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## Fiscal Rules and Fiscal Performance in the EU and Japan

Jürgen von Hagen\*

### Abstract

Fiscal rules specify quantitative targets for key budgetary aggregates. In this paper, we review the experience with such rules in Japan and in the EU. Comparing the performance of fiscal policy in the 1980s and 1990s until 2003, we find that the fiscal rule of the 1980s exerted some but not much disciplinary influence on Japanese fiscal policy. The fiscal rule of the Maastricht Treaty had a significant impact on political budget cycles in the EU, but did little to constrain fiscal policy in the large member states. Since the start of the European Monetary Union, the disciplinary effect of the fiscal rule in the EU has vanished. Next, we discuss the importance of budgetary institutions for the effectiveness of fiscal rules. In Europe, a number of countries adopted strong fiscal rules, i.e., a fiscal rule combined with a design of the budget process enabling governments to commit to the rule. We find that strong fiscal rules have been effective. We conclude with some suggestions for the design of a strong fiscal rule in Japan.

**Key words:** Fiscal policy, political budget cycles, government budgeting

**JEL classification:** H11, H61, H62

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## 1. Introduction

The past two decades have seen a growing interest in fiscal rules. Fiscal rules specify numerical targets for key budgetary aggregates such as annual government deficits, debts, or spending.<sup>1</sup> In contrast to monetary policy rules, the targets are generally understood as upper limits, i.e., staying below them is not considered to be a problem. Fiscal rules have a long history at the sub-national level (e.g., von Hagen and Eichengreen, 1996), and some countries including Japan and Germany have had less specific rules such as the “Golden Rule,” which limits government borrowing to investment spending, at the national level for a long time. What is new is the application of specific annual targets at the national level. It has been part of the reaction to the rapid rise in debt levels and the emergence of unsustainable deficits following the breakdown of the Bretton Woods System and the oil crises on the 1970s in many countries around the world. Thus, the goal of fiscal rules is to improve fiscal discipline and reduce government deficits and debts.

The Fiscal Consolidation Agreement adopted in Japan in 1981 is an early example of a fiscal rule. The agreement set annual targets for the increase in major spending aggregates; for details see below. In 1996, the Japanese government adopted a new rule under the Fiscal Restructuring Targets, and in 1997, the Fiscal Structural Reform Act was passed, which set annual spending targets for several years. The US Congress adopted a fiscal rule in the Balanced Budget and Emergency Deficit Control Act (Gramm-Rudman-Hollings Act I) of 1985, which established numerical targets for the federal budget deficit for every fiscal year through 1991. These targets were later revised and extended by the Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987 (Gramm-Rudman-Hollings Act II), which effectively postponed the goal of balancing the budget from 1991 to 1993. The Budget Enforcement Act of 1990 eliminated the deficit targets and replaced them by nominal ceilings on annual discretionary spending. The same act also introduced a number of reforms of the annual budget process to strengthen the enforcement of the targets (Peach, 2001). In Europe, the Maastricht Treaty introduced fiscal rules for the member states of the European Union (EU) through the Excessive Deficit Procedure (EDP), which was later strengthened and complemented by the Stability and Growth Pact (SGP).

The government of Canada enacted fiscal targets for 1991-92 to 1995-96 through the Federal Spending Control Act (Kennedy and Robbins, 2001). These targets limited annual

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<sup>1</sup> For a discussion of general principles and the design of fiscal rules see Kopits and Symansky (1998) and Buitier (2003).

spending under all federal programs except those that are self-financing. In New Zealand, the Fiscal Responsibility Act of 1994 set out principles of prudent fiscal management promoting accountability and long-term fiscal planning. Although the Act does not require this explicitly, New Zealand governments have defined specific numerical targets for public debt under the new fiscal regime. Similarly, the Australian government has operated under self-imposed targets for net public debt since 1998 (Kennedy and Robbins, 2001; Hemming and Kell, 2001). In Switzerland, a constitutional amendment was passed in 1998 requiring the federal government to balance the budget by 2001 and to set annual ceilings for federal government expenditures afterwards.<sup>2</sup> The Convergence, Stability, Growth, and Solidarity Pact adopted by the member countries of the West African Economic and Monetary Union also contains numerical limits for certain fiscal aggregates (Dore and Masson, 2002).

The attractiveness of fiscal rules as a way to contain the spending and deficit biases of democratic governments is due to the apparent simplicity of a rules-based framework. Once the rule is in place, it seems straightforward to measure the government's performance against it. But in practice, it is by no means clear that fiscal rules are effective.<sup>3</sup> A first reason is that rules, in order to be effective, must be enforced. A second reason is that fiscal outcomes are the product of both policy and endogenous economic developments; hence what appears to be good compliance with a rule may just be the result of lucky economic conditions. It is necessary to separate the two to see whether or not a rule has changed government policy.

In this paper, we review the experience with fiscal rules in Europe and Japan. In section 2, we briefly explain the genesis and the substance of these rules in more detail. In section 3, we analyze the fiscal performance of the EU countries and Japan under their respective fiscal rules, looking at fiscal performance in terms of budgetary aggregates and a measure of discretionary fiscal policy. We show that the fiscal rules in the EU have had some impact of discretionary fiscal policy before the start of the European Monetary Union (EMU). In section 4, we widen the scope of the analysis and consider the connection between fiscal rules and the institutional design of the budget process. Based on the European experience, we distinguish between soft rules and hard rules. Soft rules consist of a mere declaration of annual targets for key budgetary parameters. Hard rules add to this a design of the budget process that strengthens the government's ability to achieve these targets. We show that the EU fiscal rules

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<sup>2</sup> The UK also adopted a fiscal "rule" in the late 1990s. However, this rule is much less specific than those discussed above. See e.g. Kennedy and Robbins (2001) and Emmerson and Frayne (2002). Daban et al. provide a description of fiscal rules in a variety of countries.

<sup>3</sup> Canova and Pappa (2004) investigate the effectiveness of fiscal rules prevailing in most states of the US and conclude that they contribute little to fiscal discipline.

have contributed to improving budgetary institutions in those countries where the political environment is appropriate for a rules-based approach to fiscal discipline. However, this is not the case in all EU countries, and especially not in the large EMU economies. Section 5 concludes by considering some changes in the Japanese budget process that would strengthen the fiscal rule in Japan.

## 2. Fiscal Rules in Japan and the EU

### 2.1. Fiscal Rules in Japan

The Fiscal Consolidation Agreement was negotiated between the Japanese Ministry of Finance (MoF) and the ruling Liberal Democratic Party (LDP) as part of the public sector reform initiated in 1980.<sup>4</sup> The overall goal was to issue no more *deficit bonds* by 1990, i.e. to return to the traditional Japanese practice of limiting deficit financing to capital expenditures.<sup>5</sup> To achieve this goal the MoF issued a ceiling of zero growth for all agency budget requests in its budget guidelines for 1982. This ceiling was tightened to actual reductions in nominal general account spending in several years during the 1980s. Importantly, the ceiling only applied to the budget bids of the spending ministries and agencies for the *general account*, the focal point of Japanese budgetary policies. General account transfers to local governments were exempt from the ceiling, as were entitlement spending and debt service. Furthermore, the ceilings did not cover the many *special accounts*, through which the Japanese government receives revenues and spends money. In recent years, general account spending accounted for 18-20 percent of gross total government spending through the combined General Account and the Special Accounts and 32-40 percent of total spending net of transfers between the general and the special accounts.<sup>6</sup> Thus, the fiscal rule was only a partial one.

Table 1 offers an overview of the fiscal targets. Several points are noteworthy. First, the targets were relatively simple during the 1980s and became increasingly complex in the 1990s.

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<sup>4</sup> This reform was the task the Second Provisional Commission for Administrative Reform, Rincho. For a detailed description of Rincho's work and achievements see Wright (2002).

<sup>5</sup> Capital expenditures can be financed by issuing *construction bonds*.

<sup>6</sup> Tanaka (2003). Ishi (2000), as many Japanese public finance economists, argues that the General Account is still the most important one, as it controls all of the Special Accounts. The reasoning behind this view is that spending through special accounts can be influenced by controlling transfers from the General Account. Obviously, this claim relies heavily on the emphasis on marginal budgeting which prevails in Japan.

Second, the targets throughout refer to certain functional categories of spending such as current versus investment spending or individual types of current spending, rather than to administrative categories that can be linked to individual ministries and branches of the government. By facing all branches of government with the same constraints, the MoF wished to emphasize the fairness of the targets (Grimes, 2000). Since one should expect that different branches of government have different shares of investment and current spending, which implies that the constraints created unequal ceilings for their total allocations, it is not clear that this fairness goal was really achieved. At the same time, the absence of a clear correspondence between the targets and the administrative responsibilities within government probably made it more difficult for the MoF to hold individual spending ministries accountable for surpassing the limits implied by the rule. Third, the targets were defined in terms of the annual increase in the budget allocations, focusing the policy process on marginal changes in the budget rather than the size of each ministry's claim for resources.

During the 1980s, compliance with the fiscal targets was generally good in the sense that the budget bids of the spending departments were in line with the ceilings imposed (Grimes, 2000). However, this strong compliance was to a significant extent an illusion, as the actual growth of public spending and the actual deficits tended to exceed the targets. Japan's fiscal performance deteriorated rapidly after the burst of the bubble economy in 1991 and the subsequent beginning of a prolonged recession. In December 1996, the Japanese cabinet adopted the "Fiscal Restructuring Targets," which aimed at reducing the deficit to below three percent of GDP and at ending the issuing of deficit-financing bonds no later than 2005. The "5 Principles for Reform of the Fiscal Structure," announced in March 1997, brought that target date forward to 2003. The "Fiscal Structure Reform Act," enacted in November 1997, fixed the target year to 2003 and called for numerical targets for the most important spending categories in the subsequent budget years. It foresaw the reduction of the general government-debt to GDP ratio to 60 percent and the reduction of the general government deficit to GDP ratio to three percent (Ihori et al. 2000). However, responding to the onset of a severe recession, this act was amended already in March 1998, pushing back the target year to 2005 and allowing for greater flexibility in issuing deficit bonds. Although the act was suspended in December 1998, the MoF continued to issue annual guidelines for the budget bids that contain annual targets for different spending categories.

In June 2001, the Japanese Cabinet adopted a new set of "basic policies for macroeconomic management," including a commitment to turn the primary deficit into a surplus after 2004. In January 2002, the Cabinet adopted the "Structural Reform and Medium-Term

Economic and Fiscal Perspective” which limited the issue of new government bonds in Fiscal Year 2002 to Yen 30 trillion and determined that primary budget surpluses should be reached in the early 2010s. In addition, the “Perspective” set out a target for government spending, i.e. to hold the ratio of government spending to GDP constant at its 2002 level until 2006 (MoF, 2003; Shiokawa, 2003; Tanaka, 2003). In view of the continued weakness of the economy, however, the goal concerning new bond issues was abandoned in December 2002, and the limit for new bond issues in 2003 was raised to Yen 34.6 trillion (Tanaka, 2003).

## 2.2. Fiscal Rules in Europe: The Excessive Deficit Procedure and the Stability and Growth Pact

Several member states of the European Union (EU), most notably Denmark, Ireland, and the Netherlands, embarked on fiscal consolidation programs based on numerical targets for the main budgetary aggregates already in the 1980s (von Hagen, 1992). Fiscal targets became relevant for all EU member states through the adoption of the Maastricht Treaty. The Treaty calls upon the member states to avoid “excessive deficits” and establishes the Excessive Deficit Procedure (EDP). Under this procedure, states with general government deficits below 3 percent of GDP and general government debt below 60 percent of GDP are assumed not to have excessive deficits. If a country violates one of these numerical thresholds, however, an assessment procedure is started to determine whether or not an excessive deficit prevails. The Treaty provides for a number of excuses such as a severe recession or other exceptional circumstances as well as the temporariness of the violation. The assessment is conducted by the European Commission, which submits its report and proposal to the European Council of Finance Ministers (ECOFIN). ECOFIN then decides whether or not an excessive deficit exists. If this is the case, ECOFIN can admonish the government concerned first confidentially and then publicly, and, ultimately, impose a financial fine. ECOFIN can abrogate its decisions under the EDP upon a recommendation from the Commission. All ECOFIN decisions in this context are made by qualified majority; once a country has been found to have an excessive deficit, its votes are not counted in these decisions. All EU member states had to adopt unified public sector accounting rules and standards to assure that the functioning of the EDP is not undermined by creative accounting and data manipulation. During the run-up to EMU, EU member states were obliged to submit *Convergence Reports* to the European Commission explaining how they intended to achieve the targets or maintain their deficits and debts below the critical values.

To become members of EMU, countries had to stay below the limits for general government deficits and debts defined by the EDP. The threat of not qualifying for EMU gave

the fiscal rules considerable power between 1992 and 1998. By 1994, ECOFIN had declared all EU member states except Luxembourg as having excessive deficits. These declarations were revoked by 1997. The decision of which countries qualified for EMU was taken in 1998 on the basis of 1997 fiscal data.

To further appease the worries of the German public about fiscal profligacy in EMU, the EU member states in 1995 adopted the SGP, parts of which were incorporated into the Amsterdam Treaty in 1997. The SGP modifies the EDP in several ways. First, it sets up an early warning system strengthening the surveillance of the public finances of the member states. Under the SGP, EMU member states submit annual Stability Programs to the European Commission explaining their intended fiscal policies and, in particular, how they plan to keep the budget close to the new and stricter medium-term objective of “close to balance or in surplus.” Based on information and assessments by the European Commission ECOFIN can issue early warnings to countries that risk significant deviations from the fiscal targets set out in their Stability Programs. Second, the SGP clarifies the EDP by giving more specific content to the notions of exceptional and temporary breaches of the three-percent limit and by defining the rules for financial penalties, and it speeds up the process by setting specific deadlines for the individual steps. Third, the SGP gives political guidance to the parties involved in the EDP, calling upon them to implement the rules of the EDP effectively and timely. It commits the Commission in particular to using its right of initiative under the EDP “in a manner that facilitates the strict, timely, and effective functioning of the SGP.” This puts severe limits on the Commission’s right to exercise judgment on each individual case and situation, shifting that right to ECOFIN instead.

The rules of the SGP have been further developed in a set of ECOFIN decisions regarding the format and content of the Stability Programs.<sup>7</sup> In October 1998, ECOFIN endorsed a “code of conduct” specifying criteria to be observed in the assessment of a country’s medium-term budgetary position and data standards and requirements for the Programs. In October 1999, ECOFIN recommended stricter compliance with and more timely updating of the Programs. In July 2001, ECOFIN endorsed an appended code of conduct refining the format and the use of data in the Stability Programs, including the use of a common set of assumptions about economic developments outside the EMU. Meanwhile, the Commission (2000) has specified a detailed framework for the interpretation of divergences from the targets set in the Stability Programs.

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<sup>7</sup> See European Commission (2002), p. 23

Somewhat ironically, Germany, the very country that had pushed for tighter fiscal rules in EMU in the mid-1990s, was the second EMU member country only and the first of the large member countries to violate the fiscal rules. Already in January 2002, the Commission recommended that ECOFIN should issue an early warning to Germany, but, in view of the upcoming federal elections there, ECOFIN refrained from doing that. In January 2003, only four months after the elections, ECOFIN found that Germany did have an excessive deficit. ECOFIN also issued an early warning to the French government in January 2003, and declared that France, the Netherlands, and Greece had excessive deficits in June 2003, June 2004, and July 2004, respectively. In July 2004, ECOFIN also found that several of the new member states that entered the EU in May of the year had excessive deficits, i.e., the Czech Republic, Cyprus, Hungary, Malta, Poland, and the Slovak Republic. Meanwhile, the governments of Germany, France, and other countries demanded a reform of the SGP and the EDP allowing for more flexibility.<sup>8</sup> In December 2004, ECOFIN decided to suspend the ongoing procedures under the EDP until a reform of the SGP has been adopted. In March 2005, the European Council adopted an explicit list of excuses for persistent government deficits and debts in excess of the thresholds set by the EDP. This decision further deprives the European Commission of its right to exert independent judgment on the fiscal performance of the EU member states and effectively marks the end of the rules-based regime for fiscal policy in Europe.

### **3. Fiscal Performance Under Fiscal Rules**

#### **3.1. Government Debt, Deficits and Spending**

The main goal of the Fiscal Consolidation Agreement was to stabilize Japan's government debt ratio, which had been rising rapidly during the 1970s. Table 2 shows the evolution of the Japanese general government debt ratio from 1980 to 2003. The ratio hovered around 60 percent in the early 1980s, and jumped to about 70 percent in 1983. The ratio peaked in 1987 at 76 percent and then fell substantially until 1990. This apparent success of the fiscal rule may in fact be due to the very vigorous economic growth during those years. Once the bubble economy collapsed, the debt ratio started rising again rapidly. In 2003, it reached 157.6 percent, the largest value of any country in the OECD. Apart from 1986-1991, all sub-periods shown in the table had positive average annual changes in the debt ratio.<sup>9</sup>

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<sup>8</sup> See Fatas et al (2003) for a review of the reform debate and proposals.

<sup>9</sup> The definition of the sub-periods in this and the following tables tries to separate out the period of the bubble economy for Japan, and the period from the signing of the Maastricht Treaty to the start of EMU for Europe.

Table 3 shows the corresponding ratios of general government budget surpluses to GDP. The budget balance turned from substantial deficits in the first years of the 1980s to surpluses during the second half of that decade. During the years of the bubble economy, the Japanese government achieved average surpluses of 2.5 percent of GDP. This benign picture changed rapidly after 1992, when the economy entered into the prolonged recession. Deficits grew quickly to levels comparable to the early 1980s. In 1997, the government managed to reduce the deficit by 1.3 percent of GDP. Since then, deficits have grown again and have reached levels over seven percent of GDP in most recent years.

Table 4 reports the ratio of general government spending to GDP. It paints a more critical picture of Japanese fiscal policy under the fiscal rule of the late 1980s. The table shows that the expenditure ratio still grew until 1984. Although it fell slightly between 1984 and 1989, this does not mean that government spending had been brought under control. With GDP growth rates above seven percent in these years, general government spending was rising fast even with a declining expenditure ratio, and this despite the tight limits on nominal spending imposed on the general accounts budget. As Wright (1999) puts it, the control of total government spending through the fiscal targets constraining the general account was largely an illusion. If the budget ended up in surplus nevertheless, this must be attributed mainly to strong growth in tax revenues during these years.

When the economy slowed down in the early 1990s, revenues slowed down, too, and the deficit problem reemerged. At the same time, the expenditure ratio started climbing again already in 1990. The experience thus confirms a key result of recent research into the conditions of successful consolidation, namely that fiscal consolidations relying mainly on rising revenues tend not to last long (Perotti, Strauch and von Hagen, 1998). Between 1980 and 1985, the primary surplus ratio improved from (-1.3) percent to 3.9 percent of GDP, while primary spending fell from 29.4 percent to 27.8 percent of GDP. Between 1986 and 1991, the primary surplus ratio rose from 3.5 percent to 6.8 percent of GDP, while primary spending fell from 28.1 percent to 27.7 percent. Thus, primary spending contributed no more than a third of the total to the fiscal consolidation in the first half of the 1980s, and only 12 percent in the second half. Perotti et al. (1998) suggest that consolidation episodes in OECD countries are typically unsuccessful unless the decline in the spending ratio contributes at least 50 percent to the improvement in the surplus ratio. In recent years the government has succeeded in stabilizing

the spending ratio around 39 percent of GDP, not enough to bring it close to the revenue ratio. In 2003, the goal of holding the spending ratio constant at its 2002 level, was achieved.<sup>10</sup>

Figure 1 illustrates an important aspect of Japan's fiscal performance under the fiscal rule. The figure shows the difference between initial and actual (final) general account spending and deficits for each fiscal year between 1975 and 2003. Initial spending and deficits refer to the levels determined by the original budget law of each year, while actual spending and deficits refer to the final budgetary outcomes. Both are measured in percent of initial spending for each year. Since the focus of the Japanese fiscal targets was on spending growth rather than levels, the figure also shows the difference between actual and initial spending growth rates. Deviations between the actual and the initial budget figures are due mainly to the revisions of the annual budget which the governments enacted in supplementary budgets each year. The figure shows that the deviations were particularly large in the second half of the 1980s. Actual spending was significantly larger than initial spending during the years from 1987 to 1991. This and the fact that the deficit turned out lower than expected during these years confirms the point that the consolidation was more due to the strong surge in tax revenues and less to a fiscal policy guided closely by fiscal targets.

Large relative deviations between actual and initial spending also occurred in 1995 and 1998 – 2001. In contrast to the late 1980s, actual deficits were also typically much larger than initial deficits in the 1990s. The figure also shows that years in which actual spending exceeded initial spending by a large amount (1987, 1993, 1995, 1998) were often followed by years in which the difference between actual and initial spending growth fell, while the difference in levels remained high. This reflects the MoF's focus on the growth rate rather than the level of spending as the control variable. Note that the two lines virtually coincide, if initial spending growth is defined as initial spending in year  $t$  relative to actual spending in year  $t-1$ . This suggests that the annual limits for spending growth allowed for base drift in the sense that the limits for year  $t$  did not account for overspending in year  $t-1$ . In sum, the figure illustrates the illusion of exerting control over general government spending and deficits through constraints imposed on the general account budget bids. Even if these constraints were able to contain initial budget bids, their effect was apparently undone each year in the supplementary budgets.

We now turn to fiscal performance in the EU. Table 2 shows the evolution of general government debt in the EU since 1985. Here and in the following tables "EUR-12" stands for the

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<sup>10</sup> Preliminary data suggests that the spending ratio in 2004 was kept at 38.2 percent of GDP, which is consistent with the target.

weighted average of the countries participating in the monetary union. In 1992, the EU's average debt ratio was close to 60 percent – hence the 60 percent limit foreseen in the Maastricht Treaty. The debt ratio of the EMU member states climbed in the following years to peak at 75.2 percent in 1996. In 1997, the year whose fiscal data were the basis for the May 1998 decision which countries could enter the monetary union, it still stood at 75 percent. By 2001, the average debt ratio had fallen to 69.4 percent, but in most recent years it has started to increase again. Judged from average performance, therefore, EMU countries did not reduce their debt ratio over the last decade and the data suggest that the process for fiscal consolidation that started with the Maastricht Treaty was rather unsuccessful.

Behind this average performance, however, are very different patterns of individual countries. First, we note that a few countries already managed to reduce their debt ratios during the second half of the 1980s, i.e., Denmark, Ireland, Luxembourg, Portugal, Sweden, and the UK. Between 1991 and 1998, Belgium and the Netherlands joined that group, while the UK experienced significant growth in the debt ratio again. Germany, France, and Spain showed increases of their debt ratios by over 20 percent, the UK and Italy by 16 percent between 1991 and 1998. Thus, the fiscal rule imposed by the Maastricht Treaty seems to have done very little to stabilize the debt ratio especially in the large economies of the EU. The sharp increases in the debt ratios of Sweden and Finland in the early 1990s were due to the severe financial and economic crises these countries went through in the early 1990s. Their debt ratios peaked before these countries became subject to the Maastricht rule in 1995.<sup>11</sup> Similarly, the increase in the Austrian ratio occurred before that country joined the EU. Second, between 1998 and 2001 the average debt ratio in the EMU came down by 4.7 percent. Considering that this period was one of strong economic growth, this is no big achievement. Again, there are very different performances behind this average. The debt ratios of France, Germany, and Portugal rose over the five years from 1999 to 2003, while Belgium, Denmark, Spain, Italy, the Netherlands, Sweden and the UK achieved further, significant reductions.

Table 3 shows that all EU countries except Greece and Austria already saw improvements in their budget balances in the second half of the 1980s, when economic growth had improved in Europe. Ireland, Belgium, Portugal and Sweden saw the strongest improvements comparing the averages from 1986-1991 with those from 1980-1985. In contrast, comparing the average surplus ratios from 1992-1998 with those from 1986-1991 reveals that only five states achieved improvements after the adoption of the Maastricht Treat, i.e., Belgium,

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<sup>11</sup> Sweden, Finland and Austria joined the EU in 1995.

Greece, Ireland, Italy, and the Netherlands. The larger states, Germany, France, Spain, and the UK all had increasing deficits relative to GDP during this period. Average deficits generally improved after 1998, but this may have been due to the strong economic growth during 1999-2000. As the European economies moved into a recession, surplus ratios began to fall again in most EU countries.

Table 4 shows that Belgium, Ireland, Luxembourg, and the UK achieved a reduction in the average ratio of government spending to GDP comparing the years from 1992-1998 with the first half of the 1980s. But the bulk of those reductions occurred during the 1980s, i.e., before the fiscal rule of the Maastricht Treaty was adopted. In contrast, Denmark, Germany, France, Austria, Portugal, Finland, and Sweden all had rising spending ratios comparing the years 1992-1998 with the first half of the 1980s, and in these countries, most of the increase happened after the fiscal rule was adopted. Greece, Spain and Italy also had increasing spending ratios, but in these countries, most of the increase took place in the second half of the 1980s. Here, one might argue that the fiscal rule slowed down the growth of government spending relative to GDP. Finally, after the start of EMU in 1999, average spending ratios came down in all EU countries except Portugal and, effectively, Germany. Looking at the individual years, however, indicates that after 1999-2000 spending ratios have begun to trend upwards again in all EU countries except Greece, Spain, and Austria.

In sum, the experience with fiscal rules in the context of EMU is quite mixed. In particular, the rules seem to be much less effective in the larger states, Germany, France, Italy, and Spain, than in the small states of the EU. This is ironic, since it would make the framework most effective where it matters the least for the stability of the common currency.

### 3.2. Discretionary Fiscal Policy

Fiscal outcomes such as deficit ratios are determined both by fiscal policy and endogenous economic developments. As noted by Blöndal (2003, p. 8), annual economic growth rates are the most important determinants of fiscal performance in the short run. It is, therefore, necessary to separate the effects of policy from the effects of economic growth to see how much of the observed developments can be attributed to government policy as opposed to windfall gains and losses from strong economic growth and recessions. In this section, we use the growth-accounting approach proposed in Hughes-Hallett et al. (2001) for that purpose. Separating the effects of growth and policy requires some assumption about the economic growth to changes in this ratio. To do this, we start from the observed primary surplus ratio,  $s$ , for a given year:

$$s_t = \frac{R_t - G_t}{Y_t} = (r_t - g_t), \quad (1)$$

where  $R$  denotes government revenues,  $G$  non-interest government spending,  $Y$  GDP, and  $r=R/Y$ , and  $g=G/Y$ . The annual change in this ratio is

$$\Delta s_t = \frac{\Delta R_t - \Delta G_t}{Y_{t-1}} - \frac{\Delta Y_t}{Y_{t-1}} (r_t - g_t). \quad (2)$$

We define a “neutral” fiscal policy as one that keeps the average tax rate and the volume of government spending unchanged over the previous year, i.e.,  $r_t = r_{t-1}$  and  $\Delta G_t = 0$ .<sup>12</sup> With this definition, the contribution of economic growth to the change in the surplus ratio is

$$\Delta s_t^g = \left( \frac{\Delta Y_t}{Y_{t-1}} \right) g_t. \quad (3)$$

Using this definition, we obtain the policy-induced change in the surplus ratio or the fiscal impulse as:

$$\Delta s_t^p = \Delta s_t - \Delta s_t^g. \quad (4)$$

This definition attributes any change in the average tax rate and all changes in government spending to fiscal policy.<sup>13</sup> We use this part as our indicator of discretionary fiscal policy, since it measures the active contribution of any policy actions to observed changes in the deficit ratio. Note that a positive value indicates a discretionary fiscal contraction, while a negative value indicates a discretionary fiscal expansion.

Table 5 reports the averages and standard deviations of the fiscal impulses for the EU countries and Japan. The table bears a number of interesting observations. First, we note that in three EU countries, Belgium, Denmark, and Germany, the volatility of fiscal impulses was smaller after 1991 than before. In these countries, the Maastricht fiscal rule seems to have induced a smoother course of fiscal policy over time. For the remaining countries, however, we could not reject the hypothesis of equal variances. In the case of Japan, the volatility of fiscal impulses was significantly lower under the fiscal rule of the 1980s than after 1991.

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<sup>12</sup> The assumption of a constant tax ratio is in line with empirical estimates of macro economic tax functions in OECD countries and does not contradict the fact that income taxes are progressive at the individual level.

<sup>13</sup> Alternatively, one might use the OECD’s cyclically adjusted budget balances. These estimates, however, are based on past data and policies. If the introduction of fiscal rules induced changes in the co-movements of cyclical output and budget balances, they could be quite misleading. Buti and van den Noord (2003, 2004) use a similar approach and come to similar conclusions regarding fiscal policy in the early years of EMU.

Second, we find that the average fiscal impulse was larger in six EU countries in 1992-2003 than in 1981-1991, and smaller in the other eight EU countries, indicating a less expansionary discretionary fiscal policy in the first and a more expansionary policy in the second group. Only in Ireland, however, the difference in means is statistically significant, and there, policy became more expansionary. This suggests that, to the extent that some EU countries achieved reductions in their deficit ratios in the 1990s, they benefited from the effects of economic growth rather than discretionary fiscal contractions. In Japan, the average fiscal impulse was significantly smaller in the 1990s than in the 1980s, reflecting a more expansionary discretionary fiscal policy. We also tested for differences in the means between 1981-85 and 1986-91, but the results were not significant.

Third, we find that the average fiscal impulse in 1999-2003 was more expansionary than the 1992-2003 average in all EU countries except Austria and Portugal. Thus, fiscal policy has become more expansionary in EU all countries except Austria and Portugal after the start of EMU in 1999. The changes are significant in eight EU countries, i.e., Belgium, Germany, Greece, France, Italy, Luxembourg, Sweden, and the UK. Note that this group includes all large countries except Spain. This is significant, as the threat of not making it into EMU due to lax fiscal policies was no longer pending over the European countries once EMU had started. Elsewhere, we have dubbed this observation “consolidation fatigue” (von Hagen and Harden, 1994). EU governments used the first chance for relaxing fiscal policy. In Japan, the average fiscal impulse did not change significantly after 1998.

To gain some further insights into the conduct of fiscal policy in the EU, we now pool the fiscal impulses of all member states in a regression model. The data excludes Luxembourg, for which we do not have the fiscal data for all years of the 1980s. Table 6A reports the results for the period from 1981 to 1991. Our baseline model regresses the annual fiscal impulse on a constant, its own lag, the growth rate of GDP and the lagged ratio of government debt to GDP. We also include a “crisis” dummy accounting for the fiscal effects of the Swedish and Finnish crises in 1991. Country fixed effects were not significant and were dropped from the model.

The table reveals some interesting properties of fiscal policy in the EU. First, the coefficient on the lagged fiscal impulse is negative, indicating that governments tend to reverse part of a given fiscal impulse in the following year. However, the coefficient is not statistically significant and we drop the lag from the model. Second, the coefficient on the lagged debt ratio is positive, indicating that discretionary policy reacts with a fiscal contraction to an increase in public debt relative to GDP. This can be regarded as a necessary condition for fiscal sustainability, as the debt ratio would be unbounded without such a reaction. The result also

confirms the finding in Hughes Hallett et al. (2002) that the likelihood of fiscal consolidations in EU and OECD member states during the period from 1960 to 1999 rises when the debt ratio increases. Third, the coefficient on real GDP growth is significantly negative indicating that discretionary fiscal policy tightens when output slows down and eases when output growth rises. This pro-cyclical pattern of discretionary fiscal policy in Europe is consistent with previous results.<sup>14</sup> It suggests that governments systematically counteract automatic stabilizers built into the tax system.

Political economy literature has long argued that governments use fiscal policy to enhance their chances of reelection. Rogoff and Sibert (1988) argue that incumbents increase spending and deficits during election years to signal their competence to the electorate. Shi and Svensson (2002) and Persson and Tabellini (2002, chapter 4) cast the argument into a career-concern model of democratic elections. In this model, voters elect an incumbent government, if they expect that the incumbent will deliver better policies in the periods after the election than his challenger. A government's *competence* has a positive effect on the quantity of public goods and services that can be produced from a given amount of taxes. Voters cannot observe the government's nor the challenger's competence directly; but they can get an estimate of the incumbent's competence from the observed supply of public goods and services. This creates an incentive for the incumbent to increase spending in an election period to signal a high level of competence. Shi and Svensson (2002) and Alt and Dreyer Lassen (2004) find empirical evidence of political budget cycles with deficits increasing in election years. In light of these arguments, we add a dummy "election" to our model which is one in election years and zero in all other years.<sup>15</sup> The result is reported as model 3 in table 6A. The election dummy has a coefficient of (-0.89), which is statistically highly significant. It indicates that EU governments in the 1980s undertook discretionary fiscal expansions during election years. Including the election dummy leaves the other results of the model largely unchanged.

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<sup>14</sup> See e.g. Brunila and Martinez-Mongay (2002), IMF (2001a), Fonseca Marinheiro (2005). Buti and van den Noord (2004) find that their measure of the fiscal impulse is counter-cyclical, but they use output gaps rather than growth rates to measure cyclical effects. We also estimated fiscal impulses corrected for the trend in the ratio of government spending to GDP, approximating the trend by five-year moving averages. We did this to account for the fact that spending ratios generally trended downwards in the 1980s and 1990s in many EU countries. The interpretation then is that the trend is not part of annual discretionary fiscal policy. The main difference in the results compared to those of tables 6A (and 6B) is that the lagged debt ratio no longer appears with a positive coefficient. That is, the negative trend in the spending ratio reflects the governments' reaction to the positive trend in the debt ratios.

<sup>15</sup> The election dates from 1981 to 1991 are taken from Lijphardt's Elections Archive ([www.dodgson.ucsc.edu/lij](http://www.dodgson.ucsc.edu/lij)) and from the reports on "National Elections" in various issues of *Electoral Studies*. Post-1991 election dates are taken from [www.cnn.com/world/election.watch](http://www.cnn.com/world/election.watch)

Table 6B presents a similar analysis for the 1990s. Again, we start by regressing fiscal impulses on an own lag, the lagged debt-GDP ratio and the real GDP growth rate. As in the 1980s, fiscal impulses are not persistent over time. Thus, we drop the lagged fiscal impulse in model 2. As before, the lagged debt ratio appears with a significant, positive coefficient, i.e., the sufficient condition for sustainability continues to hold. Note that the coefficients on the lagged debt ratio are very similar in the 1980s and 1990s, and are not statistically different from each other. Thus, the fiscal rules of the 1990s did not affect the governments' adjustment to a build-up of government debt. Finally, the fiscal impulses remained pro-cyclical in the 1990s.

Next, we add an "EMU" dummy to the model, which is zero for all years from 1991 to 1998 and one starting in 1999. Table 6B shows that this dummy has a coefficient of (-0.73), which is statistically significant. This confirms the hypothesis of *consolidation fatigue*: Once the threat of not making it into EMU because of excessive deficits was relieved, fiscal policy became more expansionary in the EU. Note that, given the pro-cyclicality of discretionary fiscal policy observed before, this fiscal expansion cannot be explained by the weak economic performance of the EU economies after the year 2000. Note, also, that the intercept of Model 3 is smaller in absolute value than the intercept of Model 2 in table 6A. This suggests that discretionary fiscal policy was less expansionary than in the 1980s before the start of EMU. Hence, the fiscal rules seem to have had some effect in the desired direction between 1991 and 1998, when the penalty for exceeding the deficit limits was large. Finally, we note that including the EMU dummy raises the p-value of the lagged debt ratio somewhat.<sup>16</sup>

Next, we include the election dummy in the model. Since our previous results indicate that the EU fiscal rules lost bite after 1998, we interact this dummy with the EMU dummy. Thus, the coefficient on the election dummy picks up any election-year effect on discretionary fiscal policy between 1992 and 1998, while the sum of the coefficients on the election dummy and the interactive dummy picks up the effect of elections on discretionary fiscal policy since the start of EMU. Model 4 in table 6B has the results. The coefficient on the election dummy has a positive sign, but it is not statistically significant. In contrast, the coefficient on the interactive dummy has a negative sign and is statistically significant. This suggests that, since EMU started,

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<sup>16</sup> We also estimated a model interacting the EMU dummy with the lagged debt ratio and the real GDP growth rate. Neither interactive term had a significant coefficient. Nevertheless, the coefficient on the interacted lagged debt ratio was positive and the coefficient on the lagged debt ratio itself was 0.011 with a p-value of 0.06.

governments have systematically run fiscal expansions during elections years. This result is consistent with similar findings in Buti and van den Noord (2004).<sup>17</sup>

However, including the election dummy and the interactive dummy also results in the EMU dummy losing its statistical significance. In view of that, we drop the EMU dummy from this regression, retaining only the election dummy and the interactive dummy. The results are reported as Model 5 in table 6B. The election dummy now has a positive coefficient with a p-value of 0.055, the interactive dummy a negative coefficient with a p-value below 0.01. The model thus indicates that governments embarked on fiscal contractions during election years between 1992 and 1998. Since the start of EMU, election years are characterized again by discretionary fiscal expansions. Since the EMU dummy was not significant in Model 4, this result suggests that the difference between the pre-EMU and the EMU period is mainly in the electoral effects. The sum of the coefficients on the election dummy and the interactive EMU and election dummy is (-0.93), which is very close to the coefficient on the election dummy in model 3 of table 6A. Thus, the typical effect of elections on EU government budgets is the same in the period from 1999 to 2003 as it was during the 1980s.

The empirical results thus indicate that governments undertook discretionary fiscal contractions rather than expansions in election years between 1992 and 1998, and discretionary fiscal expansions in election years since the start of EMU. This pattern is consistent with the career-concern model of the political business cycle, if one assumes that voters put a high priority on joining EMU during the 1990s. As long as EMU membership was not secured, voters rewarded signals of fiscal discipline as the latter would increase the chances of getting into the monetary union. Governments, therefore, had an incentive to undertake discretionary fiscal contractions in election years in order to look tough, and they did. Once EMU membership was secured, the old pattern of political budget cycles reemerged.

This result indicates that the fiscal rules of the EMU framework affected government behavior as long as voters put a high priority on fiscal discipline. This suggests that the electoral process is critical in enforcing fiscal rules at the national level. For fiscal rules to be effective, voters must be aware of the rules and perceive that violating them would carry a significant cost. Thus, the framework setting up the rules must have sufficient visibility and breaking the rules must have consequences voters care about. This seems not to be the case in the EU after the start of the monetary union.

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<sup>17</sup> Preliminary results reported in von Hagen (2003) using data up to 2001 suggested that the election effects are stronger in pre-election years than in election years. Controlling for election-year

Table 6C presents the results of estimating a similar model for Japan, using the years from 1981 to 2003.<sup>18</sup> As in the case of the EU countries, we found no significant effect of the lagged fiscal impulse and dropped the lag from the model. This leaves three explanatory variables, the lagged debt ratio, real GDP growth, and a dummy for elections to the House of Representatives.<sup>19</sup> Furthermore, we introduce a dummy variable which is one for all years after 1992 and zero elsewhere. Selecting 1992 as the breakpoint is suggested by the fact that the fiscal impulse of 1992 is much larger in absolute value than the values of previous years, and that 1992 marks the fiscal adjustments to the incipient recession in Japan. In model 1 of table 6C, we interact this dummy both with the real GDP growth rate and the election dummy.

Our results show, first, that the lagged debt ratio enters the model with a positive coefficient. This means that the necessary condition for fiscal sustainability holds. Japanese governments have reacted to an increase in the debt ratio by tightening discretionary fiscal policy.<sup>20</sup> Second, like discretionary fiscal policy in the EU, Japan's discretionary fiscal policy was pro-cyclical from 1981-1991, as indicated by the negative coefficient on GDP growth. After 1991, however, the combined coefficients on GDP growth become significantly positive, i.e., discretionary fiscal policy expands when output growth falls. Third, the election dummy has a negative coefficient, but its p-value is above 0.13, i.e., it lacks statistical significance. In contrast, the interactive election dummy which captures the electoral effects after 1992 is negative and highly statistically significant.

Going from model 1 to model 3, we drop the real GDP growth rate and the election dummy, retaining the effects of these two only for years after 1991. Doing so is not rejected by an F-test at conventional significance levels. Our preferred estimate is model 3. This model shows that Japanese discretionary fiscal policy in the years after 1991 differed significantly from discretionary policy under the fiscal rule of the 1980s in three respects. First, it became much more expansionary on average. This is indicated by the post-1991 dummy. Second, it became countercyclical, as shown by the significantly positive coefficient on GDP growth after 1991. Third, it became much more expansionary in election years. These results are consistent with the finding, reported above, that the average fiscal impulse and its standard deviation were

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effects, we do not find pre-election year effects in our sample. This, too, is consistent with Buti and van den Noord (2004).

<sup>18</sup> See Claeys (2005) for a similar estimate of a "fiscal rule" in Japan.

<sup>19</sup> We also tried an election dummy for elections to the House of Councillors which did not turn out to be significant. This may be due to the fact that the stakes in House of Councillors elections are lower since each election turns over only half of the seats in the Upper House.

<sup>20</sup> We tested for a break in this parameter in 1992 but found no evidence for it.

smaller (in absolute value) under the fiscal rule of the 1980s than afterwards. They suggest that the fiscal rule of the 1980s did have an effect on discretionary fiscal policy.<sup>21</sup>

## 4. Fiscal Rules and the Budget Process

### 4.1. Political Economy

Political economy literature argues that the institutional framework of the government budget process is an important determinant of a government's fiscal performance; see von Hagen (2002, 2005) for reviews of the literature. Budgeting institutions encompass the formal and informal rules governing the drafting of the budget law, its passage through the legislature, and its implementation. These rules distribute strategic influence among the participants in the budget process and regulate the flow of information. In doing so, they have important effects on the outcomes of budgeting processes. The argument starts from the *common pool externality* of public budgeting. This externality results from the fact that government spending is commonly targeted at specific groups in society while being financed from a general tax fund. This incongruence implies that those who benefit from specific public policies typically only pay a fraction of the taxes used to finance these policies. Policy makers representing constituencies that benefit from specific policies without paying their full cost demand more of these policies than they would if their constituencies had to cover their full costs. As a result, government spending and, ultimately, taxes grow excessively large. Putting the argument into a dynamic context, one can show that the common pool externality causes excessive deficits and debts, too (Velasco, 1999; von Hagen and Harden, 1995).

The core of this argument is that public budgeting involves a co-ordination failure among the relevant decision makers. Excessive spending and deficits can be avoided if the relevant policymakers recognize the externality and take a comprehensive view of the costs and benefits of all public policies. The political economy of government budgeting argues that the main

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<sup>21</sup> As pointed out by the referee, election dates for the House of Representatives can be manipulated by the government. This raises a potential endogeneity problem of the election dates in our regressions. Election dates in the period under consideration were 1993, 1996, 2000, and 2003. Since a maximum term is four years, this suggests that the 1996 dates were chosen early by the government for political convenience. Note that, if the government decided to move the elections forward before setting the fiscal impulse, the electoral effect on fiscal impulses still remains valid. To see whether the two dates mentioned are different, we set the election dummy equal to zero for these two years and augment the model by a dummy for 1996 and a dummy for 2003. The coefficient for the post-1991 election dummy remains unchanged, as do the coefficients on the other variables. The coefficient on the 1996 and 2003 elections dummies are very close to that on the other election dummy. We conclude that the potential endogeneity did not affect our estimates.

function of the budget process is to induce the policymakers participating in budgeting decisions to take such a view. Hallerberg and von Hagen (1998) call a budget process fragmented, if it contains only few and weak institutional elements the decision makers to take a comprehensive view of the budget, and centralized, if it contains many and strong institutional elements doing that. They distinguish two basic institutional approaches to centralization: the *delegation approach* and the *contracts approach*. Under the delegation approach, the budget process vests one particular policymaker with significant strategic powers over the other participants. This is usually the finance minister who can be expected to take a comprehensive view of spending and taxing decisions, if he is responsible for the entire budget and since he is less bound by special interests than ministers heading spending departments. The delegation approach builds on the following key characteristics:

- A finance minister vested with strong agenda-setting power relative to the remaining members of the executive; typically, this involves the right to make binding proposals for the broad budgetary categories and information advantages.
- A finance minister vested with strong monitoring capacity in the implementation of the budget and the power to correct deviations from the budget plan, e.g., through cash limits and the requirement of disbursement approvals from the finance department;
- A strong agenda-setting position of the executive relative to the legislature in the parliamentary phase of the budget process; this involves strict limitations on the scope of parliamentary amendments to the executive's budget proposal and a limited role of the upper house of parliament in the process where applicable.

Under the contracts approach, the budget process starts with negotiations among all members of the executive leading to a binding agreement on a set of key budgetary parameters, usually spending targets for each spending department. Here, it is the process of negotiation that causes the participants to recognize the common pool externality. The following features of the process characterize the contracts approach:

- A strong emphasis on budgetary targets negotiated among all members of the executive at the beginning of the annual budget cycle and regarded as binding for all spending departments; often these targets are backed up by multi-annual fiscal programs as part of the coalition contract among the ruling parties.
- A finance minister vested with strong monitoring and enforcement capacities in the implementation of the budget;
- A weak position of the executive relative to the parliament exemplified by weak or no limits on parliamentary amendments to the budget proposal, and strong monitoring

capacities of parliamentary committees overseeing the activities of individual departments of the executive.

Under both approaches, transparency of the budget process is important to promote accountability and facilitate monitoring of all agents involved in it.

To evaluate the importance of budgeting institutions for fiscal performance and discipline, von Hagen (1992) and von Hagen and Harden (1994, 1996) construct an index capturing the most important institutional features of the budget process in EU countries. The index is based on institutional data garnered from legal documents and questionnaires sent to finance ministry officials in 1990-1991. Hallerberg et al. (2002, 2004) computed the same index based on institutional data collected in 2000-2001. A large value on the index indicates the prevalence of strong elements of centralization in a country's budget process.

Table 7 shows the index for a group of EU countries and Japan. The index is composed of four subcategories focusing on different stages and aspects of the budget process. The first item, *budget negotiations*, captures important characteristics of the budget planning stage in the executive branch of government. It is large, when the budget process imposes a quantitative constraint on total spending, the deficit, or government debt early on, when the finance minister has strong agenda setting powers relative to the other members of the executive, and when quantitative targets are set early and specifically for individual parts of the budget. The second item, *parliamentary stage*, focuses on the role of parliament in the budget process. It is large, when the executive has strong agenda setting powers over the legislature, when the legislature votes on an overall constraint on the budget first, and when there is a vote on total spending. The third item, *informativeness*, captures several aspects of the transparency of the budget process. It is large, if the budget is presented in one comprehensive document, if special funds are included in the budget, if a link is made to national account data, if loans of the government to non-government entities are reported in the budget, and if the respondents to the questionnaire judge the budget data as "transparent." Finally, the fourth item, *flexibility of execution*, captures the main rules of the implementation of the budget law. It is large, if the budget law has strong binding power for the executive. This is the case if the finance minister has powerful instruments to prevent the spending ministers from overspending, if transfers of funds between parts of the budget and budgets of different fiscal years are limited, and if supplementary budgets are rare. The index is a weighted sum of the four items, with weights of 1.0, 0.8, 0.8, and 0.67 respectively. The weights assure that each item contributes the same maximum score to the index.

Table 7 reports the index for the four largest EU economies and Ireland, which is an example for a strong contracts approach in 2001. The table shows that France, the UK and Germany had much higher index values than Italy and Ireland in 1991. From table 2, we recall that they also had much smaller debt ratios in 1991, and, from table 3, smaller average deficit ratios over the 1980s than Ireland and Italy. Both Ireland and Italy undertook large improvements in their budgeting institutions between 1991 and 2001. Both now have index values above Germany's, consistent with their better budgetary performance in recent years. The improvements concerned all four items of the institutional index in Italy, while, in Ireland, they concern mainly the structure of negotiations, the informativeness and the implementation stage of the budget.

The index value for Japan is based on documents on the budget process obtained from the MoF in 2002 and on answers to the same questionnaire used for the EU countries provided by representatives of the MoF in 2002. The changes in the first item between the entries for 1991 and for 2001 reflect the presence of fiscal targets in the 1980s, which, as discussed above, lost force in the 1990s. Table 7 shows that the summary index of the Japanese budget process is comparable to those of Italy and Ireland in 1991, both countries with weak fiscal performances in the 1980s.

The low score of Japan on the first item is due to the absence of a general quantitative constraint on the budget negotiations during the planning stage of the budget and the weak agenda-setting power of the MoF. Above, we have already pointed out the partial nature of the targets for the general account. The role of the MoF in the negotiations is undermined by the involvement not only of spending ministers but also of politicians from the ruling parties in the budget negotiations. The final cabinet decision must be made unanimously, which gives each spending minister veto power and further weakens the MoF's influence. The low score on the second item reflects the strong position of the parliament against the executive in Japan. There are no formal limits on amendments to the budget proposal, nor rules requiring that amendments leave the overall balance or total spending unchanged. The understanding that a rejection of the budget law can cause the government to fall gives the executive some strategic power. Parliament does not take a vote on the budget total as in other countries. OECD (2002) also points to the weak institutions at the parliamentary stage of the Japanese budget process.

Table 7 shows that the Japanese budget process scores very low on the third item, the informativeness or transparency of the budget process. This reflects the importance of special funds pointed out above, the lack of a unified budget document, the lack of links to national accounting concepts, and the fact that government loans to non-government entities are

reported in documents separate from the budget. The opacity of the Japanese budget process is also documented in Alt and Dreyer Lassen (2004) and OECD (2002).

Interestingly, the fourth item, which concerns the implementation phase of the budget, scores much higher than the first three items. This is due to the fact that all budgetary spending needs the approval of the MoF and that any transfers of expenditures are limited to transfers within departments and need the authorization of the MoF. Furthermore, carrying-over unused funds to the next year is limited and needs the MoF's authorization. Note that France, Ireland and the UK in 2001 have considerably higher values on the fourth item than Japan. This is mainly due to the frequency of supplementary budgets in Japan, where the norm is to have at least one supplementary budget each year. As shown above in the difference between initial and actual spending, the supplementary budgets tend to erode the binding power of the initial budget law and with it the power of the Ministry of Finance to enforce it. The noticeable decline of Germany's score on the fourth item reflects the fact that supplementary budgets have become the norm in that country only in the 1990s.

Figure 2 shows the index for all EU countries and Japan. It puts Japan together with Italy, Greece, Ireland and Sweden into a group of countries with very weak budgetary institutions in 1991. These countries also had the worst fiscal performance in the 1980s (Tables 1-3). Figure 2 also shows that the EU countries with the weakest budgeting institutions in 1991 undertook institutional reforms during the 1990s which are reflected in sizeable increases in their index values.<sup>22</sup> This is illustrated by the fact that the correlation between the index value in 1991 and the difference between the index in 2001 and 1991 is (-0.83). Thus, the evidence suggests that the pressure of the fiscal rules of the Maastricht Treaty induced countries with weak budgeting institutions to improve the quality of their institutions, while countries with relatively strong institutions left their budgeting processes largely unchanged. If a better institutional design of the budget process leads to a permanent improvement in fiscal performance, this suggests that the fiscal rules of the Maastricht Treaty induced a lasting improvement in fiscal discipline in those EU states that reformed their budget processes. Note that this former group includes mainly small countries with relatively weak fiscal performance in the 1980s, while the large EU states except Spain did not do much to improve their budgeting institutions. Thus, our results are consistent with the remarkably different performance of the small and the large states since 1991 noted above.

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<sup>22</sup> For details of the reforms see Hallerberg et al (2004).

Figure 3 shows the index values together with the average budget balances from Table 3, i.e. averages for 1986-91, 1992-98, and 1999-2003. The first two averages are plotted against the institutional index of 1991; the last one against the index from 2001. The figure also indicates the correlation of each pair of series. These correlations are around 0.40 and statistically significant.<sup>23</sup> The evidence confirms findings of earlier studies that budget processes of better institutional quality come with better fiscal performance.<sup>24</sup> The new result in this study is that Japan with its combination of weak fiscal institutions and a relatively weak fiscal performance fits the same pattern. This suggests that strengthening institutions that reduce fragmentation of budget decisions and promote a comprehensive view of the costs and benefits of government activities promotes lower government deficits.

#### 4.2. Soft and Hard Fiscal Rules in the EU

The EU fiscal rules, with their emphasis on numerical limits for the budget deficit and general government debt (EDP) and annual Stability Programs setting targets for deficits and governments spending (SGP) closely resemble the contract approach to centralization of the budget process. Table 8 pursues this similarity in more detail, using the institutional data from 2001. The upper half of the table lists the countries applying the contracts approach (Hallerberg et al. 2001, 2004), Belgium, Denmark, Finland, Ireland, Luxembourg, the Netherlands, Portugal and Sweden. The lower half of the table lists the countries following the delegation approach, i.e., Austria, Germany, Spain, France, Greece, Italy, and the UK.

Hallerberg et al (2001) provide institutional data about the budgeting practices in the EU countries regarding specifically the governments' commitment to fiscal rules. Here we look at the following aspects: The time horizon of a government's multi-annual fiscal program, the degree of commitment to annual fiscal targets, the anchoring of the fiscal targets in the coalition agreement, the connection between the national budget and the national stability program, the existence of clear rules for dealing with shocks to expenditures or revenues during the fiscal year, and the strength of the finance minister to enforce the budget law during the implementation phase of the budget. We use the numerical coding of the institutional data to construct a "fiscal rules index." A large value on this index indicates the following: A relatively long time horizon of the multi-annual fiscal program, a strong political commitment to the annual fiscal targets, fiscal targets being written into the coalition agreement, a close connection

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<sup>23</sup> The t-ratios are 2.45, 2.78, and 3.0, respectively.

between the fiscal targets embedded in the budget and those expressed in the Stability Program and between the annual budget process and the process of writing and updating the Stability Programs, the prevalence of rules for dealing with unexpected spending or revenue developments, and a relatively strong finance minister during the implementation phase. A low value on this index indicates a short time horizon or the non-existence of a multi-annual fiscal program, the interpretation of fiscal targets as being merely indicative, no mentioning of fiscal targets in the coalition agreement, a loose connection only between the fiscal targets spelled out in the budget and those of the Stability Program and between the annual budget process and the process of writing and updating the Stability Program, no rules for dealing with revenue or expenditure shocks, and a weak position of the finance minister in the implementation phase of the budget.

The last row of table 8 reports the fiscal rule index. The table shows that Luxembourg has the strongest fiscal rule in the EU, followed by the Netherlands, Belgium, the UK, Ireland, Portugal, and Denmark. The median fiscal rule index among the EU countries is 8.8. The table shows that countries following the contracts approach generally have harder fiscal rules than the delegation countries. Sweden and Finland are the only two contracts countries with a rules index below the median, while the UK is the only delegation country with an index strictly above the median. The difference between the two groups is statistically significant (a chi-square test has the value  $X^2 = 5.53$ ,  $p=0.019$ ). This shows that there is a significant, positive correlation between the contract approach and hard fiscal rules, as well as between the delegation approach and soft fiscal rules. The evidence thus suggests that countries adopting the contract approach used the framework and pressure of the Maastricht process to develop strong fiscal rules. The delegation countries except the UK did not follow the same pattern.

Considering the individual items, table 8 shows that the fiscal programs in contract states generally have longer time horizons than in delegation states, that the degree of commitment is stronger and than in delegation states, and that the fiscal targets in all contract states but in no delegation state are anchored in coalition agreements. Furthermore, a majority of the contract states have explicit rules for dealing with revenue or expenditure shocks. The UK is the only delegation state where that is true.

The correlation between the fiscal rule index and the budget surplus ratios across the EU states is not statistically different from zero. The reason is that states with good budgeting

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<sup>24</sup> See von Hagen (1992), von Hagen and Harden (1994, 1995), Hallerberg and von Hagen (1999) for EU countries, Stein et al. (1999) for Latin American countries, Lao-Arayo (1997) for Asian countries, and Strauch (1988) for state governments in the US.

institutions under the delegation approach achieved a high degree of fiscal discipline similar to states with strong fiscal rules. However, if we take the five states with a fiscal rules index above the EU average of 10.9, we see that a hard fiscal rule does make a difference. These states are Belgium, Ireland, Luxembourg, the Netherlands, and the UK. All five experienced a negative annual growth rate of the debt-GDP ratio since the start of EMU. For the states with soft fiscal rules (i.e. an index below the mean) this is true for five out of ten. A chi-square test indicates that the difference in performance is statistically significant ( $X^2 = 3.75$ ,  $p=0.052$ ). If we define the medium-term goal of “close to balance” under the SGP as an average surplus ratio above (-1.0) since the start of EMU, all five states with hard fiscal rules fulfill that condition, but only four out of six states with soft rules ( $X^2 = 5.0$ ,  $p=0.025$ ). Finally, since the start of EMU, all five states with hard fiscal rules had an average expenditure ratio of at least two percent below the 1992-1998 average. For the states with soft rules, this is true only for six out of 10 ( $X^2 = 2.73$ ,  $p=0.098$ ). Thus states with hard fiscal rules have shown a better average fiscal performance since the start of EMU – an example for Schick’s (2003, p. 8) verdict that “fiscal rules are effective only if they are supported by other changes in budgeting.”

This evidence then gives rise to three conclusions. First, budgeting institutions per se matter more than fiscal rules. Second, the EU fiscal rules may have provided a useful opportunity for countries adopting the contracts approach to strengthen their budgeting institutions. Third, beyond that, they contribute to strengthening fiscal discipline in the EU only if they are complemented by domestic budgeting institutions turning them into hard rules.

Why then did some countries adopt the contract approach and others the delegation approach? Hallerberg and von Hagen (1998) argue that this choice is determined by a country’s type of government. The delegation approach is appropriate for countries where the government is typically formed by one party or a coalition of a large party and a smaller one that has no obvious alternative coalition partner. The contracts approach is appropriate for countries where the government is typically formed by a coalition of several parties. The reason for this is in the different mechanisms for enforcing fiscal discipline in these two settings. Coalition governments find it hard to delegate significant agenda setting powers to the finance minister, because this minister necessarily comes from one of the coalition parties, and vesting him with superior power would raise concerns among the coalition partners about a fair treatment of their spending preferences. At the same time, the commitment to a fiscal target is easy to break for a single-party government, as the executive can simply walk away from the target with no serious political consequences. In a coalition setting, the threat to break up the coalition if the fiscal targets are not kept is a very effective protection of this commitment. This is also reflected in the

fact that, during the 1990s, many coalition governments in Europe anchored their fiscal targets in the coalition agreement when the government was formed. Under the delegation approach, enforcement of fiscal discipline ultimately rests in the power of the prime minister to remove spending ministers from office if they do not follow the finance minister's guidelines. This power does not usually exist in coalition governments, where the individual parties in the coalition have the right to choose the individuals filling the positions assigned to them in the coalition agreement. Hallerberg et al (2001) and von Hagen et al. (2004) show it is the parameters of the electoral systems that determine the type of government in Europe. Thus, the choice of budgeting institutions for better fiscal discipline is ultimately determined by a country's constitution. The fiscal rules of the EU turned out to be appropriate for those countries, whose constitutions are compatible with the contract approach. Countries whose constitutions are compatible with the delegation approach, in contrast, made little use of these rules. As suggested by table 8, this includes all the large states of the EU, while the contract states are all small states. Thus, the stark difference in the fiscal performance of the large and the small states during the 1990s is ultimately explained by the differences in electoral systems.

Table 8 also reports the institutional scores and the fiscal rule index for Japan. Compared to the EU countries, Japan's fiscal rule is obviously a soft one. Its fiscal targets have a relatively short time horizon and a medium degree of commitment. They are not embedded in coalition agreements. There are some rules for dealing with unexpected shocks and, as noted before, the MoF has a relatively strong position in the implementation phase of the budget. Overall, Japan's score is comparable to those of Greece, Germany, or Sweden, i.e., with a relatively soft fiscal rule.

## **5. Conclusions: A Hard Fiscal Rule for Japan?**

Above, we have argued that excessive spending and deficits are the result of a coordination failure in public budgeting. The more fragmented the budget process, the more the common pool externality of public budgeting affects a government's fiscal performance. In this context, the main role of the budget process is to overcome the coordination failure by promoting a comprehensive view of public finances among the relevant actors.

This role of the budget process and its effectiveness cannot be regarded in isolation of a country's political environment.<sup>25</sup> Between 1955 and the late 1980s, Japan's political system was dominated by the Liberal Democrat Party (LDP), which, as a result of the electoral rules,

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<sup>25</sup> See Wright (2002) for the following account.

continuously enjoyed a majority in parliament. In this environment of little electoral competition, the government did not have a strong incentive to use discretionary fiscal policy to promote its chances of being reelected; hence we do not find an electoral effect during that period. The LDP itself consisted of a number of competing political factions which were institutionalized within the party apparatus and sought access to public funds to support their local power bases. Wright (2002) notes that the LDP's ability to provide leadership declined in the 1980s compared to the 1970s. Furthermore, the LDP did not have a sufficiently strong majority to secure the passage of its own legislative agenda through parliament and needed the tacit agreement and support from opposition parties, mainly the Japan Socialist Party (JSP). In this context, the fiscal rule adopted in the early 1980s could be effective, because it was negotiated between the LDP leadership and the MoF and offered a commitment device both between the LDP factions and to facilitate support from the opposition parties cooperating with the LDP.

Japan's political system changed importantly at the end of the 1980s. A first indication of the LDP's decline was the loss of its majority in the 1989 elections to the Upper House. As a result of several years of bitter strife between the factions within the LDP, 40 members of the LDP abandoned their party in the House of Representatives in 1993 and toppled the LDP cabinet (Schaap, 2005). This marked the end of the LDP's dominance in the Japanese parliament. Since then, electoral competition has become much stronger, and the government's incentive to use fiscal policy to improve its chances of reelection with it. This explains why we find a strong electoral effect after 1992 in table 6C.

Furthermore, the Japanese party system has become fragmented with parties characterized by low internal coherence and instability (McKean and Schreiner, 2000; Laver and Kato, 2001). This environment seems fitter for the contracts approach than for the delegation approach of strengthening budgeting institutions. The experience of contract states like the Netherlands in the EU shows what this requires. First, budgeting in Japan should become comprehensive, moving away from the limited focus on the general account and covering all government spending in the budget process. Second, the annual budget process should start with an agreement among all coalition partners on fiscal targets for each spending ministry, creating clear responsibilities and accountability. These targets should be anchored in the coalition agreement, thus binding the party leaderships to the agreement, and, as in Sweden, party leaders could be admitted to the annual negotiations on the fiscal targets to ensure that the coalition partners feel committed to the agreement. However, the party leaderships should not be admitted to the subsequent, more detailed budget negotiations as they are today, as they could use their political influence to undermine the original agreement. The targets should be

embedded in multi-annual fiscal plans closely connected to national accounts and macro economic forecasts to ensure consistency over time. They should set limits for the level rather than the increment in annual spending. Third, the position of the executive relative to parliament should be strengthened by asking parliament to take a vote on the main fiscal targets early in the budget process, turning these targets into binding constraints for the subsequent parliamentary phase of the budget process. Fourth, supplementary budgets should be ruled out and rules for dealing with revenue and expenditure shocks should be put in place instead. Fifth, transparency of the budget and the budget process should be improved to facilitate monitoring and enforcement of the fiscal contract. Finally, the position of the MoF in the implementation of the budget could be further strengthened by assuring its control over all parts of government spending.

With changes in this direction, Japan would move towards the adoption of a hard fiscal rule. The EU experience of the past 15 years suggests that, given the nature of its political environment, this would be an effective way of strengthening fiscal discipline. A critical question remains, of course, namely what could induce policy makers to agree to such reforms and give up room for discretionary maneuvering. In the EU context, the risk of missing entry into the monetary union probably played some role in generating support for reforms of the budget process. However, the experience of countries like Denmark, Sweden, and Ireland, and much earlier, France (von Hagen and Harden, 1994), indicates that the fiscal pressures of a mounting debt burden and a looming fiscal crisis can achieve the same.

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**Table 1: Fiscal Targets in Japan**

1982	0% increase in budgetary requests	1993	Current spending max 10% decrease Investment spending 0% increase Special allowance for public investment and social programs 640 billion yen. *)
1983	Max 5% decrease, 0% increase on investment spending	1994	Current spending max 10% decrease Investment spending max 5% increase Special allowance 290 billion yen. *)
1984	Current spending max 10% decrease Investment spending max 5% decrease	1995	Current spending max 10% decrease Investment spending max 5% increase Special allowance 300 billion yen. *)
1985	Same as 1984	1996	General administrative spending max 15% decrease Other current spending max 10% decrease Investment spending max 5% increase Special allowance 140 billion yen. *)
1986	Same as 1984	1997	General administrative spending max 15% decrease Other current spending max 12.5% decrease Interest payment subsidies max 5% decrease Personnel expenditures max 0.8% decrease Investment spending max 0% increase Special allowance 300 billion yen. *)
1987	Same as 1984	1998	Social Sec. Spending less than 300 billion increase Public investment max 7% decrease Foreign aid max 10% decrease Science and technology max 5% increase Zero ceilings on various specified types of spending
1988	Current spending max 10% decrease Investment spending 0% increase *)	1999	Public works spending 0% increase Science and technology max 5% increase Social security max increase 570 billion yen Remainder max 0% increase Special allowance for economic recovery 4150 billion yen
1989	Same as 1988	2000	Public works spending 0% increase Social security max increase 500 billion yen Remainder max 0% increase except for mandatory increase in personnel expenses Special allowance for economic recovery 250 billion yen
1990	Same as 1988	2001	Public works spending 0% increase Social security max increase 750 billion yen Remainder max 0% increase except for mandatory increase in personnel expenses Special allowance for economic recovery 300 billion yen
1991	Current spending max 10% decrease Investment spending 0% increase Special allowance for public investment and social programs 200 billion yen *)	2002	Public investment related spending max 0% increase Public works spending 10% increase Social security except facility expenses max increase 700 billion yen Mandatory spending (including annual increase in personnel spending) 0% increase Remainder max 0%
1992	Current spending max 10% decrease Investment spending 0% increase Special allowance for public investment and social programs 400 billion yen. *)	2003	Public investment related spending max 120% of baseline for request Non-discretionary spending except personnel expenses, pensions and medical care, special factors maximum 0% increase Discretionary spending max 120% of baseline for requests

Note: \* Additional funds of 1300 billion yen under the NTT scheme. Source: MoF (2001, 2002)

**Table 2: General Government Debt (percent of GDP)**

Year	BE	DK	D	GR	E	F	IE	I	L	NL	AT	P	SF	S	UK	EUR-12	JP
1980	78.5	36.4	31.7	27.7	17.0	20.4	72.3	58.0	9.2	46.0	36.1	35.3	11.6	39.6	55.0	34.0	61.6
1981	91.8	48.1	35.4	33.0	20.8	22.6	78.0	60.1	9.6	49.9	37.9	44.9	11.6	47.6	55.2	37.9	58.3
1982	102.4	60.0	38.7	37.3	25.7	26.3	87.7	65.1	9.5	55.3	40.3	48.2	14.3	56.8	54.1	42.1	64.9
1983	113.3	69.0	40.2	42.9	31.0	27.7	98.0	70.0	10.1	61.4	44.6	53.8	15.9	60.6	54.3	45.4	72.7
1984	117.5	72.7	41.0	51.2	37.0	30.0	102.3	75.3	10.0	65.5	47.2	59.3	15.7	62.1	56.3	49.4	71.8
1985	122.2	69.8	41.7	59.8	42.4	31.8	105.3	82.0	9.5	70.0	49.2	67.4	16.4	61.6	54.3	51.6	69.1
1986	127.4	61.9	41.6	62.2	43.7	32.3	117.1	86.3	9.2	72.0	53.7	66.0	17.1	61.3	52.7	54.0	69.2
1987	131.9	57.9	42.6	69.9	44.0	34.5	118.2	90.5	8.1	74.5	57.6	63.6	18.3	54.3	50.2	55.6	76.0
1988	131.9	60.0	43.1	76.4	40.4	34.5	113.8	92.6	6.5	77.5	58.8	63.1	17.1	48.8	43.6	56.4	72.4
1989	128.2	57.8	41.8	80.4	41.8	35.2	103.9	95.4	5.3	77.5	58.0	61.4	14.8	43.9	37.9	57.1	59.1
1990	128.6	57.7	43.5	89.0	43.7	36.3	97.5	97.3	4.5	77.1	57.3	63.4	14.5	42.1	35.2	57.7	64.4
1991	130.6	64.0	40.4	82.2	44.3	35.8	95.6	100.8	4.6	76.8	56.1	60.7	22.6	50.1	34.4	58.5	64.8
1992	132.2	69.4	42.9	87.8	46.8	39.6	92.5	108.1	5.5	77.9	55.8	54.4	40.5	63.3	39.2	60.3	68.7
1993	137.9	81.1	46.9	110.1	58.4	45.3	95.1	118.7	6.8	79.3	60.5	59.1	55.9	71.3	45.4	66.2	74.9
1994	135.9	77.4	49.3	107.9	61.1	48.4	89.6	124.8	6.3	76.4	63.4	62.1	58.0	73.9	48.6	68.9	79.7
1995	134.0	73.2	57.0	108.7	63.9	54.6	81.8	124.3	6.7	77.2	67.9	64.3	57.1	73.7	51.8	73.6	87.1
1996	130.2	69.7	59.8	111.3	68.1	57.1	73.3	123.1	7.2	75.2	67.6	62.9	57.1	73.5	52.3	75.2	93.9
1997	124.8	65.7	61.0	108.2	66.6	59.3	64.5	120.5	6.8	69.9	63.8	59.1	54.1	70.6	50.8	74.9	100.3
1998	119.6	61.2	60.9	105.8	64.6	59.5	53.8	116.7	6.3	66.8	64.2	55.0	48.6	68.1	47.7	74.1	112.2
1999	114.8	57.7	61.2	105.2	63.1	58.5	48.6	115.5	5.9	63.1	66.5	54.3	47.0	62.7	45.1	72.7	125.7
2000	109.1	52.3	60.2	114.0	61.1	56.8	38.3	111.2	5.5	55.9	67.0	53.3	44.6	52.8	42.0	70.4	134.1
2001	108.1	49.2	59.4	114.7	57.5	56.5	35.9	110.6	5.5	52.9	67.1	55.8	43.8	54.4	38.8	69.4	142.3
2002	105.8	48.8	60.9	112.5	54.4	58.8	32.7	107.9	5.7	52.6	66.6	58.4	42.6	52.6	38.3	69.4	149.4
2003	100.7	45.9	64.2	109.9	50.7	63.7	32.1	106.2	5.4	54.1	65.1	60.3	45.6	52.0	39.8	70.7	157.6

Average Change in Debt Ratio

81-85	8.7	6.7	2.0	6.4	5.1	2.3	6.6	4.8	0.1	4.8	2.6	6.4	1.0	4.4	-0.1	3.5	1.5
86-91	1.4	-1.3	0.4	5.2	0.3	0.8	-1.3	3.1	-0.9	1.2	1.4	-0.4	1.1	-1.7	-3.2	1.2	-1.4
92-98	-1.6	-0.4	2.9	3.4	2.9	3.4	-6.0	2.3	0.2	-1.4	1.2	-0.8	3.7	2.6	1.9	2.2	6.8
99-03	-3.8	-3.1	0.7	0.8	-2.8	0.8	-4.3	-2.1	-0.2	-2.5	0.2	1.1	-0.6	-3.2	-1.6	-0.7	9.1

Note: EUR-12 is the weighted average of the 12 member states of EMU, Belgium, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, and Finland. Source: European Commission AMECO Database and own calculations

**Table 3: General Government Budget Balances (percent of GDP)**

Year	BE	DK	D	GR	ES	F	IE	I	L	NL	AT	P	SF	S	UK	JP
1980	-8.6	-3.2	-2.9	-2.6	-2.5	0.0	-11.6	-8.6	-0.4	-4.1	-1.6	-8.5	3.3	-3.9	-3.4	-4.4
1981	-12.6	-6.7	-3.7	-9.0	-3.7	-1.9	-12.2	-11.5	-3.1	-5.1	-1.7	-12.5	4.4	-5.1	-2.6	-3.8
1982	-10.7	-8.8	-3.3	-6.8	-5.3	-2.7	-12.6	-11.3	-1.0	-6.3	-3.3	-8.4	2.5	-6.7	-2.5	-3.6
1983	-11.4	-6.9	-2.6	-7.5	-4.5	-3.1	-10.7	-10.6	1.9	-5.5	-3.8	-6.8	0.9	-4.8	-3.3	-3.6
1984	-9.4	-4.0	-1.9	-8.3	-5.2	-2.7	-8.9	-11.6	3.2	-5.3	-2.5	-10.3	2.7	-2.8	-3.9	-2.1
1985	-8.9	-2.0	-1.2	-11.6	-6.1	-2.8	-10.2	-12.5	6.2	-3.5	-2.4	-10.2	2.8	-3.7	-2.9	-0.8
1986	-9.3	3.3	-1.3	-9.4	-5.5	-2.7	-10.1	-11.6	4.3	-4.9	-3.6	-5.7	3.3	-1.2	-2.5	-0.9
1987	-7.6	2.3	-1.9	-9.1	-3.7	-1.9	-8.1	-11.0	2.7	-5.7	-4.2	-5.4	1.0	4.1	-1.6	0.5
1988	-6.7	1.5	-2.2	-11.4	-3.3	-1.6	-4.2	-10.7	:	-4.4	-3.0	-3.4	4.0	3.4	0.7	1.5
1989	-6.1	0.3	0.1	-14.2	-3.5	-1.2	-1.7	-9.8	:	-4.6	-2.7	-2.3	6.2	5.2	1.0	2.5
1990	-5.4	-1.0	-2.1	-15.9	-4.1	-1.5	-2.2	-11.0	4.7	-4.9	-2.4	-4.9	5.3	4.0	-0.9	2.9
1991	-7.5	-2.5	-2.9	-11.0	-3.9	-2.4	-2.9	-11.7	1.2	-2.7	-2.9	-7.6	-1.0	-0.7	-3.1	2.1
1992	-8.1	-2.3	-2.6	-12.2	-3.6	-4.2	-3.0	-10.7	0.2	-4.2	-1.9	-4.8	-5.5	-7.1	-6.5	0.7
1993	-7.4	-2.9	-3.1	-13.4	-6.3	-6.0	-2.7	-10.3	1.5	-2.8	-4.2	-8.1	-7.2	-11.4	-7.9	-2.4
1994	-5.1	-2.4	-2.4	-9.3	-5.7	-5.5	-2.0	-9.3	2.7	-3.5	-4.9	-7.7	-5.7	-9.3	-6.8	-3.8
1995	-4.4	-2.3	-10.0	-10.2	-6.6	-5.5	-2.1	-7.6	2.1	-9.1	-5.7	-5.5	-3.9	-6.9	-5.8	-4.7
1996	-3.8	-1.0	-3.4	-7.4	-5.0	-4.1	-0.1	-7.1	1.9	-1.8	-4.0	-4.8	-2.9	-2.8	-4.2	-5.1
1997	-2.0	0.4	-2.7	-4.0	-3.2	-3.0	1.5	-2.7	3.2	-1.1	-2.0	-3.6	-1.3	-1.0	-2.2	-3.8
1998	-0.7	1.1	-2.2	-2.5	-3.0	-2.7	2.3	-3.1	3.2	-0.8	-2.5	-3.2	1.6	1.9	0.1	-5.5
1999	-0.4	3.2	-1.5	-1.8	-1.2	-1.8	2.5	-1.8	3.7	0.7	-2.3	-2.9	1.9	1.9	1.0	-7.2
2000	0.2	2.5	-1.2	-4.2	-1.0	-1.4	4.4	-1.9	6.0	1.4	-2.0	-3.2	7.0	3.7	0.9	-7.5
2001	0.4	2.8	-2.8	-4.2	-0.4	-1.6	1.0	-2.7	4.5	-0.1	0.1	-4.4	4.9	2.9	-0.2	-6.1
2002	0.1	1.6	-3.7	-3.8	-0.1	-3.4	-0.4	-2.4	2.8	-1.9	-0.4	-2.7	4.3	-0.3	-1.7	-7.9
2003	0.3	1.0	-3.8	-4.6	0.4	-4.1	0.2	-2.5	0.8	-3.2	-1.3	-2.8	2.1	0.1	-3.4	-8.0
Averages																
81-85	-10.3	-5.3	-2.6	-7.6	-4.6	-2.2	-11.0	-11.0	1.1	-5.0	-2.6	-9.5	2.8	-4.5	-3.1	-3.1
86-91	-6.1	-0.4	-1.9	-13.2	-3.8	-1.6	-2.6	-10.4	3.3	-4.2	-2.8	-4.1	3.5	2.9	-0.4	2.5
92-98	-4.9	-1.5	-2.8	-8.8	-4.7	-4.2	-1.1	-7.8	2.0	-2.6	-3.5	-5.7	-3.2	-4.7	-4.6	-2.8
99-03	0.1	2.2	-2.6	-3.7	-0.5	-2.6	1.5	-2.3	3.6	-0.6	-1.2	-3.2	4.0	1.7	-0.7	-7.3

Source: European Commission AMECO Database and own calculations

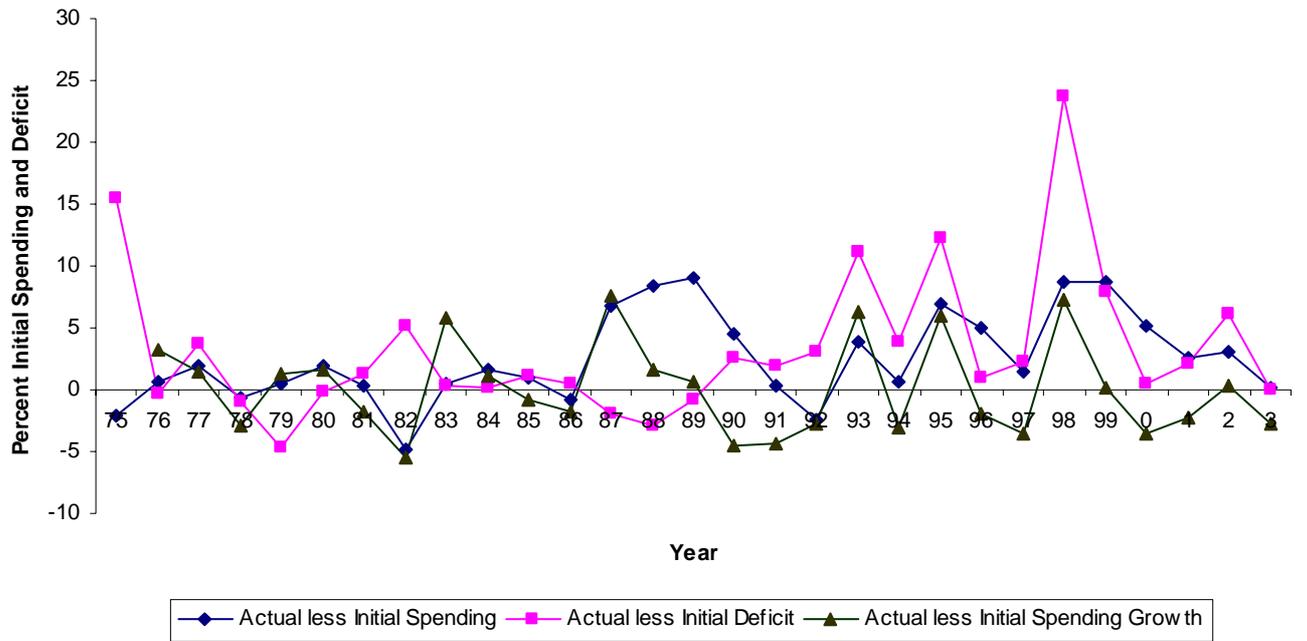
**Table 4: General Government Spending (percent of GDP)**

Year	BE	DK	D	GR	E	F	IE	I	L	NL	AT	P	SF	S	UK	JP
1980	56.2	53.1	48.0	28.8	31.6	45.4	46.1	42.8	47.7	54.4	46.9	36.6	38.6	59.5	43.2	32.5
1981	60.7	56.6	48.9	34.5	34.0	48.1	47.6	46.8	50.9	56.2	48.2	42.5	39.6	61.9	44.5	33.4
1982	61.0	57.8	49.3	35.3	35.7	49.8	49.8	48.3	48.7	58.3	48.8	40.5	41.1	64.1	44.9	33.6
1983	61.2	52.8	48.0	37.7	36.7	50.8	49.6	49.4	48.1	58.4	48.7	41.4	42.8	63.8	45.0	33.9
1984	59.8	57.0	47.6	38.6	37.1	51.4	48.4	50.2	45.2	57.3	49.0	44.1	42.5	61.3	45.4	32.9
1985	59.5	56.3	47.2	41.9	40.1	52.0	49.0	51.5	43.7	55.7	50.0	43.3	44.2	62.7	44.2	32.2
1986	59.1	52.8	46.5	41.0	40.1	51.5	48.9	51.7	42.5	55.6	50.9	38.8	45.1	61.0	42.8	32.5
1987	57.7	54.1	46.9	41.5	39.9	50.9	47.0	51.1	45.1	57.1	51.3	37.8	45.7	57.3	41.1	32.7
1988	55.3	56.8	46.4	42.4	39.6	49.9	43.9	51.2	:	55.4	50.0	36.6	44.2	57.5	38.3	31.9
1989	52.8	57.0	45.0	43.9	41.3	49.0	37.8	51.9	:	52.7	48.6	35.6	42.5	57.9	37.8	31.1
1990	52.8	56.1	45.3	48.4	42.3	49.7	38.0	53.8	43.2	52.8	49.3	39.0	46.1	58.6	39.2	31.9
1991	54.4	57.9	47.1	46.7	43.2	51.6	44.9	55.5	44.4	54.8	52.9	45.1	57.7	63.5	44.0	32.1
1992	54.6	59.1	48.1	49.4	44.6	52.9	45.3	56.7	46.0	55.8	53.6	46.2	63.0	69.2	46.1	33.1
1993	55.7	61.7	49.3	52.0	47.6	55.2	45.1	57.7	45.7	56.0	56.7	47.8	64.2	73.0	46.1	35.0
1994	53.4	61.6	49.0	49.9	45.8	54.9	44.4	54.6	44.5	53.6	56.2	46.0	62.9	70.9	45.3	35.6
1995	52.9	60.3	49.4	51.0	45.0	55.2	41.6	53.4	45.5	56.4	56.0	45.0	59.6	67.7	45.0	36.7
1996	52.9	59.8	50.3	49.2	43.7	55.4	39.7	53.2	45.6	49.6	55.4	45.8	59.7	65.3	43.0	37.2
1997	51.4	58.0	49.3	47.8	41.8	54.9	37.2	51.1	43.3	48.2	53.1	44.8	56.4	63.0	41.4	36.1
1998	50.7	57.6	48.8	47.8	41.4	53.7	34.9	49.9	42.0	47.2	53.4	44.1	52.8	60.7	40.2	42.5
1999	50.1	56.3	48.7	47.6	40.2	53.4	34.5	48.9	41.2	46.9	53.2	45.3	52.1	60.3	39.7	39.0
2000	49.3	54.8	48.2	52.1	40.0	52.6	31.9	48.1	38.7	46.0	51.7	45.6	49.1	57.3	42.2	39.6
2001	49.5	55.5	48.3	50.2	39.6	53.1	33.5	48.7	38.8	46.7	50.9	46.3	49.2	57.2	40.9	39.2
2002	50.2	55.8	48.7	49.1	39.9	53.5	33.8	48.0	43.1	47.8	50.6	46.0	50.1	58.2	41.7	39.8
2003	51.0	56.2	48.8	48.3	39.6	54.6	34.3	49.0	44.9	49.0	50.8	47.8	51.1	58.3	43.6	39.1
Averages																
80-85	59.7	55.6	48.2	36.1	35.9	49.6	48.4	48.2	47.4	56.7	48.6	41.4	41.5	62.2	44.5	33.1
86-91	55.3	55.7	46.3	43.7	41.1	50.2	42.4	52.3	43.8	54.5	50.1	38.2	46.4	58.8	39.8	31.9
92-98	53.3	59.5	48.9	49.2	44.1	54.2	41.6	54.0	44.6	52.7	54.7	45.6	59.5	66.7	43.9	36.0
99-03	50.0	55.7	48.5	49.5	39.9	53.4	33.6	48.5	41.3	47.3	51.4	46.2	50.3	58.3	41.6	39.3

Note: All entries in percent of GDP. Data for 2000 and 2001 are corrected for one-off proceeds from UTMS auctions.

Source: European Commission AMECO Database and own calculations

Figure 1: General Account Spending and Deficit



**Table 5: Fiscal Impulses in the EU and Japan**

Country	Standard-Deviation 81-03	Average 81-91	Average 92-03	p-value a)	Average 99-03	p-value b)
BE	1.44 0.76(0.02)	-0.25	-0.67	0.41	-1.10	<b>0.05</b>
DK	2.13 1.06(0.02)	-0.28	-1.22	0.12	-1.28	0.17
D	2.16 0.61(0.00)	-1.28	-0.62	0.17	-0.98	<b>0.08</b>
GR	2.76	-0.37	-0.89	0.34	-2.28	<b>0.00</b>
E	0.98	-0.87	-0.75	0.38	-0.81	0.41
F	0.81	-1.12	-1.05	0.85	-1.48	<b>0.10</b>
IE	1.93	-0.20	-2.70	<b>0.00</b>	-3.17	0.20
I	1.32	-0.59	-0.38	0.36	-1.01	<b>0.08</b>
L	1.86	..	-2.00	..	-2.44	<b>0.05</b>
NL	1.42	-0.69	-1.34	0.14	-1.58	0.58
AT	1.23	-1.03	-0.98	0.46	-0.77	0.45
P	1.96	-0.24	-0.92	0.21	-0.71	0.36
SF	1.93	-1.51	-1.03	0.29	-1.54	0.19
S	2.21	-0.72	-1.39	0.24	-2.58	<b>0.07</b>
UK	1.40	-0.99	-1.18	0.38	-2.04	<b>0.06</b>
JP	0.61 1.17(0.03)	-0.30	-1.28	<b>0.02</b>	-0.99	0.25

Note: For Belgium, Denmark, Germany, and Japan, we report sample standard deviations for 1981-91 (upper entry), 1992-2003 (lower entry) and the p-value of a F-test for equal variances. For all other countries, the F-test for equal variances did not reject the Null-hypothesis. P-value a) is the p-value of a t-test for equal means (one-sided test) between 1981-91 and 1992-2003, accounting for unequal variances where necessary. P-value b) is the corresponding one-sided test for the mean of 1991-98 being larger than the mean of 1999-2003. Source: Own calculations.

**Table 6A: Empirical Model of Fiscal Impulses in the EU, 1981-1991**

	Dependent Variable: Fiscal Impulse		
	Model 1	Model 2	Model 3
Constant	-0.72	-0.94	-0.70
p-value	0.053	0.02	0.035
Lagged fiscal impulse	-0.28		
p-value	0.73		
Crisis Dummy	-6.31	-5.82	-5.17
p-value	0.00	0.000	0.0005
Lagged Debt Ratio	0.013	0.013	0.014
p-value	0.008	0.008	0.004
Real GDP Growth Rate	-0.27	-0.21	-0.21
p-value	0.0004	0.003	0.003
Election Dummy			-0.89
p-value			0.002
R <sup>2</sup>	0.21	0.17	0.22
F-Test (p-value)	0.000	0.000	0.000
Number of observations	141	154	154

**Table 6B: Empirical Model of Fiscal Impulses in the EU, 1992-2003**

	Dependent Variable: Fiscal Impulse				
	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	-1.24	-1.26	-0.83	-0.93	-1.13
p-value	0.002	0.001	0.038	0.023	0.0035
Lagged fiscal impulse	0.016				
p-value	0.85				
Lagged Debt Ratio	0.0097	0.0099	0.008	0.008	0.0088
p-value	0.048	0.042	0.089	0.089	0.062
Real GDP Growth Rate	-0.19	-0.20	-0.19	-0.20	-0.21
p-value	0.001	0.001	0.0009	0.0004	0.0002
EMU Dummy			-0.73	-0.42	
			0.004	0.15	
Election Dummy				0.54	0.71
				0.16	0.055
(Election Dummy)*(EMU Dummy)				-1.21	-1.64
				0.037	0.001
R <sup>2</sup>	0.08	0.09	0.13	0.15	0.14
F-Test (p-value)	0.02	0.0006	0.0004	0.00005	0.00005
Number of observations	168	168	168	168	168

**Table 6C: Discretionary Policy in Japan, 1981-2003**

	Dependent Variable: Fiscal Impulse		
	Model 1	Model 2	Model 3
Constant	-0.12	0.24	-1.54
p-value	0.88	0.29	0.016
Lagged Debt Ratio	0.019	0.018	0.019
p-value	2.62	0.027	0.031
Real GDP Growth Rate	-0.32	-0.36	
p-value	0.059	0.038	
Election Dummy	-0.79	-1.25	
p-value	0.14	0.004	
Post-1991 Dummy	-3.08	-3.35	-1.59
p-value	0.001	0.0006	0.003
(Post-1991 Dummy)*GDP Growth Rate	0.79	0.72	0.47
p-value	0.006	0.027	0.039
(Post-1991 Dummy)*Election Dummy	-1.78		-1.78
	0.005		0.008
R <sup>2</sup>	0.66	0.62	0.55
F-Test (p-value)	0.004	0.003	0.0046
Number of Observations	23	23	23

**Table 7: Index of Budgeting Institutions: Selected EU Countries and Japan**

		Germany	France	Ireland	Italy	UK	Japan
Budget Negotiations	1991	12.00	16.00	3.00	7.66	15.00	3.83
Parliamentary Stage		4.00	18.00	8.00	6.00	16.00	6.00
Informativeness		17.00	14.66	5.00	5.00	16.00	2.00
Flexibility of Execution		18.60	20.20	11.00	1.00	11.40	12.66
<b>Index</b>		<b>41.20</b>	<b>55.60</b>	<b>20.73</b>	<b>17.12</b>	<b>48.20</b>	<b>18.67</b>
Budget Negotiations	2001	11.00	16.00	14.00	16.00	14.00	2.00
Parliamentary Stage		14.00	16.00	16.00	14.00	20.00	6.00
Informativeness		17.46	18.66	16.00	12.33	16.00	2.00
Flexibility of Execution		11.46	16.33	14.93	12.00	17.60	12.66
<b>Index</b>		<b>43.44</b>	<b>54.61</b>	<b>49.55</b>	<b>45.06</b>	<b>54.53</b>	<b>16.84</b>

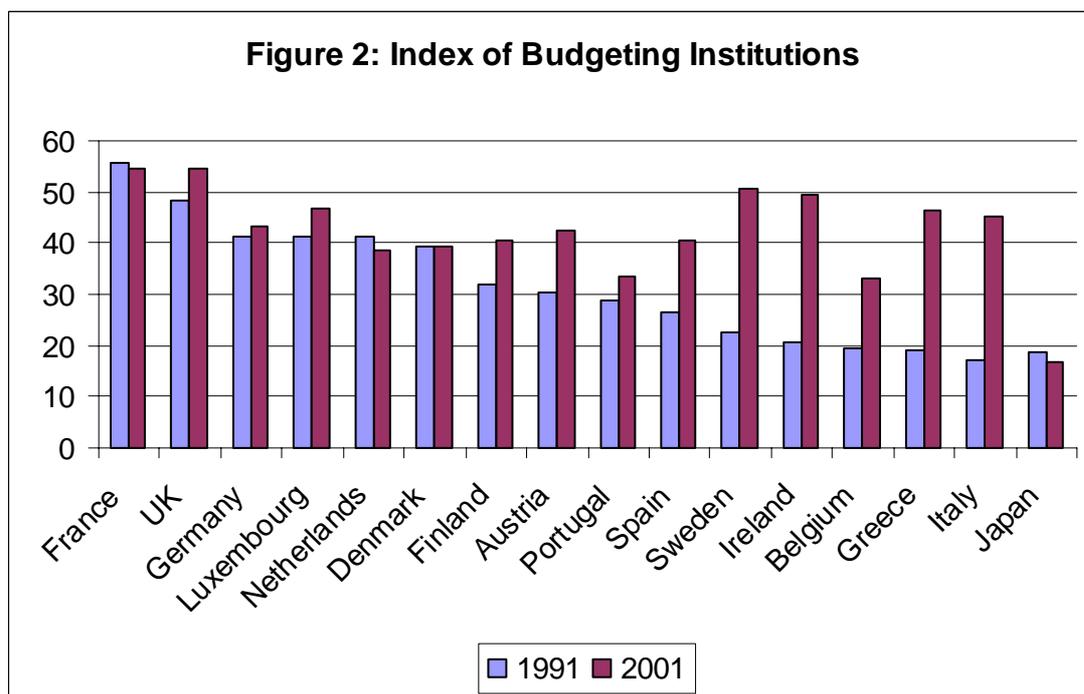
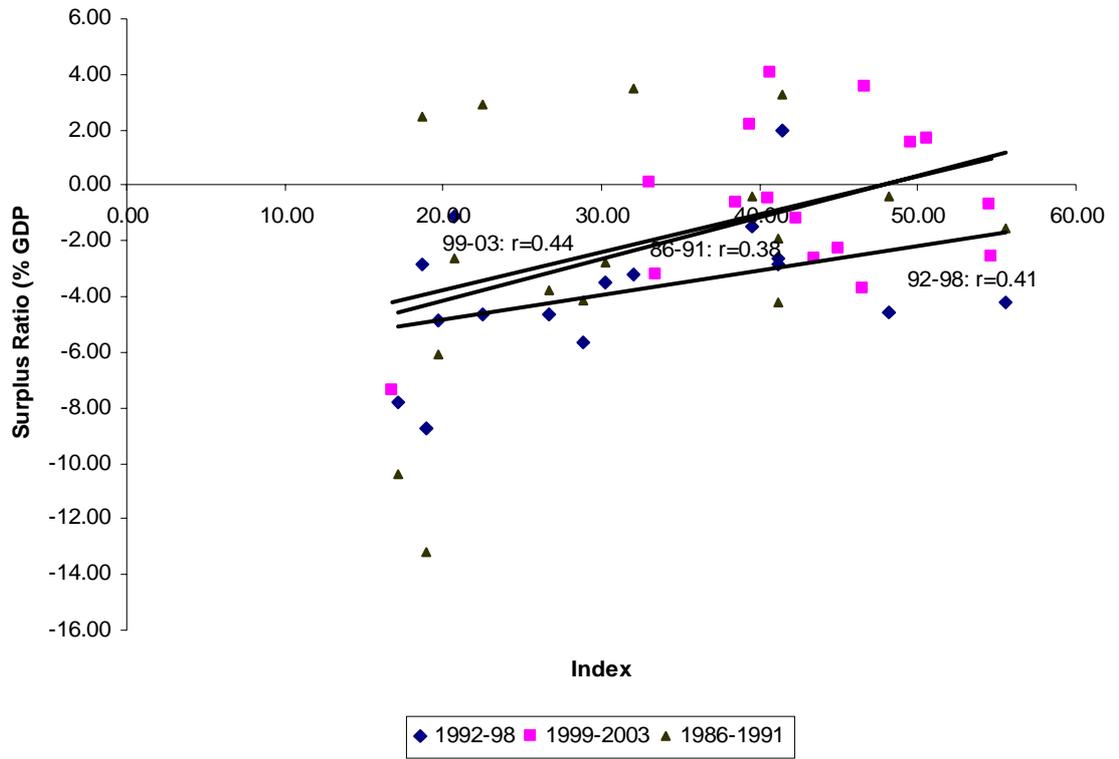


Figure 3: Budgeting Institutions and Budget Balances



**Table 8: Fiscal Rules Index, EU Countries and Japan**

Country	Horizon	Commit	Coalition	Stability Program	Shock Rules	MoF Implementation	Fiscal Rule Index
Countries Following Contracts Approach							
B	4	4	4	2	4	1	15.0
DK	3	2	0	0	4	2	9.3
Ei	2	2	4	3	0	3	11.3
L	4	4	4	3	4	2	17.0
NL	3	4	4	3	4	1	15.3
P	2	4	0	0.5	4	2	10.5
SF	3	3	4	1	0	1	8.7
SW	2	4	2	1.5	0	0	6.8
Countries Following Delegation Approach							
A	2	3	0	1.5	0	4	8.8
D	3	3	0	1.5	0	2	7.5
E	3	2	0	1.5	0	3	7.8
F	2	3	0	1.5	0	4	8.8
Gr	2	2	0	0.5	0	4	7.2
I	3	2	0	1.5	0	3	7.8
UK	2	3	0	3.5	4	4	14.8
Japan	2.5	2.5	0	0	2	2	7.3

Note: Fiscal Rule Index =  $2 \times (\text{Horizon} + \text{Commitment} + \text{Coalition}) / 3 + \text{Stability Program} + \text{Shock Rules} + \text{MoF Execution}$ .

Source: own calculations