Convergence of Tax Burden, Tax Revenues and Implicit Tax Rates in the European Union Member States[1]

*Monika BUŠOVSKÁ**

Abstract

Formation of a single market is one of the main priorities during the integration process of the European Union. For this purpose it was planned to unify tax rules throughout the entire Community. The main question of this paper is whether the European Union has been meeting the objective of single market. It focuses on a question whether the tax systems are converging in the context of tax burden, tax mixes and implicit tax rates. Beta and Sigma convergences are used for meeting the goal of the paper. The results suggest evidence of a convergence in the field of tax burden and implicit tax rates during the analyzed period. The results also highlight the fact of a possible influence of EU integration as well as of globalization and tax competition issues.

Keywords: *tax burden, tax mix, implicit tax rates, convergece, Beta convergence, Sigma convergence, the European Union.*

JEL Clasification: E60

1. Introduction

Currently, the European Union is a unique community that combines both economic and political partnerships. The first step in European integration consisted in strengthening economic cooperation between The EU Members States whose goal was to establish a single market. That means free movement of goods, persons, services, and capital (EC, 2010) and a common currency, the euro (see Helísek, 2013 for a detailed discussion on that issue). The process of integration is divided into four phases, while the last of them is a full economic and

* Monika BUŠOVSKÁ, University of Economics Prague, Faculty of Finance and Accounting, Department of Public Finance, Winston Churchill Square 4, 130 67 Prague 3, Czech Republic; e-mail: xbusm04@vse.cz

[1] This paper was published in relation with Project IGA F1/2/2013, The Project of Department of Public Finance, Faculty of Finance and Accounting with the number IGA F1/2/2013 named *The public finance in developed countries.*

political integration (Adámková, 2003) which took place, for instance, in Germany during the nineties.

If a country wants to join the European Union, first, it needs to go through accession negotiations. Basically, it is an agreement on how and when the candidate country adopts and implements rules and procedures of the contemporary members of the Community. However, the negotiations also include financial matters (e.g. contribution of the new member into the EU budget) or possible transitional measures and exceptions.

As a result, the original purely economic-oriented cooperation gave birth to a community that is now cooperating in a number of areas. Among others, these include the tax policy that – through harmonization – can contribute to the creation of a single market by eliminating distortions that arise by transitions between individual Member.

The homogeneity in terms of the tax burden of individual Member States may be questionable (Emerson, Gros and Italianer, 1992). Due to the existence of differences in economic structures and political preferences, together with national fiscal autonomies, European tax systems are far from being uniform. But the European Union has been trying to converge tax systems, which should result lead to removal of all obstacles to the creation of the single market. This objective should result in a single tax system that would be applied by the entire Community and that should provide equal benefits for all of its members.

Tax-coordination, as a tool for avoiding the emergence of very diverse politics, and tax-harmonization, as a tool for approximation of tax rates, have been subject of much debate since the beginning of the European integration. The issues of coordination, approximation, and harmonization of tax systems in the EU are discussed, for instance, in Kubátová (2010), Láchová (2007), who make readers familiar with various directives and regulations that affect the tax systems of the Member States.

However, tax convergence has supporters as well as opponents. Cultural dissimilarities and freedom of adopting tax legislation, which are based on different structures, are the main arguments to reject the convergence of taxes. Another negative aspect is a loss of tax competitiveness of individual Member States (Mach, 2004).

Reuven (2010) believes that convergence is a positive phenomenon because it reduces the scope of “unfair” tax arbitrage for the price of higher transaction costs. All Member States would be able to benefit from the single tax system and no distortions would emerge.

The Beta-convergence is used to verify the objective of this paper (Barro and Sala-i-Martin, 1992). It is usually used for analysis of gross domestic products (Baumol, 1986; or Boyle and McCarthy, 1999). Estevestudy the tax burden with

the six main subdivisions of the OECD tax classification for 1967 – 1994 by using unit roottests with a change (Esteve, Sosvilla-Rivero, and Tamarit, 2000). Delgado deals with the total tax burden in 1965 – 2004 taking several benchmarks and their results suggest a reduced number of convergence paths (Delgado, 2006).

This paper aims to verify whether there is a convergence between the tax systems of the Member States in terms of convergence of tax burden, tax mixes and implicit tax rates of the Member States and whether the EU meets its main objective.

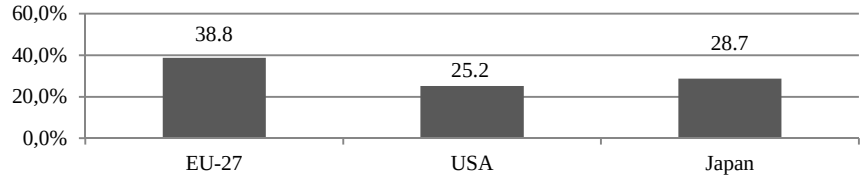
2. Methodology

The aim of this paper is to analyse whether there is convergence in the area of tax burden and tax mixes in the EU countries. A tax burden is understood as the overall tax burden, which is determined as a proportion of the total tax revenue (social contribution included) to GDP.

In other words, it is a macroeconomic indicator which reflects the overall level of tax burden. The tax mix refers to the structure of the tax burden, or, alternatively, what is the share of individual taxes in the total tax revenue. This indicator may be used, for instance, in examining whether a country tends to prefer direct or indirect taxes.

G r a p h 1

Tax Burden (incl. SSC) in the EU, US and Japan in 2011 (%)



Source: Commission Services and Eurostat (ESA95) (gov_a_tax_ag) for the EU, OECD (SNA 2008) for the US and Japan and own processing.

T a b l e 1

Example of the Tax Mix of the Czech Republic in 2011 (%)

Structure of tax mix in the Czech Republic			
Taxes on income (TOI)	20.34	Tax on wages (TOW)	1.75
Social security contribution (SSC)	44.06	Tax on goods and services (TOG)	33.84
Other taxes (OT)	0.01	Tax on property (TOP)	<0.00

Notes: The paper uses abbreviations for the individual groups of taxes: TB denotes tax burden; TOI stands for taxes on income and gains (number 1 000 in the classification of OECD); SSC for social security contribution (2 000); TOW for taxes on payroll and workforces (3 000); TOP for taxes on property (4 000); TOG for taxes on goods and services (5 000); OT for other taxes (6 000). The term *European Union* includes 27 Member States. Croatia was not included in the sample due to missing data.

Source: OECD (2012); own processing.

We analysed whether there was convergence of tax burden and tax mixes between 1965 and 2011 in EU Member States and also for periods when individual states became EU Members (e.g. for the Czech Republic, between 2004 and 2011, etc.) .

The methods used were the causal analysis and synthesis of the information obtained, as well as induction and deduction, the application of which results from the need to create an objective and systematic quantitative description of the issue. Other methods for meeting the objective are specified below.

2.1. Arithmetic Mean

The mean was used to determine average values for the whole EU. In the first case, the European states were included since 1965. In the second case, the calculations included data on the countries since the year they officially accessed the EU.

2.2. Beta Convergence

This method was used also in Barro and Sala-i-Martin (1992), Esteve, Sosvilla-Rivero, and Tamarit (2000), Furcedi (2005) or Slavík (2007). The Beta convergence considers growth of variables in dependence on the initial values (the so-called *Barro regression*). The concept of convergence focuses on the fact that countries with initial values which are more different from the European average approach it faster than countries with values closer to the average. In this case, the paper deals with the approximation of tax mixes (the tax burden) and implicit tax rates of individual countries to the European average values. This approach allows for estimation of the annual growth rate or rate of β-convergence.

$$\ln\left(\frac{y_t}{y_0}\right) = \alpha + \beta \ln(y_0) + \varepsilon \qquad (2)$$

where

t – the last year of the analysis (2011),
0 – the initial year of the analysis (1965 or the year of a country's accession to the EU),
y – represents the value of tax mixes in different time periods or the tax burden,
α – a level constant,
β – the regression coefficient whose significant negative value indicates the β-convergence (in other words, approximation of observed variables),
ε – a random component.

In other words, the regression coefficient β determines what part of the difference – to the average of the EU – the countries managed to eliminate during the

given period „on average“. Thus, the greater the coefficient β in absolute value, the faster the convergence/divergence. The paper utilizes the classic method of least squares.

The equation (2) expresses the growth rate of the tax mix/tax burden (left side of the equation), which depends on its initial level (y_0), or more precisely on its difference from the average level in the EU. Twenty observations were used for both variants, and the missing values were abstracted.

Furthermore, it should be emphasized that the Beta convergence is a condition for the Sigma convergence, where the Sigma convergence uses absolute values. However, this relationship does not have to work conversely (Slavík, 2007).

2.3. Sigma Convergence

The time evolution of convergence or divergence of tax mixes can be determined by measuring the distance. The Sigma convergence is based on the development of variance in time. This variance can be analysed using various indicators; here, it is the standard deviation.

In statistics and probability theory, the standard deviation (often denoted by the Greek letter sigma σ) is a measure of the deviations from the average (mean) value. A low standard deviation indicates that the data points tend to be very close to the mean (also called expected value); a high standard deviation indicates that the data points are spread over a large range of values. The standard deviation is the most widely used measure of variability. Therefore, the lower the standard deviation, the higher the convergence will be.

$$\left| \sigma = \sqrt{\frac{1}{n}\sum_{i=1}^{n}(a_n^i - E(a)^2)} \right| \tag{3}$$

where

σ – the standard deviation,
a_i – the amount of the tax mix of i-th year and n-th state,
$E(a)$ – the arithmetic mean of the EU.

The Sigma convergence is constructed in order to obtain additional information about the development of the Beta convergence, which is not able to provide this information. In this case, the Sigma convergence includes countries at the moment of their accession to the EU. This means that before the accession, their existence was taken into account, even for determination of the average value for the whole EU area. The smaller the standard deviation, the higher the convergence (and vice versa). Thus, if the standard deviation curve decreases, there is convergence during the given period.

3. Data

The source of the data is secondary information provided by the OECD (2012) and European Commission (EC, 2007; 2012). Tax mixes are divided in classes according to the OECD classification, and the missing data was left out for the purposes of the following analysis.

3.1. Results

Beta Convergence

The analysis of the tax mixes and tax burden demonstrated convergence of the given variables for both examined periods. The summary of the results is provided in the tables below.

T a b l e 2

Beta Convergence of Tax Mixes in the EU Area in 1965 – 2011

	TB	**TOI**	**SSC**	**TOW**	**TOP**	**TOG**	**OT**
β	–0.879	–0.537	–0.262	–0.529	–0.394	–0.905	–0.619
t	–7.563	–3.622	–1.956	–1.911	–3.151	–4.675	–2.610
P-value	$<10^{-4}$	0.002	0.065	0.098	0.005	0.00016	0.026
R^2	0.751	0.422	0.168	0.342	0.343	0.535	0.405

Source: OECD (2012); own processing.

In the first case, we observed the convergence in the European area without the effect of EU membership. The initial year of the analysis was 1965 and the final year was 2011. Missing data were excluded from the analysis.

The table above shows that all the analysed dependences are significant; the significance level is always less than 10%, in some cases even less than 1%. The Beta coefficient is negative in all the examined groups. This indicates convergence over the whole period between 1965 and 2011 both in tax burden and groups of individual tax revenues.

The fastest is the convergence of indirect taxes (TOG), which are, in terms of harmonization, of the greatest interest in the EU. The coefficient of determination (R^2), in this case, also shows a high value (0.535), indicating that the initial value of the tax mix is able to explain the 53.5% variance of the growth rate between the countries. Another high values were revealed in the coefficient of determination of tax burden (TB), which stands at 75.1%. The convergence rate, in this case, is also high, which indicates overall convergence of tax systems.

At the lowest level of mutual convergence stand the tax mixes of social security contributions and income from property taxes. In these areas, convergence is poor, as well as the coefficient of determination. It is not surprising, since these areas are not subject to any harmonization rules (EC, 2004).

Despite the fact that some taxes were not harmonized at all and others were harmonized only during a part of the analysed period, the convergence of tax mixes and tax burden was verified in the European area. The aim of convergence of tax systems was fulfilled no matter whether the states were members of EU or not. Therefore, the authors assume that the convergence of tax mixes and tax burden was influenced by globalization and tax competition (Kubátová, Vančurová and Foltysová, 2008, or Becker and Elsayyad, 2012).

T a b l e 3

Beta Convergence of Tax Mixes in the EU for Member States

	TB	**TOI**	**SSC**	**TOW**	**TOP**	**TOG**	**OT**
β	–0.424	–0.232	–0.221	–1.550	–0.220	–0.482	–0.026
t	–3.134	–1.841	–5.191	–0.938	–1.778	–2.989	0.242
P-value	0.005	0.081	0.00005	**0.417**	0.091	0.008	**0.813**
R^2	0.341	0.151	0.586	0.227	0.143	0.32	0.005

Source: OECD (2012); own processing.

Table 3 illustrates the convergence in situations where the initial value was the variable of the year in which the county officially joined the Community. Even here, there is apparent convergence of tax mixes, however, individual dependences are lower than in the previous case (about half). One reason for this change – leaving out the impact of globalization – may be the absence of the tax policy changes necessary for the accession to the Community; which were not included in the analysis simply because the initial value taken into account was as late as the year of the country joining the EU.

Of note, however, are the results of social security contributions, where the convergence rate remained the same, but at the same time the coefficient of determination increased. The initial value of this part of the budget revenue can explain the 58.6% variance of the growth rate between the countries compared to the original 16.8%.

Another exception is the insignificant dependence in tax revenues from salaries and wages (TOW), as well as in tax revenues from other taxes (OT); therefore, it is not possible to confirm that there is any Beta convergence there. Even the coefficients of determination R^2, in this case, amount to smaller values than in the previous case.

Implicit tax rates provide a measure of the effective average tax burden on different types of economic income or activities. The implicit tax rate on consumption is defined as all consumption taxes divided by the final consumption expenditure of private households on the economic territory. The implicit tax rate on employed labor is defined as the sum of all direct and indirect taxes and employees' and employers' social contributions levied on employed labor income

divided by the total compensation of employees working in the economic territory. The implicit tax rate is calculated as total capital taxes denominated by total profit and property income from corporations and households (EC, 2013).

T a b l e 4

Beta Convergence of Implicit Tax Rates in the EU for Member States

	Consumption	Labour	Capital
B	–0.341	–0.340	–1.151
T	–2.874	–4.238	–1.638
P-value	$8.57*10^{-3}$	0.0003	**0.132**
R^2	0.264	0.439	0.212

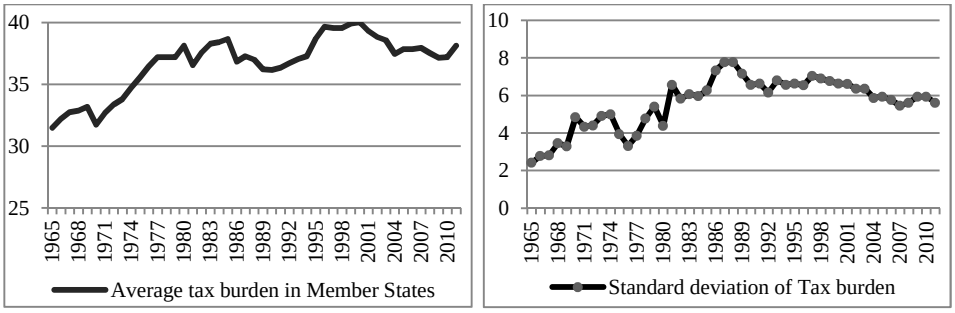
Source: EC (2007; 2012); own processing.

Sigma Convergence

As mentioned above, the Sigma convergence completes the picture of the Beta convergence and illustrates its course. The graphs below provide information on the development of the Sigma convergence in the analysed periods. Large values of the standard deviation indicate a larger level of divergence and vice versa. An increasing tendency of the curve indicates a divergence, while a decreasing tendency reflects the convergence of tax burden, tax mixes and implicit tax rates. In this part of the analysis, we included European countries once they officially became Members of the Community.[2]

G r a p h 2

Sigma Convergence of Fiscal Pressure in the EU During 1965 – 2011 (%)



Source: OECD (2012); own processing.

Since the mid-1980s, the European area has been a "high tax" zone. As can be seen from Graph 2, the increase in the overall tax levels of tax burden took place in two successive waves. The increase of total revenue as a share of GDP was driven, with a lagged effect, by the rapid growth of government expenditures

[2] No significant deviation from the results of non-members.

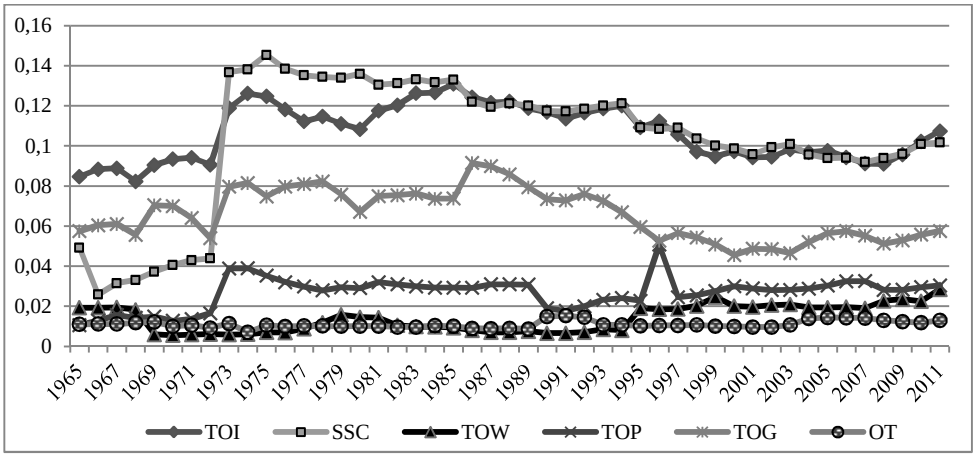
that began in the 1960s and continued until the mid-1990s. While differing in size and composition across countries, the general growth of expenditures was mainly the result of increased social transfers in the 70s and 80s, which were triggered by political measures taken a decade earlier, as well as by the need to confront a sharp economic slowdown and an increasing level of unemployment that followed the first and second oil price shocks.

Graph 2 presents the change in the growing trend of the standard deviation in 1987, from which point there is convergence of the overall tax burden in the EU. It is caused, inter alia, by tax competition (Edwards and Keen, 1996) that was began by Ronald Regan in the USA (CNN MONEY, 2010) and by Margaret Thatcher in the United Kingdom (BBC, 2013).

Should any specific historical events occur, the tax burden increases in the whole Community, however, a divergence of individual states' tax systems may occur as well.

G r a p h 3

Sigma Convergence of Tax Mixes in the EU During 1965 – 2011 (%)



Source: OECD (2012); own processing.

The graph above shows the development of standard deviations between 1965 and 2011. Until 1975, there is noticeable divergence in the tax mixes of social security contributions (SSC), however after this year, convergence starts to occur until the end of the analysed period. This is shown also by the result of the Beta convergence.

The tax mix of income taxes indicates the same course, but as late as from 1985 (TOI). An interesting development can be seen in the standard deviation of the tax mix of salaries and wages (TOW), which shows an entirely opposite course. The reason for this development will be the subject of further research.

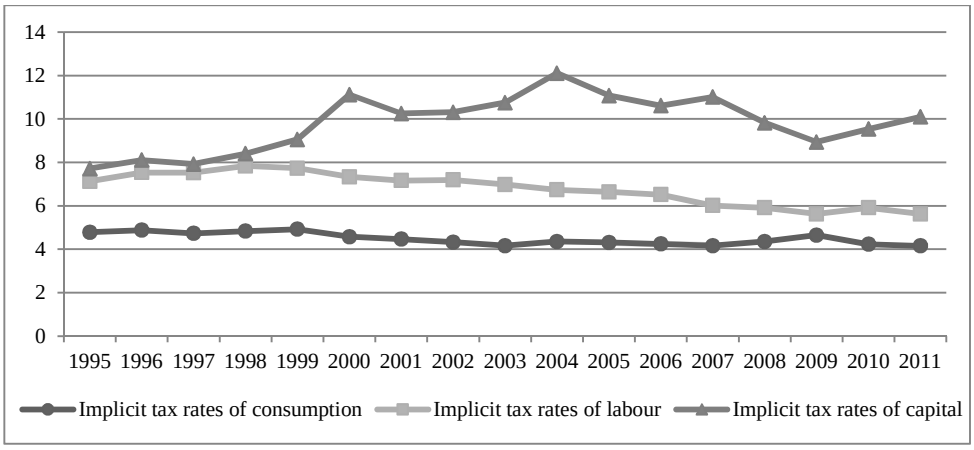
As for the tax mixes of indirect taxes (TOG), there is the same development of convergence/divergence as in the case of direct taxes. Until 1985, there was divergence, which then turns into convergence. The reason for turnover in indirect tax mixes may be the mandatory introduction of value added tax in the EU Member States, which took place in the 1980s.

According to the Sigma convergence, the tax mixes of property taxes (TOP) and other taxes (OT) do not meet the convergence objective, however, in this case, it is not possible to claim that there is divergence as the Sigma convergence is not a condition for confirmation of the Beta convergence, which was not refuted in these taxes in the period 1965 – 2011 (Slavík, 2007).

Similarly interesting is always the end of the analysed period, when Europe was struck by the global economic crisis; between 2007 a 2009, the development of the Sigma convergence shows divergence of tax mixes, thus of the tax burden.

G r a p h 4

Sigma Convergence of Implicit Tax Rates in the EU During 1965 – 2011 (%)



Source: OECD (2012); own processing.

The Sigma convergence of implicit tax rates (effective average tax rates) confirms the results of Beta convergence analysis.[3] The standard deviations of implicit tax rates of labor and consumption have been decreasing during the whole analyzed period, which suggests an empirical evidence of convergence of these implicit tax rates. In the context of tax mixes, tax revenues from indirect taxes imposed on labor (personal income tax, social contributions etc.) represent the major share of the tax mixes in the EU countries (EC, 2013).

[3] See Table 4 Beta convergence of implicit tax rates in the EU.

Conclusion

The results presented use the traditional neo-classical methods for finding out convergence of tax systems of European countries. The paper deals with the question of whether the European Union fulfils the objective of a single market also in the field of tax policy. In that area based on all assumptions, there should be convergence of tax systems of the Member States, with aim to eliminate distortions arising from the transition between individual Member States.

To meet the objective, we used the methods of the Beta and Sigma convergence. Convergence was investigated separately first, for the group of all the contemporary EU Member States, regardless of whether they had been EU Members or not. This confirmed the fact that there is convergence even if a country is only located in the given area and is not an official member of the EU. The second methodology took into account only the states when they were official members of the Community.

The Beta convergence between 1965 and 2011 of the group of all the current Member States confirmed the existence of convergence of tax mixes (graded according to the OECD classification) and tax burden. Their convergence occurred even at a time when the contemporary Member States had still not been official members of the Community. The reasons may be, in particular, globalization and the on-going trend of convergence, as described in Kubátová, Vančurová, Foltysová (2008) or Becker and Elsayyad (2012), but also the convergence effort by the countries seeking to join the EU.

The second methodology of the Beta convergence took into account only the Member States since the moment they became official members of the Community (thus, it considered only the EU). In this case, the convergence of tax mixes was confirmed, but at a lower rate than with the previous methodology. It was confirmed for income taxes, indirect taxes, and property taxes. It is interesting that the revenues from social security contributions did not show that significant decrease in the second methodology; in fact, the coefficient of determination increased nearly to 60%. The tax mixes of salaries and wages, as well as other taxes, showed no significant dependence, and the Beta convergence, in this case, cannot be confirmed.

The Beta convergence itself, however, does not give a complete picture of the course of convergence of tax mixes and tax burden. Therefore, we also used the Sigma convergence, which completes the overall picture of convergence of the tax mix and tax burden. In the tax burden, in this case (using the Sigma convergence), convergence was confirmed since 1985, as well as in the tax mix of income taxes and indirect taxes.

Using the Sigma convergence, tax revenues from social security contributions converged since 1975. However, according to the Sigma convergence, tax revenues from wages, other taxes, and property taxes in this period diverge. This, however, does not mean that there was no convergence, as the Sigma convergence is not a condition to confirm the Beta convergence (Slavík, 2007). Therefore, the convergence demonstrated throughout the analysed period using the Beta convergence could not be completely disproved.

The results presented use the traditional neo-classical methods for finding out convergence of tax systems of European countries. The paper deals with the question of whether the European Union fulfils the objective of a single market also in the field of tax policy. In that area based on all assumptions, there should be convergence of tax systems of the Member States, with aim to eliminate distortions arising from the transition between individual Member States.

To meet the objective, we employed the Beta and Sigma convergence methods. Beta convergence was examined separately. Firstly, we included the group of contemporary EU Member States, regardless of whether they were members or not. The second approach analyzed states only since they became official members of the Community. We found empirical evidence on the effect of EU membership on the convergence.

Beta convergence confirmed the convergence in tax burden and tax mixes in both cases[4] during the period 1965 – 2011.

The main reasons for this finding were the globalization (Kubátová, Vančurová and Foltysová, 2008; Becker and Elsayyad, 2012), tax competition (Edwards and Keen, 1996), but also the convergence efforts of acceding countries during the accession negotiations.

The Beta convergence itself, however, does not give a complete picture of the course of convergence of tax mixes and tax burden. Therefore, Sigma convergence was used as well. It completes the overall picture of convergence of the tax mix and tax burden. In the tax burden, in this case (using the Sigma convergence), convergence was confirmed since 1985, as well as in the tax mix of income taxes and indirect taxes. It could be due to an increasing world tax competition (Edwards and Keen, 1996). However, according to the Sigma convergence, tax revenues from wages, other taxes, and property taxes in this period diverge. This, however, does not mean that there was no convergence, as the Sigma convergence is not a condition to confirm the Beta convergence (Slavík, 2007). Therefore, the convergence demonstrated throughout the analyzed period using the Beta convergence could not be completely disproved.

[4] The convergence of tax mixes in the Member States only was verified as well but it was slower than in the first case – social contributions excluded.

However, since the convergence of the tax burden does not imply the convergence of the overall taxation, we also performed an analysis of implicit tax rates on consumption, labor and capital using the Beta and Sigma convergence methods.

The result of the analysis is the statement that the tax burden in the European Union has been converging throughout the entire analyzed period of 1965 – 2011. The evidence of a convergence of tax burden, tax mixes and effective tax rates of consumption and labor can be seen as a proof of that hypothesis. EU Member States were successful in performing the task of unification and creation of a single market without distortions, from which all Members would benefit. However, it should be noted that there is no academic consensus over the question whether the convergence of tax systems is the right way, considering the aspects of different economic structures and political preferences together with national fiscal autonomies of Member States, as well as their different needs and objectives (Emerson, Gros and Italianer, 1992).

References

ADÁMKOVÁ, V. (2003): Ekonomická a politická integrace Evropy: vybrané kapitoly. Praha: Oeconomica.

BARRO, R. J. – SALA-I-MARTIN, X.(1992): Convergence. Journal of Political Economy, *100*, No. 2, pp. 223 – 251.

BAUMOL, W. (1986): Productivity Growth, Convergence and Welfare: What the Long-run Data Show. American Economic Review, *76*, No. 5, pp. 1075 – 1085.

BBC (2013): More Information about: Margaret Thatcher. Available from: <http://www.bbc.co.uk/history/people/margaret_thatcher>.

BECKER, J. – ELSAYYAD, M. (2012): The Evolution and Convergence of OECD Tax Systems. Vereinfür Socialpolitik, *13*, No. 1 – 2, pp. 4 – 18. Available from: <intereconomics.eu/downloads/getfile.php?id=676>.

BOYLE, G. E. – McCARTHY, T. G. (1999): A Simple Measure of Beta Convergence. Oxford Bulletin of Economics and Statistics, *59*, No. 2, pp. 257 – 264.

CNN MONEY (2010): Taxes: What People Forget about Reagan. Available from: <http://money.cnn.com/2010/09/08/news/economy/reagan_years_taxes/>.

DELGADO, F. J. (2006): Are the Tax Mix and the Fiscal Pressure Converging in the European Union? [Working Papers, No. 11-06.] Oviedo: Instituto de Estudios Fiscales.

EC (2007; 2012; 2013): Taxation Trends. [Online.] Available from: <http://ec.europa. eu/taxation _customs/taxation/gen_info/economic_analysis/tax_structures/article_5171_en.htm>.

EDWARDS, J. – KEEN, M. (1996): Tax Competition and Leviathan. European Economic Review, *40*, No. 1, pp. 113 – 134.

EMERSON, M. – GROS, D. – ITALIANER, A. (1992): One Market, One Money. An Evaluation of the Potential Benefits and Costs of Forming an Economic and Monetary Union. New York: Oxford University Press.

ESTEVE, V. – SOSVILLA-RIVERO, S. – TAMARIT, C. (2000): Convergence in Fiskal Pressure across EU Countries. Applied Economics Letters, *7*, No. 2, pp. 117 – 123.

FURCEDI, D. (2005): β and σ-convergence: A Mathematical Relation of Causality. Economics Letters, *89*, No. 2, pp. 212 – 215.

HELÍSEK, M. (2013): How Far Along is Euro Adoption in the Czech Republic? Benefits for Businesses Still Remain. Central European Business Review, *2*, No. 1, pp. 21 – 27.

KUBÁTOVÁ, K. – VANČUROVÁ, A. – FOLTYSOVÁ, M. (2008): Impact of Globalization on Taxation Mixes in OECD Countries During 1965 – 2003. Prague Economic Papers, *17*, No. 1, pp. 40 – 53.

KUBÁTOVÁ, K. (2010): Daňová teorie a politika. 5. aktualiz. vyd. Praha: Wolters Kluwer Česká republika.

LÁCHOVÁ, L. (2007): Daňové systémy v globálním světě. 1. vyd. Praha: ASPI.

MACH, P. (2004.): Daňová konkurence musí být zachována. [Online.] Available from: <http://www.petrmach.cz/node/52>.

OECD (2012): Tax Revenue Statistics 2012. [Online.] [Cit. 2012-12-08.] Available from: <http://www.oecd.org/tax/taxpolicyanalysis/oecdtaxdatabase.htm#ssc>.

REUVEN, S. (2010): Tax Convergence and Globalization. Michigan Law, University of Michigan Law School, No. 214, Available from: <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1636299 >.

SLAVÍK, C. (2007); Reálná konvergence České republiky k Evropské unii v porovnání s ostatními novými členskými zeměmi. Politická ekonomie, *55*, No. 1, pp. 23 – 40. Available from: <http://www.vse.cz/polek/abstrakt.php3?IDcl=588>.