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DÁVID BERTA – CSABA G. TÓTH

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Written by Dávid Berta – Csaba G. Tóth

(Directorate for Fiscal and Competitiveness Analysis, Magyar Nemzeti Bank)

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1 Introduction

The global economic crisis that erupted in 2007–2008 forced economists and economic policymakers to revisit their views on fiscal policy. The most important developments are that fiscal policy is now once again receiving more appreciation in the literature, the significance of the state's engagement has grown and issues related to the vulnerability of public finances are in the centre of attention again. This has provided renewed stimulus to the spread of fiscal rules aimed at supporting fiscal sustainability. While the European Union strengthened its supranational rules through new requirements, procedures and organisations in response to the crisis, national fiscal rules have taken hold throughout the continent, partly in line with the EU's expectations. The number of national fiscal rules has risen six-fold in the past quarter of a century, and 2014 was the first year when such requirements existed in all EU Member States.

Our methodological handbook seeks to summarise the information available on fiscal rules. Within this framework, it presents the theoretical background to the operation of the rules, an overview of Hungarian practice and the development of the EU rules. In the second chapter, we discuss the theoretical basis of the rules, especially the potential reasons for the emergence of the deficit bias, and the aims and types of different rules. The next chapter presents the key characteristics of the spread of national rules as well as the experiences with their operation. The Hungarian practice is introduced in Chapter 4, which includes a description of the legal context and the presentation of the required fiscal policy. The last chapter summarises the development of the EU´s fiscal framework, and provides a detailed analysis of the currently effective requirements and procedures related to fiscal policy.

2 Theoretical summary of fiscal rules

2.1 Deficit bias and its potential reasons

Due to the features of representative democracy, the incentives that encourage policymakers to engage in excessive spending from the budget are collectively called the deficit bias. Understanding the emergence of the deficit bias and distinguishing this phenomenon from running a budget with a deficit is vital in order to grasp the aims and operation of fiscal rules. For this, we should start our examination with the tasks of a state in a mixed economy, divided into three groups in a classic work by Musgrave (1959): the essence of the *allocation function* is the creation of products and services, the supply of which the private sector is unable or unwilling to efficiently provide (e.g. defence, education). The *redistribution function* pertains to the fact that the state takes part in the secondary redistribution of market income through the tax regime and through transfers, in accordance with the principle of equity. The *stabilisation function* means that the state is tasked with mitigating business cycles in order to ensure macroeconomic stability and sustainable fiscal management.

Although in the long run disciplined fiscal management itself is also a precondition for macroeconomic stability, it is important to emphasise that the state's tasks presented here necessitate running a deficit in certain cases. For example, the redistribution function may, through a fiscal deficit, oblige future generations to take part in the financing of certain expenditure items that yield benefits in the future (e.g. infrastructure investments), and expansionary fiscal policy may be a key tool of stabilisation in a crisis.[1]

Owing to the above, running a deficit in itself does not necessarily conflict with fiscal discipline. The deficit poses a problem if none of the listed economic arguments are justified, i.e. when running a deficit does not contribute to increasing social welfare. This is what we call the **deficit bias** (Alesina–Tabellini 1990; Debrun 2011). This mainly hinders the performance of the state's tasks

[1] For more details, see the summaries by Barro (1979) and Wagner (2004).

related to stabilisation, through several channels. If over the short term and in an upswing fiscal policy is undisciplined and loose, and the state runs a deficit to stimulate demand instead of reducing the debt ratio, it will not have enough fiscal space in a crisis to mitigate the impact of an economic downturn by increasing the deficit. On the other hand, running a sustained deficit over the long run, independent of business cycles, also threatens sustainability (Romer 2012).

One of the major aims of political economy research in the last few decades has been to expand the scope of possible explanations to new areas, since the economic explanations of the budget deficit proved to be insufficient to understand the Western European indebtedness that lasted for two decades from the 1970s. This gave rise to positive theories that identified the potential reasons behind the deficit bias leading to indebtedness in certain characteristic features of politics and the institutional environment as well as certain differences between these features.

The first theoretical approaches sought to explain the emergence of the deficit bias with the concept of **fiscal illusion**, which occurs when voters consistently underestimate the future costs of current public expenditures (for a more detailed analysis, see Csontos et al. 1996; Benczes 2008). According to Alesina et al. (2008), voters can more easily and directly observe the state of the economy, but have less direct experience about the amount of credit obtained by the state. Furthermore, the information asymmetry is enhanced by the fact that the unobservable part of the government's finances, i.e. the development of net borrowing and government debt, can directly influence the results that are more readily observable, i.e. the current state and growth of the economy. As a result, economic policymakers find it especially appealing to foster economic growth from debt not only in a crisis, but also in an upswing.

Among the explanations for the deficit bias, one of the pivotal elements is the **time horizon of the government**, which is due to one of the features of democracy, i.e. political cycles. The time preference of policymakers may be strongly influenced by electoral cycles and re-election chances. Owing to this, the short-term effect of discretionary measures might generally be more important to them, and the cost of future fiscal adjustment might weigh less in their decisions. This may encourage politicians with self-interest in sight to run a deficit, just like the fact that in the case of a regime change, the costs of the previous deficit bias will have to be covered by the new government. This in itself may significantly reduce the new government's leeway in economic policy and thus also decrease its chances of re-election (for more details, see Alesina–Perotti 1999; Persson–Svensson 1989).

The issue of **redistribution between generations** is closely related to this phenomenon (Auerbach et al. 1991). If policymakers are able to pass on the ever-increasing costs of expansionary fiscal policy from the currently living (and voting) generation to future generations in the form of government debt, then it also increases the deficit bias (Wyplosz 2012).

Due to **dynamic time inconsistency**, the discretional nature of determining the budget also strengthens this process. Dynamic inconsistency is when (in the short run) policymakers are interested in subsequently deviating from a decision that was considered optimal *ex ante* (Kydland– Prescott 1977). This means that if they re-optimise their decisions from time to time (annually), thereby deviating from the optimal decision of the previous period, they are unable to maximise total social utility (Debrun et al. 2009). For example, before establishing the expectations of economic agents, the commitment to a low deficit path can be considered optimal, but if this is incorporated into agents' expectations, and they make their decisions (e.g. wage agreements) in light of this, the efficiency of fiscal measures boosting demand grows in the short run. However, this is also incorporated into the rational expectations of economic agents, and therefore the real economic impact of the deficit disappears after several cycles, and repeated optimisation at short intervals translates into higher inflation. Thus, in the dynamic equilibrium, the economy is left with a higher deficit and high inflation.

Another important element in the development of the deficit bias is the so-called **common-pool resources problem**, which is based on the fact that society can be divided into interest groups that compete to control common resources.[2] As a result, government payments and transfers only reach particular groups, although the costs are covered by society as a whole in the form of taxes and contributions. The discrepancy between costs and benefits may encourage policymakers to pursue a loose fiscal policy.

The common-pool resources problem is closely linked to a more specific, and thus less widely known, but also important concept, the so-called **voracity effect**. It narrows down the common-pool resources problem to the case when the economy sustains a positive shock, but the budget is unable to save the resulting surplus, and in fact the general government balance deteriorates. Tornell–Lane (1999) explained this by claiming that upon seeing the unplanned and unexpected revenues, the "appetite" of the powerful groups around politics (local governments, trade unions, government-owned enterprises, industrial clusters) increases, and state redistribution grows and the general government balance deteriorates on account of their pressure. One of the main claims of the authors is that the weaker the institutional environment and the more polarised political power is, the more powerful the voracity effect is, and therefore the less surplus revenue the state is able to save in an upswing.

The deficit bias is especially common in situations when the **relationship between the authorities, obligations and responsibilities** across the various administrative levels is not optimal (Ter-Minassian 2007; Heppke-Falk–Wolff 2008). Such a situation may typically arise in the relationship between the central government and a lower administrative level (e.g. local governments). If – based on past experiences – the central government is reasonably expected to bail out local governments that are indebted or are in a dire financial situation, then it might encourage local leaders to engage in undisciplined financial management. The situation is somewhat similar in the case of monetary unions and single currency areas (Chari–Kehoe 2007), where the impact of excessively expansionary and unsustainable fiscal policy is not reflected in interest expenditures (or only with a considerable lag). Moreover, due to moral hazard, the emergence of the deficit bias may also be fostered if

[2] For more details, see the works of Benczes–Kutasi 2010 and Krogstrup–Wyplosz 2010.

the central bank of the currency area or the other member states jointly bail out an indebted country.

Nevertheless, the presence of the various incentives does not necessarily lead to the emergence of the deficit bias, since in theory the lack of fiscal discipline can be prevented through several channels (e.g. a rise in interest rates) by the appropriate market mechanisms (Debrun et al. 2009). However, according to experiences, these mechanisms are only able to adjust to developments very slowly, rarely and in an unpredictable manner, but if they are triggered, they usually have radical effects. (On this topic, see Balassone et al. 2004 and Gale–Orszag 2003.)

2.2 Definition and aims of fiscal rules

The institutional instruments aimed at curbing the deficit bias and creating fiscal discipline have been given more and more attention in recent decades. These initiatives vary fairly widely from political statements through fiscal rules to independent fiscal councils controlling fiscal discipline. The complex set of instruments comprising various schemes complementing and strengthening each other is usually referred to in the literature as the **fiscal framework** (Kumar–Ter-Minassian 2007). The relevant institutional solutions usually have two features in common. First, they facilitate the transparency of the government's views on a desirable, ideal fiscal policy. Second, they limit fiscal management by making politicians internalise the long-term costs of undisciplined fiscal policy (Wyplosz 2012).

From the perspective of fiscal policy instruments, fiscal rules can be defined at various levels and according to several approaches. In a broader sense, fiscal rules include all of the laws and procedural requirements regarding the composition of the budget and fiscal management, and as such, they are important tools in the hands of the central government and the parliament to ensure the smooth operation of fiscal policy (Alesina–Perotti 1999). They include the set of rules applicable to the whole general government that prescribe the fiscal space for individual organisations (e.g. freezing wages) as well as their reporting and documentation obligations.

By contrast, according to the narrower approach used henceforth, fiscal rules are more of a limit than a tool in terms of fiscal policy. The most widespread definition can be attributed to Kopits and Symansky (1998, p. 2), who stated that **"a fiscal policy rule is defined, in a macroeconomic context, as a permanent constraint on fiscal policy, typically defined in terms of an indicator of overall fiscal performance."**

The goal of fiscal rules is to correct the distorted incentives of policymakers (Debrun et al. 2009), thereby strengthening the stability and predictability of economic policy fundamentals and the credibility of macroeconomic policy. According to Kennedy and Robbins (2001), in specific cases fiscal rules can serve the following purposes, although it should be emphasised that there is considerable overlap between these purposes:

- strengthening macroeconomic stability;
- increasing the credibility of the government and the deficit-reducing measures it announces;
- ensuring the long-term sustainability of fiscal policy, with special regard to counteracting the negative impact of demographic developments on the fiscal balance;
- minimising negative externalities in the case of different administrative levels and international communities.

In order to highlight the features of fiscal rules that are able to boost the effectiveness of these instruments the most, we should review the study by Kopits and Symansky (1998). The authors created a set of eight criteria, which serve as a guide to assessing fiscal rules on the one hand, and point out the characteristics that make the operation of the rules more efficient, on the other hand. In addition, they discuss the problems and issues characterising the operation of fiscal rules with the help of the discrepancies between the presented aspects. The criteria contain the following eight aspects:

- **Adequacy:** whether with regard to its details and operation the specific rule is adequate for its general aim, which is prescribed in either law (e.g.

the constitution) or in a less stated manner, and it usually pertains to the medium and long-term sustainability of the budget;

- **Flexibility:** one of the most important assessment criterion shows how much the rule is able to handle the development of business cycles, how much room for manoeuvre it offers under extraordinary circumstances, and how it can be suspended;

- **Definition:** from the perspective of the efficient operation of the rule, it is crucial whether the indicators in the rule, the various conditions and parameters, the accounting method, the rights and obligations of the organisations concerned and the scope of public finance areas covered by the rule are defined accurately enough;

- **Transparency:** in order to facilitate the effectiveness of the rule, a high degree of transparency is required, the assessment of compliance with the rule must be straightforward, and the rule must also contain transparent norms and accounting in general;

- **Consistency:** it is no use if fiscal rules and the institutions controlling fiscal discipline operate efficiently separately, if there is a lack of appropriate harmony between them, if the instruments are not aligned or if the system is inconsistent with international treaties and obligations;

- **Simplicity:** one of the most important requirements is that the rule should be readily interpretable by politicians, investors and citizens, which substantially boosts accountability as well;

- **Enforceability:** the sanctions triggered by violating the requirements and whether the correction mechanisms are able to effectively support realisation are key from the perspective of the operation of the rule;

- **Efficiency:** whether compliance with the rule distorts resource allocation and whether it delays structural reforms.

It should be emphasised that in certain cases the aspects listed here point in opposite directions, and therefore no rule or set of rules can satisfy all of the criteria. Thus, there is no recipe applicable to all situations, countries and time periods, and accordingly all countries need to prioritise the various dimensions before introducing a fiscal rule (Kopits 2007).

Flexibility mostly conflicts with other aspects (such as simplicity, adequacy and enforceability). This is because fiscal rules necessarily entail a reduction in fiscal space for discretionary measures, i.e. they reduce the chance of the government being able to respond appropriately to changes in economic cycles. Negative effects can be minimised if the rule determines government demand in line with the cyclical position of the economy, which calls for new indicators that are difficult to estimate and for new procedures, making the rule more complex (Anderson–Minarik 2007; Balatoni–Tóth 2012).

2.3 Types of fiscal rules

Fiscal rules can be classified in many ways, but are most often categorised based on the aggregate budgetary indicator concerned. Accordingly, four broad groups can be distinguished:

- Debt rules
- Budget balance rules
- Expenditure rules
- Revenue rules

Before presenting the various types of rules in detail, it should be pointed out that they can function not only separately, as they can also complement each other in a set of rules.

Debt rules

In the case of rules that regulate public debt, the most often used indicators are usually gross debt, or sometimes net public debt or the annual changes in such, either nominally or relative to GDP. Such rules are generally used if the most important aim is to make the debt stock converge to a specific value or to prevent it from exceeding a particular level (Debrun et al. 2009).

The advantage of a debt rule is that it can be communicated fairly easily, it is readily interpretable by both policymakers and the broader public, and since it is a stock indicator, it is closely related to sustainability. However, it may be a disadvantage that in the case of a debt ratio well below (or above) the threshold, the rule cannot be considered an efficient guideline, and there is no consensus in the literature regarding an optimal debt ratio threshold (Hemming–Kell 2001).

The efficiency of the rule is also reduced by the fact that while the scheme aims to influence or restrict the government's fiscal policy by institutional instruments, the debt ratio is also influenced by factors (such as economic growth or foreign exchange rate movements) that the government cannot directly influence.

The main general criticism regarding debt rules is that (at least in themselves) they are not flexible enough. They usually respond too procyclically to cyclical fluctuations in the economy, since on the one hand, the cyclical effect of earlier years is reflected in the stock values in a cumulative manner, and on the other hand, the development of nominal GDP also influences the debt ratio through the denominator (Ódor–P. Kiss 2011). Therefore, debt rules are very often accompanied by an escape clause, which ideally enables the suspension of the rule for a certain amount of time when a precisely defined condition (recession or other extraordinary situation) is met.

Balance rules

Budget balance rules limit the difference between total revenues and total expenditures, and usually determine the maximum level of deficit relative to GDP. The advantage of such rules compared to debt rules is that they are not influenced by foreign exchange revaluation, which affects foreign currency denominated debt and falls partly outside of the government's direct influence, or by the proceeds of privatisation that are less important from the perspective of long-term sustainability. In addition, the procyclicality arising from the nature of budget balance rules is less pronounced than in the case of debt rules.

The drawback of these rules is that without methodological corrections, "creative" accounting may temporarily improve the balance of individual years, and they may encourage governments to attempt to recognise the rise in government debt at the expense of off-budget items (Von Hagen–Wolff 2004). The advantage of the primary balance (fiscal balance net of interest expenditures and interest revenues) is that it focuses on factors controlled by fiscal policy. Its use sometimes indicates that the aims of the rule assign less weight to controlling the debt, since in the context of such rules, the rise in interest expenditures does not automatically force the government to make fiscal adjustments. This is true of the so-called golden rule (see Balassone–Franco 2000; Benczes–Váradi 2011) as well, which pertains to the current budget balance net of investment and debt-related expenditures.

In addition to the methods and indicators mentioned above, fiscal rules increasingly take the structural deficit into account. The great advantage of this indicator is that it is independent of economic cycles and the effects of one-off and temporary items, but its calculation is rendered rather difficult due to methodological problems (Darvas–Kostyleva 2011), and this is partly why it has not (yet) been broadly implemented into the publication system of statistical offices.

Similar to the structural deficit indicator, so-called over-the-cycle rules seek to filter out the impact of output fluctuations on the balance. The above-mentioned solutions are able to reduce the procyclicality of balance rules by allowing the operation of automatic stabilisers, and the over-the-cycle balance makes way for discretionary measures as well. On the other hand, they make the rules much more complicated, which reduces transparency, accountability and thus also credibility.

Expenditure rules

Expenditure rules usually limit total expenditure, primary expenditure or current expenditure in absolute terms or as a percentage of GDP, and occasionally they regulate the growth rate of the above-mentioned items. Such solutions in themselves are unable to provide fiscal sustainability, but as a consequence of these rules, all policymakers internalise the total cost of using public funds, i.e. they take into consideration the budget constraint (Benczes–Kutasi 2010). This is primarily attributable to the fact that since the indicator does not need to be adjusted cyclically, the basic principles of expenditure rules are generally readily interpretable by both policymakers and the broader public, although in practice they are also often quite complicated and intricate.

Expenditure rules are the least procyclical types of fiscal rules. This is because they do not constrain the development of tax revenues, the budgetary items most sensitive to the cyclical fluctuations of the economy, i.e. they let automatic stabilisers operate on the revenue side by virtue of their nature. In other words, this means that they control that side of general government finances, namely the expenditure side, where the majority of the items are discretionary, and thus the rules are able to address the deficit bias, which usually arises on the expenditure side, at its root (Cordes et al. 2015).

Another advantage is that they are able to control the size of the general government by regulating the extent of redistribution. However, the drawback of such rules is that they cannot directly influence the fiscal balance or public debt, and in certain cases they may encourage governments to choose the easier way in order to comply with the rule by reducing productive expenditures (e.g. investments) instead of non-productive expenditures (e.g. current expenditures).

Revenue rules

The least widespread type of rules that are of the most complementary nature are revenue rules, which differ from the types presented so far in that while rules on debt, fiscal balance and expenditures all strive to constrain expansionary fiscal policy, revenue rules may be bidirectional. Similar to the other rules, determining the minimum amount of revenues may improve the balance, whereas conversely, setting a revenue cap may impair the fiscal position of the general government. The latter usually aims to protect the economy from excessive taxation (Schaechter et al. 2012). Another advantage of revenue rules is that they may increase the efficiency of tax collection, enhance the quality of tax administration and reduce tax evasion and the shadow economy.

However, similar to expenditure rules, revenue rules are unable to ensure or improve the sustainability of fiscal policy per se, in addition to an even graver problem, in that, as opposed to expenditure rules, they manage cyclical fluctuations rather poorly. Since the items most sensitive to the shifts in economic cycles (tax revenues) are on the revenue side, these rules are highly procyclical, as they prevent the operation of automatic stabilisers without further corrections.

3 Operation of national fiscal rules

3.1 The spread of fiscal rules

The history of fiscal rules stretches back almost two centuries, and several waves of the instruments' spread can be distinguished. The rules first appeared in the United States in the mid-19th century, then they were introduced in Europe, specifically in Switzerland, in the 1920s (see Kopits 2001). Despite the different time frames apart from each other by almost a century, the examples of the two countries can be treated together because in both cases, the subject of the rule was a lower-level administrative unit. In the US the individual states, while in Switzerland the cantons decided to introduce a fiscal rule in order to ensure the sustainability of their financial management, after it became clear that they could not expect to be bailed out by the central government.

In Europe, the numerical national fiscal rules covering the central budget as well appeared after World War II, in some Western European countries. The German constitution drawn up in 1949 was the first to prescribe the possible level of the budget balance (US GAO 1994; Hamker 2011; World Bank 2008), then later other countries on the continent followed in Germany's footsteps. In their case, the introduction of a fiscal rule concerning the general government as a whole was mostly necessary to ensure the success and sustainability of the stabilisation programmes necessitated by, among other things, monetary reforms (Kopits 2001).

However, the above-mentioned rules are merely forerunners to the currently used fiscal rules, the sudden spread of which started in the early 1990s. According to a survey by IMF experts (Budina et al. 2012), while in 1990 only five countries[3] in the world had effective fiscal rules covering the central budget, this number had risen to 76 by 2012. European countries contributed enormously to the growth. The number of national fiscal rules effective in the EU has risen almost tenfold in the past quarter of a century, and 2014 was

[3] Germany, Japan, Indonesia, Luxembourg and the United States.

the first year when such requirements existed in all Member States of the Community.[4]

Before delving deeper into the practice that developed on the continent, we should summarise the factors that contributed the most to the rapid spread of the rules in Europe. First, we have to mention sustainability issues and the fiscal consolidations they have necessitated, because the rules were often introduced or strengthened as part of a comprehensive reform of the general government. The pressure for consolidation, which in many cases contributed to the introduction of new fiscal rules or the overhaul of the prevailing set of rules, was caused by indebtedness lasting until the early 1990s in the case of Western European countries, and by the transformation crisis after the political transition in the case of post-Soviet countries.[5] Later, the global economic crisis that erupted in 2007–2008 and the European sovereign debt crisis in its wake eroded the fiscal balance to varying degrees in the individual countries but to such an extent almost everywhere on the continent that it led to another round of fiscal consolidation and in many cases an overhaul of the fiscal rules linked to that.

In parallel with the need for consolidation, the development of the European Union also strengthened this process, representing a direct external requirement for the Member States. In the case of the old Member States, the wave of the introduction of national fiscal rules lasted from the early 1990s until the introduction of the single currency, while in the case of the new Member States, it lasted until their accession to the EU (Tóth 2016). Within the euro area, the common monetary policy necessitated a greater degree of harmonisation between fiscal policies, which was a basic reason behind the introduction of the first EU-level fiscal rules in the 1990s. In the next phase of the rules' spreading that started after the European debt crisis, European integration also stimulated the process. This is because EU leaders revised the Community's instruments after the debt crisis. As a part of this, the number of rules increased, the institutional system supporting the rules was to be strengthened, and Member States were required to implement supranational

[4] Fiscal rules were introduced in Malta most recently.

[5] For more details, see Csaba 2002; Kornai 2005; Muraközy 2012; Roaf et al. 2014.

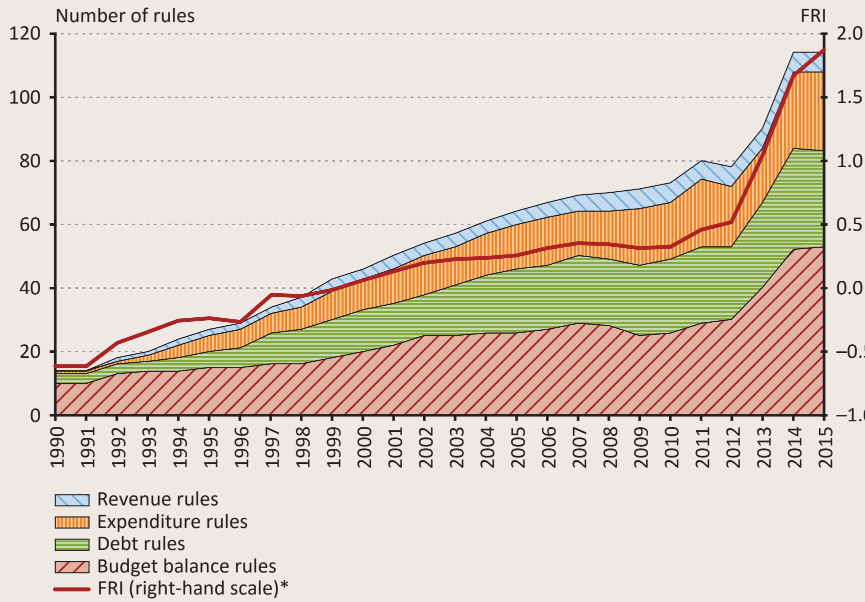
rules into their national legal orders. This also means that according to the experiences, supranational fiscal rules do by no means compete with national fiscal rules, the former were rather the drivers behind the spread of the latter.

As a result of the aforementioned processes, the number of national fiscal rules in the EU-28 Member States rose from 14 to 114 between 1990 and 2015. This dynamic process was only interrupted for a couple of years (2008–2009) by the economic crisis, and the pace of growth even intensified after the eruption of the debt crisis. It follows from the above that in 2014 an average of four rules were in place in each Member States, and there were countries (Bulgaria, France, Portugal and Italy) where more than half a dozen different national fiscal rules were in effect.

In the past quarter of a century, fiscal rules improved not only in terms of quantity, but also in terms of quality, which is indicated by the development of the Fiscal Rules Index (FRI) compiled and published by European Commission experts.[6] The index measures the institutional embeddedness and strength of all the fiscal rules in effect in the individual countries in a given year. In terms of the indicator, the portion of the budget covered by the individual rules receives great weight (coverage of general government finances), and the statutory/legal base of the rules, the room for revising objectives and the nature of the monitoring and correction mechanisms are all assessed. The value of the index rises if there is an entity (typically the fiscal council) that is tasked with controlling and enforcing the rule(s), and if there is a public dialogue on complying with the rule.

[6] https://ec.europa.eu/info/business-economy-euro/indicators-statistics/economic-databases/fiscal-governance-eu-member-states/numerical-fiscal-rules-eu-member-countries_en

Chart 1
Number of fiscal rules and average FRI in the EU-28



*Note: * In the case of the FRI, only those countries were taken into account where a rule existed.*
Source: Authors' calculations based on European Commission data

Since the early 1990s, in parallel with the dynamic rise in the number of rules, the average FRI increased from -0.6 to 1.9, which indicates the strengthening of the rules. One important aspect of this process is that the coverage of general government finances of the rules has expanded: while one quarter of a century ago rules were typically relevant to one sub-sector (mostly to the financial management of local governments), nowadays they cover practically the whole general government. In addition, a fiscal council was created or the existing one was strengthened in many European countries, especially after the debt crisis, which contributed immensely to the strengthening of the rules.

In Europe, since the early 1990s the most frequent rules have been budget balance rules; there were around 50 of them in 2014. Apart from the last couple of years, the number of debt rules and expenditure rules has increased almost in tandem, but recently – possibly on account of the debt crisis – the rules concentrating on stock variables has jumped. The number of revenue rules has been consistently low, so much so that they are considered interesting exceptions rather than typical.

Nevertheless, it is important to emphasise that most rules do not operate in themselves in the individual countries, as there are usually several in place simultaneously, often complementing each other. Expenditure and revenue rules are especially unlikely to be in effect in themselves, but while the former is more often used together with the balance rule, the latter is typically coupled with a debt rule.

3.2 Compliance with the rules and their impact

Relatively few studies have been conducted in connection to compliance with fiscal rules, but these have reached more or less the same conclusion. Reuter (2015) analysed the fiscal policy pursued in 11 European countries between 1994 and 2012 and found that fiscal policy was in line with effective fiscal rules in approximately 50 per cent of the years under review. Nonetheless, compliance in the case of different types of rules varies widely: the compliance rate is 79 per cent in the case of debt rules, 60 per cent in the case of expenditure rules and 38 per cent in the case of budget balance rules. Reuter's results were confirmed by Cordes et al. (2015), who analysed a significantly larger database of over 200 countries and concluded that compliance with expenditure rules is around 70 per cent, while this ratio is a couple of percentage points lower in the case of debt rules and below 50 per cent in the case of budget balance rules.

It must nevertheless be emphasised that compliance or non-compliance with the rules does not tell us much about their effectiveness. Rules can encourage policymakers to pursue a more disciplined fiscal policy even if fiscal policy improves, but not enough to meet a rule's requirements, and it is also possible that the rule is complied with irrespective of the requirement.

Studies that specifically examined the effectiveness and impact of the rules empirically found that stronger fiscal rules (i.e. higher FRI values) are usually coupled with a more disciplined fiscal policy. However, in many cases it is difficult to ascertain whether fiscal policy truly improved because of the fiscal rules, or the introduction or strengthening of the rules was part of an already disciplined fiscal policy (Poterba 1996). In the first case, the properly operating fiscal rule is an instrument that can influence the behaviour of policymakers through various incentives, while in the second case, policymakers use fiscal rules to indicate their commitment to disciplined fiscal policy to domestic and foreign market agents and political players.

Studies[7] which sought to address this issue with various methods usually concluded that rules are able to strengthen fiscal discipline, and they also contribute to the effectiveness and endurance of fiscal consolidation. Another group of studies[8] examined how much this instrument is able to boost confidence in the economic policy of a given country, and the results show that fiscal rules do have such a function, especially in a crisis and in countries where the stability culture is weaker.[9]

[7] See Heinemann et al. 2016; Debrun et al. 2008; Ayuso-i-Casals et al. 2009; Afonso–Hauptmeier 2009.

[8] See Bayoumi et al. 1995; Thornton–Vasilakis 2017.

[9] Heinemann et al. (2013) measured the stability culture with interpersonal trust, inflation and the political orientation of the governing parties.

4 Hungarian fiscal rules

Until the second half of the 2000s, no fiscal rule existed in Hungary that covered the entire general government or at least the financial management of the central government.[10] In this chapter, we present the currently effective fiscal rules, but before that we should briefly summarise the previous regulatory environment. The set of fiscal rules effective from 2009 to 2011 contained a fairly complex requirement regarding the entire central sub-sector of the general government. One of the aims of the rule was to reduce the debt-to-GDP ratio over the medium term as a function of real GDP growth, while making way for the operation of automatic stabilisers in the short run. The expenditure rule temporarily maximised the rise in expenditures to the amount of real GDP growth, and over the longer term it aimed to reflect the government's plans in the budget in a prolonged manner, thereby limiting the scope for procyclical jumps.

In parallel with the introduction of the rule, a three-member Fiscal Council started its operation in 2009, but it could not rely on the capacities of other institutions (e.g. MNB, State Audit Office), however, it had its own staff of analysts. In addition to monitoring compliance with the rule, the council analysed the effect of the laws affecting the budget and prepared technical projections and studies. The set of rules, and the composition, operation and instruments of the Fiscal Council were fundamentally overhauled by the government in 2011.

4.1 Effective Hungarian fiscal rules

In Hungary, there are currently four different fiscal rules in effect covering the whole of general government finances.[11]

[10] Nevertheless, a fiscal rule was introduced as early as 1996 to limit borrowing by local governments, and it was in effect until 2011 (Baksay–P. Kiss 2009; Jókay et al. 2004).

[11] There is another rule pertaining to local governments, which makes local governments' borrowing subject to the government's approval apart from certain exceptions. (Section 10(1)–(8) of Act CXCIV of 2011 on the Economic Stability of Hungary.)

1 Debt rule

The fiscal rule in the Constitution (hereinafter: debt rule) has the highest-level legal authorisation in Hungary. **Pursuant to the relevant provision of the Fundamental Law,[12] the Parliament may not adopt a law on the central budget as a result of which government debt would exceed one half of the gross domestic product. As long as government debt exceeds this level, with certain exceptions, the Parliament may only adopt an act on the central budget that provides for a reduction of government debt relative to the gross domestic product.** An escape clause is provided during a special legal order and the reduction of the real value of the gross domestic product. However, the definition of government debt in the Hungarian rules differs from the Maastricht debt calculated in line with EU requirements. In accordance with the provisions of the Act on the Economic Stability of Hungary (hereinafter: Stability Act),[13] government debt is calculated as follows:

- The impact of exchange rate movements need not be taken into account; therefore, when calculating the government debt indicator, debt in foreign currency must be recognised at a constant exchange rate determined in the Act on the central budget.
- The rise in government debt due to the time necessary for subsequently repaying EU funds, the potential liquidity shortage of the European Union's budget or any other reason on account of which the European Union grant for the incurred expenditures are not recognised in the central budget should not be taken into account.

In connection with the rule, the Fundamental Law governs[14] the operation of the **Fiscal Council** (FC) as well. In order to comply with the debt rule in the Fundamental Law, prior approval by the Fiscal Council is required for the adoption of the Act on the central budget. The chair of the three-member body is appointed by the president of Hungary, and the other two members are the governor of the Magyar Nemzeti Bank and the president of the State

[12] Article 36(4)–(5) of the Fundamental Law.

[13] Section 6(1)–(2b) of Act CXCIV of 2011 on the Economic Stability of Hungary.

[14] Article 44 (1)–(5) of the Fundamental Law.

Audit Office. The body has a small secretariat, but in its work, it relies on the help of the large staff of the MNB and the State Audit Office. Based on statutory authorisation, the Fiscal Council takes part in drafting the Act on the central budget and controlling compliance with the debt rule as follows:[15]

- It **decides** whether the consolidated draft budget before adoption and the relevant subsequent amendments are in line with the requirements of the debt rule. If the FC denies its prior approval due to non-compliance with the rule, the final vote must be postponed, and the procedure must be continued until the FC grants its prior approval for the adoption of the draft legislation.
- It **comments** on the justification of the draft budget act before it is submitted. If the FC indicates that it does not agree with the draft, the government must discuss the draft again, and the Parliament may only adopt it after that.
- It **comments** semi-annually on the implementation of the Act on the central budget and the expected development of government debt.
- It **may comment** on any issue related to the planning and implementation of the central budget, and other uses of public finances.

2 Debt formula

The debt formula in the Stability Act[16] pertaining to the extent of debt reduction is logically linked to the Fundamental Law's debt reduction requirement, although it is independent from that. **The rule states that value of government debt planned for the last day of the year must be determined in the Budget Act in such a manner that the growth rate of government debt determined in the Stability Act (see above) compared to the previous year should not exceed the difference between expected inflation determined in the Act on the central budget and one half of real GDP growth.** This can be expressed with the following formula:

[15] Sections 23–24 of Act CXCIV of 2011 on the Economic Stability of Hungary.

[16] Section 4 of Act CXCIV of 2011 on the Economic Stability of Hungary.

$$\frac{B_t - B_{t-1}}{B_{t-1}} \leq E(\pi_t) - 0.5E(g_t) \tag{1}$$

Where B_t is the nominal value of the outstanding debt in the period t, E is the expected value, π is inflation, while g is real economic growth. If either real GDP growth or inflation does not exceed 3 per cent, the above requirement becomes void. In such a scenario, the value of government debt planned for the last day of the year must be determined in the Budget Act in such a manner that the debt ratio must be reduced by at least 0.1 per cent of GDP compared to the previous year. This is essentially the same as the requirement in the debt rule. An escape clause is provided if the annual gross domestic product decreases in real terms.

Table 1
National fiscal rules for the whole general government

<table>
<tr><th></th><th>Rule*</th><th colspan="2">Description</th><th>Escape clause</th></tr>
<tr><td>1.</td><td>Debt rule (Fundamental Law, 2012)</td><td colspan="2">As long as government debt exceeds 50 per cent of GDP, the Parliament may only adopt such an act on the central budget that provides for the reduction of government debt relative to the gross domestic product.</td><td>During a special legal order, and if the annual gross domestic product drops in real terms.</td></tr>
<tr><td rowspan="2">2.</td><td rowspan="2">Debt formula (Stability Act, 2016)</td><td>a. If inflation and real growth are both over 3 per cent</td><td>The growth rate of government debt may not exceed the difference between the inflation expected for the fiscal year and one half of real GDP growth.</td><td rowspan="2">If annual gross domestic product decreases in real terms.</td></tr>
<tr><td>b. If either inflation or real growth does not exceed 3 per cent</td><td>The decline in the debt ratio compared to the previous year must be at least 0.1 percentage point.</td></tr>
<tr><td>3.</td><td>Maastricht deficit (Stability Act 2014)</td><td colspan="2">The deficit of the general government may not exceed 3 per cent of GDP.</td><td>If annual gross domestic product decreases in real terms.</td></tr>
<tr><td>4.</td><td>Medium-term budgetary objective (Stability Act 2014)</td><td colspan="2">The balance must be in line with the budgetary objective determined in the Convergence Programme.</td><td>–</td></tr>
</table>

Note: In accordance with Section 6 of the Stability Act, government debt means, in all cases, the indicator calculated at constant exchange rates and adjusted for the impact of the schedule of EU funds.

** The name of the rule is followed by the legal context and the year of introduction.*

Source: Authors' compilation

3 Maastricht deficit

According to the fiscal requirement in the Stability Act,[17] **the ESA balance of the general government must be determined during the planning of the budget in such a manner that the deficit does not exceed 3 per cent of gross domestic product.** An escape clause is provided if the annual gross domestic product decreases in real terms.

4 Medium-term budgetary objective

In accordance with the Stability Act, the fiscal balance determined during budgetary planning must be in line with achieving the medium-term budgetary objective (MTO).[18]

Based on the EU's guidance, all EU Member States need to set a medium-term objective with respect to the cyclically-adjusted budget balance net of one-off and temporary items (structural balance). The indicator's weighted value depends on the potential growth rate and the government debt of the country, the level of the interest rate and the ageing of the population. Countries struggling with sustainability problems must set stricter objectives. For Hungary, the medium-term budgetary objective relative to GDP is set at 1.5 per cent of the structural balance as of 2017 (for more details, see Chapter 5.2).

4.2 Presenting the operation of the Hungarian rules

The various currently effective national fiscal rules constrain fiscal policy through different channels. Among the rules, the provision in the debt rule (1) and one part of the debt formula (2b) relate to the debt-to-GDP ratio, the other part of the debt formula (2a) contains requirements on the nominal change in debt, the Maastricht deficit (3) limits fiscal policy through the budget balance relative to GDP, while the medium-term budgetary objective (4) does so through the structural balance. It is important to emphasise that if several rules are in place, the effective limit is always set by the strictest

[17] Section 3/A (2b) of Act CXCIV of 2011 on the Economic Stability of Hungary.

[18] Section 3/A (2a) of Act CXCIV of 2011 on the Economic Stability of Hungary.

one, since if the budget complies with that, it meets the requirements of the other rules as well.

Now we will examine the fiscal policy[19] determined by the four rules together in three different simulations: in a crisis (i), if the economy performs at exactly its potential level[20] (ii), and if the economy's performance significantly exceeds its potential level (iii). Since all four rules can be adhered to at the same time by complying with the strictest one, in the following we examine which rule requires the strictest fiscal balance under different circumstances. The 74.1 per cent debt-to-GDP ratio at the end of 2016 will be used as a starting point.[21] In the simulations, a constant exchange rate is taken into account, and for the sake of simplicity we assume inflation and the GDP deflator to be equal, and that changes in government debt are only a function of the budget balance. When quantifying the balance necessary for achieving the given targeted structural balance, it is assumed that a 1 percentage point difference between the current GDP and the potential GDP modifies the deficit by one half of a percentage point. The value of the coefficient between the output gap, i.e. the difference between the actual and the potential GDP, and the cyclical component is thus 0.5, which is in line with the European Commission's relevant estimate.

When potential output equals actual output (Table 2), three out of the four rules limit fiscal policy as a function of growth and inflation. In the vast majority of cases, the medium-term budgetary objective is the strictest, i.e. the deficit-to-GDP ratio may not exceed 1.5 per cent, because in the case of a closed output gap the official and the structural balances are identical (if one-off items even each other out). The targeted 1.5 per cent structural deficit is the medium-term reference value currently in effect for Hungary, determined in the Convergence Programme of April 2016.

[19] For more on Hungarian rules, see also Balatoni–Tóth 2012; Baksay–P. Kiss 2013; Balatoni 2015.

[20] The methodological uncertainties surrounding the measurement of potential output render accurate calculations difficult.

[21] Source: MNB

Table 2
Budget balance relative to GDP required by the rules when the output gap is 0 per cent

Output gap: 0%		Change in real GDP(%)									
		–2.5	–1.5	–0.5	0.5	1.5	2.5	3.5	4.5	5.5	6.5
Inflation (%)	–1.5	–1.5	–1.5	–1.5	0.9	0.1	–0.6	–1.3	–1.5	–1.5	–1.5
	–0.5	–1.5	–1.5	–1.5	0.1	–0.6	–1.3	–1.5	–1.5	–1.5	–1.5
	0.5	–1.5	–1.5	–1.5	–0.6	–1.4	–1.5	–1.5	–1.5	–1.5	–1.5
	1.5	–1.5	–1.5	–1.5	–1.4	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5
	2.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5
	3.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.2	–0.9	–0.5	–0.2
	4.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.2	–0.8
	5.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5
	6.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5
	7.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5
	8.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5	–1.5

(grey)	Medium-term budgetary objective
(blue)	Reduction of the debt ratio and the supplement to the debt formula
(orange)	Debt formula

Source: Authors' calculation

If both inflation and real GDP growth are above 3 per cent, in certain cases the debt formula requires tighter fiscal policy. A similar requirement for the balance is implied by the reduction of the debt ratio included in both the Fundamental Law and the debt formula. The reduction of the debt ratio regulates the balance when inflation is low or negative and growth is moderate.

If the output gap is -2 per cent, i.e. the cyclical position of the economy is unfavourable, three rules determine fiscal policy depending on growth and inflation (Table 3). When real GDP also declines, the majority of the fiscal rules included in national legislation are suspended, and only the objective concerning the structural balance remains in force. Consequently, the medium-term budgetary objective maximises the deficit-to-GDP ratio at 2.5 per cent (the sum of the 1.5 per cent structural deficit and the cyclical component of -1 per cent).

Table 3
Budget balance relative to GDP required by the rules when the output gap is -2 per cent

Output gap: −2%		Change in real GDP (%)									
		−2.5	−1.5	−0.5	0.5	1.5	2.5	3.5	4.5	5.5	6.5
Inflation (%)	−1.5	−2.5	−2.5	−2.5	0.9	0.1	−0.6	−1.3	−2.0	−2.5	−2.5
	−0.5	−2.5	−2.5	−2.5	0.1	−0.6	−1.3	−2.0	−2.5	−2.5	−2.5
	0.5	−2.5	−2.5	−2.5	−0.6	−1.4	−2.1	−2.5	−2.5	−2.5	−2.5
	1.5	−2.5	−2.5	−2.5	−1.4	−2.1	−2.5	−2.5	−2.5	−2.5	−2.5
	2.5	−2.5	−2.5	−2.5	−2.1	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5
	3.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−1.2	−0.9	−0.5	−0.2
	4.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−1.9	−1.5	−1.2	−0.8
	5.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.2	−1.8	−1.5
	6.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.1
	7.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5
	8.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5	−2.5

	Medium-term budgetary objective
	Reduction of the debt ratio and the supplement to the debt formula
	Debt formula

Source: Authors' calculation

If economic performance improves while the output gap is negative (for example, during a recovery), the escape clauses do not enter into force, but in approximately one half of the cases under review, the 2.5 per cent balance limit still proves to be the strictest rule. However, with a positive but low change in GDP and moderate inflation, the reduction of the debt ratio requires a stricter balance. This means, for example, that in order to reduce the debt ratio, with 0.5 per cent growth and 0.5 per cent inflation, the deficit may not exceed 0.6 per cent of GDP, which corresponds to a primary surplus of over 2 per cent with the current level of interest expenditures of Hungary.

In a favourable cyclical position, the strongest limit is almost always set by the structural deficit. If output is above its potential level by 2 per cent, the deficit – according to the rule concerning the structural balance – may only be 0.5 per cent of GDP, which is the sum of the 1.5 per cent structural deficit and the cyclical component of +1 per cent. As this means a primary surplus of 2 per cent, the rule requires countercyclical policy appropriate for the business cycle. In exceptional cases, against the background of a slight positive change in GDP and negative inflation, the provision regarding the debt ratio reduction included in the Fundamental Law and the supplement to the debt formula become effective, while in the case of high growth and high inflation, the barrier is set by the debt formula. In these cases, a tighter but still countercyclical budget must be adopted.

Table 4
Budget balance relative to GDP required by the rules when the output gap is +2 per cent

Output gap: +2%		Change in real GDP (%)									
		–2.5	–1.5	–0.5	0.5	1.5	2.5	3.5	4.5	5.5	6.5
Inflation (%)	–1.5	–0.5	–0.5	–0.5	0.9	0.1	–0.5	–0.5	–0.5	–0.5	–0.5
	–0.5	–0.5	–0.5	–0.5	0.1	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5
	0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5
	1.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5
	2.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5
	3.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.2
	4.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5
	5.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5
	6.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5
	7.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5
	8.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5	–0.5

	Medium-term budgetary objective
	Reduction of the debt ratio and the supplement to the debt formula
	Debt formula

Source: Authors' calculation

The simulations presented above show that in the overwhelming majority of cases, compliance with the structural balance related to the medium-term budgetary objective represents the effective limit for the budget balance. Although in practice the calculation of the indicator is a matter of professional debate,[22] in theory it is able to handle the developments in business cycles, i.e. it at least allows the automatic stabilisers to work. In times of upswings, the rules perform extremely well from the perspective of flexibility due to

[22] For more details, see the works of Forni–Momigliano (2005); Cimadomo (2008); Darvas–Kostyleva (2011) and P. Kiss (2017).

the requirement on the structural balance, guiding the government towards a countercyclical fiscal policy. However, in a crisis, it only provides limited scope for boosting demand and requires a tighter budget in certain cases, which further constrains demand instead of strengthening the recovery.

5 The fiscal rules of the European Union

5.1 Emergence and legal context of the rules

The Stability and Growth Pact summarising the fiscal rules of the European Union is an economic policy framework that seeks to compel Member States to harmonise their fiscal policies and manage public finances in a sustainable, disciplined manner. The aim of the Pact is to ensure orderly public finances, which enhances the conditions for dynamic, sustainable growth resulting in job creation.

The Pact originates from the entry into force of the Maastricht Treaty in 1993. Upon signing the Treaty, the Member States of the European Union set out on the path of deeper integration towards Economic and Monetary Union (EMU). Since EMU sought to achieve the eventual use of a single currency, and thus a uniform monetary policy, out of the two main economic policy areas, only fiscal policy remained in the sovereign national scope of competence. In order to prevent any of the Member States using the single currency from placing an excessive burden on the whole currency area in the future as a result of undisciplined fiscal policy, fiscal policies had to be harmonised and uniform rules had to be introduced (European Commission 2013). The fiscal rules pertain to all EU Member States with minor derogations.

The legal basis of the European Union's fiscal framework is comprised of the sum of several documents (Chart 2). The convergence criteria were first included in the treaty[23] that was signed in Maastricht in 1992 and entered into force a year later, and two criteria relevant to fiscal policy were the rules concerning the budget deficit and public debt. Later, the Treaty on the Functioning of the European Union added directives to the fiscal framework, prescribing budgetary discipline and the harmonisation of surveillance, the establishment of economic policy guidelines for euro-area Member States,[24] and the harmonisation of economic policies and the establishment of the

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[23] Treaty of Maastricht on European Union.

[24] Article 136 of the Treaty on the Functioning of the European Union.

fiscal powers of the European Council and the Commission for all Member States.[25]

The Treaty on the Functioning of the EU was an especially important step with respect to fiscal rules, since this was the first document in which the institution of the excessive deficit procedure[26] (EDP) and its exact definition and steps appeared. The same document was the first that provided escape clauses to the two earlier, numerical fiscal rules. In accordance with the deficit rule, the budget deficit may not exceed 3 per cent of gross domestic product calculated at current prices, although Member States may deviate from this reference value if "the ratio has declined substantially and continuously" or if the excess deficit "is only exceptional and temporary". The debt rule stipulates that gross government debt may not be higher than 60 per cent of GDP, unless "the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace". The EU's early fiscal rules did not quantify the exact extent of the debt reduction that represents a satisfactory pace; this only came later.

5.1.1 The Stability and Growth Pact

Two regulations of the European Council from 1997[27] and the Council's resolution supplementing them[28] created the **Stability and Growth Pact** that represents the fiscal framework of the European Union to this day. The regulations introduced the need for the support provided by Member States' orderly finances to favourable price stability entailing job creation as well as the conditions of sustainable growth. Furthermore, the two regulations set out the further harmonisation of economic policies, stronger surveillance of Member States' fiscal policies and acceleration of the excessive deficit procedure.

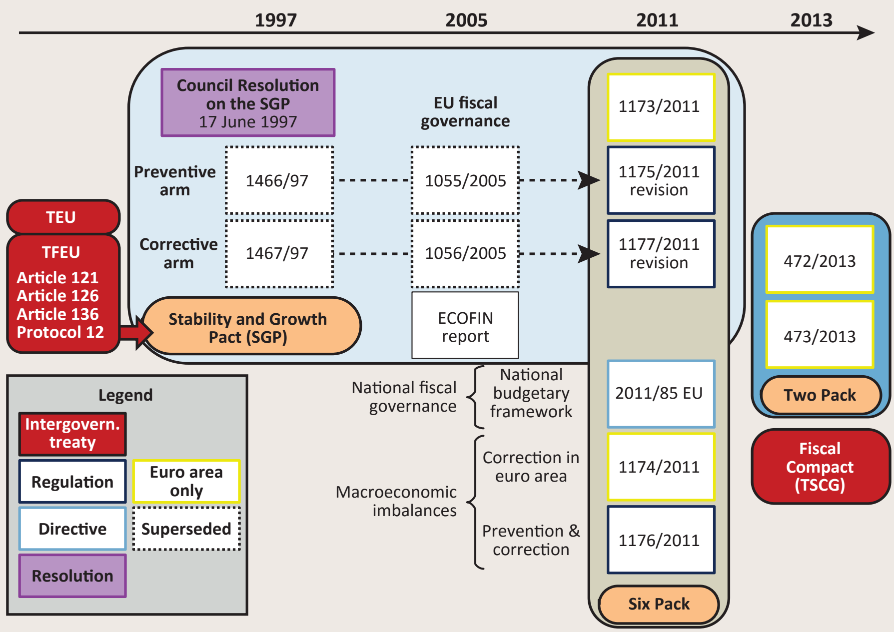
[25] Article 121 of the Treaty on the Functioning of the European Union.

[26] Article 126 of the Treaty on the Functioning of the European Union.

[27] Council Regulations (EC) No 1466/97 and 1467/97.

[28] Resolution of the European Council on the Stability and Growth Pact Amsterdam.

Chart 2
Legal context of the EU's fiscal rules



Source: Based on European Commission (2017)

The Stability and Growth Pact can be divided into two arms: the preventive arm and the corrective arm. The **preventive** arm aims to supervise and harmonise Member States' fiscal policies to make sure that the EU is able to provide fiscal discipline *ex ante*. At the time of the SGP's inception, the rules of the preventive arm merely stipulated that Member States should achieve a budget close to balance or in surplus over the medium term. On the other hand, the preventive arm expected Member States to prepare stability and convergence programmes, even when the Pact's original framework was set up. Euro area Member States submitted stability programmes, while the countries not using the euro submitted convergence programmes, outlining Member States' medium-term fiscal and economic policy plans and ideas.

The other, **corrective** arm of the Pact concerns Member States that have exceeded the reference values linked to the Maastricht criteria.

In the case of a deficit-to-GDP ratio over 3 per cent and government debt above 60 per cent, if no escape clause applies, the corrective arm of the Pact is triggered, i.e. the excessive deficit procedure is launched. The escape clause was used to interpret the developments in the medium-term general government balance and government debt in an over-the-cycle manner, i.e. one-off, exceptional overruns do not automatically lead to an EDP if the values of the deficit and debt do not substantially deviate from the reference values over the medium term.

5.1.2 The 2005 reform

The first major reform of the Stability and Growth Pact was carried out in 2005, after the shortcomings of the Pact had become apparent in the previous eight years.[29] The 2005 reforms basically had a dual purpose: first, to move away from the universal rules used until then towards country-specific requirements, and second, to devote more attention to economic and cyclical developments. That is why the structural deficit indicator was highlighted in addition to the usual Maastricht criteria of 3 per cent deficit. The **structural balance** means the balance adjusted for the impact of the cyclical fluctuations of the economy, and net of the one-off and temporary items (for more details, see the next chapter).

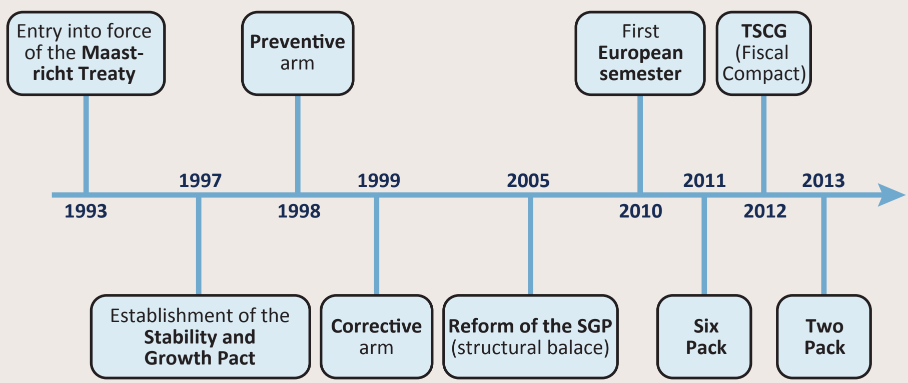
Due to the use of the structural balance, the sustainability of the budget became central among the preventive fiscal rules of the European Union. As a result of the reforms, all EU Member States need to determine a **country-specific medium-term budgetary objective** (in consultation with the European Commission), which ensures that the deficit-to-GDP ratio does not exceed 3 per cent under any circumstances over the medium term on the one hand, and provides room for fiscal manoeuvre to the country on the other hand. When determining the medium-term budgetary objective (MTO) and during its regular review, the country's potential growth rate, government debt and the extra expenditure on account of demographic developments need to be taken into account. In the case of euro-area Member States and

[29] The reform was based on Council Regulations (EC) No 1055/2005 and 1056/2005, and the Ecofin (Economic and Financial Affairs Council) report "Improving the implementation of the Stability and Growth Pact" prepared for the European Council.

those participating in the ERM-II exchange rate mechanism, the structural deficit-to-GDP ratio determined in the MTO should not be over 1 per cent of GDP. With respect to the adjustment path towards the medium-term objective, the general rules prescribe an annual improvement of 0.5 percentage points, which is higher in an upswing and lower in a downturn. In the spirit of sustainability, a special clause (structural reform clause) was introduced, based on which a country may temporarily deviate from the MTO, if it carries out structural reforms that entail costs but have a beneficial effect on the long-term sustainability of the budget (this generally means a pension system reform).

The overhaul of the rules of the corrective arm was also aimed at making macroeconomic developments more pronounced in the requirements. The exceptional circumstances of deviating from the 3 per cent deficit target were broadened by the 2005 reform, and it also stipulated that the deficit target should be approached at a pace of 0.5 per cent of GDP annually. The excessive deficit procedure was no longer triggered immediately if a Member State did not comply with the rules on the deficit and government debt, as the deadline could be extended if the country approached the budgetary reference values at the prescribed pace (conditional compliance).

Chart 3
Development of the EU's fiscal framework over time



Source: Based on European Commission (2013)

5.1.3 The European Semester and the Six Pack

The next reform of European fiscal rules came in response to the global economic crisis (Chart 3). The global economic crisis and then the European sovereign debt crisis made it clear that certain EU Member States were not using the economic upturn before the recession appropriately for establishing a more favourable fiscal position by implementing countercyclical[30] fiscal policy. The indebtedness of both households and the state, external and internal imbalances and deteriorating competitiveness highlighted the deficiencies in economic governance in the case of several Member States. The newly introduced institution of the "European Semester", the procedure for addressing macroeconomic imbalances and the legislative package known as the **Six Pack** were designed to address these mistakes.

The **European Semester** is a coordination of policies that contributes to ensuring convergence and stability. Policies were first harmonised in 2011, after having been adopted in 2010, the legal basis of which was provided by the Six Pack legislative package that entered into force in 2011 which is also one of the major results of the Hungarian EU Presidency. The primary objective of the European Semester is to synchronise national fiscal, economic and employment policies. It is called a semester because it contains the step-by-step tasks and deadlines for all EU Member States and European Union institutions for the first half of each year. Countries and EU institutions hold several rounds of discussions during the Semester, including the sending of the annual stability and convergence programmes, the assessment by the Parliament, the Council and the Commission and the formulation of various country-specific recommendations.

The 2011 reform of the Stability and Growth Pact created a new preventive fiscal requirement, i.e. the **expenditure benchmark**. The new rule ensures convergence to the MTO and the prevention of an unfavourable fiscal position similar to the one that emerged during the crisis. It is assessed in the case of the Member States that failed to meet the requirements of the MTO. The

[30] Economic policy is countercyclical when the state fulfils its stabilisation function and successfully mitigates the volatility arising from business cycles, i.e. it tightens fiscal policy in an upswing, and expands it during a downturn.

rule prescribes a maximum annual growth rate for budgetary expenditures (a growth rate of expenditures below potential GDP growth rate) that varies by country, unless expenditure growth is offset by other, discretionary revenue items.

Another change in the rules of the preventive arm is the emergence of the concept of a **significant deviation from the medium-term objective**. The deviation can be applied to both the new expenditure benchmark and the structural balance, and when it exists, the Member State may be called on to adjust its fiscal policy. In order to improve the efficiency of the recommendations, the 2011 reform introduced the option of sanctioning euro area Member States in the preventive arm as well: if the country-specific recommendations are repeatedly disregarded, the Member State may be obligated to lodge an interest-bearing deposit. However, the crisis also made it clear that in certain cases EU Member States' fiscal position may become unfavourable through no fault of their own. The EU's fiscal framework became more flexible in view of these cases, i.e. the unusual situations when a one-off shock to the general government requires special, temporary consolidation measures, or if a severe economic downturn can be observed in the euro area or the European Union as a whole. In these cases, the rules of the preventive arm can be treated more flexibly.

With respect to the corrective arm, the debt rule received a more accurate definition in 2011. The approach to the 60 per cent reference value of "sufficiently diminishing" used until then was supplemented with another debt reduction benchmark, which became informally known as the **"1/20 rule"** (for more details, see the next chapter). Thus, the excessive deficit procedure could be stepped up against a Member State even if it complied with the 3 per cent deficit-to-GDP target, and reduced its debt towards the 60 per cent level, but the extent of debt reduction was not in line with the new debt benchmark.

The new reforms paved the way for the gradual financial sanctioning of the countries that use the single currency and are subject to the EDP. In theory, the steadily increasing penalties bridge the gap between the launch of the excessive deficit procedure and the sanctioning that can be used at the very end of the process, as this gap used to merely defer Member States' efforts aimed at fiscal adjustment.[31] Prior to the reforms, sanctions could only be imposed as a last resort, in the case of the countries in a highly unfavourable fiscal position, which could produce counterproductive results. However, the new options provide a way for requiring the given Member State to undertake adjustments in time.

5.1.4 The Two Pack and the TSCG

The Two Pack is a two-piece legislative package **concerning the euro area** that was created after the entry into force of the Six Pack. Simultaneously, 25 European Union Member States agreed to deepen the harmonisation of their fiscal policies and to integrate parts of the EU fiscal framework into national law. The latter agreement was called the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (TSCG). The treaty was signed by the Member States in 2012, and certain elements were included in the Two Pack as well. It should be noted that the TSCG is not part of the EU's Community acquis, but an intergovernmental agreement, which has also been signed by Hungary.

As reflected in its name, the **Two Pack** consisted of two regulations: the first requires enhanced fiscal monitoring by euro-area Member States, and the preparation of new draft budgetary plans in addition to the existing stability programmes, while the second regulation pertains to strengthening the surveillance of Member States which are under severe financial pressure. The Two Pack did not define a new fiscal rule or amend any existing ones; instead the package's reforms took hold through two channels. In the case of the countries using the euro, the budgetary plan to be prepared in the autumn complements the European Semester, which completes the fiscal surveillance cycle and strengthens economic governance. On the other hand, the package improves fiscal surveillance of the countries under EDP by requiring these Member States to report their results and their plans to improve their fiscal position every 3 to 6 months.

[31] It should be noted that despite the new, gradual sanctioning system, no penalties have been imposed in the corrective arm of the Pact, still only the option is available.

The **TSCG** was developed simultaneously, in parallel with the Two Pack. The treaty entered into force in 2013 and is binding for all euro area Member States, while countries not using the euro were able to decide which parts to sign. The treaty was signed by 25 of the 27 Member states at that time (the Czech Republic and the United Kingdom opted out), although many countries, including Hungary, did not ratify certain parts.[32] The TSCG partly copies certain elements of the Stability and Growth Pact, and requires the signatories to integrate specific supranational and European Union provisions into national law. From a budgetary perspective, the treaty's relevant part is the so-called **Fiscal Compact**,[33] which further strengthens the uniform European Union fiscal surveillance and economic governance.

Pursuant to the Compact, the fiscal rule setting out the medium-term budgetary objective and the adjustment path towards the MTO should be integrated into national fiscal policy frameworks (preferably at the constitutional level). Member States should also establish an institution supervising the budget that assesses fiscal developments characteristic of the country independent from the governments and monitors compliance with fiscal rules. Certain elements of the Fiscal Compact have been incorporated into the Two Pack, such as the requirements that Member States subject to the excessive deficit procedure prepare economic partnership programmes and that Member States' government securities issues be subject to prior coordination. It should be emphasised that compliance with the requirements of the Fiscal Compact is monitored and, if applicable, sanctioned by the Court of Justice of the European Union.

The last substantial amendment to the fiscal framework of the European Union occurred in 2013. The regulation of the European Parliament and the Council[34] paves the way for denying a Member State access to the European Structural and Investment Funds (ESIF) if the rules of the corrective arm of the Stability and Growth Pact are violated or the necessary adjustment measures

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[32] Hungary has signed the TSCG, but only ratified Title V (Governance of the euro area), and therefore the Fiscal Compact is not binding with regard to Hungarian fiscal policy.

[33] Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, Title III: Fiscal Compact.

[34] Regulation (EU) No 1303/2013 of the European Parliament and of the Council.

are not implemented. The regulation first pertained to the ESIF of the 2014-2020 programming period, and its primary aim was to prevent Member States experiencing macroeconomic imbalances or those pursuing inappropriate fiscal policies from receiving EU transfers.

5.1.5 European Fiscal Board

After the Five Presidents' Report,[35] the European Commission decided[36] in October 2015, to set up a new independent fiscal advisory institution, the **European Fiscal Board** (EFB). The five-member body started operating in December 2016, and its basic task is providing advice. The implementation of the European Union fiscal rules is still the authority of the European Commission, but the EFB may evaluate compliance with the rules and make recommendations with regard to individual Member States in respect of the structural balance of the budget (Babos–P. Kiss 2016). The Fiscal Board should "advise on the fiscal stance appropriate for the euro area as a whole"[37] and should also "provide ad-hoc advice on the request of the President".

5.2 The current rules in detail

5.2.1 Preventive arm

The preventive arm of the Stability and Growth Pact contains two rules: the requirement of the medium-term budgetary objective and the expenditure benchmark.

1 Medium-term budgetary objective

The MTO (medium-term budgetary objective) is a central element of the European Union's fiscal framework, as the rule on the medium-term objective affects all EU Member States. **The medium-term budgetary objective is defined in structural terms, i.e. it refers to the cyclically adjusted budget balance (general government balance adjusted for the cyclical fluctuations of the economy) net of one-off and temporary items.** The

[35] "Completing Europe's Economic and Monetary Union", June 2015, European Commission.

[36] Commission Decision (EU) 2015/1937.

[37] "Completing Europe's Economic and Monetary Union: Commission takes concrete steps to strengthen EMU", European Commission press release, October 2015.

size of the cyclical component mainly depends on the output gap, i.e. the difference between potential and actual GDP and the cyclical elasticity of the budget balance.

The medium-term budgetary objective is country-specific, in that all Member States establish a country-specific target in their stability and convergence programmes every three years in consultation with the European Commission. When establishing the MTO's value, the achievement of the 3 per cent nominal deficit target, the size of government debt, macroeconomic developments, the fiscal impact of demographic trends, the room for budgetary manoeuvre and various contractual obligations (e.g. the mutually agreed methodology) must be taken into account. For Member States participating in the ERM-II exchange rate mechanism and in the euro area, the deficit target is capped at 1 per cent of GDP, and for TSCG signatory countries (i.e. all euro-area Member States), the MTO may be -0.5 per cent of GDP at most, except if their government debt is substantially lower than 60 per cent, and there are no risks surrounding the sustainability of the budget (in this case, the threshold of the structural deficit is again 1 per cent of GDP).

The rule on the medium-term budgetary objective is complied with if the Member State has achieved the MTO in the given year or if it is on an appropriate adjustment path towards meeting the objective. In numerical terms, the latter means that the structural deficit should generally be reduced by 0.5 per cent of GDP annually, and this value may be higher or lower as a result of the volatility of economic activity and depending on the sustainability of government debt. Temporary deviations from the MTO are allowed through the so-called structural reform clause, which means a consistently implemented reform entailing expenditures that improves the position of the budget over the long term on the one hand, and requires comprehensive change on the other hand. This is typically true of pension reforms, and several Member States have already used the clause (for example Latvia in 2015 and Lithuania in 2016-2017).

2 The expenditure benchmark

For Member States that have not attained their respective MTOs, the expenditure benchmark is applied.[38] This requirement basically ensures that the appropriate adjustment path is designated and implemented for Member States deviating from the MTO.

The rule requires the Member States not attaining the medium-term budgetary objective not to let annual expenditure growth exceed the rate of potential output growth. The exception to this is when extra expenditures are matched by discretionary revenue measures. The difference between the potential growth rate and the growth rate of expenditures is the convergence margin, the extent of which ensures gradual convergence with the MTO on the adjustment path. The benchmark does not pertain to expenditure items that automatically entail an increase in revenues pursuant to law. Furthermore, the expenditure benchmark does not contain interest expenditures, the spending related to EU programmes financed from EU revenues and the cyclical elements of unemployment spending. Moreover, public investments are represented in the expenditure benchmark's methodology smoothed (averaged) over a number of years, which reduces the volatility caused by one-off, exceptionally large public investments.

5.2.2 Corrective arm

The corrective arm of the Stability and Growth Pact includes the rules, the repeated non-compliance with which that is not justified by the escape clause, entails an excessive deficit procedure (EDP). These are the Maastricht rules on the general government balance and gross public debt.

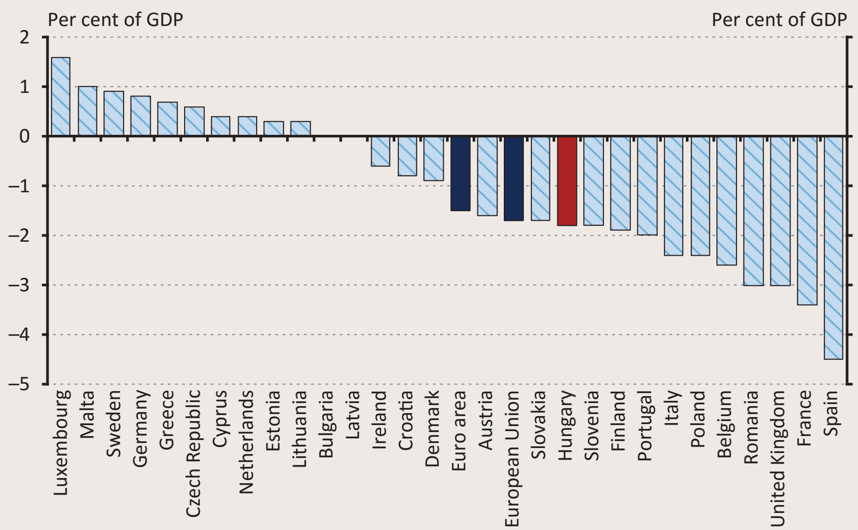
3 The deficit requirement

The Maastricht rule applicable to the general government balance prescribes for all EU Member States that the annual accrual-based ESA balance of the budget may not exceed 3 per cent of GDP. There are two escape clauses: if the balance has showed a continuous and substantial improvement and it has reached a level close to the 3 per cent reference value,

[38] Regulation (EU) No 1175/2011 of the European Parliament and of the Council.

and if the deviation is exceptional, temporary and does not deviate a great deal from the requirement. Exceptional cases are when negative shocks to the economy outside the control of the Member State (e.g. natural disaster) occur, or when the whole euro area or the EU experiences a severe downturn. An event is temporary if – according to the Commission's forecast – the deficit returns to below 3 per cent after the end of the exceptional event.

Chart 4
ESA balance-to-GDP ratio in European Union Member States in 2016



Source: Eurostat

4 The debt rule

In accordance with the rule, no EU Member State's (Maastricht[39]) debt ratio may be over 60 per cent of GDP, or if it exceeds that value, it should be reduced at a satisfactory pace. The necessary pace is determined by the "1/20 rule", which involves three calculation methods; in a simplified form, however, it means that the debt ratio must be reduced by 1/20 or, in other words, by 5 per cent, of the difference between the current debt level and

[39] Gross, consolidated government debt at nominal value, which – in contrast to the government debt indicator defined in the Stability Act – includes the subsequent return on EU funds and the impact of exchange rate movements.

the 60 per cent of GDP on average annually (on an average over three years). More precisely, the reduction will be deemed to take place if the debt path of the given Member State meets at least one of the three criteria.

In verifying compliance with the rule, the European Commission calculates the average rate of debt reduction in three ways, of which the least severe one must be complied with (MNB 2016). Two calculation methods differ from each other only in the years inspected, while the third also takes into consideration the effects of the economy's cyclical volatility. In verifying fulfilment of the criterion, the Commission takes into account its own estimate and forecast. The three arms of the debt rule are as follows:

1 *Backward-looking criterion*: the Member State meets the criterion if the debt-to-GDP ratio falls by an average of one-twentieth of the portion in excess of 60 per cent in the current year and the preceding two years.

$$\text{Condition}_t = 0.6 + \frac{0.95}{3}\left(\text{Debt}_{t-1} - 0.6\right) + \frac{0.95^2}{3}\left(\text{Debt}_{t-2} - 0.6\right) + \frac{0.95^3}{3}\left(\text{Debt}_{t-3} - 0.6\right)$$

The condition is met if:

$$\text{Debt}_t < \text{Condition}_t$$

where $Debt_t$ is the value of the debt-to-GDP ratio at the end of the given year.

2 *Forward-looking criterion*: similar to the backward-looking criterion, essentially, the debt should also be reduced to a sufficient degree as an average of three years. The forward-looking method, however, takes into consideration debt in the current year and the two years after that, as expected based on the European Commission's forecast.

$$\text{Condition}_{t+2} = 0.6 + \frac{0.95}{3}\left(\text{Debt}_{t+1} - 0.6\right) + \frac{0.95^2}{3}\left(\text{Debt}_t - 0.6\right) + \frac{0.95^3}{3}\left(\text{Debt}_{t-1} - 0.6\right)$$

The condition is met if:

$$\mathrm{Debt}_{t+2} < \mathrm{Condition}_{t+2}$$

3 *Cyclically adjusted criterion*: this also takes into account the impact of the business cycle on debt, and examines whether apart from this the debt ratio would have complied with the prescribed rate of decrease.

$$\mathrm{Cycle}_t = \left(\frac{\mathrm{Debt}_t + \sum_{j=0}^{2} \left(C_{t-j}\right)}{Y_{t-3} \prod_{h=0}^{2} \left(1 + y_{t-h}^{pot}\right)\left(1 + p_{t-h}\right)} \right)$$

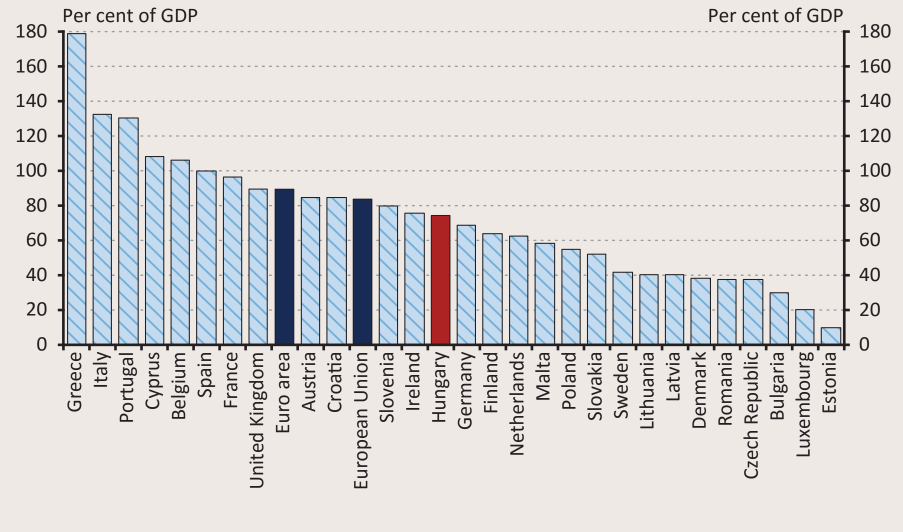
The C_t in the formula means the cyclical component, the Y_t is the nominal GDP value, y_t^{pot} is the potential growth rate, and p_t is the GDP deflator.

The condition is met if:

$$\mathrm{Cycle}_t < \mathrm{Condition}_t$$

These three criteria provide a certain flexibility to the rule, as with the use of the backward-looking and forward-looking method it assesses changes in public debt across several years, while the third criterion is also intended to consider the impact of fluctuations in the cyclical position of the economy. When assessing the rule, the European Commission first examines the backward-looking method, as in this case it can be established from actual data whether or not the rule was fulfilled. If the rule was not complied with, the Commission considers its own forecast, which usually differs from Member States' own projections, and determines whether the required debt reduction will be adequate going forward. If the debt is not reduced to a satisfactory degree over the forecast horizon either, the Commission examines whether the breach of the backward-looking criterion is attributable to the negative output gap or the economic expansion falling short of potential growth. If the failure of the expected decrease in the debt is attributable to the negative impact of the business cycle, the Member State is considered to be compliant with the debt requirement.

Chart 5
Gross debt-to-GDP ratio of European Union Member States in 2016



Source: Eurostat

Transitional debt rule of the European Union (MLSA)

At the time of adopting the Six Pack, several countries were subject to the excessive deficit procedure and followed a fiscal consolidation path negotiated with the European Union (MNB 2015). Therefore, for these countries the regulation introduced a three-year transition period following the termination of the EDP, during which the Member States concerned were required to comply with a **transitional debt rule** (minimum linear structural adjustment – MLSA) before being subjected to the general debt reduction rule.

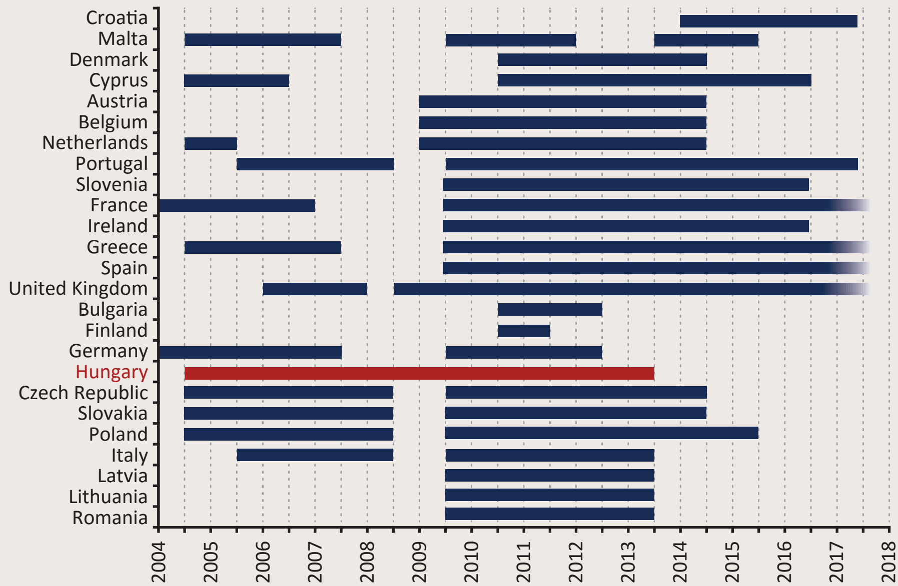
Based on the expected reduction of the debt ratio, the rule deduces how the structural balance (net of the impact of the business cycle and one-off items) must develop in order to achieve the reduction. The rule defines the structural balance improvement required (or, as appropriate, the structural balance deterioration allowed) to ensure that the general debt rule is met at the end of the transition period. Therefore, the required (or allowed) balance change should be determined for all three criteria of the general debt rule described above, and the least severe of the three should be applied. As a result, the transitional rule also ensures the flexibility offered by the general debt rule.

In determining the value of the MLSA requirement, a relatively large number of input data must be used, some of which are based on the Commission's forecast or can only be estimated. Therefore, the rule is not only difficult to calculate, it also changes continuously even intra-year in line with changes in the Commission's forecast, which has led to recommendations that sparked debates in a number of cases. Some of the input data include several indicators involving methodological uncertainties, such as potential GDP, the cyclical component and the structural balance. Similar to the violation of the general debt rule, violation of the transitional debt rule may trigger an excessive deficit procedure.

5.3 Excessive deficit procedure

The **excessive deficit procedure** (EDP) is the corrective, penalty mechanism of the European Union's fiscal framework. If the European Commission decides to launch the procedure, as a first step, it formulates a recommendation for the European Council. The Council then decides on the justification of the deficit (or debt), and subsequently formulates specific recommendations for the Member State concerned to help address the problem. Euro area countries that have already been subject to the potential sanction in the preventive arm (lodging of an interest-bearing deposit) should expect a further, similar penalty, i.e. the lodging of a non-interest bearing deposit equivalent to 0.2 per cent of GDP.

Chart 6
Excessive deficit procedures after the accession of the EU-10 Member States



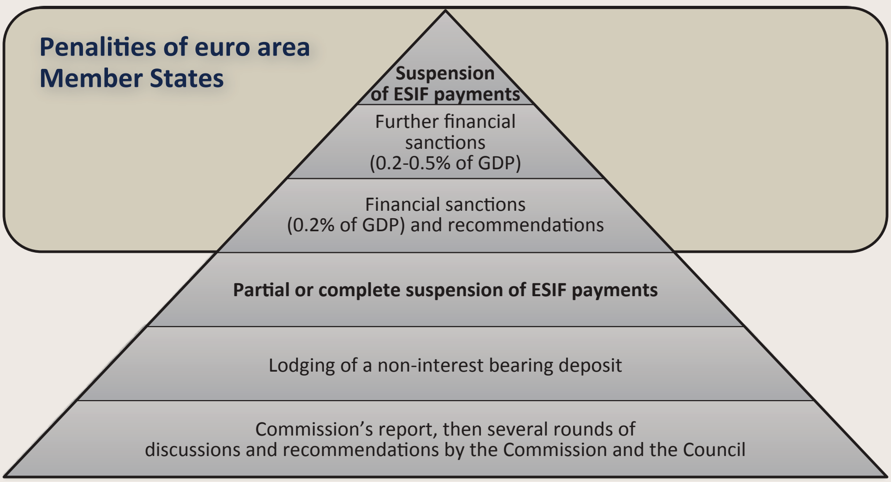
Source: European Commission.

Bearing in mind the Council's recommendations, the Member State concerned may take the appropriate measures (effective action), for which it has 3 to 6 months. After the deadline, the Commission and the Council examine whether the measures implemented by the Member State are in line with the requirements set out in the recommendation. If they are but the country has not achieved the numerical values of the requirements, the Member State typically receives another deadline for the corrections, or if the numerical values have been achieved, the procedure is abrogated. If the Member State has not taken effective action, the EDP is stepped up (Chart 7).

At this stage, temporary suspension of the payments linked to the EU's ESI funds may be applied, regardless of euro area membership. Another round of negotiations starts between non-euro area members and the Council as well as the Commission with new recommendations, while countries using the euro face new but specific requests with shorter deadlines. In the absence of effective action, euro area Member States may receive a fine of up to

0.2 per cent of GDP, which may gradually increase in the case of further non-compliance.

Chart 7
Sequence of penalties in the corrective arm



Source: European Commission.

The excessive deficit procedure is abrogated when a Member State has sustainably met the exact conditions for correction and achieved the nominal reference values, i.e. the excessive deficit is sustainably corrected. In other words, when the budget deficit has reached 3 per cent *ex post*, and according to the current forecast, there is no danger of an excessive deficit over the medium term, and the debt meets the requirements of the debt reduction benchmark when calculated with the forward-looking methodology. After the procedure is abrogated, the sanctioned Member State regains the total amount of the deposit lodged, but any fines imposed are not reimbursed.

References

Afonso, António – Hauptmeier, Sebastian (2009): Fiscal behaviour in the European Union: rules, fiscal decentralization and government indebtedness. *ECB Working Paper,* No. 1054.

Alesina, Alberto – Campante, Filipe. R. – Tabellini, Guido (2008): Why is fiscal policy often procyclical? *Journal of the European Economic Association,* 6(5), pp. 1006–1036.

Alesina, Alberto – Perotti, Roberto (1999): Budget deficits and budget institutions. In *Fiscal institutions and fiscal performance* (pp. 13–36). University of Chicago Press.

Alesina, Alberto – Tabellini, Guido (1990): A positive theory of fiscal deficits and government debt. *Review of Economic Studies,* 57(3): pp. 403-414.

Anderson, Barry – Minarik, Joseph J. (2007): Design choices for fiscal policy rules. *OECD Journal on Budgeting*, 5(4): pp. 159-208.

Auerbach, Alan J. – Gokhale, Jagadeesh – Kotlikoff, Laurence J. (1991): Generational Accounts: A Meaningful Alternative to Deficit Accounting. *Tax Policy and the Economy,* 5. pp. 55-110.

Ayuso-i-Casals, Joaquim – Hernández, Diana González – Moulin, Laurent – Turrini, Alessandro (2009): Beyond the SGP: Features and effects of EU national-level fiscal rules. In *Policy Instruments for Sound Fiscal Policies* (pp. 204–240). Palgrave Macmillan UK.

Babos, Dániel – P. Kiss, Gábor (2016): *Az új európai szintű független költségvetési intézmény(ek) (New European-level independent fiscal institution[s]).* Magyar Nemzeti Bank, May 2016.

Baksay, Gergely – P. Kiss, Gábor (2009): *Törvény a fiskális felelősségről – az első felvonás (Act one, act first – The law on fiscal responsibility).* MNB Bulletin (May).

Balassone, Fabrizio – Franco, Daniele (2000): Public investment, the Stability Pact and the 'golden rule'. *Fiscal Studies,* 21(2): pp. 207-229.

Balassone, Fabrizio – Franco, Daniele – Giordano, Raffaela (2004): *Market-induced fiscal discipline: is there a fall-back solution for rule failure?* Proceedings of Banca d'Italia Public Finance Workshop. Rome.

Balatoni, András (2015): A simple fiscal rule for Hungary. *Acta Oeconomica,* 65(1): pp. 149-159.

Balatoni, András – Tóth, G. Csaba (2012): Az új magyar adósságszabály értékelése (Assessment of the new regulations on debt). *Közgazdasági Szemle*, 59(10): pp. 1107-1137.

Barro, Robert J. (1979): On the determination of the public debt. *The Journal of Political Economy,* pp. 940–971.

Bayoumi, Tamim – Goldstein, Morris – Woglom, Geoffrey (1995): Do credit markets discipline sovereign borrowers? Evidence from US states. *Journal of Money, Credit and Banking,* pp. 1046–1059.

Benczes, István (2008): A költségvetési hiány politikai gazdaságtana (The political economy of budgetary deficit). *Közgazdasági Szemle,* 55(3): pp. 218-232.

Benczes, István – Kutasi, Gábor (2010): *Költségvetési pénzügyek (Budgetary finances).* Akadémiai Kiadó, Budapest.

Benczes, István – Váradi, Szilvia (2011): Aranyszabály helyett adósságfék – a német példa (Debt break instead of the golden rule – The German example). *Köz-gazdaság,* 6(1): pp. 91-103.

Budina, Nina – Kinda, Tidiane – Schaechter, Andrea – Weber, Anke (2012): Fiscal Rules in Response to the Crisis; Toward the "Next-Generation" Rules: A New Dataset. *IMF Working Paper,* No. 12/187.

Chari, Varadarajan V. – Kehoe, Patrick J. (2007): On the need for fiscal constraints in a monetary union. *Journal of Monetary Economics,* 54(8): pp. 2399-2408.

Cimadomo, Jacopo (2008): Fiscal Policy in Real Time. European Central Bank, Working Paper No 919.

Cordes, Till – Kinda, Tidiane – Muthoora, Priscilla – Anke Weber (2015): Expenditure Rules: Effective Tools for Sound Fiscal Policy?. *IMF Working Paper,* 15/29.

Csaba, László (2002): Az átalakulás fejlődéselmélete (The development theory of transformation). *Közgazdasági Szemle,* 49(4): pp. 273-291.

Csontos, László – Kornai, János – Tóth, István György (1996): Adótudatosság és fiskális illúziók (Tax consciousness and fiscal illusions). In: *Társadalmi Riport* 1996.

Darvas, Zsolt – Kostyleva, Valentina (2011): The Fiscal and Monetary Institutions of CESEE countries. *Bruegel Working Paper,* Issue 2.

Debrun, Xavier (2011): Democratic Accountability, Deficit Bias, and Independent Fiscal Agencies. *IMF Working Paper,* pp. 1–15.

Debrun, Xavier – Baldacci, Emanuele – Schaechter, Andrea – Caceres, Carlos – Kim, Daehaeng – Escolano, Julio – Jonas, Jiri – Karam, Philippe – Yakadina, Irina – Zymek, Robert (2009): Fiscal Rules – Anchoring Expectations for Sustainable Public Finances. *IMF Staff Papers.*

Debrun, Xavier – Moulin, Laurent – Turrini, Alessandro – Ayuso-i-Casals, Joaquim – S. Kumar, Manmohan – Drazen, Allan – Fuest, Clemens (2008): Tied to the mast? National fiscal rules in the European Union. *Economic Policy,* 23(54): pp. 298-362.

European Commission (2013): Building a Strengthened Fiscal Framework in the European Union: A Guide to the Stability and Growth Pact. *European Economy Occasional Paper*, 150, May 2013.

European Commission (2017): Vade Mecum on the Stability and Growth Pact. 2017 Edition. *European Economy Institutional Paper,* 052, March 2017.

Forni, Lorenzo – Momigliano, Sandro (2004): Cyclical sensitivity of fiscal policies based on real-time data. *Applied Economics Quarterly*, 50(3), pp. 299–326.

Gale, William G. – Orszag, Peter R. (2003): Economic effects of sustained fiscal deficits. *National Tax Journal,* 56. pp. 463-485.

Hamker, Jürgen (2011): Implementing Germany's new constitutional fiscal rules. In *Rules and Institutions for Sound Fiscal Policy after the Crisis.* Papers presented at the Banca d'Italia workshop held in Perugia, 31 March–2 April, 2011.

Heinemann, Friedrich – Moessinger, Marc-Daniel – Yeter, Mustafa (2016): Do Fiscal Rules Constrain Fiscal Policy? A Meta-Regression-Analysis. *ZEW Discussion Paper,* No. 16-027.

Heinemann, Friedrich – Osterloh, Steffen – Kalb, Alexander (2013): Sovereign risk premia: The link between fiscal rules and stability culture. *ZEW Discussion Paper,* 13016, ZEW – Zentrum für Europäische Wirtschaftsforschung/Center for European Economic Research.

Hemming, Richard – Kell, Michael (2001): *Promoting Fiscal Responsibility: Transparency, Rules and Independent Fiscal Authorities.* Public Finance (Fiscal Affairs Department), IMF.

Heppke-Falk, Kirsten H. – Wolff, Guntram B. (2008): Moral Hazard and Bail-Out in Fiscal Federations: Evidence for the German Länder. *Kyklos,* 61(3): pp. 425-446.

Jókay, Károly – Osváth, László – Sóvágó, György – Szmetana, György (2004): *Az önkormányzati adósságrendezések oknyomozása 1996–2003 (Investigating the reasons behind local governments' debt settlement 1996–2003).* Prepared for the Development and Methodology Institute of the State Audit Office. Ige Tanácsadó Kft., Budapest.

Kennedy, Suzanne – Robbins, Janine (2001): The role of fiscal rules in determining fiscal performance. *Department of Finance Canada, Working Paper,* Issue 16.

Kopits, György (2001): Fiscal Rules: Useful Policy Framework or Unnecessary Ornament. *IMF Working Paper,* No. 145.

Kopits, György (2007): A költségvetési felelősségről (On fiscal responsibility). Comments on the concept of the Ministry of Finance. *Fejlesztés és Finanszírozás,* Issue 4, pp. 67–72.

Kopits, György – Symansky, A. Steven (1998): Fiscal policy rules. *International Monetary Fund. Occasional Paper,* No. 162.

Kornai, János (2005): Közép-Kelet-Európa nagy átalakulása – siker és csalódás (The great transformation of Central and Eastern Europe – Success and Disappointment). *Közgazdasági Szemle,* 52(12): pp. 907-936.

Krogstrup, Signe–Wyplosz, Charles (2010): A common pool theory of supranational deficit ceilings. European Economic Review, Vol. 54. pp. 269-278.

Kumar, Manmohan S. – Ter-Minassian, Teresa (2007): *Promoting fiscal discipline.* International Monetary Fund.

Kydland, Finn E. – Prescott, Edward C. (1977): Rules Rather than Discretion: The Inconsistency of Optimal Plans. *Journal of Political Economy,* No. 85. pp. 473-491.

Magyar Nemzeti Bank (2015): Public Finance Report, August 2015: *Analysis of the public finance developments in 2014–2015 and the 2016 Budget Act.* pp. 50-51.

Magyar Nemzeti Bank (2016): Public Finance Report, August 2016: *Analysis of the public finance developments in 2015-2016 and the 2017 Budget Act.* pp. 58-59.

Muraközy, László (2012): *Államok kora. Az európai modell (Age of Nations – The European Model).* Akadémiai Kiadó. Budapest.

Musgrave, Richard Abel (1959): *The Theory of Public Finance.* New York, McGraw-Hill.

Ódor, Lajos – P. Kiss, Gábor (2011): *Kivétel erősíti? Fiskális szabályok a visegrádi országokban (The exception proves the rule? Fiscal rules in the Visegrád countries)*. MNB Bulletin, June, pp. 25–38.

Persson, Torsten – Svensson, Lars E. O. (1989): Why a Stubborn Conservative Would Run a Deficit: Policy with Time-Inconsistent Preferences. *Quarterly Journal of Economics,* 104(2): pp. 325–345.

Poterba, James M. (1996): Do budget rules work?. *NBER Working Paper,* No. 5550.

P. Kiss, Gábor (2017): Mi nulla? Mi mennyi? Amit mindig tudni szerettél volna a kiegyensúlyozott költségvetésről (What is zero? How much is what? What you always wanted to know about a balanced budget). Mimeo.

Reuter, Wolf Heinrich (2015). National numerical fiscal rules: Not complied with, but still effective?. European Journal of Political Economy, 39, pp. 67–81.

Roaf, James – Atoyan, Ruben – Joshi, Bikas – Krogulski, Krzysztof (2014): *25 Years of Transition Post-Communist Europe and the IMF. Regional Economic Issues. Special Report.* Washington, D.C., International Monetary Fund.

Romer, Christina (2012): Fiscal Policy in the Crisis: Lessons and Policy Implications. *IMF Fiscal Forum,* April. Vol. 18.

Schaechter, Andre – Kinda, Tidiane – Budina, Nina – Weber, Anke (2012): Fiscal Rules in Response to the Crisis Toward the "Next-Generation" Rules. A New Dataset. *IMF Working Paper,* 12/187, Washington, D.C., International Monetary Fund.

Ter-Minassian, Teresa (2007): Fiscal Rules for Subnational Governments. OECD *Journal on Budgeting,* 6(3): pp. 1–11.

Thornton, John – Vasilakis, Chrysovalantis (2017): The impact of fiscal rules on sovereign risk premia: International evidence. *Finance Research Letters,* 20. pp. 63-67.

Tornell, Aaron – Lane, Philip R. (1999): The Voracity Effect. *American Economic Review,* pp. 22–46.

Tóth, G. Csaba (2016): A nemzeti költségvetési szabályok elterjedése és hatása Európában – tanulságok Magyarország számára (The spread and effect of national fiscal rules in Europe – implications for Hungary). Doctoral (PhD) Thesis, Doctoral School of Economics, University of Debrecen.

United States General Accounting Office (1994): Deficit reduction – Experiences of Other Nations. United States General Accounting Office Washington, D.C. 20548.

Von Hagen, Jürgen – Wolff, Guntram B. (2004): What Do Deficits Tell Us About Debt? Empirical Evidence on Creative Accounting with Fiscal Rules in the EU. *Deutsche Bundesbank Discussion Paper,* 37.

Wagner, Richard E. (2004): Debt, Money, and Public Finance. In *Handbook of Public Finance.* Kluwe Academic Publisher.

World Bank (2008): Montenegro, Beyond the Peak: Growth Policies and Fiscal Constraints. Report No. 46660.

Wyplosz, Charles (2012): Fiscal Rules: Theoretical Issues and Historical Experiences. *Working Paper,* 17884 NBER.

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