

# PUBLIC FINANCE REFORMS AND CORPORATE SECTOR IMPACT: A STUDY OF HUNGARY

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## Abstract

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The global financial and economic crisis of 2007 and 2008 entailed a sharp deterioration of fiscal positions worldwide; however, fiscal rules soon tightened up in different countries, and parallelly, budgetary discipline improved. A reconsideration of the fiscal policy was necessary as a sovereign debt crisis evolved as a result of the world economic crisis in several countries of the European Union and the eurozone. The study starts at the government debt map of the old member states of the European Union, to which the Hungarian financial positions outside the eurozone are compared. Then, the components of the new Hungarian public finance regulation, major measures, which resulted in an improvement in line with eurozone positions, are presented in full detail. Our study seeks to prove that because of the Hungarian public finance reforms, the fiscal course has also improved, fitting the trends of developed member states of the EU. Although earlier researches have highlighted that it was not only modified fiscal policies that contributed to the post-crisis debt consolidation process in the countries of the eurozone but also the combined effect of the real interest rate and real growth policy. The uniqueness of the study lies in the regulatory instruments, with which the country – positioned in a socialist planned economy, then demonstrating a weak fiscal discipline and sunk in a fiscal crisis even before the global economic crisis of 2007 and 2008 – has consolidated its positions.

**Keywords:** Fiscal Policy, Public Finance Reforms, Budgetary Discipline, Government Debt, European Union

**Authors' individual contribution:** Conceptualization – C.L.; Methodology – V.N.; Software – V.N.; Validation – V.N.; Formal Analysis – V.N.; Investigation – C.L.; Resources – C.L.; Data Curation – C.L.; Writing – Original Draft – C.L.; Writing – Review & Editing – V.N.; Visualization – V.N.; Supervision – C.L.; Project Administration – C.L.; Funding Acquisition – C.L.

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## 1. INTRODUCTION

After the initial crisis years of 2007 and 2008, a drop in public revenues and an increase in budgetary spending, as well as interest expenditures, contributable to excessive indebtedness, became typical also in the European space. In order to be able to meet their payment obligations, several countries (e.g., those in the Mediterranean region) were compelled to turn to international organisations

for financial aid (Csaba, 2014; Losoncz & Tóth, 2020), as distrust and an ensuing drying-up of credit channels had become general in international financial markets, especially to the detriment of countries with weaker fiscal positions. While Hungary was granted a standby loan of EUR20 billion in the autumn of 2008 by the World Bank, the International Monetary Fund, and the European Central Bank, its consolidation had to be completed through its own means.

It is a general phenomenon that indebted countries have tightened their fiscal rules and adopted more disciplined fiscal policies in order to reduce debt and tensions in balance. However, a fiscal turnaround has not taken place in every country at the same time, but since 2015, the average debt rate of the EU-15 (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, the Netherlands, Portugal, Spain, Sweden, the United Kingdom) has decreased year by year (Bouabdallah et al., 2017).

Table A.1 (see Appendix) contains the relevant data of the countries of the euro area and the EU-28, published by Eurostat, on the average debt rate and the government deficit in the first phase of the crisis period, until a positive turnaround happened.

Table A.1 shows that initially, the government debt in the euro area and the EU-28 was continuously increasing. While in 2011, government debt as the share of the GDP was 86 percent in the euro area, this figure increased to 92.1 percent until 2014. In the case of EU-28 countries, this figure was 81 percent in 2011, and increased to 86.8 percent in 2014, that is, until fiscal measures exerted their effects.

Due to the fiscal regulations “set in motion” in the member states, however, a turnaround is obvious, that is, both average government deficit and average government debt rates shifted towards a declining trend between 2015 and 2019 in both the euro area and the EU-28 region (see the details in Table A.2). This continuous decrease has been ended by the COVID-19 pandemic, emerging in 2020; however, the debt rates for the year 2020 are still not known. Nonetheless, the restrictions caused by the epidemic and state programmes preventing an economic downturn will definitely incur a drop in government balance.

Table A.3 shows the changes in the inflation rate and the unemployment rate in the EU-28 region, the euro area, and Hungary. The table well reflects the fact that the inflation rate increased in all areas as a result of the global economic crisis of 2007 and 2008, but - owing to continuous public finance reforms and more stringent fiscal regulations - there was an improvement in the European Union from 2011 and in Hungary from 2012 until 2017. In relation to the latter, the monetary policy of the Central Bank of Hungary also had a major role from 2013, and, we should add the fact that it is still able to moderate inflation (maintaining it within certain limits). And it should also be mentioned that a slightly increasing inflation was necessary due to the monetary expansion applied, and even provided an incentive effect on producers in all target groups examined. In Hungary, as a result of the changes in the employment policy, a better result, a greater reduction in the unemployment rate can be noticed compared to the average figure of the European Union or the euro area.

Table A.4 reflects how government debt decreased in the EU-28 region, the euro area, and in Hungary after 2008. It is apparent from the table that the debt reduction process usually commenced in the countries of the European Union after 2015, while in Hungary, as a result of a “hyperactive” renewal of public finances and their reforms, launched in 2010, and the introduction of a more stringent regulatory environment, there was

a decrease in the government debt figure from 2012. In early summer 2013, Hungary also exited the European Union’s Excessive Deficit Procedure, where it had been “pigeonholed” in 2004 when the country became a member state of the EU.

Comparing the changes in Hungary’s government deficit to the average figures of the EU-28 area and the euro area, it can be concluded that while the Hungarian government deficit was increasing until 2011, a significant improvement can be noticed in government balance since 2011 and 2012 (Table A.5).

The structure of our study starts with a literature review and overview of the government debt map of the old member states of the European Union, to which the Hungarian financial positions outside the eurozone are compared. Then the components of the new Hungarian public finance regulation, major measures are presented in full detail in Section 2. After that, we introduce our methodology in Section 3. In Section 4 we present the results of our analysis followed by some further discussion on the topic in Section 5. In the last section, we draw our conclusion from the study with some implications on future research possibilities.

## 2. LITERATURE REVIEW

After the global economic crisis, in order to overcome the recession<sup>1</sup> and then the sovereign debt crisis, the countries of the European Union applied more stringent fiscal rules and took stricter measures to moderate the debt rate and improve the government balance. The COVID-19 pandemic, emerging in 2020, has put an end to the fiscal consolidation, lasting for roughly five years, in the countries of the European Union. The emergence of the pandemic, continuing uncertainty, combating the virus, the prevention of the economic downturn, the introduction of restrictions have significantly affected the economy of every country. On the basis of a forecast by IMF (2020), GDP is expected to drop by 7.5 in the euro area in 2020. The main reason for the economic downturn is attributable to the forced absence of industrial production and the workforce at workplaces, and the fact that demand for certain consumer goods is declining, or hopefully, just being “postponed”.

In the EU-15 region, the average government debt rate was 70 percent in the mid-1990s and was reduced to 56 percent by 2007. On the basis of studies by Losoncz and Tóth (2020), an increase in government debt was seen in only four countries in this period. These countries included France, Greece, Germany, and Portugal; however, the extent of this increase was modest (less than 10 percentage points). Parallely, government debt as a share of the GDP dropped by 41 percentage points in Belgium, 30 percentage points in the Netherlands and Sweden, and 46 percentage points in Ireland during this period. After the global crisis of 2007 and 2008, however, a continuous increase in government debt rates could be seen in the countries of the euro area. The government debt rate of the EU-15 increased to 92 percent by the end of 2014, and this figure decreased to 83 percent by the end of 2019. Between 2015 and 2019, the government debt of only France

<sup>1</sup> After the financial crisis, the recovery of the economy was a very slow process in the European Union (Halmay, 2015).

and Italy increased by a couple of percentage points, and by contrast, the government debt of Ireland, the Netherlands, and Germany decreased.

Due to the crisis, a debt reduction process started in 10 countries of the EU-15 area from 2011 (typically from the year 2015). In Germany, the debt consolidation regulation was launched as early as 2011, but in Finland and Austria, these measures were introduced in 2016. According to Eurostat's data, Ireland's performance was the strongest in respect of annual debt reduction data. In this country, government debt decreased by 8.4 percentage points annually, while this figure was merely 3.8 percentage points in Austria and the Netherlands. During the debt reduction process taking place between 2011 and 2019, the average annual debt reduction amounted to 2.8 percent of the GDP; this figure was approximated by the data of Germany (-2.6 percentage points), Portugal and Sweden (-2.2 percentage points). In Spain, however, the debt rate declined by 0.8 percentage points on an annual basis.

According to an analysis by the European Committee (EC, 2018), which examined the debt reduction mechanism of the entire euro area in the period between 2015 and 2018, half of the debt consolidation was contributable to the snowball effect<sup>2</sup>, more than a third of it was contributable to the improvement of the primary balance<sup>3</sup>, and almost a tenth of it was contributable to other items (privatisation, exchange rate, etc.).

On the basis of the analysis by Losoncz and Tóth (2020), in the debt consolidation period following the global economic crisis of 2007 and 2008, only slightly more than one-third of the debt rate reduction resulted from fiscal policies in EU-15 countries. Fiscal policies increased the debt rate in Spain and did not reduce it substantially in Finland or Ireland. On the basis of the study, debt reduction is not attributable to fiscal policy measures primarily, but primary balances, the snowball effect, and the effect of other items contributed to the reduction of the debt rate to almost the same extent.

### 3. RESEARCH METHODOLOGY

In our study, the response of the Hungarian fiscal policy, the rules, and measures adopted during public finance reforms are described, and their effects exerted after the global economic crisis of 2007 and 2008, since a comprehensive launch of public finance reforms, in particular, i.e., 2010, are examined.

We give a brief account of how particular groups of European countries (the total of the EU member states, euro area) reacted to risks caused by the crisis, how they completed debt consolidation, but our focus is on how their indicators expressing fiscal discipline have changed.

After an overview of the countries of the European Union, we examine the situation in Hungary in full detail. We describe the effects that a more stringent regulatory environment, the renewal of public finances after 2010, and the public finance reforms introduced exerted on the KPI's of

the economic policy. During our examinations, the indicators were obtained from the databases of Eurostat, the Hungarian Central Statistical Office, and the Central Bank of Hungary.

### 4. RESEARCH RESULTS

Below, we seek an answer to the question as to how, by what means and regulations Hungary, not being a member of the euro area but being a member of the European Union for more than one and a half decades and hit by a serious fiscal-liquidity crisis after the regime change, has been able to consolidate its public finances.

In the period before the global economic crisis of 2007 and 2008, Hungary was characterised by weakly regulated public finances, a failed and unsustainable fiscal policy, and non-transparent public finance management, and overspending was financed by involving external funding. After the turn of the millennium, both government debt and interest charges increased. Net foreign debt rose from 16.5 percent of the GDP in the year 2002 to 28.2 percent by 2005. Government debt as a share of the GDP rose from 54.6 percent (in 2002) to 64.1 percent by 2006. In this period, the fiscal deficit was around 7 percent of the GDP in Hungary. The functioning of the country had already become unsustainable by 2006<sup>4</sup>, which was further aggravated by the economic crisis of 2007 and 2008. As a result, the renewal of the functioning of the state and public finances became necessary (Lentner, 2018). Following the change of government and that of the economic policy in 2010, Hungary did not receive any contingent credit lines of the World Bank and the International Monetary Fund, but was forced to continuously pay the instalments of or settle the loan package of EUR12.5 billion drawn down from IMF, EUR6.6 billion taken out from the European Union, and EUR1 billion taken out from the World Bank during the crisis of 2008.

There were several problems about how the loan taken out in 2008 was used, making the comprehensive consolidation, which began after 2010, more difficult. The first loan tranche of EUR4.9 billion, drawn down in November 2008, was deposited at the Central Bank of Hungary as a foreign currency deposit. The utilisation of this amount for its purposes (bank lending, that is, forwarding the IMF loan to banks, and debt repayment) began only in April 2009<sup>5</sup>. The interest paid on the foreign currency deposit by the Central Bank of Hungary was significantly lower than the interest payable on the loan drawn down; expressed in numbers, the interest income of the foreign currency deposit was HUF11.3 billion, while the interest expenditure of the loans drawn down amounted to HUF30 billion. Ultimately, the outstanding "shortfall", i.e., almost HUF19 billion, had to be covered by taxpayers. During its investigations, the State Audit Office found that as a result of drawing down the first tranche of the IMF loan, the rate of foreign currency debt increased from 28 percent to 48 percent. From 2009,

<sup>4</sup> For the details why the former financing path was unsustainable see Bélyácz and Kuti (2012).

<sup>5</sup> The Hungarian forint started to weaken again in the spring of 2009, and the foreign currency debt of the country reached critical levels. The management of foreign currency repayments in forints required the allocation of additional resources.

<sup>2</sup> Combined effect of the real interest rate and real growth (Mellár, 2002).

<sup>3</sup> "Orthodox fiscal adjustment" is based on tax increase and expenditure restraint. In their study, Alesina and Perotti (1997) examined the effects of these fiscal adjustments on the debt rate.

the negative effects of foreign currency funding appeared, that is, the exchange rate risk increased, the investor's perception, and the credit rating deteriorated. Between 2006 and 2011, as a result of the weakening of the forint, debt increased by HUF1,657 billion. The interest expenditures of the foreign currency debt doubled, increasing from HUF150.1 billion to HUF304.5 billion. Of the loan of EUR20 billion taken out in 2008 and 2009, only EUR14.3 billion was used by ruling governments; however, the State Audit Office found during several investigations that the drawdown of loan tranches, the repayment of which was due in the period between 2012 and 2014, had been unjustified, uneconomical, and unreasonable in several cases.

After 2010, public finance reforms were introduced in Hungary, with the aim of creating an efficient government sector. As a result of the public finance reform, the fiscal regulatory environment has changed, several new laws have appeared in the Hungarian legal system, which has also implied the creation of adequate and efficient state control, and a rules-based fiscal policy has become the norm. The Fundamental Law, being on top of the hierarchy of legal norms and entering into force in 2011, has raised the subject matter of public finances onto a constitutional level. The section on public finances includes the regulations pertaining to the central budget, government debt, national assets, transparency, sharing public burdens, the Central Bank of Hungary, the Fiscal Council, and the State Audit Office. The main principle of the section is balanced, transparent, and sustainable budget management. The fiscal centre of gravity of the Fundamental Law is constituted by the reduction of government debt. Pursuant to Paragraphs (4)-(5) of Article 36 of the Fundamental Law, "The National Assembly may not adopt an Act on the central budget because of which state debt would exceed half of the Gross Domestic Product" and "as long as state debt exceeds half of the Gross Domestic Product, the National Assembly may only adopt an Act on the central budget which provides for state debt reduction in proportion to the Gross Domestic Product". According to Paragraph (6), "any derogation from the provisions of Paragraphs (4) and (5) shall only be allowed during a special legal order and to the extent necessary to mitigate the consequences of the circumstances triggering the special legal order, or, in case of an enduring and significant national economic recession, to the extent necessary to restore the balance of the national economy".

The fiscal reforms, implemented after 2010, included the reduction of taxes on labour, the extension of the family tax allowance, the increase of the weight of consumer and turnover taxes, and taxes on extra profits. Taxes on labour have decreased, while incomes deriving from taxes on consumption and special taxes have increased. In addition to tax reforms, the reform of the social security system has been also carried out. By the end of 2010, the extent of the government deficit caused by mandatory private pension funds had become greater and greater, as the pension contribution payable after the members of private pension funds - obviously - had flowed into private funds, therefore the incomes to cover the pension expenditures of the state had substantially dropped, and the deficit generated thereby had had to be financed from

the budget. The problem was that private funds had attracted - in terms of incomes - a more well-off layer of the population and relatively well-paid young entrants to the labour market, while they had been less or not at all attractive to citizens of pre-retirement age and with lower salaries. As the Hungarian system had been traditionally built on a pay-as-you-go system, the retirement provision to pensioners, accounting for one-third of 10 million Hungarian citizens, and the future retirement provision to people entering the retired status had become increasingly hopeless. Therefore, the mandatory funded private pension scheme was terminated, and a significant number of members re-entered the public pension scheme.

With the entry into force of the Fundamental Law, fiscal discipline and control have become stricter. After the adoption of the Fundamental Law, the cardinal Act LXVI of 2021 on the State Audit Office was adopted, resulting in the expansion of the control rights of the State Audit Office. The Act was designed to act more effectively in relation to how the taxpayers' funds are spent and to protect national assets. The State Audit Office thereupon has the right to audit how all public funds and assets are spent. The Fundamental Law has included the Fiscal Council among bodies with constitutional status. The Council is a body supporting the legislative work of the National Assembly, performing its duties in accordance with the Fundamental Law and other laws. It shall participate in the preparation of the act on the central budget, as a body supporting the legislative activities of the National Assembly it shall examine and issue an opinion on the substantiation of the central budget and it shall contribute in advance to the adoption of the act on the central budget in order to comply with the so-called government debt rule (Kovács, 2017).

In this period, the transformation and debt consolidation of the system of local self-governments were completed in Hungary (for more details, see Lentner and Hegedűs, 2019), and the relevant provisions of the Stability Act (Act CXCIV of 2011) and the Act on National Assets (Act CXCVI of 2011) also contributed to the stabilisation of both the central and the local subsystem of public finances. The creation of the Stability Act has played a significant role in the debt reduction process, and it sets out the rules pertaining to the Fiscal Council. The Act on National Assets contributes to the transparent and responsible management of national assets and the preservation and protection of national values.

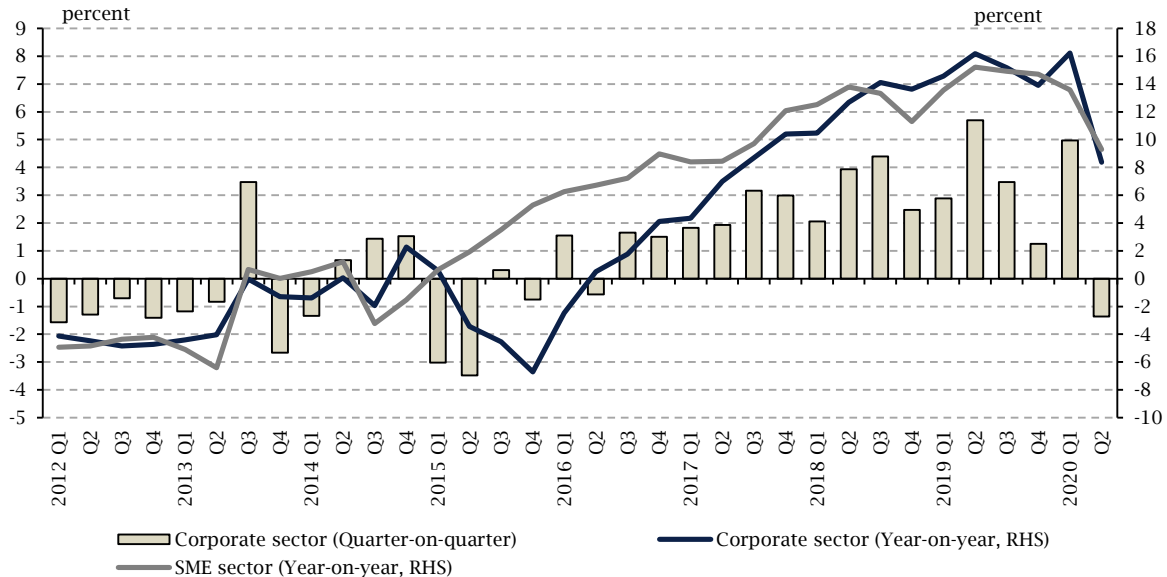
Economic growth required the coordination of fiscal and monetary policies. The monetary turnaround took place in Hungary from 2013, and after that, monetary policy - in addition to ensuring price stability - took a more active role in supporting economic growth. As a result of the gradual reduction of the base rate (it decreased from 7 percent to 0.9 percent until 2016, and then in the summer of 2020, first to 0.75, then to 0.6 percent) the private sector's costs of financing have decreased, investment and consumption have been picking up. In order to enhance financial stability and promote economic growth, the Central Bank of Hungary launched several programmes after 2013. Such programmes included the Funding for Growth

Scheme, the aim of which was to re-launch corporate lending. Between 2013 and 2017, this scheme increased the GDP by 2-2.5 percentage points (Matolcsy & Palotai, 2019). The phase-out of foreign currency loans was a measure of paramount importance, and the Central Bank of Hungary provided a source of HUF9.7 billion to banks to complete conversions (Kolozsi, Lentner, & Parragh,

2018). From 2014 to 2016, the Hungarian state repaid foreign currency debts of almost HUF11 billion through forint issuance.

The schemes of the Central Bank and economic improvements affected lending positively. In 2017 and 2018, the more than 10 percent growth of corporate lending demonstrates the corporations' faith in economic growth and convergence (Figure 1).

**Figure 1.** Growth rate of loans outstanding of the total corporate sector and the SME sector



Source: Central Bank of Hungary (2020).

## 5. DISCUSSION

The renewal of public finances, taking place after 2010, contributes to the long-term and effective cooperation between the Hungarian state and the economic actors, which presents an opportunity to build a well-governed state (Kolozsi et al., 2018). A strategic reorientation was necessary since the Hungarian economy was characterised by high levels of external debts and internal imbalances. According to a study by György and Veress (2016), the current challenges of the Hungarian economy can be attributed to failed strategic decisions made in the past, therefore, the measures taken after 2010 focussed on meeting these challenges. The main priorities of the Hungarian system of public finances have changed, thus - among others - the major distributive systems (pension scheme, social security, healthcare, higher education) have been redesigned and the division of work between the central and local governmental levels has undergone a transformation after 2010. One of the most important aims of these changes was to increase the room for manoeuvre in the economic policy, ensure transparency and predictability, create a work-based society, as the more people work, the stronger society is (Schlett, 2017). Hungary's economic policy measures are important after 2010 because the adjustment of the budget did not entail austerity measures but the moderation of tax burdens and parallelly, the "whitening" of the economy (Varga, 2017).

Economic transformation must consider the political, social, and legal characteristics of a particular country. According to Ramady (2010),

economic reform is successful if it is based on the legal and regulative frameworks of the country, and it ensures the optimum distribution of resources that are necessary for society. The development of financial and non-financial institutions is essential for the efficient utilisation of state expenditures, of public funds. Diamond (2003) identifies the following prerequisites for successful reforms: strategic budget planning; redesigning existing programmes; the improvement of budget-costing systems; the introduction of a system of accountability and budget incentives. The operation of adequate fiscal institutions is important for the implementation of an effective fiscal policy (Aidt, Dutta, & Sena, 2008).

As a result of the changes in legislation and public finance reforms introduced since 2010, and the successful economic policy reforms launched since 2013, Hungary has embarked on a sustained growth path. Continuous growth, lasting since 2013, has been achieved while simultaneously maintaining macro-financial equilibrium and a gradual decline in the vulnerability of the economy (Matolcsy & Palotai, 2019). In parallel with the changes in the legislative environment, however, it was also necessary to increase the transparency of public funds, therefore a new, accrual-based public accounting system has been introduced.

As a result of the domestic public finance reform, the legislative environment is ensured by cardinal laws as well as the Fundamental Law. The new act on the State Audit Office<sup>6</sup> was one of

<sup>6</sup> Act LXVI of 2011 on the State Audit Office.

the cardinal laws that were adopted. The act, which is fully consistent with international requirements, has consolidated the independence of the State Audit Office, extended its control powers, and increased the transparency of audits, by clearly declaring the publicity of reports. By focussing on the system of public finances, the role of the State Audit Office has also become a high-priority one. As a result of extending the audit powers of the State Audit Office, the act has transformed the operation of this body. The act has vested new roles and rights and the State Audit Office is free to avail itself of these tools within regulatory provisions having as its only mandatory task to prepare analyses in support of the Fiscal Council's work (Domokos, 2016). With a tightening budget control environment, the era of audits without consequences has ended.

In addition to the regulations pertaining to the State Audit Office, the regulatory environment of local self-governments has also changed. Act LXV of 1990 on Local Self-Governments was repealed on January 1, 2013, and has been replaced by a new act, Act CLXXXIX of 2011 on the Local Self-Governments of Hungary. Former legislation had focussed on a democratic way of operation, the autonomy of self-government, and the development of guarantees preventing excessive governmental power, which substantially contributed to the excessive indebtedness of self-governments. (for more details, see Horváth, 2014; Horváth, Péteri, and Vécsei, 2014; Hegedűs, Lentner, and Molnár, 2019; Molnár and Hegedűs, 2018; Lentner and Hegedűs, 2019).

Regarding the indicators characterising Hungary's economic policy, several changes took place after 2010. After the crisis, Hungary achieved an equilibrium of the budget through improving employment and economic growth, the main instruments of which were the tax reform and the structural reform of the budget, and then the targeted measures of the Central Bank of Hungary have contributed to these after the turnover of the monetary policy, since 2013 (Matolcsy & Palotai, 2019). As a result of the measure to respond to internal imbalances, the employment rate has increased significantly (the rate was as high as 70.3 percent in Q4 2019, see Table A.6), and the total tax burden of small and medium-sized enterprises has decreased by 9.1 percentage points, and also the wage share has increased alongside the reduction of tax burdens and the introduction of tax allowances (György & Veress, 2016).

When examining the changes of the gross domestic product, a continuous rise can be observed since 2012, as a result of stable, cost-effective management, and the measures taken to improve the competitiveness of the economy (Table A.7).

Measures taken to "whiten" the economy included the reduction of tax burdens. Income tax has been re-designed in several stages after 2010. In 2010, the personal income tax (PIT) rate decreased, and the income ceiling was raised, in 2011 a flat income tax and a more extensive family allowance were introduced, in 2012 super-grossing<sup>7</sup> and tax credit<sup>8</sup> were phased out, and the tax base

addition<sup>9</sup> was repealed. In 2013, super-grossing was terminated in all income categories, and several tax allowances were introduced in the labour market, and in 2014 the family tax allowance was also extended (Csomós & Kiss, 2014). In 2016, the PIT rate was reduced from 16 percent to 15 percent, and in addition to the reduction of the income tax, a reduction was observable in other types of taxes (of major tax types, hereby we refer to reducing the VAT of new housing to 5 percent, the VAT of certain food products and meat, and the corporate tax rate to 9 percent). According to Domokos (2019), increasing the efficiency of tax collection provides the opportunity to cut tax rates, through which the competitiveness of the economy can be improved.

The whitening of the economy also played some role considering the corporate taxes. In this area, there are three main taxes to focus on. The corporate tax has been continuously reduced. Up until 2003, it has been 18 percent, then it was decreased to 16 percent until 2005. Then a new tier has been compiled, where the has only been 10 percent if the tax base was lower than HUF5 million. After that, in 2008 and 2010 the base was increased for the tier for HUF50 million, then HUF500 million. From 2017, a uniform 9 percent corporate tax has been introduced for all companies.

In the meantime, two new corporate tax form has been introduced, mostly for SMEs. The so-called small business tax (available from 2013) has been starting from 14 percent (and has been decreased to 11 percent from 2021), which brings a higher profit tax but a unified and lower employer tax for small- and medium-sized companies. Another tax form, the so-called "KATA" is a new option for individual entrepreneurs with a yearly flat HUF0.6 million tax burden, available for a HUF12 million income tier. This, basically, means a 3 percent flat tax rate for the smallest entrepreneurs.

The effects of the declining corporate burden were examined in the framework of an empirical research on the pre-tax results of the corporate sector. The national survey included 1,000 small- and medium-sized enterprises (typically with domestic ownership backgrounds) and 50 multinational companies. The 1,050 companies surveyed came from the automotive and related industries, trade, and the tourism (hotel) sector. In order to maintain the confidentiality of business secrets, our data may not contain deeper references. Table A.8 shows the development of the pre-tax results between 2013-2019 of the 1000 SMEs and 50 multinational companies (with chain ratios, measured on a year-on-year basis).

The continuous GDP growth trajectory was established by the data of both groups of companies. They were able to increase their pre-tax profit year after year. It is noteworthy that the corporate income tax regulation valid from 2010 to 2016, which was differentiated (i.e., 19 percent on

the wage obtained in the tax year and the tax base addition constituted in respect of that but no more than HUF12,100 in each month of entitlement (a total of HUF145,200 on an annual basis), provided the total income of the private individual does not exceed the limit of entitlement, i.e., HUF2,750,000 in the tax year.

<sup>9</sup> As a general rule, the tax base addition shall be applied by the employer establishing the tax advance to such part of the income paid by him and belonging to the consolidated tax base (also including the amount certified by the data sheet issued by the previous employer upon the termination of employment and forwarded to the employer establishing the tax advance) which has exceeded HUF2,424,000. In such cases, the tax base had to be established by multiplying the income subject to consolidation by 1.27.

<sup>7</sup> The social security contribution paid by the employer should be added to the wage, and personal income tax is payable after this amount.

<sup>8</sup> Up to a certain level, the law exempts private individuals earning the lowest wages deriving from labour and subject to tax from the payment of taxes; that is what tax credit serves for. Tax credit is a legal institution reducing the calculated tax, which amounts to 16 percent of the total amount of

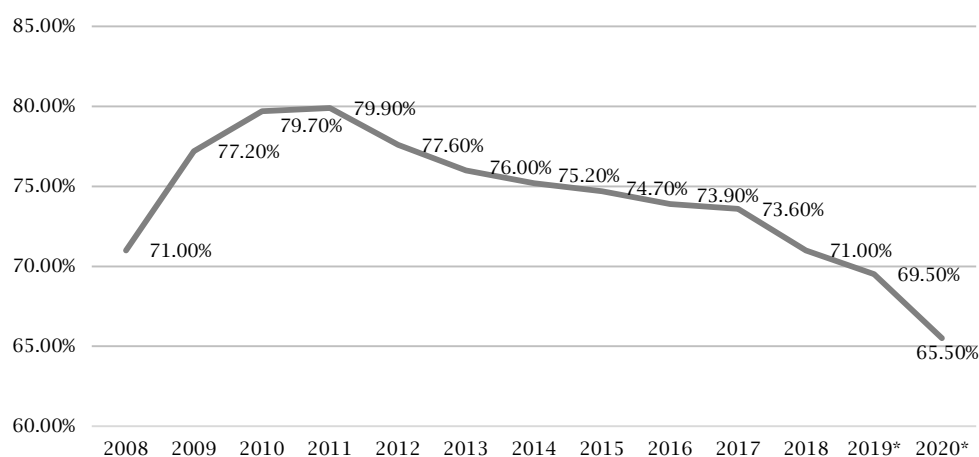
a normative basis, but only 10 percent below the HUF500 million tax base, typically for small- and medium-sized companies) became uniformly 9 percent in 2017. This had a positive effect on the management of multinational companies, which can also be justified by the increase in annual pre-tax performance, which jumped from 2017. There is a strong correlation between the reduction of tax liabilities and the growth of corporate and national economic performance.

The legal deadline for submitting the 2020 annual accounts has not yet expired, so only our estimated data for 2020 are available. According to our surveys, despite the decline due to external

causes and the crisis management measures of the government and the central bank, the corporate income tax (pre-tax) tax base of the surveyed multinationals will decrease by 4 percent in 2020 compared to 2019, while it will decrease by 9.5 percent in small- and medium-sized enterprises. At the national level, the fall in GDP could be close to 7 percent, according to our calculations.

After 2010, due to public finance reforms and the introduction of a more stringent regulatory environment, both government debt (Figure 2) and the inflation rate (Figure 3) have demonstrated improvement.

**Figure 2.** Change of general government debt between 2008 and 2020



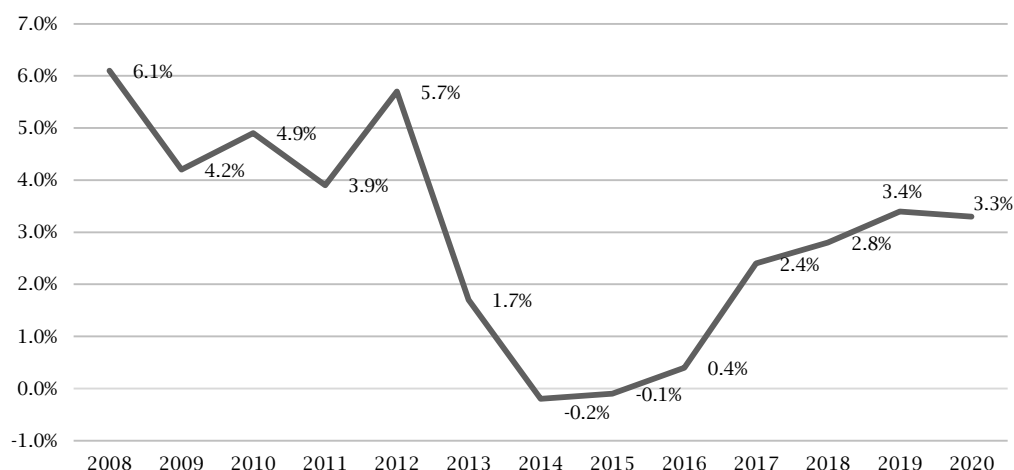
Source: Hungarian Central Statistical Office and the Budget Act of 2019 and 2020 - the latter one reflects the situation on March 17, 2020 (<https://net.jogtar.hu/jogszabaly?docid=a1900071.tv>).

Note: Data determined by budget acts are indicated by \*.

On the basis of the Hungarian Central Statistical Office and the Inflation Report of the Central Bank of

Hungary, there was a massive decline in the inflation rate between 2012 and 2016 (Figure 2).

**Figure 3.** Inflation rate in Hungary between 2008 and 2020



Source: On the basis of the Hungarian Central Statistical Office and the Inflation Report of 2019 by the Central Bank of Hungary (Central Bank of Hungary, 2019).

## 6. CONCLUSION

In our study, we focused on the fiscal turnaround, taking place as a result of the global economic crisis of 2007 and 2008 in the European Union, the monetary zone, and, in particular, Hungary. Earlier researches have highlighted that it was not only modified fiscal policies that contributed to the post-crisis debt consolidation process in the countries of the eurozone but – due to the intensity of the monetary policy – also the combined effect of the real interest rate and real growth policy did.

The processes of Hungarian public finances, declining government debt, in particular, were consistent with the trends in the EU; nonetheless, more stringent fiscal regulations and the introduction of public finance reforms were prerequisites in Hungary. The most significant changes occurred in former public financial positions, which were a major focus of fiscal regulations and their supporting monetary instruments. Between 2011 and 2019, Hungary's government debt as a share of

the GDP moderated from 80 percent to 65 percent, while the share of foreign currency in government debt dropped from 50 percent to 17 percent, and the external share of the foreign currency debt basically halved, decreasing from 66 percent to 34 percent. If we measure the end impact of public finance reforms as the decline in government debt and foreign currency exposure, a successful process was completed. By the beginning of 2020 – at the emergence of COVID-19 – the Hungarian economy showed a stable picture, more stable than the one during the crisis of 2007 and 2008. It is important to mention, that this study is limited only to pre-COVID-19 data and does not take into consideration any effects of the recent pandemic.

However, the extent of the current crisis setback (based on the data of Q2 2020) is more than double what it was 12 years ago. The past decade proves the completion of comprehensive fiscal consolidation and successful stabilisation, the methodology of which might be worth the attention of other European countries as well.

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## APPENDIX

**Table A.1.** Average of general government debt and deficit in the euro area and EU-28 area

<i>Financial indicator</i>	2011	2012	2013	2014
<i>Euro area (EA-19)</i>				
Government deficit (billion euro)	-407.8	-359.7	-294.4	-260.9
General government debt (billion euro)	8 424.9	8 786.6	9 047.4	9 308.4
General government debt (% of GDP)	86	89.3	91.1	92.1
<i>EU-28</i>				
Government deficit (billion euro)	-597.1	-573.4	-445.2	-418.9
General government debt (billion euro)	10 680.3	11 250.6	11 584.9	12 117.6
General government debt (% of GDP)	81	83.8	85.5	86.8

Source: Eurostat (2020).

**Table A.2.** General government balance and debt between 2015 and 2019 in the euro area and EU-28 area (percentage of GDP)

<i>Financial indicator</i>	2015	2016	2017	2018	2019
<i>Euro area (EA-19)</i>					
General government balance	-2.0	-1.5	-1.0	-0.5	-0.6
General government debt	90.9	90.0	87.8	85.8	84.1
<i>EU-28</i>					
General government balance	-2.4	-1.7	-1.1	-0.7	-0.8
General government debt	84.9	83.8	82.1	80.4	79.3

Source: Eurostat (2020).

**Table A.3.** Annual average rate of change (%) and unemployment rate (% of the active population)

<i>Time/GEO</i>	<i>Inflation rate - an annual average rate of change</i>			<i>Unemployment rate</i>		
	<i>EA-19</i>	<i>EU-28</i>	<i>Hungary</i>	<i>EA-19</i>	<i>EU-28</i>	<i>Hungary</i>
2008	3.3	3.7	6	7.5	7	7.8
2009	0.3	1	4	9.6	8.9	10
2010	1.6	2.1	4.7	10.1	9.6	11.2
2011	2.7	3.1	3.9	10.2	9.6	11
2012	2.5	2.6	5.7	11.3	10.5	11
2013	1.3	1.5	1.7	12	10.8	10.2
2014	0.4	0.6	0	11.6	10.2	7.7
2015	0.2	0.1	0.1	10.8	9.4	6.8
2016	0.2	0.2	0.4	10	8.5	5.1
2017	1.5	1.7	2.4	9	7.6	4.2
2018	1.8	1.9	2.9	8.1	6.8	3.7
2019	1.2	1.5	3.4	7.5	6.3	3.4

Source: Eurostat (2020).

**Table A.4.** Change of government consolidated gross debt (% of GDP) in the euro area, EU-28 area, and Hungary

Indicator Year/Area	Government consolidated gross debt (% of GDP)			Change of government consolidated gross debt (% of GDP)		
	EA-19	EU-28	Hungary	EA-19	EU-28	Hungary
2008	69.6	61.3	71.8	-	-	-
2009	80.2	74	78.2	10.6	12.7	6.4
2010	85.8	79.6	80.6	5.6	5.6	2.4
2011	87.7	82	80.8	1.9	2.4	0.2
2012	90.7	84.4	78.6	3	2.4	-2.2
2013	92.6	86.3	77.4	1.9	1.9	-1.2
2014	92.8	87	76.8	0.2	0.7	-0.6
2015	90.9	84.9	76.2	-1.9	-2.1	-0.6
2016	90	83.8	75.5	-0.9	-1.1	-0.7
2017	87.8	82.1	72.9	-2.2	-1.7	-2.6
2018	85.8	80.4	70.2	-2	-1.7	-2.7
2019	84.1	79.3	66.3	-1.7	-1.1	-3.9

Source: Eurostat (2020).

**Table A.5.** General government deficit in the euro area, EU-28 area, and Hungary

Indicator Year/Area	General government deficit (% of GDP)		
	EA-19	EU-28	Hungary
2008	-2.2	-2.5	-3.8
2009	-6.2	-6.6	-4.8
2010	-6.3	-6.4	-4.5
2011	-4.2	-4.6	-5.2
2012	-3.7	-4.3	-2.3
2013	-3	-3.3	-2.6
2014	-2.5	-2.9	-2.8
2015	-2	-2.4	-2
2016	-1.5	-1.7	-1.8
2017	-1	-1.1	-2.5
2018	-0.5	-0.7	-2.1
2019	-0.6	-0.8	-2

Source: Eurostat (2020).

**Table A.6.** Employment rate in Hungary between 2008 and 2019

Year	Employment rate
2008	56.4
2009	55
2010	55.3
2011	56
2012	57.4
2013	59.4
2014	62.6
2015	64.8
2016	67.5
2017	68.8
2018	69.5
2019	70.3

Source: Hungarian Central Statistical Office ([https://www.ksh.hu/stadat\\_files/mun/hu/mun0093.html](https://www.ksh.hu/stadat_files/mun/hu/mun0093.html)).**Table A.7.** Changes in the volume of the gross domestic product (GDP) in Hungary

Year	Change of GDP
2008	1.1
2009	-6.7
2010	1.1
2011	1.9
2012	-1.4
2013	1.9
2014	4.2
2015	3.8
2016	2.1
2017	4.3
2018	5.4
2019	4.6

Source: Hungarian Central Statistical Office.

**Table A.8.** Development of the pre-tax profit of 1000 SMEs and 50 multinational companies included in the study between 2013-2019 (with chain ratios, measured on a year-on-year basis)

	2013	2014	2015	2016	2017	2018	2019
Multinational comp.	6	7	7	7	11	11	13
SME	7	5	6	7	8	8	9
GDP	101,9	104,2	103,8	102,1	104,3	105,4	104,6

Source: Hungarian Central Statistical Office and the Author's elaboration.