

*Original Paper*

# State Tools for Adapting to an Ever-Changing Global Environment. The Case of Hungary

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## **Abstract**

*In the present study I show the significant changes in Hungary's global adaptation, focusing on the state's instruments targeted at establishing Hungary's macroeconomic stability and at increasing the national-economic and regional competitiveness of multinational corporations. The principal achievement of the new Hungarian economic policy is that from one of the countries in European Union's that was the most vulnerable to the interests of multinational companies, it became a nation that even the largest corporations consider to be a partner, and a country in which it is profitable to invest. The agreements made with the largest corporations are signed on a win-win basis after thorough preparations, thus in today's developments not only the interests of multinational companies are represented, as they were before.*

## **Keywords**

*economic risk of countries, macroeconomic stability, integration of multinational corporations, national-economic and regional competitiveness, vulnerability of countries*

## **1. Introduction**

One of the most important challenges of economic policy theories—after identifying and acknowledging the possibility of market failures and government failures—is to facilitate the formulation of such economic policy practices that enable the avoiding of negative consequences originating from market failures as well as government failures (Furton & Martin, 2019). The other important challenge facing theoretical experts is to provide effective instruments and possible countermeasures to national governments so they can solve the problems caused by the latest trends of globalization, particularly by global value chains, in an environment where the decision making

independence and influence of each government has been considerably reduced. In the present study I intend to provide possible alternatives by introducing the increasingly successful practices of Hungary in this field.

The creation of global value chains significantly increased the economic interdependence of specific countries, since the components and intermediate products manufactured in various countries were used and installed into the end-products after export to another country. These global value chains created a domino-effect spreading from country to country, since the reduction of exports may result in the reduction of component and intermediate product imports from another country. The current globalization process is spreading in a considerably broader range and affects significantly more countries than ever before.

The current changing characteristics of globalization and the global spreading of value chains, even by themselves make the rethinking of government policies necessary. The primary question is how the policies related to the various main fields (industrial development, innovation, attractiveness) can be formulated in a way to reflect the ongoing processes, and by what instruments governments can make the implementation of these policies even more effective.

## **2. Method**

The present study is the summary of several research projects performed by me at the National University of Public Service. During my research projects I strove to take into consideration as well as process and analyze all data, including financial-economic and statistical data, which may be relevant with regards to the specific subject range. I furthermore processed and analyzed all research, analyses and data which are significant from the aspect of the fields that I researched. In this study I referenced the most important sources in every case. In addition to the above, I also prepared a case study about the milestones of the macroeconomic integration of a significant multinational company, as well as summarized the trends of this company's role in national economic output, the national budget, employment indicators, export-import, tax revenues, the development of R & D activity as well as the company's technological, innovation and modernization effects. This case study furthermore includes the analysis of this transnational company's effect on Hungary's national economic and regional competitiveness as well as the development of supplier networks.

## **3. The Changing Characteristics of Globalization and Its Direct Effects on Hungary (Note 1)**

International trade and direct foreign investments continue to be the two main channels of cross border economic integration. However, while these economic connections are not new, their extent and complexity has grown significantly during recent decades, including international production networks, among others. The expansion of global value chains significantly increased direct foreign investment flows and intra-company international trade, and all of this resulted in the formation of increasingly intensifying interdependence between the affected countries. The current globalization processes

spread in a considerably broader range and today involve substantially more countries than ever in the past. China has become the most important trade partner of the majority of OECD countries and its market share in exports targeted at OECD countries has significantly increased (OECD, 2010, pp. 65-57). In addition to this, China and the BRIICS countries (Brazil, Russia, India, Indonesia, South Africa) have become increasingly more significant players in the field of international investment, both as investment receiving countries and investing countries (OECD, 2010, p. 49). They also participate ever more actively in the establishment of global technological networks. The role of these emerging economies is growing rapidly in global value chains as a result of their constantly increasing capacity in the fields of Research & Development as well as their innovation activities (OECD, 2010, p. 117). In the emerging BRIICS countries substantially faster economic development was characteristic than in OECD countries. China and India, just as in previous years, achieved over 10% economic growth, in contrast with the 2-5% growth characteristic in OECD countries. At the same time great differences developed between specific OECD countries, one of the endpoints was represented by Slovakia that reached 10% economic growth in 2007, the other endpoint was Hungary where at the same time, even before the beginning of the financial crisis Gross Domestic Product increase was well below 2% (OECD, 2010, p. 23). As a result of the financial crisis that began in the United States, instead of the continued expansion of the global economy a considerable shrinking occurred, which was markedly illustrated, particularly in the trend of Gross Domestic Product (GDP) indicators. In almost every OECD country, with the exception of Australia and Poland, negative economic growth became typical in 2009. This economic downturn was particularly severe in Mexico, Ireland, Iceland, Finland, Hungary and Turkey where the extent of GDP decrease exceeded 6% (OECD, 2010, p. 23).

We find the greatest foreign presence in the case of the financial sector. Some Western-European banks have established firm positions primarily in Central-European countries such as Slovakia, the Czech Republic and Hungary, during their accession into the European Union, where the share of multinational financial institutions exceeded 70% of the total turnover (OECD, 2010, p. 165). At the same time the difference is conspicuous from this aspect between these three countries and the also Central-European Austria and Poland, specifically in the case of the latter countries the share of multinational financial institutions did not reach 30% of total financial and insurance product turnover. The gross operational profit of companies controlled by foreigners is one of the indicators of the profitability of foreign owned enterprises in the receiving countries. From the aspect of foreign investments, profit yields were the highest in Slovenia, Hungary and the Czech Republic in comparison with other countries (OECD, 2010, p. 179). All of this shows that in the case of investments in these countries foreign companies are motivated not only by cheap labor but more decisively by the prospect of high profit.

Overall, Hungary became outstandingly vulnerable to large multinational corporations even in international comparison in the past decades. This is mostly supported by the fact that the trade balance showed the largest deficit here, thus the extent of capital outflow was the highest in the case of

Hungary when the crisis began. In addition to this, the profit realized by foreign companies was one of the highest here and the extent of import penetration was also outstanding, furthermore the influence of foreign companies in the financial sector was conspicuously high. The technological balance also became strongly negative and the domination of multinational corporations in the operation of Research and Development activity became characteristic. In the area of food product, beverage and tobacco product sales as well as in the wholesale and retail sectors foreign companies achieved an outstanding share in international comparison in Hungary. All of this considerably intensified numerous negative consequences of globalization and the financial economic crisis. Among other reasons, this is why the economic downturn was the most severe in Hungary at the beginning of the crisis.

#### **4. Reduction of Hungary's National Debt Ratio, External Exposure and Vulnerability**

In the beginning of October 2008 the Hungarian financial system experienced some critical days when the Hungarian state securities market completely froze. For a short period even price quoting was interrupted and there were multiple unsuccessful Treasury bond auctions. The fall of the stock exchange exceeded 40% in the months of September and October. Foreign entities withdrew a substantial amount of capital—HUF 1,300 billion—in this period. On the state securities market one sixth of the investments of foreign investors disappeared from the country within a few weeks. Meanwhile access to foreign currency by banks was also severely impeded. On the interbank markets their access to the necessary foreign currency sources was increasingly difficult and expensive. This even shed doubt on the ability of banks to sustain their foreign currency lending activities. The financial crisis reached every significant segment of money and capital markets, and this culminated simultaneously with the nose diving of the Forint's exchange rate. The mood of these times is characterized well by the fact that many were sounding the alarm bells of government bankruptcy, while others began speculating on the collapse of banks or the Forint. Investors, analysts and credit rating organizations all considered the vulnerability of Hungary increasingly significant. Credit rating organizations successively downgraded Hungary's debt rating. In the structure of Hungary's national debt the share of foreign currency debt increased as a result of the credit market crisis and the USD 25 billion IMF-WB-ECB loan taken in 2008. As a result of exchange rate fluctuations the increase of foreign currency exposure represented a substantial risk. The excessive presence of foreign investors represented a grave risk to the stability of Hungary's state securities market, and as a result to the financing of the Hungarian budget. The reference yields of Hungarian Treasury bonds significantly increased, thereby the financing of the budget deficit and the national debt became increasingly expensive. Despite the rise in yields foreign presence on Hungary's state securities market did not grow but drastically dropped.

One of the principal sources of Hungary's vulnerability was its high national debt. The "Maastricht" national debt was HUF 21,750 billion in 2010, which equaled 81.3% of GDP. Since over one half of

the debt was denominated in foreign currency, if the Forint's exchange rate weakened, the Forint value of the debt rose. The economic goal and principle of the Hungarian Constitution effective as of 01 January 2012 was a balanced, transparent and sustainable national budget, as well as a decreasing national debt trajectory, the rate of which it intends to reduce to 50% of GDP. The main rules set forth in relation to national debt reduction in the new Constitution were specified in detail in the cornerstone law on Hungary's financial-economic stability (Stability Act). Among other things, this law contains such guarantee elements according to which the Government is obligated to review the fulfillment of the national debt reduction rule semiannually. If an irregularity is detected, the Government must initiate an amendment of the current national budget to ensure that the national debt reduction rule is fulfilled based on the changed budget and macroeconomic data. Parliament may only enact the annual budget if the draft budget complies with the national debt reduction rule in a manner approved by the Budgetary Council. As a result of this—in a way that is unparalleled in Europe—the Hungarian Budgetary Council has veto power regarding the annual national budget law. The primary goal of debt management has become the reduction of the debt rate as percentage of GDP. The secondary goal is the expansion of the range of Hungarian investors in the financing of the national debt, mainly by the promotion of the sales of Treasury bonds to citizens. The third goal became that the decreasing debt rate and domestic financing must enable the reduction of the share of foreign currency debt in the national debt.

In Hungary national debt management is fundamentally governed by the Constitution and Act CXCV of 2011 on the Economic Stability of Hungary (Stability Act). However, specific activities are also regulated by Act CXCV of 2011 on Public Finances and Act CXX of 2001 on the Capital Market, as well as the budget laws applicable to the concerned year. Beyond the definition of the national debt, these provisions of law on the one hand specify the rules of the creation and financing of the national debt, on the other hand regulate the range of actors authorized as well as obligated to perform these activities. According to the Budget Act the minister responsible for the national budget administers the financing of the budget deficit and the management of the national debt. Pursuant to the Stability Act the responsible minister performs these tasks by way of the Government Debt Management Agency Plc (ÁKK Zrt). The owner of ÁKK is the Hungarian state, the minister responsible for the national budget exercises the founder and ownership rights, in a way that the minister may not infringe on the range of authority of ÁKK's Board of Directors. 3 fundamental goals were specified pertaining to the management of the national debt, in consideration of economic policy objectives (ÁKK, 2018):

- 1) According to the requirements specified in the Hungarian Constitution if the debt to GDP ratio is higher than 50 percent, only such budget can be approved, which leads to the reduction of the debt ratio year by year, meaning that fiscal policy shall support debt reduction. The primary objective of debt management is to support the debt reduction accordingly.
- 2) One of the main factors that led to the vulnerability of Hungary in recent years was that the higher part of the government debt had been financed by non-resident investors. Increasing

domestic savings and the domestic financing of the debt reduce the risks of public debt and support macroeconomic stability in the long term. Thus the second objective of ÁKK is to develop further the domestic investor base, and especially to increase the retail debt program. In the course of management the requirement is to finance an increasing share of the budget deficit by retail sale of treasury bonds to citizens.

3) Decreasing debt ratio and increasing domestic financing enable to significantly reduce the share of foreign currency debt within the total debt, which is the third objective of ÁKK.

The emphasized goal of Hungarian economic policy is to increase the share of domestic financing within the total national debt and to improve the structure of the national debt.

**Table 1. Composition of the Gross National Debt (HUF Billion)**

	2010		2011		2012		2013		2014		2015		2016		2017	
	Debt stock	%	Debt stock	%	Debt stock	%	Debt stock	%	Debt stock	%	Debt stock	%	Debt stock	%	Debt stock	%
HUF	10 978	55	10 362	49	12 042	58	12 976	59	14 612	61	16 208	66	18 431	72	20 689	77
Fore-ign	8 843	44	10 170	49	8 327	40	8 905	40	8 958	38	7 736	31	6 257	25	5 783	22
Other	220	1	423	2	351	2	117	1	311	1	756	3	743	3	274	1
Total	20 041	100	20 956	100	20 720	100	21 999	100	23 881	100	24 700	100	25 430	100	26 746	100

*Source:* own edition based on the annual report of ÁKK (ÁKK, 2018).

In the summer of 2012, The Hungarian National Bank (MNB) started an interest rate reduction cycle, which was followed by two other such cycles. As a result of this by June 2016 the central bank's base interest rate was reduced by 610 basis points, to 0.9 percent. In addition to this, in the spring of 2014 MNB commenced a Self-Financing program (MNB, 2015). The ultimate goal of the program was the reduction of the Hungarian economy's external vulnerability. For the achievement of this, by transforming its central bank instruments the MNB incentivized banks to invest their excess liquidity into the securities market, which as a result of Hungary's characteristics primarily represented higher demand on the Treasury bond market. The Self-Financing program was not a series of centrally specified steps, it was rather implemented as a result of cooperation between the MNB, the Government Debt Management Agency and banks.

One of the most important pillars of the national debt management strategy has been the domestic financing of the national debt, and in recent years this has been the most emphasized in Hungary as well as internationally. This process was primarily started as a result of the recognition that foreign investors can react extraordinarily sensitively to various macroeconomic and financial shocks. Thereby,

they may further increase the vulnerability of the country's economy. This exponentially affects highly indebted countries, such as Hungary, since their constant and large volume refinancing requirements necessitate a well-functioning government securities market that is preferably free of major disruptions. ÁKK initiated a campaign aimed at the retail sale of treasury bonds to citizens, as a result of which in recent years it has achieved spectacular success in the retail sale of Treasury bonds intended directly for citizens. Consequently, since 2011 Hungarian households have taken an increasingly large role in the financing of the national debt. As a result of these actions the Hungarian state used Forints to pay back foreign currency debt in the value of EUR 9 billion, and the balance of the MNB has tightened accordingly. The share of foreign currency debt in the total debt has been reduced from 50 percent to below 30 percent, while the gross external debt has been reduced as well. Hungary's debt rate dropped from 81.3 percent of GDP in 2010 to 74.3 percent in the third quarter of 2016.

The previously very typical foreign currency exposure has been considerably reduced as a result of the above measures. A higher than planned portion of maturing foreign currency debt has been successfully refinanced by domestic Treasury bond issues and with the involvement of domestic investors, thus the share of foreign currency debt within the national debt dropped from 44% in 2010 to 22%.

The foreign currency loan exposure of the national budget and Hungarian citizens was successfully eliminated. In 2009 Hungary's total net financial assets reached a historic negative peak according to balance reports, with a negative HUF 31,961 billion. Subsequently to this, by the end of 2014, in a period of five years this number was reduced to a negative HUF 18,408 billion, in comparison with 2009 our foreign debt was reduced by HUF 13,500 billion (Novoszáth, 2017).

The further reduction of foreign debt is a difficult task for the next years. Hungary's external vulnerability was reduced. The London based financial analysis company, Capital Economics, first issued its publication presenting the vulnerability of specific countries in 2013. See the detailed methodology used for the compilation of the reports in the publication entitled "Emerging Markets Economics Focus" presentation of Capital Economics Risk, issued on 16 April 2013 (Capital Economics, 2013).

Briefly summarized, CERI (Capital Economics Risk Indicator) is built on five indicators that previously showed the signs of pre-crisis stress in the case of Emerging Markets (EM). These are Actual Share Prices, Real Exchange Rates, Private Sector Loans, Trade Balance, and the level of Short Term Foreign Debt. Each and every component was evaluated on a scale of 1 to 10, and the CERI indicator is the simple average of the three highest scores.

**Table 2. Structure of the CERI Indicator**

CERI components	Unit of measurement	Threshold values (= 5)	Studied period
Trade Balance	% GDP	Worse by 3% of GDP	In the past 2 years
Private Sector Loans	% GDP	Increased by 30%	In the past 10 years
Short Term Foreign Debt	% Foreign currency reserve	Increased by over 200%	Current stock
Actual Share Prices	Index	Increased by 50%	In the past 3 years
Real Exchange Rates	Index	Increased by 10%	In the past 2 years

*Source:* Capital Economics (2014) EM Financial Risk Monitor, Capital Economics 26<sup>th</sup> September 2014, page 3.

The simple average of the CERI scores related to the 25 most important emerging countries studied in August 2014 by Capital Economics was 4.3. The level of risk in all three main EM regions (Asia, Europe, Latin America) decreased in the previous 18 months. During the past decade not a single one of the EM countries suffered a crisis, with the exception of Venezuela. At the time of the study the CERI score in most countries was below 5, and it is currently still on this same level in the case of most countries. Seven countries had a CERI score higher than 5 (Venezuela, Thailand, South Africa, Malaysia, Bulgaria, Argentina, Chile), which means that they must devote more attention to the external vulnerability of their country.

**Table 3. External Vulnerability of Emerging Countries—Scores of Specific Countries**

Countries	Actual Share Prices	Trade Balance	Foreign Debt	Private Sector Loans	Real Exchange Rate	CERI
Venezuela	10	9	5	3	10	9.7
Thailand	4	10	1	9	1	7.7
South Africa	5	9	2	2	1	5.3
Malaysia	2	10	2	3	2	5
Bulgaria	4	2	3	8	1	5
Argentina	10	2	3	2	1	5
Chile	1	8	2	5	1	5
China	1	1	1	10	3	4.7
Turkey	2	1	4	8	1	4.7
Brazil	1	3	1	8	3	4.7
Peru	1	9	1	3	1	4.3
Indonesia	2	8	2	2	1	4
South Korea	1	1	1	7	4	4



Romania	5	1	1	4	3	4
Russia	1	4	1	6	2	4
Ukraine	1	1	4	7	1	4
India	2	3	1	4	1	3
Philippines	6	1	1	1	1	2.7
Czech Republic	1	1	2	5	1	2.7
Hungary	1	3	2	3	1	2.7
Poland	2	1	2	4	1	2.7
Egypt	5	1	2	1	1	2.7
Columbia	1	3	1	3	1	2.3
Mexico	2	1	2	3	1	2.3
Croatia	1	0	2	3	1	2

*Sources:* Capital Economics (2014) EM Financial Risk Monitor, Capital Economics 26<sup>th</sup> September 2014, page 3.

### 5. The Principal Priorities of the New Hungarian Foreign Economic Strategy

Hungary is a country with an open economy which has an average population and land area in comparison with other EU member states. In 2011 products and services export as a share of GDP was 93%. Not considering the downturn in 2009, Hungarian export has increased year after year since the country's accession to the EU, from an annual EUR 38.1 billion in 2003 to nearly EUR 80 billion by 2011. The country's trade balance has continuously improved: from an import surplus of EUR 4.2 billion in 2003 it became balanced by 2007, and in 2011 the export surplus approached EUR 7 billion. The country's fundamental foreign trade characteristics also unquestionably support its high level of dependence, and as a result its external vulnerability to primarily European multinational companies. 80% of Hungary's export is tied to these large corporations, while majority Hungarian owned small and medium size companies represent 11% of its total export. Three quarters of the direct foreign investment flowing into Hungary originated from EU member states, primarily Germany. From the aspect of GDP growth the reevaluation of the role of imports is also crucial, from the viewpoint of Hungary the increase of net exports is the desirable goal. The primary goal is for quick growth in export to facilitate placing Hungary on a faster economic growth trajectory even in the medium term, in the period until 2015. A highlighted component of Hungary's external economic strategy is to increase Hungarian export performance, and to make the structure of Hungarian export more balanced (Hungarian Government, 2012). Making the structure of Hungarian export more balanced includes two significant components, geographic and product structure diversification. The main goal of geographic diversification is to increase Hungary's export share towards countries with growing purchasing power worldwide, while retaining and further developing the traditional economic-trade relations primarily

with Western European countries, in order to make the Hungarian external economy more resilient against a possible drastic drop in European demand. Therefore, the target regions of geographic diversification are the fast growing eastern countries (China, India, Russia), the V4 countries (Czech Republic, Hungary, Poland, Slovakia) and the states in the Carpathian Basin. In addition to this, the export activity of companies that are active on Hungary's traditional export markets must be "linked-in" mainly by increasing the role of Hungarian suppliers (policy of "Eastern Opening—Wester Opening"). Among others, this objective is served by the system of strategic cooperation agreements with significant international companies that are active in Hungary, which was initiated by the Orbán Cabinet. Hungary intends to become the production hub of Central-Europe, and for this the country provides favorable conditions for foreign investors. At the same time, linking Hungarian small and medium sized businesses into this system is an important part of the strategic agreements aimed at increasing export. According to the original plans they intended to sign a strategic agreement with 40 companies. However, the system of strategic agreements proved to be so successful that 81 such strategic cooperation agreements were signed from June 2002 to April 2019 (Note 2).

In order to achieve product structure diversification, in harmony with the directions of highlighted economic development in the New Széchenyi Plan, the sectoral focuses of external economic development are the following (Hungarian Ministry for National Economy, 2011, p. 25):

- a) Health industry/Pharmaceutical industry
- b) Agriculture/Food industry
- c) Automotive industry
- d) Creative/Innovative industries
- e) Green industries
- f) Services

The goals of Hungary's external economic strategy include the further improvement of the trade balance in the next 5 years. This is an important factor in preserving the economy's external balance. In the case of the current account balance, income flow abroad originating from direct capital investments is a problem. This was successfully counterbalanced by the trade balance in recent years. Therefore, in the areas where there is a realistic opportunity for it, in order to improve the balance we must strive to increase the vertical integration of the economy and to replace imports with Hungarian products whenever that is rational (primarily in the case of agricultural and food industry products).

In Hungary's external economic strategy the implementation of the goals related to the foreign investments of Hungarian companies as well as the increasing of their capital gain, furthermore incentivizing the reinvestment of the profit realized by foreign investors may contribute to the rise of the GNI/GDP ratio. The Government places great emphasis on considering how new investments affect the macroeconomic balance and other macroeconomic indicators, the Gross National Income (GNI) and the budget balance. Hungary must strive to gradually narrow the currently significantly high GNI/GDP gap in the upcoming years. A further goal of Hungary's external economic strategy is for the

strategic sectors to be given highlighted attention, and to direct as high share of investment as possible into the lagging regions of the country (Hungarian Ministry for National Economy, 2011, pp. 19-20).

#### **6. The New Hungarian National Investment Incentive Framework System (Note 3 Note 4)**

In the past 15 years in Hungary, for the purpose of increasing its international competitiveness and the creation of new jobs, several targeted state subsidy systems have been created. Supplementing each other, these systems provide state subsidies to companies operating and settling in Hungary, along specific national economy interests. Hungary's European Union accession fundamentally changed the state subsidy system that was characteristic in the nineties. As a result of this, on the one hand, the state subsidy system had to be adjusted to the subsidy options defined by the European Commission, by which the previous subsidy systems in Hungary were terminated, and their place was taken by new subsidy opportunities. On the other hand, the range of available subsidies significantly expanded by the financial resources provided by the European Union. Currently, Hungary's subsidy system is mostly based on financial resources provided by the European Union, however for the purpose of achieving certain national economic goals (facilitating the inflow of foreign operating capital, regional and municipal development goals, facilitating education and training, facilitating job creation) these are supplemented by government subsidy systems financed from Hungarian state budget resources. Under the professional supervision of the Ministry for National Economy and in the management of the Ministry of National Development, the achievement of the "One million new jobs" program goal of the National Cooperation Program is served by Subsidies under Unique Government Decision in the case of significant investments, financed by the budget's Earmarked Scheme for Investment Promotion, which is one of the most important tools available to the government to motivate investment. From the budget's Earmarked Scheme for Investment Promotion, for investment of at least 10 million Euro accountable cost nonrefundable subsidies can be provided based on Unique Government Decisions, the goal of which is to facilitate large investment projects in Hungary by offering a subsidy structure that is competitive in comparison with the countries in our region.

In Hungary this form of subsidy is called Subsidy under Unique Government Decision (EKD), for which companies submit their subsidy applications directly to the Hungarian Government. In these cases, the Hungarian Government makes a unique decision regarding the subsidy applications directly every time. The name may be confusing, because the decision is always unique and direct, at the same time this form of subsidy is based on Hungarian legal regulations developed during the European Union's harmonization of laws:

- Section 25 of Commission Regulation (EU) No 651/2014 in the application of Articles 107 and 108 of the Treaty on the European Union. Communication from the Commission 2014/C 198/01. Article 107 (3) b) and c) of the Treaty on the Functioning of the European Union.

- Act CCXXX of 2013. Government Decree No 2010/2014 (27 August) Government Decree No 426/2016 (15 December) Government Decree No 119/2017 (29 May) Government Decree No 346/2017 (20 September).

In the operation of this form of subsidy the prevailing Minister of Foreign Affairs and Trade proceeds on behalf of the Hungarian Government, with the participation of HIPA, the Hungarian Investment Promotion Agency that was established for this purpose. The submission of company applications, their administration and the conclusion of subsidy contracts is performed through this agency.

Obtaining a Subsidy under Unique Government Decision (EKD) is a 9 step process, the administration of which generally takes 90 days (Glósz & Co., 2017):

- 1) Preliminary consultations. Preparatory negotiations with HIPA, fitting and optimizing the project to eligibility conditions
- 2) Submitting the application. Preparing the application and its annexes, submitting it to HIPA
- 3) Letter of endorsement. Inspection and endorsement of the application. Sending a letter of endorsement to the applicant. Official commencement of the development project.
- 4) Subsidy offer. Issuance of the Government's subsidy offer and forwarding it to the applicant (effective period 3 months).
- 5) Accepting the offer. Accepting the subsidy offer, forwarding an official notification to HIPA and the Government.
- 6) Preliminary inspection. Collecting the information required for contract conclusion based on the list of HIPA. Onsite inspection on the planned scene of implementation, with an official registry.
- 7) Contract conclusion. Preparing the draft contract. Commenting on the draft contract, finalizing the contract. Official signing of the contract.
- 8) Taking effect. Issuance of official documents (90 days). Starting the payout of the subsidy.
- 9) Subsidy accounting. Compiling the project dossier. Keeping the project documentation updated. Inspection of invoices. Preparing payout requests. Preparing technical reports. Arranging the onsite inspection.

From the total of 43 subsidized investment project contracts concluded in the framework of EKD in 2018, 16 were directly connected to the automotive industry. In 2018 the grand total of all subsidies was HUF 86.6 billion, of which HUF 46.2 billion was received by the automotive industry. From this it's evident that the automotive industry was given a significant portion, 53.4%, of all approved EKD subsidies. In the course of about 13 years from the total amount of EKD subsidies 85.8%, HUF 278 billion supported investment projects implemented in the Hungarian processing industry, and this is where the most jobs have been created as well. In exchange for the subsidies, Hungarian processing industry companies undertook to hire a total of almost 42 thousand new employees. Within this, companies operating in the automotive industry realized over one quarter (27%) of investments

projects that won subsidies. They were followed by companies involved in the manufacturing of computers, electronic or optical products (14%), outperforming companies involved in the manufacturing of rubber and plastic products (12%), as well as pharmaceutical manufacturers (8%). 7.7% of subsidies were received by businesses engaged in the areas classified among professional, scientific or technical activities, info-communication activities were granted 2.3%. At the same time, from the aspect of average subsidy amount per each job position, these two latter sectors were ranked behind (Pomogyi, 2017).

In total, between 2004 and 2019, among automotive industry companies Mercedes-Benz Manufacturing Hungary Kft received the largest amount of government subsidy, the sum of which was HUF 35 billion 31 million 738 thousand. Audi was granted EKD financed subsidy a total of 6 times between 2008 and 2019, which represented a subsidy sum of over HUF 29 billion 713 million. Only the various interests of Robert Bosch received government subsidy more times than Audi, a total 36 times, which represented a grand total of almost HUF 26 billion for various Hungarian subsidiaries of the company. While so far BMW has been granted Subsidy under Unique Government Decision once, in 2018, when it received HUF 12.3 billion for automotive manufacturing (Novoszáth, 2018b).

## **7. The Effect of Foreign Companies on the Competitiveness of Hungary's National Economy—Background Analysis**

Competition that is ongoing in the economy occurs not only between participants of various characteristics and sizes, but also on different levels, which are the following:

- between products and services;
- between enterprises, companies and institutions;
- between countries and nations;
- between regions;
- between regional alliances extending the multiple countries, integrational organizations.

A council in the United States of America dealing with industrial competitiveness defined the concept of competitiveness as follows: “The competitiveness of a nation is the measure of to what level it can produce products and services that can be sold on the world market under perfect competitive conditions, while the real income of the nation’s citizens grows” (Rapkin et al., 1995, p. 2). According to Rapkin’s definition, economic competitiveness is one of the determining factors of the relative position of nations compared to each other. Specifically competitiveness can also appear in military and knowledge industry capacities. The position of a nation in the international power arena by itself determines to what level a nation is capable of achieving its fundamental goals, security, high living standards and sovereignty. Therefore, the evaluation of the issue of competitiveness is essential and inevitable.

Most disputes related to the concept originate from the fact that the representatives of various theories disagree about what can be considered a source of competitiveness. According to some approaches

competitiveness is determined from the INPUT side, and is mostly affected by productivity, investment rate, research and development expenditures and the standard of education. According to other approaches competitiveness is determined from the OUTPUT side, and is mostly found in the trends of the trade balance and the world market share of the cutting-edge technology industries of the specific nation (Bakács, 2003).

In reality, there is no unified definition for the concept of competitiveness, economists, researchers and research institutions often interpret its essence divergently. Since the theoretical basis of competitiveness analyses differ from each other or are unclarified, this makes the comparison of their results more difficult. Ádám Török classifies macro-level competitiveness analyses into three groups: in supply (a) and demand side (b) approaches the main definers of competitiveness are the cost factors of external economic performance (Török, 2008):

- (a) or the value of the performance itself.
- (b) while according to the third approach competitiveness is the economy's comprehensive general condition indicator.
- (c) This latter is represented by institutions who regularly publish the competitiveness ranking of countries, such as the World Economic Forum (WEF) or the IMD World Competitiveness Center.

The competitiveness reports and comparisons of WEF and other globally operating international organizations are unquestionably useful and substantive, at the same time several legitimate doubts have arisen in their regard. On the one hand, they wish to reinstitute a type of capitalist system in the world and create one in the less developed countries of the world, which existed in developed capitalist nations before the appearance of welfare states and their social policies. On the other hand, they represent a neoliberal approach, according to which the state's only responsibility is to serve large corporations and to create the various conditions for their successful operations. Therefore, we would try in vain to find among their viewpoints such things as how the state takes care of the security of all members of society, what welfare functions the state provides, as well as how much the state's social policy counterbalances the socially unfavorable effects of functioning markets. Thirdly, in the evaluations of WEF today the approach is still prevalent, which in the past was dominant in development-economics but was later dismissed, that interpreted the development of nations as a unilateral process and accordingly divided it into uniform phases. Consequently, it explained the development of specific nations or their lagging condition exclusively with their internal endowments, capacities and efforts, or the absence thereof (Szentes, 2006).

The EU Regional Competitiveness Index (RCI), a report analyzing the competitiveness of EU regions that was issued for the third time in 2016, represents another theoretical approach. This report formulates the ranking of the total of 263 territorial-statistical regions based on indicators that are classified into three main groups (fundamentals, efficiency, innovation). In this ranking the competitiveness indicator of every region in Hungary was downgraded compared to 2013:

Northern-Hungary (RCI=20) had the greatest downturn, but the competitiveness of even the most developed region, Central-Hungary (RCI=49), failed to reach the EU average (RCI=55) (Annoni et al., 2017). A separate Commission document analyses the competitiveness situation of lagging (with low economic growth and low-income) regions (of the 47 regions 4 are in Hungary). It was established that the macro-environment is insufficient here. Low productivity and employment rate as well as the deficient education and skill level contribute to low competitiveness. Furthermore, low innovation level and the insufficiently operated institutional background undermine their potential development. This has a particularly negative effect on young people moving away from these regions (European Commission, 2017).

Eastern-Central-European market economies significantly differ from the European type market economy model, because the share of domestic ownership is low, while foreign ownership is high. Therefore, the task of our research was not to designate the factors affecting Hungary's competitiveness in the rather sophisticated space described by various studies dealing with competitiveness and to evaluate it based on the different dimensions specified by those, rather to present the effect of a specific transnational company on the competitiveness of the regional and national economy. Thus, the study intends to formulate its own evaluation system, which assesses the effect of a transnational company on the competitiveness of the nation from the aspect of the receiving country. The study's subject ranges were the following:

- What influence does Audi have on the competitiveness of Hungarian suppliers and small and medium size businesses, their productivity and marketability?
- Can the inflowing foreign capital initiate accumulation processes in Hungary, or does the foreign company syphon out the profit, and do they gain control of the economy to an excessive level compared to their ownership share?
- Is the Latin-American or the Southeast-Asian scenario more characteristic in the countries of region?
- What kind of effect does Audi have on the competitiveness of Hungarian companies and the workforce, the country's vocational training and education system?
- To what extent does Audi contribute to the improvement of Hungary's financial, employment and social situation, the welfare of the country's citizens or their basic needs, as well as the development of the local population's talents as much as possible?

## **8. Lessons Learned from the Integration of a Transnational Company (Note 5)**

In the autumn, upon the initiative of Dr. Dávid Fekete, the Deputy Mayor of the City of Győr, with an EU subsidy, a research project started in the National University of Public Service Research Institute of Public Finance regarding the milestones of the macroeconomic integration of Audi, with particular attention to the trends of Audi's role in national economic output, in the national budget, employment indicators, export, import as well as the expected future plans of the German company (Fekete, 2018).

The present research differed in several aspects from other studies that had previously described the macroeconomic condition systems of automotive industry companies, mostly because of the fact that this study strove to map the relationship between Hungary and Audi in the global environment. It primarily intended to investigate what kind of role Audi Hungária Ltd in Győr, the Hungarian subsidiary of Audi, plays in Hungary's global adaptation and the realization of Audi's global objectives.

Audi AG is a member of the Volkswagen concern, the world's fourth largest automotive manufacturing company group. As a member of the Volkswagen concern, Audi produced about 1.9 million cars in 2016 with its worldwide network of subsidiaries stretching from Japan to Brazil and from Italy to Australia. Audi manufactured about 1.9 million cars in 2016, which means that the company's production volume nearly doubled in 10 years. While at the turn of the millennium production was ongoing only at three sites, today Audi manufactures cars in 16 factories worldwide. Audi Hungária Ltd, the first Audi factory outside of Germany was established in Győr in 1993, which by today has grown to be one of the world's largest automotive engine factories. Audi has been a substantial player in Hungary's economic life for over 25 years. Its areas of activity: engine and engine component production, vehicle and machinery production as well as technological development. The machinery designed and manufactured here enables Audi to fit car body partial components together with extreme geometric precision, using cutting edge technology. Within the entire concern, for practically every model—Audi, Porsche, Seat, Škoda, Volkswagen—production machinery is manufactured in the Győr factory of Audi Hungária Ltd. Audi Hungária Ltd develops and produces engines in its Győr factory for other sites of Audi AG as well as the other members of Volkswagen-group. Audi Group produced a total of 1,927,838 vehicle engines in 2016. Of this 1,926,638 were manufactured by Audi Hungaria Motor Ltd in Győr (Audi Hungária Motor Ltd., 2016).

Since its establishment in Győr in 1993, Audi Hungária Ltd has grown to become one of the largest exporters and most capital rich companies in Hungary. Audi Hungária Ltd has been the company achieving one of the highest revenues in Hungary and Central-Europe for years (Deloitte, 2016). Hungary's economy and industry depends on the automotive industry to such extent that the summer vacation period at the Győr factory of Audi can be detected in national statistics, in measurable percentage points. Today Hungary would be unimaginable without Audi, just as the German automotive concern would be unimaginable without the activities performed in Győr. In one of the world's most successful car factories the overwhelming majority of the work is done by Hungarian employees, proving that Hungarian industry is capable of producing world standard products again. The revenue of Audi of Győr contributed to Hungary's GDP by over one fifth in 2016, creating 1.44% of Hungarian economic growth. In 2015 Audi contributed to Hungarian GDP with 1.11%. Within 10 years Audi Hungaria Motor Ltd became the central engine supplier of Audi AG. Export orientation is so high that the company has been known to be Hungary's largest exporter for years. Audi realizes nearly 100% of its business turnover abroad. The overwhelming majority of the revenue of Audi



Hungária Motor Ltd originates from engine and car sales toward the members of Volkswagen concern. The most significant buyer is Audi AG. The outstanding export of Audi Motor considerably and positively contributes to the trend of Hungary's trade balance. In 2016 Audi represented 8.08% percent of all Hungarian exports. In 2016 Audi paid a total of HUF 34.8 billion in taxes into the central budget of Hungary, of this HUF 2.1 billion was corporate tax, HUF 11.1 billion industry tax and HUF 26.1 billion employer's contributions after its employees (Novoszáth, 2018a).

According to the 2017 report of the Bisnode business information services company, AUDI was Hungary's fourth largest employer after Hungarian Post Ltd, TESCO Global and Spar Hungary (Stubnya, 2017). For the constant improvement of its competitiveness, Audi continuously develops its research and development capacities. In 2001, in Győr its Engine Development Center was established in the spirit of this. Audi's Machine Tool Factory is on the cutting edge of global development with several state-of-the-art technological procedures, such as its aluminum plate production and processing. According to the January 2017 announcement of the German Audi AG, the production of the company's smallest recreational vehicle, its model Q3, will be relocated from Martorell to Győr. In parallel with this a new engine factory will be built in Győr as well. This was announced by Peter Kössler, the company's CEO, on 19 October 2016. In Győr the preparations have commenced for the production of the future model Q3, where for this reason a new auto body factory will also be built. The construction of the new auto body factory started in June 2017, which will be necessary for the mass production of the Q3 that will expectedly begin in 2018. Starting in the 2018 financial year they intend to produce electric engines in Győr, therefore the current engine selection will have to be expanded. A competence center has already been established for this purpose, and preparations have commenced for the start of mass production next year.

Recognizing the importance of knowledge centeredness, for the purpose of the development processes and in order to improve the competitiveness, the City of Győr established a Higher Education and Industry Cooperation Center (FIEK), the concept of which was developed jointly by Széchenyi István University of Győr, Audi Hungária Motor Ltd and the local government of Győr City with County Rank (Fekete, 2017).

In 2016, among Audi's subsidiaries the Győr subsidiary proved to be by far the most of profitable, with a profit of EUR 342 million 805 thousand. From this aspect the second place belonged to Audi Konzern Logistik with the profit of EUR 306 million 481 thousand. The Győr company in total represented 16.6% of Audi's (EUR 2.066 million) profit in 2016 (Audi AG, 2016).

Beside Hungary's economy Győr Audi Hungaria Motor Ltd is a defining actor in Hungarian social and cultural life. For Audi Hungaria participation comes naturally, to improve the living standards of the citizens of the city of Győr by sponsoring cultural and sports events.

## 9. Conclusion

In recent years Hungary has achieved significant successes in the area of global adaptation. The country's vulnerability, its foreign currency exposure and national debt rate have been reduced, Hungary's trade balance and national budget balance have become positive in the long term. The Hungarian economy is much more resilient and less vulnerable than it was in the past, its macroeconomic stability has grown considerably. By today Hungary's ratio of foreign currency debt has diminished to a level that is favorable in the region. From the aspect of external vulnerability, among the region's countries Hungary's external position has improved to the highest extent. The increase in the weight of Hungarian actors within financing and as a result of this the significant reduction of vulnerability has contributed to the fact that in 2016 Hungary's credit rating was upgraded and is now in the recommended for investment category at all three primary international credit rating organizations. Government activity in Hungary that is capable of influencing global processes has considerably intensified. As a result of this the Hungarian economy has become by far more resilient against drastic downturns of market demand. All of this has facilitated the achievement of external balances. Hungary's trade balance and budget balance have been in positive territory for the long term, the country's foreign currency reserves and financial assets have substantially increased.

In the case of Hungary, direct foreign investments have considerably grown. As an effect of numerous job creating investments, the employment rate is near the level of full employment, thus today in Hungary labor shortage represents a much more common problem, rather than unemployment and inactivity as it was characteristic in the past. Wages as well as the savings of citizens and companies have significantly risen. In comparison to 2010 the deficit of the current account balance and the volume of capital outflow have been considerably reduced. At the same time, decision makers can hardly rest assured yet, since the volume of capital outflow is still substantial today and Hungary's dependence on foreign companies continues to be one of the highest in the European Union. Despite the dynamic increase of wages in recent years, Hungarian wages today are still far behind the level of developed European Union member states. There are still great differences in development between various regions of the country.

In any case, it is hope inspiring that in the post-financial crisis world the center of gravity of economic development within Europe may be relocated from the West to Central-Europe. In the course of this the Carpathian Basin region may be given a historic opportunity to become the intersection of the Asian region—dynamically developing based on labor—and the Northern-European and Western-European regions' development guided by innovation. However, another global crisis may easily evaporate these expectations.

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## Notes

Note 1. This Chapter was prepared based on a study upon the assignment of the National University of Public Service, in the framework of project identification number ÁROP-2.2.19-2013-2013-0001 entitled “Preparing electronic and distance education materials”.

Note 2. See the details of these strategic cooperation agreements on the homepage of the Hungarian government:

<https://www.kormany.hu/hu/kulgazdasagi-es-kulugyminiszterium/strategiai-partnersegi-megallapodások>

Note 3. This Chapter was prepared in the Higher Education and Industrial Cooperation Center at Széchenyi István University, in the framework of project identification number GINOP-2.3.4-15-2016-00003, subproject “Services and developments supporting the competitiveness of Small and Medium Size Businesses”, based on research performed at the Research Institute of Public Finance, National University of Public Service.

Note 4. This chapter is a revised version of the paper entitled “The regulation and role of state subsidies in domestic automotive investments in Hungary”, presented at the NISPA conference, Prague, Czech Republic, May 24-May 26, 2019.

Note 5. This Chapter was prepared in the Higher Education and Industrial Cooperation Center at Széchenyi István University, in the framework of project identification number GINOP-2.3.4-15-2016-00003, subproject “Services and developments supporting the competitiveness of Small and Medium Size Businesses”, based on research performed at the Research Institute of Public Finance, National University of Public Service.