacted in 2009 the concern was that the new fiscal rule would have a pro-cyclical bias (Mayer and Stahler 2009). In fact, for several years Germany continued to incur deficits and accumulate debt as it had in prior years. Truger and Will (2012) argue that the flaw in the German Debt brake was that it is very complex in design and therefore subject to manipulation as it is implemented. Thus, during and after the Great Recession policy maker were able to manipulate the debt brake such that it was ineffective in constraining deficits and debt.

A major flaw in the German debt brake is the limited success in fiscal consolidation at the Leander level (OECD 2014). There is great diversity in fiscal consolidation in the different Leander. Over the period 2000 to 2012 debt as a share of revenue increased in all of the Leander except one, Sachsen. More importantly, that ratio varied from less than 50 percent in Sachsen, to more than 450 percent in Bremen. Weak fiscal federalism in Germany means that the Leander do not have control over their finances. They do not have control over taxes because the power to tax is concentrated in the federal government. Because the Leander control their expenditures, but not their taxes, there is a bias toward deficits and debt. While the German Constitution provides that the Leander should be autonomous in their budgetary affairs, the constitution also provides for transfers from the federal government to five of the most indebted Leander (Berlin, Bremen, Saarland, Saxony-Anhalt, and Schleswig-Holstein) over a transition period 2010-2019.

These Leander continue to incur deficits and accumulate debt, relying on the federal government for bailouts.[6] In recent years some of the German Leander have introduced their own debt brakes. At this point it is too early to judge how successful these German Leander have been in using debt brakes to control spending and debt (Potrafke et al 2016).

As Blankart (2015) argues, a fatal flaw in the German Federation is the absence of a 'no bailout' rule. Because German municipal and state governments continue to rely on bailouts from the federal government when they encounter financial difficulties, the country has been less successful in using fiscal rules to impose fiscal discipline.

The German federal government is also burdened by financial obligations in bailing out other members of the European Union. These risks could again be exposed in a future crisis, just as they were in the 2008 financial crisis. Like most European countries, Germany incurred significantly higher deficits and debt in response to the financial crisis that began in 2008 (German Federal Ministry of Finance 2015). However, in recent years the deficits and debt associated with these programs, i.e. FMS Wertmanagement

and the Ersye Abwicklungsanstact (EAA), have been reduced and eliminated (German Federal Ministry of Finance 2015).

As figure 1 shows, after decades of rising debt/GDP ratios, since 2013 Germany has reduced that ratio. After peaking at 81% in 2010, that ratio was reduced to 68% in 2016; and the German Federal Ministry of Finance projects a further reduction of that ratio below the 60% tolerance level by 2020 (German Ministry of Finance 2016). In 2016 a budget surplus of ½% was achieved. Germany's recent success reflects surplus revenue in all levels of government, federal, state, and municipal. The Ministry reports that Germany is now in compliance with the requirements of the Stability and Growth Pact, to maintain a government budget close to balance or in surplus (German Federal Ministry of Finance 2016). The government maintains a safety margin in the budget to achieve that goal. The government has also set budget goals designed to address the long-term impact of demographic change. The OECD projects that Germany will continue this path of fiscal consolidation in the next few years (OECD 2014, 2015).

Critics of German fiscal policy question whether these forecasts are realistic, especially if Germany experiences another recession. Truger and Will (2012) pointed out that there is a risk that in a future recession the federal government will manipulate the debt brake and again allow deficits and debt to exceed the limits imposed by the debt brake. The OECD also notes the risks inherent in the design and implementation of the German debt brake. Of particular concern for Germany is the limited success in fiscal consolidation with debt brakes imposed in the Leander. Given the high levels of debt in some Leander it will be difficult for them to achieve the fiscal consolidation mandated by their debt brakes.[7]

"Into the future, compliance with the fiscal rules, and the continued fiscal sustainability of the general government, will depend on sustained fiscal discipline from all levels of government. This will mark a divergence from the pattern of past decades, and it remains to be seen whether the new budgetary framework can effectively underpin such a heightened level of fiscal rectitude." … "While the principle of solidarity is far from unqualified, in practice the Federation and the Leander stand together in budgetary matters and there is a degree of de facto joint liability for debts incurred by the Leander. At present, as the Leander remain on a path toward elimination of structural deficits by 2020, the longer-term risks inherent in such a situation may not be readily apparent." (OECD 2014, p. 34.).

The European Court of Auditors signals a note of caution regarding the compliance of Germany and other European countries with the Stability and Growth Pact. That Pact provides for an Excessive Deficit Procedure designed to assure that these countries meet the targets set in the Pact. In a Special Report, the European Court of Auditors concluded that the European Commission is not strict enough in implementing this Procedure. They found that the Commission is not effective enough in obtaining reliable data from Member States, and is not applying the procedure in a consistent manner. The auditors examined the Commission's implementation of the Excessive Deficit Procedure between 2008 and 2015 in six member countries: Cyprus, the Czech Republic, France, Germany, Italy, and Malta. (European Court of Auditors 2016).

CONCLUSION

In their (2012) paper Mause and Groeteke challenged the view that the German debt brake should serve as the model for debt brakes in the European Union. They suggested alternative reforms as prerequisites for fiscal consolidation within Germany and the European Union. In retrospect, Mause and Groeteke were too pessimistic regarding the potential for debt brakes to achieve fiscal consolidation. Since then the debt brakes enacted in Germany and some European countries have been more effective in anchoring sound public financial management systems, and are projected to continue to do so in coming years. The modest success of Germany with debt brakes in recent years is in contrast to the experience with debt brakes in Switzerland, where for more than two decades these fiscal rules have reduced debt/GDP ratios well below tolerance levels.

In this study, we explore the role of debt brakes in the diverging trends on fiscal consolidation in Switzerland and Germany. The study begins with an analysis of the economic rationale for debt brakes to constrain the growth in government spending. In a public choice framework, the assumption is that

elected officials may prefer higher levels of government spending than their constituents. In a political capitalist system in which economic and political elites dominate the political process, a deficit bias may result in unsustainable deficits and debt accumulation. In recent decades, all of the European countries have at some point experienced the fiscal stress of unsustainable fiscal policies. In that context, debt brakes may impose the fiscal discipline required for sustainable fiscal policies. Whether or not debt brakes are effective in achieving the fiscal consolidation required for sustainable fiscal policies depends upon the design and implementation of these fiscal rules. Where citizens prefer lower levels of spending than their elected representatives, political institutions must allow the preferences of citizens to dominate the preferences of elected officials. Two political institutions have empowered citizens as lawmakers and have proven to be decisive in the design and implementation of effective debt brakes, direct democracy and fiscal federalism.

Switzerland has the most vigorous direct democracy in the world, as a result of political institutions that have evolved over centuries. The initiative and referendum introduced at the cantonal level were later incorporated in the Swiss Federal Constitution. These institutions have empowered Swiss citizens as lawmakers at all levels of government. Each year Swiss citizens vote on hundreds of measures at the cantonal level, and on major issue introduced in the Parliament. These measures include proposals to increase taxes and expenditures. The preference of Swiss citizens for prudent fiscal policies is reflected in low levels of taxation and spending compared to other European countries.

In Switzerland, strong fiscal federalism retains much of the power to tax and spend at the state and municipal level, and limits that power at the federal level. In contrast to other European countries where fiscal powers are increasingly concentrated at the federal level, Swiss citizens have rejected measures that would transfer fiscal powers to their federal government.

The institutions of direct democracy and fiscal federalism were crucial in the enactment of debt brakes in Switzerland. Debt brakes were first enacted to constrain spending in Swiss cantons. With effective constraints on spending these cantons attracted business investment and promoted economic growth. Other cantons followed their lead to enact debt brakes and create a competitive business climate. During the recession in the late 1980s and early 1990s Switzerland experienced fiscal stress. It was clear that the fiscal rules in place were ineffective in constraining high and unsustainable levels of deficits and debt. The debt brake proposed at the federal level was patterned after the debt brakes enacted at the cantonal level. Swiss citizens voted in a referendum to adopt the proposed debt brake with 85 percent supporting the measure. The success of the debt brakes introduced in Switzerland reflects the active role that citizens have played in the design and implementation of these fiscal rules at all levels of government.

Underlying the greater success of debt brakes in Switzerland compared to Germany is what Charles Blankart (2015) refers to as a large stock of 'dynamically developing credence capital'. In Switzerland, the 'no bailout' rule applies at all levels of government. If a municipal or cantonal government encounters fiscal stress elected officials know that they are responsible for resolving the problem, and that they cannot rely on other cantons or the federal government to bail them out. Failure to resolve the fiscal crisis may result in bankruptcy. This means that creditors and private rating agencies must do due diligence in assessing the finances of a jurisdiction, and asses the probability of default and bankruptcy. In a jurisdiction with weak finances, this risk is reflected in the higher interest rates it must pay in issuing debt. Conversely, a jurisdiction with strong finances will benefit from low interest rates on the debt that it issues. Over time the reputational effects of a strong financial system in a jurisdiction amounts to a capital good, with a rate of return measured by the differential rate of interest it pays on debt compared to that in jurisdictions with weak financial systems. The 'no bailout' rule means that each jurisdiction is autonomous and entirely responsible for its own finances, and each jurisdiction has a unique credit rating reflecting that financial performance.

The discipline imposed by capital markets in Switzerland creates incentives for each jurisdiction to enact debt brakes and other fiscal rules to strengthen fiscal discipline. This combination of debt brakes and 'no bailout' rules in Switzerland crates incentives for municipal and cantonal governments to pursue prudent fiscal policies. This creates a business tax climate conducive to rapid economic growth. As other municipalities and cantons observe the success of prudent jurisdictions, they also have an incentive to

enact debt brakes and other rules imposing fiscal discipline. Thus, inter-canton competition can result in constraints on spending and debt that ensure fiscal stability in the long run.

The reputational effects of strong financial systems in Swiss governments and financial institutions allows them to now issue debt with low or even negative interest rates. The institutions of strong competitive federalism and direct democracy have evolved over centuries. Using the terminology of Charles Blankart, we conclude that the success of the Swiss debt brake, as well as other fiscal rules, reflects the accumulation of high levels of 'dynamically developing credence capital'.

In the nineteenth century Germany the concept of popular democracy, with citizens taking an active role in the political process was less well developed than in Switzerland. The constitutions enacted during that period concentrated political power in the different German monarchies. By the early the early twentieth century the German Constitution provided for more democratic institutions, but the initiative and referendum were rarely used, and fiscal powers were concentrated in the federal government. The dominance of economic and political elites and concentration of fiscal powers in the federal government reached a peak during the era of National Socialism. In the post-World War II period the German constitution provided for more democratic institutions; however fiscal powers continued to be concentrated in the federal government, with many Leander dependent on the federal government to bailout their finances. Antipathy toward direct democracy was reflected in constitutional provisions that restricted the use of the initiative and referendum, especially with regard to fiscal issues. With economic and political elites dominating fiscal policies at the federal level it is not surprising that Germany experienced rapid growth in government spending, accompanied by deficits and unsustainable debt.

For decades Germany incurred deficits and accumulated debt in violation of both national and supranational fiscal rules. In 2009 a debt brake was incorporated in the Constitution by the German Parliament. That debt brake was the model for the debt brake adopted by the European Union. Until the last few years these debt brakes were ineffective in constraining spending at either the federal or Leander level. In the last few years Germany has had modest success with fiscal consolidation, reducing the debt/GDP level, and Germany is projected to continue to do so in coming years.

Our analysis suggests that the explanation for the limited success of debt brakes in Germany compared to Switzerland can be traced to weaker institutions of direct democracy and federalism. A fatal flaw in German fiscal rules is the absence of a credible 'no bailout' rule. In fact, the debt brake enacted in Germany guarantees significant transfers from the federal government to the more impecunious Leander for the remainder of this decade. Despite the reforms to make the Leander more autonomous fiscally, there is an implicit guarantee of bailout by the federal government if they experience fiscal stress. The absence of a credible 'no bailout' rule for German Leander creates the wrong incentives. With an implicit guarantee that Leander will be bailed out there is less incentive for creditors and rating agencies to do due diligence in assessing the risk of their debt issue. Leander with weak financial systems pay a lower interest rate on their debt issue comparable to that for Leander with strong financial systems. With lower interest rates and expectations of a bailout, Leander with weak financial systems have an incentive to issue more debt. Leander with strong financial systems, as well as the federal government, assume some of the risk of that debt issue, which means that they must pay higher interest rates on their own debt issue. The result is an inefficient allocation of loanable funds, weakening the financial system as a whole. The reputational effects of this weak financial system are reflected in the interest rates that German governments and financial institutions must pay when they issue debt. While enjoying low interest rates, compared to other OECD countries, German governments and financial institutions are, in general viewed as riskier bets than their Swiss counterparts.

There is less incentive for governments in Germany to enact debt brakes, and these fiscal rules are likely to be less effective than those enacted in Switzerland. Germany is now attempting to reduce transfers from the federal government to the Leander, and create greater autonomy for both municipal and state government. Ultimately the goal is to eliminate such transfers and impose a credible 'no bailout' rule at all levels of government. But, given the sharp increase in such transfers in response to the 2008 financial crisis, it will be difficult for Germany to enact these reforms in the near term.

There are considerable risks in the capacity of the German government to sustain policies of fiscal consolidation required for a sustainable fiscal policy. This reflects less stringency in the design and implementation for the debt brake in Germany compared to that in Switzerland. It also reflects what Peter Siegenthaler refers to as the weaker democratic legitimation of the debt brake in Germany. With weak institutions of direct democracy and fiscal federalism, German citizens have played a limited role in the design and implementation of their debt brake. The risk is that economic and political elites in Germany will again circumvent the limits imposed by their debt brake and exceed tolerance levels for deficits and debt. Using Blankart's terminology, compared to Switzerland, Germany has accumulated a lower level of 'dynamically developing credence capital'.

In this study, we have not attempted a comprehensive survey of the debt brakes enacted in the European countries. Nor have we attempted to assess the impact of the fiscal rules enacted by the European Union on these countries. As a member of the EU Germany is subject to the fiscal constraints imposed by the Stability and Growth Pact. This supranational debt brake has proven to be a weak and ineffective constraint on the fiscal policies pursued by the member nations. As noted earlier, the debt/GDP ratio for the European nations as a whole has increased continuously over the past war decades, reaching levels well above the 60% tolerance level set by the Growth and Stability Pact. From this perspective both Switzerland and Germany are the success stories in enacting debt brakes. But their success is tied to the effectiveness of the debt brakes they have imposed on their state and local government, rather than the debt brake imposed by the EU.

Our analysis supports the conclusions reached by Charles Blankart regarding debt brakes in the EU. He maintains that the European Central Bank has in effect guaranteed the debt issued by heavily indented Eurozone countries. The 'Outright Monetary Transaction Program' in 2012 effectively guarantees full bailout to each government in fiscal stress, regardless of whether or not they comply with the debt rules impose by the Stability and Growth Pact. As Blankart argues, debt brakes are not credible if they are not linked to a 'no bailout' rule. We point this out because this flaw in the debt brakes imposed by the European Union imposes a heavy burden on the German government. As the dominant financial system within the EU, Germany assumes much of the risk in the debt issued by weaker members. This burden explains at least in part the limited success with debt brakes in Germany, compared to that in Switzerland, which is not a member of the EU.

As a final footnote to this analysis we should evaluate debt brakes in Euroland not only from the positivist perspective of economics. In democratic societies debt brakes are part of the fiscal constitution that citizens enact to constrain the power of government, and to preserve individual liberty and freedom. This is especially important when debt brakes incorporate procedural rules that empower citizens to influence fiscal policy directly, rather than through their elected representatives. Thus, in Switzerland the democratization of fiscal decision making created by their debt brake is valued independently from the benefits of fiscal discipline. When Swiss citizens petition their government through initiatives, and vote on referenda, they benefit, whatever the outcome of these fiscal measures. In exercising their rights to have a say in fiscal policy Swiss citizens enjoy liberties not granted to citizens in countries without the institutions of direct democracy. From this Hayekian perspective debt brakes expand the scope of individual liberty and freedom, and increase the stock of 'dynamically developing credence capital'.

ENDNOTES

1. Debt brakes impose an expenditure rule either as a target or limit on the rate of growth in expenditures. The expenditure rule may be combined with other rules such as a balanced budget rule, deficit rule, or debt rules. For a taxonomy of fiscal rules see Merrifield and Poulson (2016, 2017).
2. In this study, we focus on two institutions that have an important impact on the effectiveness of debt brakes, direct democracy and federalism. There are of course many other institutions that can influence the effectiveness of debt brakes. We wish to thank an anonymous reviewer who pointed out two important refinements in this relationship. The form of federalism differs significantly in the two countries in our sample, i.e. Switzerland has a competitive federalist system, while Germany has a cooperative federalist system. The courts in Germany have been very active in determining the extent of fiscal federalism, while the courts in Switzerland have been less active. For a discussion of these and other differences in fiscal constitutions see Blochliger and Kantorowicz (2015).
3. It should be emphasized again that Switzerland is not a member of the European Union and therefore is not subject to the fiscal rules recently imposed on member countries of the EU.
4. A no bailout rule between the Swiss Cantons and the federal government was incorporated in the Equalization Act of 2007. A no bailout rule between municipalities and the Cantons was set by legal precedent. For a discussion of these no bailout rules see Kirchgaessner (2005); and Blankart (2011, 20115). For a discussion of bailout rules in a federation see Goodspeed (2002), and Blankart (2000) and Blankart and Klaiber (2006).
5. For a discussion of interstate competition within European countries see Kirchgaessner 2013a, Feld and Kirchgaessner 2001, 2007, Eichenbergeer et al 2012, Mause and Groeteke 2012, and Frey and Eichenberger 1999.
6. In contrast to Switzerland, the German Leander that encounter financial difficulties can expect to be bailed out by their fellow Lander and by the federal government. For example, the federal government bailed out the Leander Bremen and Saarland (Rodden 2003) For a general discussion of bailouts and federalism see Goodspeeed (2002) and Blankart (2000), and Blankart and Klaiber (2006).
7. For a discussion of recent trends and prospects for fiscal rules in Germany see Truger and Will 2012, Kirchgaessner 2013a, Eichenberger et al 2012, Blankart 2011, Mause and Groeteke 2012, Konrad 2016, Potrafke et al 2015, OECD 2014, German Ministry of Finance 2015.

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