University of West Hungary Faculty of Economics

COMPARATIVE ANALYSIS OF PERSONAL INCOME TAX SYSTEMS APPLIED IN THE EUROPEAN UNION, SPECIALLY CONCERNING THE HUNGARIAN PERSONAL INCOME TAX SYSTEM

Theses of the PhD dissertation

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1. Introduction

Under the Article XXX, Section (1) and (2) of the Hungarian Constitution, everybody has a duty to contribute to the common needs. The measure of the contribution to the common needs must be assessed with respect to the expenses of child-rearing in the case of parents.

The tax system and the effectiveness of taxation are becoming a common issue and also the financial-political tool of the fulfillment of social-economical aims from year to year; it concerns all the social layers directly. Taxes collected sometimes under force into the central budget come back into the economy or directly to the individual.

Nowadays, the taxation of the individuals tends to be identified with the taxation of the incomes gained from work. That is why it is not possible to transform the taxation (within this, the personal income taxation) into a simple economic model, it also has to be approached through comprehensive examinations; and it has to be approached through a wide-ranging review, taking the equity and justice required by the society into consideration with a special care.

1.1. Actuality of the topic

The relevance of the topic is given primarily by the fact that the EU member states wanted to react to the international financial and real-economic crisis with crisis-treating operations. Modifying tax rules in order to examine the effectiveness the tax system of a particular country is also regarded as a crisis-treating operation of the government and the legislation. In this sense, the consistent collection of the inland revenue is becoming more and more significant. It is necessary to provide the coverage of the public expenditures, social services and social security allowances, because the number of those in need is constantly increasing and this can cause an economic downturn. Nowadays, when several industries are struggling to survive all over the world and a huge number of jobs are endangered, each responsible government in the world is compelled to take serious restrictive measures in order to avoid recession and lay the foundation of future development (NAV, s.a.).

Secondly, the whole society is particularly interested in the content and the annual changes in the Hungarian personal income tax system, since this law directly influences the majority of the population.

Thirdly, I found it problematic that experiences concerning the Hungarian flat rate tax system introduced in 2011 are not fully-fledged and the data are incomplete. For this reason I

conducted an additional questionnaire survey to the quantitative investigation in order to examine the experiences concerning personal income tax in Hungary.

1.2 The goals and fields of investigation

The aim of the dissertation is to present – without an intention to set up an exhaustive list, for the reason of size limitation – what kinds of solutions are applied in the EU member states in the field of personal income taxation.

In each country we can detect several, sometimes ambivalent effects of taxation. The effectiveness of tax collection depends on some codified solutions determined by the local social conditions.

I took the relevant statistical data from the website of EUROSTAT and concisely summarized the tax system and the measure of tax load in the member states. Taxation databases of the OECD, the KPMG, the MAZARS, and the DELOIETTE were of assistance to me when drawing the conclusion, which contain the taxation parameters in the EU member states and all over the world.

The dissertation is built around the following research questions:

- What tendencies are dominant in the EU member states concerning personal income tax?
- May the personal income taxation system influence the measure of consumption and the level of employment in the given country?
- What tendency is dominant in the development of domestic tax revenues?
- How can the nature of the personal income taxation system influence the numerical values of macro-economic parameters as GDP-proportionate domestic demand, GDP-proportionate savings, GDP-proportionate import and employment rate?
- How does tax revenue develop in the Central and Eastern European countries after the introduction of flat rate taxation system?

During formulating my hypotheses I took empirical experiences for basis. My assumptions can also be deduced in a logical way, which may be viewed as evidence in the common thought. This is the reason why I intend to reveal whether the applied personal income tax system really affects some economic and social phenomena. This was the basis on which I set up the eventual hypotheses, which are the following:

H1. There is a special phenomena in taxation, namely neighbouring countries follow convergent trends when formulating their personal income tax system. Countries going through economic problems are used to adopt each other's successful or successful-looking tools when searching for the way out of the crisis, in order to facilitate their country's economic growth and to ameliorate their tax compliance.

H2. Those Central and Eastern European countries who have applied progressive personal income taxation system and a higher rate of personal income taxation earlier are more likely to introduce the flat rate personal income tax system than the Western European countries.

H3. The tax load of the member states' population influences the domestic demand and the volume of the import in the given country. In the case of higher income tax load private individuals have less income for consumption; therefore the public demand will decrease both for domestic and imported products and services.

H4. The measure of income tax load influences the employment policy of the member state and the development of the savings.

H5. The rate of the income tax revenue correlated to the total budgetary income represents a similar order of magnitude in the European countries regardless of the type of personal income taxation system applied in the given country. The introduction of the flat rate income taxation systems does not cause a sufficient decline in the amount of the personal income tax revenues within the budget, but it leads to the reformation of the burden-sharing among the taxpayers in comparison with the progressive personal income taxation systems.

H6. The majority of the population finds the progressive taxation more acceptable and preferable, and they think the higher income citizens have to contribute more significantly to the burden-sharing. Besides, the Government's intention to inspire having children by the flat rate taxation system and the family tax allowances in the case of higher income individuals is not properly supportable.

2. Content and methods of investigation and their explanation

2.1 Primary and secondary sources of data

To answer my research questions and to investigate the hypotheses I applied primary and secondary methods when collecting the data.

The secondary researches focused on the role played in the national economy by the flat and the multiple rate taxation system. I aimed to present and summarize the recent international and local literature, particularly highlighting the chosen area of investigation. The basis of my research is formed by the EU member states' data from the period 2002-2011. I attempted to examine the broadest time period possible in the hope that the tendencies would be more easily described, but in the case of certain countries I met a lack of data. Because of this problem, I did not manage to conduct a time series research that is why I concentrated on the cross section researches. The collection of statistical data could be carried out on the basis of the statistical database of the EUROSTAT.

I obtained the primary information through a questionnaire. In Hungary the flat rate taxation system was introduced in 2011, therefore the available information about it is incomplete. My aim was to evaluate the societal opinion about the present personal income tax system and the social reactions to tax evasion.

I conducted my primary data collection in June and July, 2013. In order to preserve the willingness to response I asked short, simple and predominantly closed questions. I continued data collection until the number of respondents reached 200, all of them were volunteers. I collected respondents who were easily available for me and who were likely to give acceptable and complete answers. This facilitated the acceleration of the data collection process, and at the same time I could ascertain that my subjects understood the importance of giving responses. This technique excluded any misunderstandings in connection with the questionnaires. The sample is not representative, but the findings are still informative and appropriate for drawing conclusions. The processing of the questionnaires required special care, since all the 200 questionnaires were filled out manually. After the recoding I analysed the data with the Statistical Package for Social Sciences (SPSS v. 16.0) program package.

The primary survey consists of two main sections. I examined my respondents' opinion about the present personal income taxation system, the effectiveness of the personal income tax supervision and the moral aspects of tax evasion. I distributed the statistical population on the basis of gender, age, habitation, qualification, gross and net monthly salary, planned number of children and the number of members in the household.

2.2 Methods

During the hypothesis-testing I applied the following statistical methods: correlation- and linear regression analysis, variance analysis, cross-board analysis and cluster analysis.

right it chassification of the appreciate methods					
	Non-metric	Metric independent			
	independent variable	variable			
Non-metric dependent variable	Cross-board analysis	Discriminant analysis			
Metric dependent variable	Variance analysis	Correlation,			
		regression analysis			

Figure	1.	Classificat	ion of	the ani	nlicable	methods
rigure	1.	Classificat	1011-01	une app	pheable	memous

Source: Sajtos-Mitev (2008)

During the analysis I identified the following result variables and explanatory variables:

Explanatory variables	Result variables
Value of the personal income tax rate	Domestic demand/GDP %
Personal income tax/GDP %	Import/ GDP %
Government revenue/ GDP%	Savings/ GDP %
	Employment rate %

Figure 1: The identification of the explanatory and the result variables

Source: own editing, calculating with the highest personal income tax rate in case of progressiveness

During the **correlation analysis** I investigated the possible connections between the GDPproportionate personal income tax revenues, the GDP-proportionate savings, the GDPproportionate domestic demand, the volume of the GDP-proportionate import and the employment rate in the European Union. In case of correlative connection we can determine whether the increase of one criterion is attached to the increase or to the decrease of the other one. This is expressed by the direction of the connection, which is negative in the case of opposite change and positive in the case of a parallel change of the two criteria (Némethné, 1999).

In the course of the **regression analysis** I intended to anticipate the value of the result variables on the basis of the examined explanatory variables. The regression analysis examines the stochastic tendency in the relationships, and describes the nature of these relationships with a function (Hunyadi et al, 1997). The basic model of the regression analysis is called binary linear regression. This means that we examine the change of a dependent variable in accordance with an independent variable, where the aim is to prove the linear relation between the variables (Sajtos-Mitev, 2007). Assume that the relation between X (explanatory variable) and Y (dependent variable) may be expressed by a function, which can be described as the following:

Y=f (X), in the case of more independent variable Y=f (X1, X2,... Xi)

The following criteria should be met during the examination of the regression model:

- 1. The outliers must be identified in the examination, namely the significantly different data must be carefully checked.
- 2. There should be no multicollinearity among the variables. Multicollinearity means that the explanatory variables influence each other to a certain extent; there is a correlation relation between them. In an ideal situation the explanatory variables form an uncorrelated system. In this case the regression estimate becomes simple and the interpretation of the parameters is unproblematic, because each variable represents itself in the regression. In the case of multicollinearity the interpretation of the parameters becomes more difficult, because the influence of each explanatory variable cannot be clearly divided (Hunyadi-Vita, 2002).
- 3. Homocedasticity must be present. Heterocedasticity makes the test results meaningless, so it is necessary to test its presence. According to the literature, the most eligible method is the White-test (Ramanathan, 2003). In the case of the White-test, if the p-value is very little, we can prove the presence of heterocedasticity.
- 4. Errors must be normally distributed. The checking of normality is of special importance, because the interval estimates and the tests are based on this distribution. Errors are not normally distributed if the p-value of the normality test is too little (Hunyadi-Vita, 2002).

With the help of **variance analysis** I compared the mean within the group to the whole sample and to the mean between the groups. The influence of the groups is shown by the proportion of the internal and external mean. If the difference between the groups is more significant than the internal heterogeneity, we cannot consider the influence of the personal income tax rates adventitious.

In the frames of the **cross-board analysis** I examined whether there is a relationship between the frequencies of two or more variables. The cross-board analysis is suitable to investigate the connection between the nominal and the ordinal variables in the questionnaire. When examining the connections between the variables, the most widely used statistical method is Pearson's chi squared test (X2), which measures the statistical significance of the connection between the two variables. The null hypothesis of the cross-board analysis is there is no connection between the examined variables (Sajtos-Mitev, 2007). When we compare the real and the anticipated value, we can decide if we accept or reject the null hypothesis. If we reject it, it means that there is a significant relationship between the distributions of the examined variables. If this assumption is supported, the strength of the relationship can be measured with different indicators. In the case of a nominal scale, it seems practical to apply the Cramerian V-coefficient, because it is easily interpretable and applicable to cross-boards of any size. Its value varies between 0 and 1, where 0 means that the variables are independent from each other, while 1 means that the variables entirely depend on each other (Kassai, 2012).

In the course of the **cluster analysis**, I intended to create homogeneous groups among the observation units by using the variables representing all the government and personal income tax revenues, taken from the EUROSTAT database. These variables are measurable on a metric scale; that is why I applied Ward's hierarchical clustering method in the analysis.

I conducted my primary data collection in June and July, 2013. In order to preserve the willingness to response I asked short, simple and predominantly closed questions. I continued data collection until the number of respondents reached 200, all of them were volunteers. I collected respondents who were easily available for me and who were likely to give acceptable and complete answers. This facilitated the acceleration of the data collection process, and at the same time I could ascertain that my subjects understood the importance of giving responses. This technique excluded any misunderstandings in connection with the

questionnaires. The sample is not representative, but the findings are still informative and appropriate for drawing conclusions. The processing of the questionnaires required special care, since all the 200 questionnaires were filled out manually. After the recoding I analysed the data with the Statistical Package for Social Sciences (SPSS v. 16.0) program package.

3. Findings, new and novel scientific achievements

With respect to the objectives delineated in the Introduction, I summarized my new and novel scientific achievements on the basis of my researches:

T1. Neighbouring countries follow convergent trends when formulating their personal income tax system. The influence of the flat rate personal income tax system on the economic growth and the tax revenues – on the basis of the synthetic analysis of the relevant literature – did not shape as expected. After the personal income tax reform, the change in the tax moral did not cause permanent improvement in any case. We can observe both negative and positive tendencies in tax compliance in the Central and Eastern European countries. I could not detect any unambiguously demonstrable connection between the economic growth and the application of the flat rate personal income tax system.

The flat rate personal income tax system was first introduced in Estonia and Lithuania in 1994. The neighbouring Latvia followed their example in 1995. Russia applied the reform in 2001. In our region Slovakia came in 2004, followed by Romania in 2005. Bulgaria and the Czech Republic changed their tax system in 2008, which was the sign of the tax competition manifesting in the decrease of income taxes in the region. (Horváth-Paragi, 2011) I examined the GDP-proportionate personal income tax revenues in the Eastern and Central European countries in the year before the application of the flat rate system, and the following 10 years. I realised that during this period the tax moral improved permanently only in Latvia and Lithuania; in Romania a slight, momentarily improvement was detectable, but in Estonia, Slovakia, Bulgaria and the Czech Republic the tax moral become permanently weaker after the reform.

T2. Those Eastern and Central European countries that applied the flat rate personal income tax system - in comparison with the Western European countries - did not have a high personal income tax rate before the reform. **The hypothesis is partly proved.**

I also realised that in the countries applying the flat rate personal income tax reform the measure of the personal income tax does not exceed the average of the examined countries. This means that the examined countries did not have exactly high personal income tax rates; moreover, they belonged to the average or below-average category. There were countries, such as Belgium, Finland, Austria and Denmark, that had much higher personal income tax rates than the countries applying the reform.

T3. The increase of the personal income tax rates leads to the decline of the domestic demand. That is why it is not incidental that – as a result of the economic crisis in 2008-2009 – in the economically developed countries the amount of the private savings increased, according to the decline of the domestic demand. Naturally, this decrease cannot be clearly attributed only to the tax system, but several other factors, such as the fall in people's inclination to take out loans caused by the decrease in the risk tolerance of the banking sector. It has been sufficiently proved that the increase of the personal income tax rates cuts back the economic growth through the decline in the domestic demand. At the same time, it has not been demonstrated that the personal income tax burden would have any influence on the volume of the import. **The hypothesis is partly proven**.

In the period of 2002-2011., I viewed the data set under examination as a temporal process. I realised that the GDP-proportionate personal income tax revenue was not significant with the import variable. On the other hand, the domestic demand was in a significant relationship with the personal income tax revenue from 2002 to 2008. In my analysis, I revealed that the personal income tax rate was in a significant relationship with the import variable only in two years (2003-2004.), but the personal income tax rate influenced the domestic demand again in the period of 2002-2008. According to the parameters, that in the years from 2002 to 2009, the 1% personal income tax rate change led to 0,4% loss in the domestic demand and 0,2-0,9% loss in the import. I estimated that a 1 % change in the GDP-proportionate personal income tax revenue is accompanied by 0,7-0,8% decrease in the domestic demand.

T4. It has been supported that the change of the personal income tax burden is in connection with the employment rate, but not in a form that was consistent with the expectations. In the EU member states, higher personal income tax rates went hand in hand with a rising employment rate. Therefore, it has been proved that the quality of the personal income tax system cannot significantly influence the employment performance. I also demonstrated that there is only a weak connection between the measure of the personal income tax rates and the employment rate.

I noted that the increase of the personal income tax rates positively impacts the savings willingness. This is in connection with the decline in the domestic demand. **The hypothesis is partly proven.**

I state that the GDP-proportionate personal income tax revenue was in a non-significant relationship with the employment variable only in the period of 2006-2008. On the other hand, it has got no influence on the GDP-proportionate savings from 2009. During my investigation, I came to the conclusion that the measure of the personal income tax rate influenced the employment rate only in 2010-2011, while the GDP-proportionate savings and the personal income tax rate were significant in the period of 2002-2006. I also conclude that a 1% increase in the personal income tax rate leads to a 0,2% increase in the employment performance. Between 2002 and 2007, the change of the personal income tax rate was accompanied by a 0,2% GDP-proportionate savings increase. I declare that a 1% personal income tax revenue surplus led to a 0,4-0,5% GDP-proportionate savings increase and a 0,5% employment rate increase.

T5. The great majority of the countries that apply the flat rate personal income tax reform implements lower revenue centralisation, that is to say, the flat rate tax system does not go hand in hand with lower revenue centralisation. Countries applying the progressive personal income tax system are in a dominant position both in the groups with the lowest and the highest revenue concentration. **The hypothesis is fully proven.**

In the course of the cluster analysis I examined the average amount of the GDP-proportionate government revenue and the personal income tax revenue in the countries belonging to the particular cluster in order to typify the differences between the clusters. On the basis of the

GDP-proportionate government revenues and the GDP-proportionate personal income tax revenues, I set up three clusters.

- Cluster 1: Austria, Belgium, Denmark, Finland, France, Latvia, Hungary, Italy, Sweden.
- Cluster 2: Bulgaria, Cyprus, the Czech Republic, Estonia, Ireland, Poland, Lithuania, Malta, Romania, Spain, Slovakia.
- Cluster 3: the United Kingdom, Greece, the Netherlands, Luxemburg, Germany, Portugal, Slovenia.

I state that the majority of those countries that apply the highest revenue centralisation (cluster 1) and those that apply the lowest (cluster 3) implement a progressive personal income tax system.

When creating the clusters, I ensured that the social welfare model of the study written and last updated in 2004 and published by the EPC is still right, but in the case of some states a reclassification would be necessary. The vast majority of Scandinavian and the continental states belong to cluster 1 and 2, while the liberal-mediterranean countries go to cluster 3 In the first group we can find countries where the proportion of the personal income tax revenues is medium-sized, of which two EU member states apply the flat rate personal income tax system. In the second cluster there are six member states. In the third cluster there is no country with flat rate personal income tax system.

T6. The results of the questionnaire proved that the proportion of the supporters of progressive personal income tax system is increasing when advancing towards the lower income categories; but they give the majority of the highest income categories too. In the case of countries implementing the progressive personal income tax system the public opinion favours this system, but on the other side, mainly because of political pressure, the negative features are emphasised.

The tax allowances applied through the personal income tax system and the higher income as a consequence of the flat rate personal income tax system does not influence directly the willingness to have children. The family support elements of the tax system would be effective if the present, favourable conditions were permanent. For this to happen, the stability of the tax system is necessary. **The hypothesis is fully proven**.

Respondents with lower incomes, who are not impacted by the surplus burden of the progressive system, will favour it in the greatest proportion. The results clearly show that the lower income the respondent has, the greater chance they will support the progressive tax system, meaning that they promote the idea that those with better financial conditions should contribute more significantly to the public burdens.

The planned large family characterises the medium-income group, followed by the lowincome and after it the high-income groups.

This supports the assumption that the higher income as a consequence of the flat rate personal income tax system does not influence directly the willingness to have children. In the same way, the family tax allowances applied through the tax system do not augment the population.

4. Conclusions, proposals

On the basis of the research on the data on the EU member states, I propose the following solutions for the Hungarian personal income tax system.

The experiences on the flat rate personal income tax system are quite incomplete, concerning its macro-economic impacts, its ability to decrease the black economy and to improve tax compliance. In the countries implementing the flat rate personal income tax system earlier the positive effects came to light after a few years. In some cases the incline in the government revenues was influenced by several additional factors, therefore we should remain reticent about the conclusions, with the need of a later supervision.

In the present economic situation the maintenance of the flat rate personal income tax system is reasonable, but I do not suggest the further decrease of its measure, because the deficit can be compensated by occurrent, additional taxes. This policy does not lead to the simplification of the tax system.

In my opinion, the solution could be a moderate progressive system. In the case of the progressive system I would recommend a 0% tax rate below a certain annual income level, independent on allowances and exemption. The first rate on the scale of 1 and 5 million Forints annually would be 15%, this means a 1% decrease compared to the present flat rate system, above 5 million Forints the moderate progressive tax rate would be 22%. Comparing the two systems, there would be suffering taxpayers in both cases, thinking that the whole system is unfair. The flat rate system is unfair for the super-rich. With respect to IMF viewpoints, the multiple-rate tax system is more economically and socially acceptable and useful than the flat rate one.

If the flat rate personal income tax system is maintained, I support the possibility of tax credit to help the low-income employees (underclass, minimum wage).

I would take the elements of social policy out of the tax system. The aim is to incorporate the family tax allowances into the family support system.

The growing number of taxes impedes the transparency of the tax system, their liquidation or contraction would be worth considering in the case of rising personal income tax rate. However, such tax measures may trigger social protest, eg. the substitution of some social contributions with taxes or the transformation of certain enterprise taxes to taxes for private individuals. In my opinion, the value of these small taxes is determined by their goals, namely those small taxes that had been implemented to comfort certain social strata and have some short-term, fiscal aim (e.g. public health product tax) should be removed from the tax system. Opposing my recommendations, it is socially accepted that the present tax system tends to

decrease the tax burdens of private individuals.

The survey of the incomes in a moderate progressive tax system could be a further field of investigation. It would also be worth to view which income group contributes to the increased tax burdens and to what extent. Income groups are the underclass, the group between the minimal and the average wage and the group beyond the average wage. Depending on the public sense of justice and the considerable loadability of the taxpayers, there could be leaps belonging to the particular income levels.

Concerning the further transformation of the tax system, I agree with the government efforts that turnover taxes should be more emphasised rather than income taxes.

The introduction of a property tax would be desirable, including not only the real estate tax. There have been unavailing efforts to tax properties (luxury tax or real estate tax). It was not the assessability of the property tax, but its way of implementation which has been questioned by the Constitutional Court. A socially accepted property tax would be developed from an extensive survey, based on impact studies.

The property tax should include jewellery of great value, registered works of art, stocks and exotic animals. The revisers would need a direct access to the database of the Ministry of Culture and National Heritage. It ought to be compulsory for auction houses and galleries to report the purchase of works of art of great value. When setting up the list of the taxable properties, it would be useful to examine the wealth composition analysis of the super-rich, but this requires an extensive preparation and may meet serious social resistance; moreover it may be accompanied by an annual property reporting obligation. Its revision may be carried out by an external valuer.

The further reformation of the tax system should include the revision of the real estate tax. The aim is to engage people owning a greater value of real estates more significantly into the public burden sharing. When the possible new tax reforms depend on a certain threshold, an enhanced inclination to evade taxes should be taken into account because some taxable persons have to pay because of a small property surplus.

The reformation of the tax system can only be successful if the expectations and desires of all economic operators are taken into account; a tax system is really successful only if it develops economic performance, decreases the administrative burden and tax evasion, and at the same time it suits to the social justice criteria determined by the government.

5. Summary

The actuality of the topic is apparent on two main grounds. Firstly, taxing - which is considered an important element of competitiveness these days - is necessary to be labelled as one of the key factors of competitiveness. The governmental sector makes serious efforts to analyse what kind of taxing measurements should be taken to reach the desired goals. Secondly, the audit of the income tax system in the context of family planning is a hot issue in today's Hungarian socio-economic settings.

The research part of the dissertation consists of two main sections: a theoretical overview and a detailed analysis of the results of the primary and secondary researches. In the theoretical summary, I construed the history of taxation, the tax rights in the European Union and present taxation trends, particularly regarding the tools applied in the field of personal income taxation in the different member states. In the preparatory phase of the analysis, it was necessary to overview the laws building up the basis of comparison and their overall effects in order to evaluate the data and the tendencies objectively. Supported by several domestic and international literatures, I classified Hungary in the international tax competition. I outlined the main elements and the negative side of the domestic personal income tax system introduced in 2011.

In my treatise, I ascertained that tax politics is formed with respect to economic and social policy. Taxing forms the basis of public expenses and the redistribution of incomes.

Hungarian taxing system is complicated and changes often which makes law-abiding behaviour much more difficult. Inter-year changes make the system less computable and this may weaken taxing morals. Certain rules introduced in different times serve only the actual aims of financial politics, weakening the unity, cohesion and recognition of the law. The domestic disallowance rate in comparison with the total costs of the salaries has constantly been growing since 2009.

The average of the personal income tax rates of the 28 member states of the European Union is 38,7%. I state that the Hungarian personal income tax rate is much lower than the average of the European Union. In the European Union, seven member states applied a flat rate personal income taxation system in 2013: Estonia, Lithuania, Latvia, Romania, Bulgaria, the Czech Republic and Hungary. During the detailed analysis of the member states I experienced that the personal income taxation regulations, the tax exemptions and allowances are based on the financial advancement of the particular member state.

In my dissertation, I examined the reception of the flat rate taxing system in the Eastern-European states. I had not intended to present all the real or presumed effects of the flat rate taxing system in these states, but my aim was to emphasise some factors of the changes happening in particular macro-economic procedures.

I ascertained that in countries adopting the flat rate taxing system the rate of personal income taxes before the adoption does not exceed that rate after the adoption. This means that countries applying flat rate taxing system do not have particularly high rate of personal income taxation.

The growth of the personal income tax rates in the member states reduces the domestic demand, but at the same time it increases the GDP-proportionate value of the savings. As the result of the net income reduction, individuals primarily reduce their consumption, but they increase the level of their savings. In the member states of the European Union the average rate of personal income tax revenue within the incomes of the public finances are not influenced by the method applied in the particular member state.

During my questionnaire survey, I experienced that the amount of the net income does not have a determining role in family planning.

List of the author's publications in the subject of the dissertation

2014

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The effect of the flat rate personal income tax system on the economic phenomena in Central and Eastern Europe KHEOPS Automobile-Research Istitution Publication in progress

<u>Pataki, László&Pétervári,Zsófia</u> The influence of the personal income tax burden on the domestic demand and the savings Volume of studies Treasury Club Treasury Conference Hazard and Stability Publication in progress

<u>Pétervári, Zsófia</u> Questionnaire survey on the experiences concerning the flat rate personal income tax system in Hungary Online scientific journal E-conom Publication in progress

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