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**THE RELATE OF COMPANY TAXATION AND COMPETITIVENESS
IN THE EUROPEAN UNION IN THE VIEW OF CORPORATE
INCOME TAX**

Theses of Doctoral (Ph.D) Dissertation

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Supporting signature of supervisor

1. Objectives and hypotheses

The goal of the dissertation is to define the relationship and coherence between taxation and competitiveness outlining the specific taxation systems of the European Union Member States focusing on the indirect taxes within that specifically the corporate taxation. The study examines the economic distortions caused by taxation, and possible development paths by which the competitive conditions of the enterprises of the single market can be strengthened.

Other objectives are:

- getting acquainted with the corporate tax systems regarding EU's 27 member states, discovering their specific features, formulating the best practices to be used;
- monitoring the tax rate and tax base trends, drawing conclusions for the future;
- review of the ongoing reforms and understanding their impact on the generated income;
- exploration of the economic distortions caused by corporate taxes demonstrating their impact on the operation and competitiveness of the companies;
- mapping of the diverse tax burden measurement methodologies sorting out the most appropriate method, carrying out analyzes by using it;
- explanation of the relationship between tax harmonization and competition, determination the characters of the taxation system that are the most appropriate to serve the companies' competitiveness.

The author carried out the following research tasks in order to achieve the objectives:

- She analyzed and evaluated the taxation processes of the European Union member states especially the process of corporate income taxation, she predicts changes and trends expected in the next future;
- She reviews and compares the income tax characteristics of each member states covering small and medium size enterprises as well. She highlights the best practices which may serve as a model for Hungary;
- She examines why corporate taxation necessary is and by its existence what kind of distortions will occur in the economy;
- She systematizes the characteristic indices and rates by which the corporate income tax burden of the different countries comparable is, and effects on capital investment and income generation can be detected;

- She studies the reasons for falling off corporate tax harmonization, processes up to now and the harmonization proposals. In virtue of the experiences she tried to build up the European taxation model which is best suited to the principle competition neutrality.

The study reviews the elements of the theoretical and practical questions of corporate income taxation and competitiveness in the European Union. The author of the dissertation has steadily developed her theoretical and practical knowledge of taxation for the last ten years. She carried out a tax advisor and tax expert courses, and then she became the member of the National Association of Tax Experts. During the years spent by international companies in financial field she gained experiences also from practical side about the mysteries of corporate taxation.

The author's findings and conclusions in the dissertation are based on the domestic and international literature, on her own and others' researches, statistical reports and studies.

At the beginning of the writing of the dissertation the following hypotheses were formulated:

H1: In the Member States of the European Union the taxation system is trapped. On the one hand by the effect of the tax competition the mitigation of the tax burden related to the GDP of the countries is expected. At the same time maintaining national competitiveness would require increasing governmental expenditures. Exiting from the snare is possible primarily by **increasing the efficiency of the taxation**. In addition **getting acquainted with the practices of each Member State** may help in this issue.

H2: The existence of corporate taxation **causes** domestic and international **distortions in the economy**. The main source of the distortions is **the income shift between the factors of production, the international relocation of the profit, and the foreign capital investment**. The change of the tax base or the tax rate leads to the rearrangement between capital and labor income and to the relocation of the investments and profit between Member States.

H3: To assess the correlation between corporate income tax and competitiveness it is important that the **tax burden of the member countries can be compared**. The effective tax burden is influenced beyond the legitimate tax rate several other factors (method of

determining the tax base, range of benefits, etc.). The tax burden of the countries with different characteristics is difficult to compare, **can be characterized with unified index only limited.**

H4: The effective tax rate **depends** on each country's economic size and level of development. There is a relationship **between** the generated **GDP and the tax burden** of the countries.

H5: In our globalized economy, where an increasing number of small and medium-sized companies appear in the international arena, the **diverse national corporate income tax systems** complicate the tax administration, and distort **the competitive conditions of the undertakings**. By developing a **deeper harmonization** of the corporate income tax systems the **tax administration can be reduced.**

H6: **Corporate taxation being neutral to the competitiveness** of the companies in the Community can be achieved **only by full harmonization.**

H7: To the implementation of the total corporate tax harmonization a **new approach of tax definition** is needed, which assumes a corporate tax base with homogenous tax burden that is independent from countries or company forms, and bases on the same principles.

2. Content, methodology and justification of the research

The author's research is grouped in four main areas:

1) Taxation, and especially the analysis of trends in corporate income taxation in the European Union. The analysis are primarily based on secondary information sources. Beyond the examination of trends, the author adverted to the concrete presentation of the changes related to the corporate taxation of the Member States .She reveals the specific directions of the measurements and their effects on the GDP. She formulates the best practices from the regulations that our country should take over.

The data are derived from the European Community Statistics, Eurostat annually published publications on taxation trends (Taxation Trends in European Union), the OECD studies, and the conversation of tax laws of each country.

2) The analysis of the corporate income tax and its distorting effects on the economy. The dissertation enumerates the arguments and counter-arguments of the authors' why corporation tax is needed. After it she analyses and evaluates the distortions effects which have an influence on a country's income and on the competitiveness of its companies in virtue of the most significant international research results published so far. She examines separately the distortions caused in domestic markets (deadweight loss, distortions shifted on the labour force, administrative and compliance costs, reduced corporate tax rates, distortions among tax types, and effect on corporate investment), then the international distortions (selection of premises, investment and profit relocation effects) are investigated. Using the results of the theoretical models she demonstrates what kind of effect the changing in the corporate taxation system has to the development of foreign investment, one of the most important competitiveness factor.

3) Dissection of the diverse measuring methods of the corporate income tax burden and analysis of the tax burden evolution, in particular in small and medium-sized enterprises. Different accounting methods are used in studies about taxation concerning the examination of the tax burden. The aim of the author is to describe a summary from these methods, exploring the advantages and disadvantages, and in virtue of a selected method to analyse the tax burden evolution in the in the European Union. The necessary data for the research were provided by the studies on the

measurement of tax burden published by the European Union, and the surveys of Centre of European Economic Research. The dissertation is unique, because research or study on this subject, has not been carried out in our country yet.

4) Assessment of tax harmonization and the competitiveness relationship of the enterprises to each other in the Community. For this the author first gives an overview leaning on secondary information sources the current development of the corporate tax harmonization process, reveals the reasons of implementation obstacles, deficiencies. She analyses and evaluates the harmonization proposals formulated as Commission's proposals. Summarising the experiences she attempts to establish an own model. Beyond the preference equality principle she aims to build a model that ensures that all companies in the Community – independent their income earned abroad or domestically - bear the same tax burden. Her intention is to create an equal competition level for companies in terms of taxation, which is only available if the enterprises can work with the same economic, social, political, labour, etc. conditions as their competitors in the homeland and abroad. To reach it, a new approach is required, which is set up in the unified corporate taxation system model based on the proportional sectoral specific performance. The proposed tax system, in contrast with the current systems focuses on sectors and by determination of the tax it takes their national economy income generating ability into account.

In virtue of the Eurostat database she performed tests concerning the function of the model. Within this 21 national sectors in 14 countries were investigated during a five-year period. The obtained results are compared with the data regarding the current corporate taxation in order to confirm the viability of the model.

3. Research results, new scientific results

One of the important results of the author's research is that it provides a comprehensive summary from Hungarian, English and German literature dealing with corporate income taxation, incorporating the latest - especially in foreign languages written - research findings. Another important result is that she gives a comprehensive review from the methodologies for measuring effective income tax rates. Through the method considered the best the domestic and European tax burden are studied in a unique way and conclusions are formulated. Highlighted new result of the thesis can be formulated in the last chapter is the corporate taxation model, which provides a new approach to the enterprise taxation.

In virtue of the scientific literature and the conducted studies the author formulated the following theses:

T1: The overall tax burden in proportion of the GDP fell in all Member States after the millennium, averagely to a nearly 40% level. The taxation system structure changed, the **amount of income tax** (primarily the corporate tax rates) **decreased** in order to keep the capital attraction ability and competitiveness, while the consumption-based taxes increased in order to replace the loss of tax revenue, and new, environmental pollution penalising tax elements appeared. Nevertheless to maintain the public services of the member states and / or the Community increasing expenditures would be needed. This can only be achieved by increasing income centralisation, which however threatens the international competitiveness. This contrast can be from taxation side resolved only by **increasing efficiency**. Solution to this problem is the **introduction of a transparent, stable, and easily calculatable system** instead of the current complex and frequently changing legal system. Other possibility is to study the **“best practices”** of the Member States, among that the corporate taxation of **Estonia, Lithuania and Ireland should be highlighted**. In Estonia and Lithuania - used however in different ways -, the rules for support the reinvest of the profit are unique. The basic idea of the Estonian reform is that the **corporate income taxation is shifted to the time of profit distribution**, so the return tax rate is zero, as long as it was paid as dividend. The Lithuanian system is not so generous, here **the corporation tax base can be reduced after the profits intended to reinvest with only a fictitious amount of interest**, which is calculated according to the Central Bank's standard interest rate. This amount replaces quasi-the interest charges of a market loan.

These innovative solutions have a stimulating effect on the enterprise and the economy, they improve the competitiveness. They provide help in order that the company's indebtedness doesn't increase further, but rather its financial strength improves, which **increases the company's survival chances in time of crisis**. To an expansion of a financially strong and profitable undertaking it is easier and cheaper to find sources from the financial market.

In the corporation tax system of Ireland the **losses set-off system** is worth for considering. Only here exists the possibility to offset the loss of business backwards, namely against profits from the previous period, in case the company continues to operate. This method helps the companies **to equalize the fluctuations resulting from the life cycle** so that even during deficit periods there is the opportunity for corporations to get to some reserve from taxes paid in the earlier years.

T2: The findings of the surveys about the income tax's economic distortions unequivocally show that **the lower corporate tax rate introduced in 2010 will increase our country's chances in the capital attraction competition of the region** and may encourage the companies not only to detect, but also to invest their generated profit in Hungary.

As the supply of capital in the long term almost perfectly elastic is, **a relatively small tax rise has a relatively large negative impact on the level of capital stock**. As a result of a 1% increase of the corporate tax the wages decrease approximately 1%, the investments 0.75%, the selection probability of the given premise falls by 3.96%, and the investment of foreign working capital to the given country declines by 2.9%. Furthermore for the corporate tax reduction our country took up the 12-th place in the European 27 ranking list of the average tax burden with a rate of 19.5% slightly under the average level (21.5%). Comparing to the neighbouring countries appearing as competitors the companies operating in our country had to pay 2-4% higher taxes.

Nevertheless **without reduction of the administrative liabilities the system embodies further more burden for the enterprises as the rates themselves**.

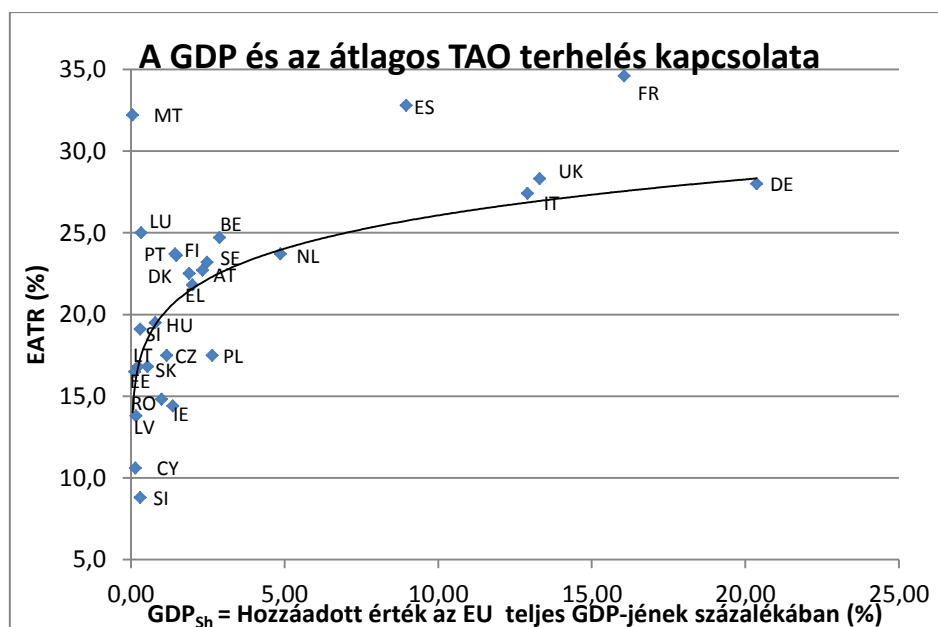
T3: To the measurement of effective corporate tax burden a number of methods can be found in the scientific literature: macro history-oriented, micro history-oriented and micro forward-looking methods. The micro forward-looking method's **complex indicators such as EMTR (marginal effective tax rate) and EATR (Effective average tax rate)** are the best way to describe and compare the tax burden. The EMTR index expresses the **cost of capital**, which is an important indicator used for companies' investment decisions. By comparing investments

planned to be implemented in different locations (assuming similar conditions), on the premises - on the basis of the model - where the EMTR namely the cost of capital is higher, there will be less of investment. Taxation has thus the largest impact on the investment via the cost of capital.

However the computation of the indicators is complicated and involves a number of assumptions, which limits their applicability.

T4: There is a **middle strong correlation** (value 0.64) **between Union's GDP share and the Member States' average corporate tax burden**. More precisely the relationship between the total EU GDP share and the average tax burden (EATR) **can be described with a degressive equation**, mathematically by an exponential function ($EATR = 19,908 \cdot GDP_{Sh}^{0,117}$).

Namely while the share of GDP (GDP_{Sh}) increases, the average tax burden rises as well, however this growth is less and less.



The EATR value is the highest in the countries where the contribution to the EU's GDP is more than 10%, such as France, Great Britain, Germany and Italy.

Hungary is located in the middle of the range (0.79% contribution to the whole GDP with an EATR of 19.5%). Comparing us with neighbouring countries only Slovakia is weaker (0.54%) in point of the contribution to the GDP, however there is the studied EATR also lower (16.8%). The EATR indicators in Romania, Poland, and Czech Republic represent a

better view, therefore they can be found in a more favourable place in the tax competition in comparison to our country.

T5: The corporate income tax harmonization attempts aim to reduce the administrative liabilities which hinder the **free flow of capital** within the Community. However the harmonization proposals in the present stage would mean merely the **shift of the bureaucracy burdens**. The deeper harmonisation requires **homogenous principles of taxation** at European Community level.

T6: Corporate tax harmonization is needed due to the creation of a competitive single European market, and the increase of the GDP. This should be realized by ensuring the competition-neutral corporate taxation (equal playing conditions) in the Community. **This can only be achieved by harmonization of corporate income taxation through a system that ensures a capital flow to those countries where it can be applied more effectively and not to those where the actual tax burden is lower.**

T7: The initiatives taken so far revealed that the introduction of optional system of rules only for determining the tax base continues to maintain the tax competition between Member States and the target to lower administrative liabilities can be solved only slightly. In this dissertation established **unique corporate taxation system proportional to the performance capability of economic sectors** may be a solution-direction. The model aims to introduce a tax that applies to all enterprises of all Member States, complies with the principle of equality and performance capability, promotes competition and reduces administrative liabilities. On all companies in this system is levied a tax correlated to the average income performance capability of their own business sectors so provided that the capital as a factor of production wears approximately an equal tax burden independent of sector and national economy.

The deployment of the hypotheses and the theses described in virtue of the research results are summarized in the following table.

	Hypothesis	Accept	Thesis
1.	In the Member States of the European Union the taxation system is trapped. On the one hand by the effect of the tax competition the mitigation of the tax burden related to the GDP of the countries is expected. At the same time maintaining national competitiveness would require increasing governmental expenditures. Exiting from the snare is possible primarily by increasing the efficiency of the taxation . In addition getting acquainted with the practices of each Member State may help in this issue.	✓	The amount of income tax decreased in order to keep the capital attraction ability and competitiveness, while the consumption-based taxes increased in order to replace the loss of tax revenue. To maintain the public services of the Community increasing expenditures would be needed, that can only be achieved by increasing income centralisation, which however threatens the international competitiveness. Solution can be the increase of the taxation efficiency . Among the best practices of the Member States the corporate taxation of Estonia, Lithuania and Ireland should be highlighted .
2.	The existence of corporate taxation causes domestic and international distortions in the economy . The main source of the distortions is the income shift between the factors of production, the international relocation of the profit, and the foreign capital investment . The change of the tax base or the tax rate leads to the rearrangement between capital and labor income and to the relocation of the investments and profit between Member States.	✓	As the supply of capital in the long term almost perfectly elastic is, a relatively small tax rise has a relatively large negative impact on the level of capital stock . As a result of a 1% increase of the corporate tax the wages decrease approximately 1%, the investments 0.75%, the selection probability of the given premise falls by 3.96%, and the investment of foreign working capital to the given country declines by 2.9%.
3.	To assess the correlation between corporate income tax and competitiveness it is important that the tax burden of the member countries can be compared . The effective tax burden is influenced beyond the legitimate tax rate several other factors (method of determining the tax base, range of benefits, etc.). The tax burden of the countries with different characteristics is difficult to compare, can be characterized with unified index only limited .	✗	To the measurement of effective corporate tax burden a number of methods can be found in the scientific literature: macro history-oriented, micro history-oriented and micro forward-looking methods. The micro forward-looking method's indicators such as EMTR and EATR are the best way to describe and compare the tax burden. However the computation of the indicators is complicated and involves a number of assumptions, which limits their applicability.
4.	The effective tax rate depends on each country's economic size and level of development. There is a relationship between the generated GDP and the tax burden of the countries..	✓	There is a middle strong correlation (value 0.64) between Union's GDP share and the Member States' average corporate tax burden . More precisely the relationship between the total EU GDP share and the average tax burden (EATR) can be described with a degressive equation . Namely while the share of GDP (GDP_{Sh}) increases, the average tax burden rises as well, however this growth is less and less.
5.	In our globalized economy, where an increasing number of small and medium-sized companies appear in the international arena, the diverse national corporate income tax systems complicate the tax administration, and distort the competitive conditions of the undertakings . By developing a deeper harmonization of the corporate income tax systems the tax administration can be reduced ..	✗	The harmonization attempts aim to reduce the administrative liabilities which hinder the free flow of capital within the Community. However the harmonization proposals in the present stage would mean merely the shift of the bureaucracy burdens . The deeper harmonisation requires homogenous principles of taxation at European Community level.

	Hypothesis	Accept	Thesis
6.	Corporate taxation being neutral to the competitiveness of the companies in the Community can be achieved only by full harmonization .	√	Corporate tax harmonization is needed due to the creation of a competitive single European market, and the increase of the GDP. This should be realized by ensuring the competition-neutral corporate taxation (equal playing conditions) in the Community. This can only be achieved by harmonization of corporate income taxation through a system that ensures a capital flow to those countries where it can be applied more effectively and not to those where the actual tax burden is lower.
7.	To the implementation of the total corporate tax harmonization a new approach of tax definition is needed, which assumes a corporate tax base with homogenous tax burden that is independent from countries or company forms, and bases on the same principles.	√	The initiatives taken so far revealed that the introduction of optional system of rules only for determining the tax base continues to maintain the tax competition between Member States and the target to lower administrative liabilities can be solved only slightly. In this dissertation established homogenous corporate taxation system proportional to the performance capability of economic sectors may be a solution-direction.

Source: own compilation based on the results of the hypotheses

It can be concluded that from the formulated seven hypotheses five have been totally, and two partially accepted. Accordingly, 71% of the initial assumptions have been verified.

4. Conclusions and proposals

The dissertation suggests a proposal to contemplate the introduction of the best practices in our country based on the study of the corporate tax systems in the 27 member states. As the author has highlighted among the concepts **it is worth considering the kind of corporate taxation which encourages economic growth in Estonia, Lithuania and Ireland**. The tools of the northern members include lower taxes on profit meant to be returned and delayed payment of the obligation.

These novel solutions have incentive impact on both the enterprises and the economy by increasing competitiveness and **improving survival opportunities of the companies in crisis**. For the expansion of a profit making enterprise with strong capitalisation it is easier and less expensive to search for resources in the financial market.

The **system of inclusion losses** in the corporate tax system of Ireland could prove to be an efficient method. The concept is that company losses can be returned that is compared to profits in a previous period, consequently during loss making periods there is a chance for corporations 'to take transfers' from the taxes paid in former years. By doing so, **fluctuations emerging from different life cycles of companies** can be balanced.

The distortions in the economy caused by the corporate taxation can be well demonstrated by dead load loss as well as the administration burden proportionate to the GDP. According to the results of studies and surveys at the end of the millennium in Europe the **dead load losses will amount to 4,46% of the GDP as the administration burden will be estimated to 10,5%**. In Hungarian relation it means about **4,400 billion Hungarian Forints** considering the GDP of 2011 as a base. Increased efficiency in taxation is an indispensable Community objective. This idea will be supported by less complicated and less lengthy tax declarations in small numbers. Furthermore, it is important to settle the preferences of validation of tax benefits where it is solvable and appropriate to give them via other channels outside the tax system. Tax administration burden can be eased by **stable, predictable, rarely altered and easy to understand regulations**.

In the essay the author presented several methods which can measure corporate tax burden then highlighted the importance of consideration of **effective tax burden**. First of all, as it can be suspected by the comparison of the legal tax rate and the effective tax rate the tax benefits appear granted by the authorities. Second, the international perspective of the effective tax

burden indicates whether there are crucially different taxation procedures in the case of companies with similar characteristics but situated in different countries. We could experience great diversities among the legal tax rates whereas in case of effective taxation these differences might shrink or rise. Hence, nations with high legal tax rates may decrease tax basis and/or ease the execution of taxation. The survey on **effective corporate taxation** highlights how **corporate tax competition** operates. In general, legal tax rate and real tax rate correlate closely in the EU. However, exceptions in the rules were introduced in some countries' tax systems, which break the correlation. These kind of discriminative measures can be particularly linked to the choice of financing forms or the variety of tool types. In the old member states the immaterial properties are taxed at the most favourably rate whereas in new member states the machineries.

During the examined period at the EU level we could observe the significantly **decreasing trend** in the effective corporate tax rate. In the same period the difference of effective tax burden between the old and new member states has almost trebled mainly due to the increased tax cuts after the new members' accession. In addition, when the dispersion of effective tax rate among old member states significantly decreased it remained unchanged in the case of the new member states. In the meantime, taxation of the EU15 indicates a higher degree of consolidation whereas it is noticeable that new members changed their taxation policy several times.

Generally, **the effective tax burden of the EU did not decreased to the extent as the corporate tax rates**. Besides curtailed benefits on capital the results are affected in some countries by the significant alteration of the corporate tax systems and the abolition of incentives.

The **competiveness of enterprises** are affected by the income redistribution and economy management measurements of the government, the tax and customs regulations of the fiscal policy, the interest rate and exchange rate changes of the monetary policy. In the author's view the tasks of the government and its supervising EU Committee is to **establish homogenous taxation principles and appropriate regulation environment** which will ensure equal opportunities for the competitors.

The narrowing of the idea-line to the corporate taxation rules means, that homogenous rules in the corporate taxation system will support the competitiveness of the enterprises. It is important to require that the tax regulation don't make any obstacle or distort the 4 freedoms (free flow of goods, services, labour force and capital). At present the differences in income tax

regulations in member states do not even ensure the homogenous tax burden inside the country. The size, location and profile etc. of the company often make the differentiation possible. That is why the author of the dissertation finds the establishment of a tax aspect **environment** important, that **affects neutral** the competitiveness of the companies. It does not refer to tax exemption but the assurance of unified tax burden for all companies.

Based on these concepts, the essay aims to study and discover the effects of corporate taxation on enterprises and competitiveness as well as to find out how to establish such a taxation environment which will put equal burden on the companies of a particular region namely its impact will be neutral.

The practical value of the dissertation results from the **common corporate taxation system model drawn by the author that ensures full harmonization and is proportional with the performance of the economic sectors**. The author prefers the **principles of equality**, namely her goal is that all companies - whether abroad or domestically earned income is concerned - should pay the same aggregated tax. Such an operating system eliminates the means several governments are using in order to attract investors (such as tax incentives, low tax rates, etc.). At the same time it eliminates the efforts of international companies of transferring the profits either realistic or virtually from one country to another in the concept of tax optimization.

On the other hand, if a company undertakes abroad, then it needs to cope with the competitive conditions of the specific country. Equal conditions of competition are only encountered when the competitors can operate in the same economic, social, political, labor, etc.. framework, both domestically and abroad. This in turn requires that the corporate tax terms harmonize, in fact, ideally, to be completely identical, otherwise the difference of the tax system can have an impact on the competitiveness of business.

For the implementation of a competition-neutral corporate taxation, the author has proposed introducing a system that meets the following criteria:

- **it should apply to all member countries,**
- **applies to all enterprises** regardless of size and location of its economic activity,
- complies with **the principle of performance capability**, which is characterized by the same tax liability for all obligated, independent of the origin location of the income,

- **easy to calculate, the rules are transparent,**
- **supports the competition,** but it does not distort and helps matching the conditions,
- ignores the non-uniform accounting enumeration and does not constitute new accounting standards,
- refers to a tax base with a standardized definition by now,
- does not lead to significant revenue losses for Member States,
- does not aim to reduce the tax of the companies, the benefits for corporates result from the reduction of conformity costs associated with regulation compliance
- does not allow new methods and tools for tax evasion, tax fraud.

The proposed model is determining the business income tax base (net operating profit), by revising the revenue earned by the company by the expected profit margin (β). The expected profit margin is derived from the quotient of net operating surplus (NOS) - from statistics of the international sector - and the gross output (GO).

Since the volume of the production factors and thus the resulting profit margin varies from sector to sector, a "consistently correct" corporate income tax rate can only be used in the tax calculations, when the differences between the economic activities are taken into consideration while determining the taxable amount. This means that the expected profit margin should be reckoned for all branches of national economy.

The sector-level indicator provides help for examining the results of the companies, irrespective of the national economy. The author assumes that the enterprises of the same sector have similar cost conditions and achieve a similar profit margin. A different situation may exist only in the short term, because the competition excludes the less efficient companies from the business market.

The corporate tax base can be determined as the product of relevant sectoral profit margins multiplied by realized revenue, which is charged by a uniform tax rate imposed by the Community.

The biggest **advantage** of the method is that it can be calculated very quickly. In addition, it helps comparing the results of the businesses operating in the specific industry, supports increasing efficiency and transparency.

This system operating as an expected tax is able to provide a competitively neutral taxation, like value added tax (VAT). Thus, the decisions regarding the business location will show the

actual quality factors and environmental conditions of a specific country and won't be affected by the corporate taxation of different countries.

Estimated figures based on 5 years' data highlight that total tax revenues will remain unchanged near the rate of 10 %. In terms of consideration the total tax revenues in the past 5 years among the 14 involved countries, four of them will suffer losses, but all the other states will close with a surplus (compared to previously examined systems). The main losers are Denmark, the Czech Republic and the Netherlands, the main winners are Poland, Austria and our country. In case we would like to ensure the winning positions for all countries, the tax rate should be increased to 14 % which would put an extra tax burden on the enterprises therefore it is not proposed.

Beside a corporate tax rate of 10 % the maximum of the corrected sector burden is 4.35 % the minimum 0.03 %, the average value is 1.43 %. The examination of rates by sectors indicates where income generation occurs with lower or higher production usage, work force and assets fixation namely expense ratio compared to the average. The tax burden is higher in 12 sectors and lower in 8 sectors compared to the average. The biggest change can be recognized in the rate decrease of 10 % in administration services and processing industry while there was a rate increase of 28% in water supply from 2009 to 2010.

Based on the calculations of the model, in Netherland and Italy the sectors of the national economy pay less tax than their performance may allow. It is justified by the fact that in virtue of the calculation there is only a 10% decrease in tax revenues while there was a fall of 39 % according to the real data.

By further observations may be analysed how each particular sector contributes to the budget compared to its burden taking capability. It might encourage the creation of a more oriented subsidizing policy as well as shaping a more unified tax burden system.

5. Publications connected with dissertation

Professional articles, studies connected with dissertation, published in foreign publications:

1. Hajdu Emese: **The situation of smes and their possibility to finance in Hungary**, 3rd International Conference for Young Researchers, University of Szent István, Gödöllő, Hungary, 28-29 September 2004, pp 189-196., ISBN: 963 9483 42 5
2. Hajdu Emese: **Possibilities of Western – Transdanubia Region and Burgenland in the European economic area**, 5th International conference of PhD students, University of Miskolc, Hungary, 14-20 August 2005, pp 71-76, ISBN: 963 661 676 0
3. Hajdu Emese: **Microfinance experience in Europe**, 4th International Conference for Young Researchers of Economics, University of Szent István, Gödöllő, Hungary, 2-4 Oktober 2006, pp 64-68., ISBN: 963 9483 68 0

Professional articles, studies connected with dissertation, published in Hungary:

1. Hajdu Emese: **Adójogi, pénzügyi jogi és számviteli ismeretek**, társszerző, 14-15. fejezet, Mobil Kiadó és Grafikai Stúdió Kft., Budapest 2006, pp 367-392. (szerzők: Dr. Vágyi Ferenc Róbert, Németh Márta, Polyák Imre, Szilágyi Miklósné), ISBN: 963 7492 42 9
2. Hajdu Emese: **KKV-k növekedésének és teljesítményének kérdései**, Tudomány Napi Konferencia, NYME-KTK, Sopron, 2008. november 3., ISBN: 978 963 9883 25 3
3. Hajdu Emese: **Az adóztatás, mint versenyképességi tényező vizsgálata Magyarország és az Európai Unió vonatkozásában**, INNOVÁCIÓ, VERSENYKÉPESSÉG, KKV-k konferencia, Kodolányi János Főiskola, Székesfehérvár 2010. november 5-én, pp 142-152., ISBN: 978 963 9558 99 1
4. Hajdu Emese: **A tényleges társasági adóterhelés mérése és trendje az Európai Unióban**, „Változó környezet – innovatív stratégiák” Nemzetközi tudományos konferencia a Tudomány Ünnepe alkalmából, NYME-KTK, Sopron 2011. november 2. pp 126., ISBN 978 963 9883 84 0
5. Hajdu Emese: **A tényleges társasági adóterhelés mérése és trendjei az Európai Unióban**, Gazdaság és Társadalom, Journal of Economy & Society 2012. különszám, Sopron, 2012, pp. 132-155, ISSN: 0865 7823

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