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Faculty of Business and Economics

Company dividend policy in context of international tax planning

Diploma Thesis

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Abstract

Bělochová, T. Company dividend policy in context of international tax planning. Diploma Thesis. Brno 2015.

The aim of the Diploma Thesis is to suggest a dividend policy to a company using tools of international tax planning for profit distribution which will lead to a minimal taxation.

This thesis is built on results from Cluster and Comparative analysis which are performed and commented in the Practical Part. In the chapter Discussion can be found suggestions and proposals which supposed to minimize the taxation of a distributed profit in form of dividend. Twenty-eight states of the European Union served as a field of study.

Keywords

International tax planning, corporate profit, dividends, dividends policy, international taxes, international tax harmonization, Cluster analysis, comparative analysis.

Abstrakt

Bělochová, T. Dividendová politika společnosti v kontextu mezinádorního daňového plánování. Diplomová práce. Brno 2015.

Cílem této diplomové práce je návrh dividendové politiky firem, využívající mezinárodní daňové plánování, při distribuci firemniho zisku, která povede k minimálnímu daňovému zatížení.

Základ diplomové práce tvoří shluková a komparativní analýza, ktero jsou představeny a okomentovány v praktické části. V kapitole s názvem Diskuse jsou pak dale navrženy postupy pro minimalizování daňové zátěže dividend. Jako zkoumané území posloužilo dvacet osm států Evropské Unie.

Klíčová slova

Mezinárodní daňové plánování, profit společnosti, dividendy, dividendová politika, mezinárodní daňová harmonizace, Shluková analýza, komparativní analýza.

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1 Introduction

"Nothing is certain except for death and taxes." Benjamin Franklin

"I only believe in statistics that I doctored myself." Winston S. Churchill

The international tax planning is a highly discusse topic of today's global business world environment. Unfortunately it has developed into rather negative reactions from general public and mass media.

Current situation on the European market is quite difficult from the perspective of two fundamental parties – international business companies vs. national governments.

Firstly, international business companies are trying to reach their essential purpose and maximize profit, by using of an aggressive taxation planning tools in order minimize their tax burden. According to OECD 60% of world business is captured between parent and subsidiary companies.

Secondly, in opposite to international companies, national governments are trying to maximize their revenues from corporate income taxes. Which create a tension and harmful a tax competition among states.

From the macroeconomic point of view, in the past decade steps towards tax harmonization in the European Union were greatly supported. Over time it become evident that this harmonization process, which was supervising and suggesting creation of common legislative rules, lead to tax competition and fight of a national government to get sufficient amount of financial resources from tax collection in order to cover their government expenditures.

The tax competition developed very sophisticated model of the tax planning system, which became soon very popular. The system is helping to international companies effectively shift taxable profits into the states with beneficial tax regimes or other business benefits. The problem of significant capital outflow is widely criticized from a general public and state authorities.

It is important to mention that international tax planning is not an illegal action. Companies operating on international market are exposed to very competitive environment and they have to fight for every customer. Provided quality of product or service is no longer most important criterion in today's post-crisis development. Customers are much more price-sensitive. Therefore companies, in order to offer competitive prices of a products/services are trying to operate efficiently cost-wise and decrease unnecessary taxation expenses.

In this diploma thesis, international tax planning is put in context of dividend policies, which in fact suggesting international company structure with the aim of optimizing the taxa burden.

2 Objectives

The main objective of this diploma thesis is to suggest the dividend policy to the company using tools of international tax planning of profit distribution which will lead to the minimal taxation. Partial aim of the diploma work is to conduct the Cluster analysis in order to select proper data set which will be further used for comparative analysis of the dividend taxation systems in the EU member states. The Author will describe in details this phenomenon and provide a summary of operations closely connected with international taxation of dividends. The twenty-eight states of the European Union will serve as the field of study. Furthermore, the other internal and external factors influencing dividend payments will be reviewed as well.

Partial aim of this work is to obtain results from performed statistical methods, Cluster analysis and comparative analysis, in order to analyze aspects of dividend taxation amongst the EU member states, which will lead to the minimal taxation of distributed profit. Based on the results from the cluster and comparative analysis, the state with the most favorable, profitable and moderate conditions, will be selected and company dividend policy suggested.

The theoretical part will provide with a detailed overview of the literature regarding aforementioned topic. Further in the work, the avoidance of dividends double taxation according to the international double taxation treaties and tax codes will be explained.

In the practical part will analyse aspects of dividend taxation among the EU member states, which will lead to the minimal taxation of distributed profit. Cluster analysis and comparative analysis will be preformed. Finding from those statistical methods will be applied on a model situation, which will lead to suggestion of a dividend policy.

In conclusion the suggested dividend policy in context of international tax planning will be discussed.

All external materials used for the purpose of this thesis are attached to Appendix. Others literature sources, used mainly in the first part of Literature research, are organized in the alphabetical order in the List of References.

3 Methodology

There were multiple scientific methods used in order to systematically and objectively analyse the topic and receive valuable, meaningful, scientific results while reaching the fundamental objective of the thesis.

In the practical part, data collection, Cluster analysis, synthesis, comparison and modelling methods were used.

At the beginning of this scientific process data was collected form relevant sources. Essential terms and concepts concerning collected data were explained by the descriptive method. By using synthesis it has been verified that all aspects of the Theoretical part are discussed comprehensively and set up in a logical order.

The Cluster Analysis is a dominant, main analysis used in such a way that it will reach the pre-set aim of this work. This analysis will provide enough measurable information, which will be further subjected to a comparative analysis in order to obtain the desired outcome. This outcome, cluster of states with similar characteristics, will serve as a base for modelling of a practical case study.

In a practical example (case study) a constructed model will be a further examined from the perspective of the usage methods of international tax planning and bilateral agreements between the Czech Republic and selected countries for the purpose of a tax optimization (the best cost-wise solution) and the most favourable environment for capital investment into corporate dividends or domiciliation of a company.

3.1 Cluster Analysis

Cluster analysis is a major technique for classifying a significant volume of information into more desirable and meaningful groups. It is a data reduction tool that creates subgroups that are more manageable than endless number of individual data. Like factor analysis, it examines the full complement of inter-relationships between variables. In cluster analysis there is no prior knowledge about which elements belong to which clusters. The grouping or clusters are defined through an analysis of the data. (Řezanková, 2009)

Classification is a common concept in various fields of science. We can define classification in general, as the grouping of objects based on their similarities. As Kendall said, one of the basic problems of science in reducing the world to order is to classify. In statistics however, groups in a set of data can be of interest in two different situations. In one, there is prior information that can be used to obtain further information on the group structure. That is how classification is defined in statistics. The other situation, where there is no prior information on the grouping of the data, in other words clustering methods. (Everitt, 2011)

3.1.1 **Purpose**

Clustering occurs in almost every aspect of daily life. Supermarkets display items of similar nature, such as types of meat or vegetables in the same or nearby locations. I it frequently used in science (chemistry, biology, etc.), medical science, in the Information Technologies sector, etc.

Cluster analysis is generally used as a data analysing tool for organizing of observed data (e.g. people, things, events, brands, companies) into meaningful taxonomies, groups, or clusters, which maximizes the similarity of cases within each cluster while maximizing the dissimilarity between groups that are initially unknown. By this technique, Cluster analysis creates new groupings without any pre-set notion of what clusters may arise. Due to this fact, Cluster analysis provides no explanation as to why such a clusters become to exist nor is any interpretation made, therefore further mathematical/statistical methods must be apply in order to explain or further examine developed clusters. Each group/cluster thus describes, in terms of the data collected, the class to which its members belong. Items in each cluster are similar in some ways to each other and dissimilar to those in other clusters. (Řezanková, 2009)

3.1.2 **Theory and Techniques of the Cluster Analysis**

Cluster analysis is generally performed on a set of **n** objects {O_1, O_2, ..., O_n}, each is described by **r** number of parameters {P_1, P_2, ..., P_r}, which are consider as a meaningful data set that can be further observed. Correct selection of the appropriate data set of observed parameters is always necessary and leads to a desired outcome. Therefore it is very important to pay attention while parameters are being selected. Lets assume that on the object $Oi, i = 1, 2, \ldots, n$ was measured **r** variables. Thus the vector was obtained $Xi = (xi1, Xi2, \ldots, xir)$. And the result of this observation is a matrix **X** of type **n x r**:

$$X = \begin{pmatrix} x11 & x12 & x1r \\ x21 & x22 & x2r \\ xn1 & xn2 & xnr \end{pmatrix}$$

Where $\mathbf{X_{ik}}$ denotes the **k**-th parameters for the **i**-th object. This matrix is called the **data matrix**. Individual measurements, the vectors X_i form rows of the matrix. The columns of the data matrix **X** indicates a value of **k**-th parameter in a set of objects, $k = 1, 2, \ldots, r$. If only the quantitative measures were observed and so the vectors Xi are numeric vectors. Each of these vectors can therefore be displayed in the r-dimensional Euclidean space as a point $\mathbf{E_r}$. We are now moving to investigation of a point sets and their decomposition in $\mathbf{E_r}$. The task is split these observed groups into a disjunctive groups $\mathbf{S_1}$, $\mathbf{S_2}$, ..., Sm $(m \leq n)$, called clusters. (Everitt, 2011)

3.1.3   Objects and their characteristics

We often faced the task, to sort objects into groups according a predetermined criterion. Before we start with the clustering process, it is necessary to measure objects, to specify all of their important properties, and characterized all similarities and differences. Based on received data, we can proceed with the clustering analysis itself. (Everitt, 2011)

The object is described by using a finite number of characteristics - characters. However, there exist objects that are described by finite number of characters, but they cannot be clearly described. For such a cases, it is necessary to carefully choose a finite number of characters that describe well the type of observed object. The expert of this field, in which the object appears, most often chooses these characters. (Řezanková, 2009)

Parameters of objects can be distinguish into three groups:
- Quantitative Characters
- Qualitative Characters
- Binary Characters

Quantitative Characters
If the value of character expresses a volume or quantity, such a data are belonging to the finite group.

In order to eliminate dependence on each measurement, data have to be standardized. For each column, k = 1, 2, .., r determine the average value of the k-th character

$$x_k = \frac{1}{n} \sum_{i=1}^{n} x_{ik}$$

and standard deviation of the k-th character.

$$s_k = \left[\frac{1}{n} \sum_{i=1}^{n} (x_{ik} - \bar{x}_k)^2 \right]^{\frac{1}{2}}$$

Then the values x_{ik} converted in the standardized values.

$$x_{ik} = \frac{x_{ik} - \overline{x_k}}{s_k}$$

Qualitative Characters
Qualitative characters are describing characteristics of statistical units by words or definitions (eg, nationality, occupation, etc.). (Everitt, 2011)

Characters can be divided into two groups:
- Nominal – only agreement or disagreement can be measured
- Ordinal – we can set an order of variables

Binary Characters
Lets assume that character value x_{ij} is selected from two-element set, usually denoted 0 and 1: $x_{i,k} \in \{0,1\}$, where 0 means that an object does not have a desired property, and the element 1 means that desired property is present. (Everitt, 2011)

3.1.4   **Distance Measures of (Dis)Similarity**

Since clustering is gathering of similar objects together, some sort of measure that can determine whether two objects are similar or dissimilar is required. We recognised two main type of techniques used to estimate this relation: distance measures and similarity measures. (Everitt, 2011)

Many clustering methods use distance measures to determine the similarity or dissimilarity between any pair of objects. It is useful to denote the distance between two instances xi and x_j as: $d(xi, xj)$. A valid distance measure should be symmetric and obtains its minimum value (usually zero) in case of identical vectors. (Everitt, 2011)

Measuring the distance of Quantitative Characters
When we measure (dis)similarity between objects with **Quantitative characters**, then talking about the distances. To use a hierarchical clustering procedure, we need to express these distances mathematically. Moreover, if the Triangle inequality $d(x_i, x_k) \le d(x_i, x_j) + d(x_j, x_k)$; $x_i, x_j, x_k \in S$ is satisfied then the distance is called metric. The most commonly used type when it comes to analyzing ratio or interval-scaled data is the Euclidean distance (or straight-line distance). (Everitt, 2011)

$$d(x_i, x_j) = \sqrt{\sum_{k=1}^{p} (x_{ik} - x_{jk})^2}$$

Measuring of distance of Qualitative characters
When we measure (dis)similarity between object with **Qualitative characters**, that we have to distinguish nominal or ordinal data sets. (Everitt, 2011)

Characters are divided into:

- Nominal characters
- Ordinal characters
- Binary characters

Nominal characters

As it has been mentioned in the text above for nominal data we can only measure agreement or disagreement of observed values. For this purpose two main approaches can be used:

I. The Simple Matching Coefficient:

$$d\left(x_i, x_j\right) = \frac{p - m}{p}$$

Where p is the total number of attributes and m is the number of matches. However it is necessary to be aware that the coefficients measure the similarity of objects. Since clustering algorithms usually work only with the dissimilarity, this value must be firstly transformed into a form suitable for a dissimilarity measuring.

II. Creating a binary attribute for each state of each nominal attribute and computing their dissimilarity as described above. (Everitt, 2011)

Ordinal characters

When the attributes are **ordinal**, the sequence of the values is meaningful. In such cases, the attributes can be treated as numeric ones after mapping their range onto [0,1]. Such mapping may be carried out as follows:

$$z_{i,n} = \frac{r_{i,n} - 1}{M_n - 1}$$

where $z_{i,n}$ is the standardized value of attribute a_n of object i. $r_{i,n}$ is that value before standardization, and M_n is the upper limit of domain of attribute an (assuming the lower limit is 1). (Everitt, 2011)

Binary characters

In the case of binary attributes, the distance between objects may be calculated based on a contingency table. A binary attribute is symmetric if both of its states are equally valuable. In that case, using the simple matching coefficient can assess dissimilarity between two objects:

$$d\left(x_i, x_j\right) = \frac{r + s}{q + r + s + t}$$

Where q is the number of attributes that equal 1 for both objects; t is the number of attributes that equal o for both objects; and s and r are the number of attributes that are unequal for both objects. (Everitt, 2011)

A binary attribute is asymmetric, if its states are not equally important (usually the positive outcome is considered more important). In this case, the de-nominator ignores the unimportant negative matches (t). This is called the Jaccard coefficient:

$$d\left(x_i, x_j\right) = \frac{r + s}{q + r + s}$$

3.2   Clustering methods

In this section we describe the clustering algorithms. The reason for having multiple types of clustering methods is the fact that the notion of "cluster" is not precisely defined. Consequently many clustering methods have been developed, each of which uses a different induction principle.
Suggested categorizing of the methods into additional three main categories: *density-based methods*, *model-based clustering* and *grid-based methods*. An alternative categorization based on the induction principle of the various clustering methods is presented in. (Everitt, 2011)

Two main methods of clustering can be distinguish:
- Non-Hierarchical – not relevant for the purpose of this Thesis
- Hierarchical – method suitable for the purpose of this Thesis

3.2.1   **Hierarchical Methods**

With a focus on a concept of this work other methods of Cluster Analysis are not relevant. Therefore we will now look closer hierarchical methods used in the practical part.
        These methods construct the clusters by recursively partitioning the instances in either a top-down or bottom-up fashion. (Řezanková, 2009)

There are two methods but for the purpose of this analysis author will used Agglomerative hierarchical clustering method.
- *Agglomerative hierarchical clustering* — Each object initially represents a cluster of its own. Then clusters are successively merged until the desired cluster structure is obtained.

- *Divisive hierarchical clustering* — All objects initially belong to one cluster. Then the cluster is divided into sub-clusters, which are successively divided into their own sub-clusters. This process continues until the desired cluster structure is obtained.

Outcome form Cluster analysis – clusters – can be created in numerous ways. Mathematic-statistical method named Hierarchical clustering is the most straightforward type of analysis. Such an analysis is a statistical method used for finding rather homogeneous clusters of cases based on measured characteristics. It starts in each case as a separate cluster, i.e. there are as many clusters as cases, and then combines the clusters sequentially, and reducing the number of clusters at each step until one and only cluster is leftover. The clustering method uses the dissimilarities or distances between objects when forming the clusters. (Řezanková, 2009)

The first step of this method focuses on the calculation of the basic distances matrix between objects. For agglomerative clustering two objects whose distance is the smallest, connects to the first cluster, and calculate the new distance matrix, in which the objects are dropped from the first cluster, and vice versa. The whole procedure is repeated until all objects form one major cluster or until the pre-specified number of clusters is reached. (Řezanková, 2009)

The inverse method of agglomerative clustering is the division method. It is based on a set of objects in one a single cluster and by gradual separation it produces a system of clusters, which finishes with the large number of individual, separated objects. (Řezanková, 2009)

The system of clusters is generally display in a form of hierarchical tree diagram, called a Dendogram, can be produced to show the linkage points. The clusters are linked at increasing levels of dissimilarity. The actual measure of dissimilarity depends on the measure used.

The advantage of hierarchical methods is that we do not need information about the optimal number of clusters in the clustering process. This number is determined as an afterthought. (Řezanková, 2009)

3.2.2   **Illustration of findings**

The result of the hierarchical methods is a Dendogram, representing the nested grouping of objects and similarity levels at which groupings change. A clustering of the data objects is obtained by cutting the Dendogram at the desired similarity level. (Martinez, 2011)

Graphical example:
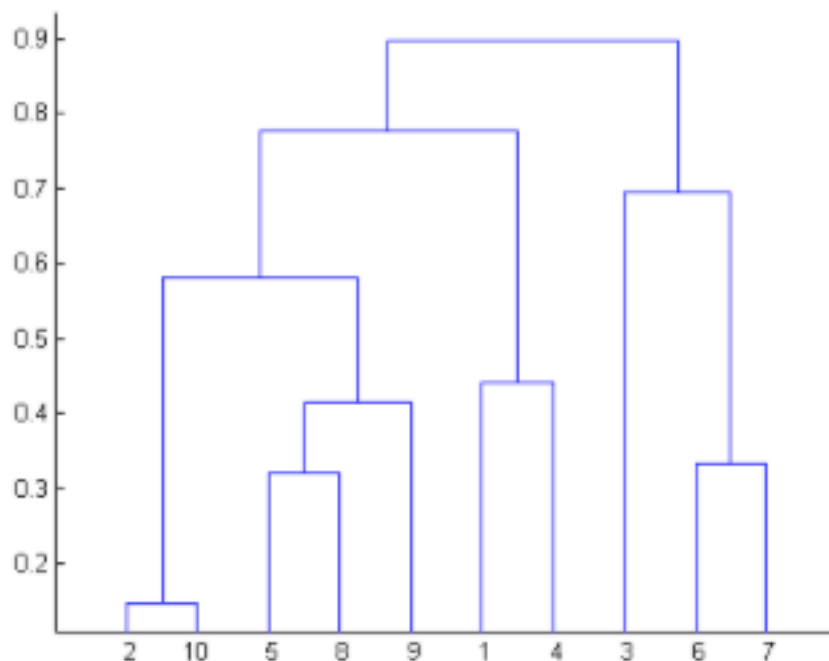
Fig.1:   Example of Dendogram

Source: Martinez, 2010

3.2.3   **Introduction of the BEST object**

At the beginning in the chapter Methodology was explained that Cluster analysis is a technique for classifying a higher volume of information into more desirable and meaningful groups. It is a data reduction tool that creates subgroups, which are more manageable than endless number of individual data. Such an analysis creates new groupings without any pre-set notion of what clusters may arise.

Due to this fact, Cluster analysis provides no explanation as to why such a clusters become to exist neither gives any interpretation, therefore further mathematical/statistical methods must be apply in order to explain or further examine developed clusters. For the purpose of this work, where an order of object the most important outcome, the object (state) BEST is introduced. BEST represent optimal attributes above all data sets. The object has been added into the analysis in order to obtain the possibility of comparing desired attributes with real attributes of other objects. In another words, BEST setting up a perfect, optimal, ideal or desirable example of a country for capital investment, therefore comparative analysis with results of other states can be elaborate.

4 Literature Review

The introductory chapter (Literature Review) is devoted to topics that are considered to be the basis for further understanding of the Practical Part. Literature review will start with defining terms such as Business Legal Forms, Corporate Profit, Dividends, where the type and basic operations with dividends will be presented. Further in this work, topics closely related to areas, which are typical for dividends, such as dividend taxation, dividend policies and tax planning will be discussed.

The fundamental purpose of well working business entity is a profit generation. Generation of profit is a key motivation for entrepreneur to run the business, produce goods and services, and sell them to customers. Amount of profit that company is able to generate represents key indicator for investors spending. Owning the business (machinery and other equipment) is not sufficient in order to create a business value. The psychical knowhow and physical interaction on the market (selling and buying), is essential for demonstration of real business activities. At the end of this process, earnings express the measure of a business performance after all expenses and other deductions are made.

Dividends, as a part of the profit distribution tool, are burdened by the economic double taxation. However Tax Theory introduce several ways how can be solved this problem. In a recent public discussion, it was found that the European Union taxpayers are frequently caught into a trap of dividend double taxation. Such a situation is considered to be an obstacle for the positive development and increasing integration of the European Common Market.

Current situation on the European market is quite difficult from the perspective of two sides – *international companies vs. national governments*.

One side represents cross-border business companies (MNEs - Multinational enterprises), which are trying to reach their goal of profit maximization, through usage of an aggressive taxation planning tool in order optimize their tax burden. On the other side stay national governments, which are trying to maximize their tax revenues from this corporate sector.

From the macroeconomic point of view, in the past steps towards harmonization of transaction on the European market were greatly supported. Over time this harmonization process, which was supervising and suggesting common rules of the market, lead to tax competition and fight of a national government to get sufficient amount of financial resources from tax collection in order to cover their government expenditures.

This negative phenomenon, the tax competition, developed very sophisticated model of the tax planning system, which became soon very popular. This system, created across various jurisdictions, is helping to international companies effectively shift taxable profits into the states with beneficial tax regimes or

other business benefits. The problem of significant capital outflow was one of the reasons of the financial crisis started in the year 2008.

Above mentioned two "fighting" groups are coordinated by international organization (OECD, UN, European Commission, European Court of Justice, etc.) that are supervising and proposing solution of action taken on each side.

4.1 Corporate Profit

4.1.1   What is Corporate Profit?

Corporate profit is the net income earned by a business during a specific time of the economic year. Calculating and presenting this type of measure is essential not only for individual businesses, but also for economists who focusing on the economic growth of a nation's economy. Looking closely at the amount of profit generated by a given company is fundamental for investors, since the increase of profits from one economic cycle to another is one indicator that the business is likely to see while they completing a decision making process of their investment. (Clayman, 2011)

Signs of a profit growth can be presented by increased of company's spending, growth of retained earnings or increased dividends payments. Investor can use corporate profit in a comparative analysis. When firm's profits are increasing and the overall corporate profit is decreasing, situation can be considered as a favourable. However, if profit of individual company is decreasing while corporate profits are increasing, possibility unfavourable behaviour is more likely to exist. (Clayman, 2011)

4.1.2   Measures and Calculation of Corporate Profit

Profit Measures

In the professional journalistic articles we can often come across with the economic term and indicator **EBITDA**. The abbreviation stands for "Earnings Before Interest, Taxes, Depreciation and Amortization". EBITDA is an indicator that shows the operating performance of the company.

Gross profit can be also represent by **EBIT** (earnings before interest and taxes), **EAT** (earnings after tax, Net profit), **EBDIT** (earnings before depreciation, interest and taxes) and EBT (earnings before taxes).

From the accounting point of view the term profit can be explain as difference between the costs and benefits of the company and represents the company's profit or loss for previous period. Profit is the most important indicator of the cost of profitability, production profitability, return on equity, the firm's profitability. (Clayman, 2011)

Calculation of profit

Profit is simply calculated as the difference between total revenue and total cost:

$$TP = TR - TC$$

Total revenue (TR) is calculated as sum of cost (price) of production and its volume, which depends on the amount of work:

$$TR = Px * Y(L)$$

Earnings are financial resources the company has gains from its economic activity over specific period of time, in both forms paid as well as unpaid. The main source of revenue is traditionally represented by the sale of products, services, rental of buildings, land, etc. Financial resources or any kind of expenses used in the revenue-generating process constitute costs for the company. Forms of costs can be operating expenses, depreciation, other operating expenses, financial expenses and unexpected costs. The total cost is obtained from the formula:

$$TC = PL * L + PK$$

PL stands for price of labour, PK is referred to cost of capital, L is the amount of labour force and K the amount of capital. The total profit is therefore equal to:

$$TP = Px * Y(L) - (PL * L + Pk * K)$$

Costs, Pk and K are constants. Therefore they are called *fixed costs* – costs independent on the change of production volume (change of output). Costs Pl and L are variables. Pl and L depend on volume of production, and so they are called *variable costs*. I order to see the profit results hold for at least two accounting periods must be compared in balance sheet and profit and loss statements. (Clayman, 2011)

4.1.3 **The Profit Distribution**

Whenever company is generating positive figures, is profitable. This corporate income is subjected from further distribution. Excess revenue received by corporations over their production costs, is typically distributed in three ways:

- Corporate income tax (40-50% of total corporate profit)
- Corporate profits retained – reinvestment (30-35% of total corporate profit)
- Pay out dividends to shareholders (around 30% of total profit)

(Clayman, 2011)

4.2 Dividends

According to the OECD, Financial Terms dividends are explained as a *"..form of property income received by owners of as to which they become entitled as a result of placing funds at the disposal of corporations. Raising equity capital through the issue of shares is an alternative way of raising funds to borrowing."* (OECD, 2003)

Other explanation theory says that dividends represent a form of company's profit distributions to the shareholders, which is a taxable income for them. Companies base dividend distributions on accumulated profits (such as retained earnings) or on some different equity such as share premium. The board of directors, which is the highest intra-company organ constituted by all shareholders, meets regularly at least once per year and decides about the redistribution of a company's earning. The specific date of the meeting is stipulated by law, however the latest date is six months after the last taxable period. After they authorise extraordinary year-end closing, they also introduce the amount of a profit, which will be divided among investors. They can be hand out in cash, in a form of stock or property. Unfortunately dividends payments depends on many factors and there is no specific guarantee that boar of directors decide to pay out profit shares. The business has to generate desired level of retain earnings (earning that company retains for use in the business) and dispose of adequate amount of cash. (OECD, 2003)

The most *"unrelated" investors* (not participating on the day-to-day business operations) will most likely prefer to receive cash dividends, than other forms. However, for example stock dividends can be quite profitable in the long run. This would be around the time investors finally get around to selling the shares they receive as stock dividends. (OECD, 2003)

Dividends are not an expense for the business. They are a balance sheet transaction only, used for reduction of both cash (in case of cash dividends) and retained earnings. (OECD, 2003)

Dividends can be express in two ways. Firstly, they can be introduce as a percentage of the part or stated value of the shares, the secondly as a currency unit (Euro) amount per share. The financial media generally present cash dividends as a Euro amount per share. For example, in the year 2011 Hershey Food Crop's (USA) was $1.95, Marks and Spencer plc. (UK) was £22.5 and BASF's (GER) dividend rate 1.95 euro per share. Thus shareholders of record receive payment in the form of cash or electronic transfer based on how many shares of stock they own. (iShares, 2013)

For example in the company ABC plc., investor owns 2,000 shares of common stock. ABC has accomplished both necessary conditions a surplus of cash and positive retained earnings, and so the board of directors decides to hand out a cash dividend of $10 per share. The dividend payment, which this investor receives, will be $20,000 (2,000 shares x $10). (iShares, 2013)

4.2.1   **Common Types of Dividends**

- Cash dividends
- Property dividends
- Liquidity dividends
- Stock dividends

Dividends in general, except for share dividends, reduce the total level of equity in the corporation. When company decides to declare a share dividend, it will not pay out assets or incur a liability. It will just issue additional shares to every shareholder.

The natural assumption of investor who receives a dividend is that the corporation has been profitable. And therefore as a result they are receiving a share its profit. However company can also decide to disclose a liquidity dividend – a dividend not based on retained earnings – to the investors so that they will not misunderstand its source. (Weygandt, 2011)

Cash Dividends
Cash dividends type predominating in the corporate world. They represent a proportional distribution of cash to shareholders. Upon the resolution of the board of directors, the cash dividends are declares. However before corporation pays out dividends, it first needs to consolidate all shareholders and prepare complete list shareholders. This action very often creates a time lag between declaration and the real payment. (Weygandt, 2011)

Cash dividends requires fulfilling conditions:
- **Retained Earnings**
  The law of a country where the corporation is situated stipulates the legality of a cash dividend. In all jurisdictions payment of cash dividend, from retained earnings, is legal. However distribution of dividends from only the balance in Share Capital – Ordinary (legal capital) is generally prohibited.
  A dividend that represent of share capital or share premium is called liquidating dividend, such a dividend reduces or liquidates the amount, which supposed to be paid to shareholder. (Weygandt, 2011)

- **Adequate Cash**
  The legality of a dividend and the ability of a company to pay a dividend are two separate conditions, independent on each other. The task for board of director is to investigate carefully demands for corporate dividends, current as well as the future one, before they decide about issuing cash dividends. The key role-plays the amount of company cash resources.
  There are cases where current liabilities can make cash dividends in adequate. And in other situation, a large plant expansion plan may warrant only a relatively low dividend amount.

Such an example can be introduce a NIKE (USA) case, where in the year 2011 retained earning balance was approximately $5 billion. Nike could legally declare a dividend of this amount, however their cash balance was only over $2 billons. (Weygandt, 2011)

- **Declaration of Dividends**
  A corporation does not pay dividends until the board of directors decided to do so. That company has decided to declare the dividend. The highest intra-company organ has also undoubted power to determine the amount of income used to be distributed in a form of a cash dividend and the portion of profit which will be re-invested back to the company as a retain investment. A declared cash dividends are liabilities. And because payment is required almost immediately, they become current liabilities. (Weygandt, 2011)

Few important notes, firstly, dividends do not accrue like interest on a note payable and they are not liabilities until they are declared.

Secondly, the correct timing and adequate amount of a dividend are key issues for the company. The liquidity problems can occurs when the dividend payments are too large for the company. Nevertheless if payments are too low or nothing this may cause negative tension and dissatisfaction among shareholders. Generally shareholders provide their money to a company and so they expect to receive a reasonable cash payment back on a periodic basis. In practice most of the companies declare and pay-out cash dividends quarterly. (Weygandt, 2011)

Property Dividends

Dividends payable in assets of the corporation rather than cash are called *property dividends*. Property dividends can b e in form of any kind of asset: inventory, merchandise, real estate, equipment, vehicle, or whatever form board of directors designates. When a company declare property dividend, it has to restate the value of the distributed assets at fair value, reorganizing gains or losses as the difference between property's fair value and the value at the date of declaration. The company should record this type of dividend as a debit to retained earnings and a credit to a property dividends payable. The amount than would be equal to the fair value of the distributed property. (Weygandt, 2011)

Liquidating Dividends

A corporate's liquidity (also called liquidating distribution) and its dividend policy is closely related. The advantage arise when investors understands how liquidity and dividend policy interact within an organization.

Liquidity dividends represent more a return of capital than a distribution of retained earnings. *"The term implies that such dividends are a return of the shareholder's investment rather than of profits. In other words, any dividend not based on earnings reduces amounts paid-in shareholders and to that extent, it is a liquidating dividend."* (Kieso, 2011)

Liquidation dividends can be also when a regular resources pays a dividend based on income before depletion. The amount of a dividend equals to the amount of depletion is called the liquidating dividend. In other words, it is a type of payment made by corporation in its partial or complete liquidation. Most of the time this type of payment to investors is made from the company's capital base and as a return of capital, and normally is not taxable for investors. This is the main difference between liquidating dividends and other types of dividends issued from the company's retained earnings or operating profit. One or more instalments can be done in case of paying out the liquidating dividends. (Kieso, 2011)

Coin has always two sides, despite the fact that liquidation dividends do not have be taxed any more, investors quite often find out that they are not even covering their initial investment payments. (Nikolai, 2010)

Stock Dividends

Another form of dividend is stock dividends. Corporation declares a stock dividend, the proportional distribution of additional shares of profit in a form of company's stock or "bonus" share, which typically involves a transfer for corporate law purposes of retained earnings into stated capital. (Ault, Arnold, 2004)

Stock dividends are proportionally distributed in a form of additional shares of company's stock to the owner of a common stock, rather than as cash. At the time when a company's availability of liquid cash is short or there is a desire to lower the price of the stock on a per-share basic in order to enquire more trading and increase liquidity, companies may decide to dispense stock to shareholders of record. Dividend stocks distributions are generally known in the form of dividend payment per existing share. (Ault, Arnold, 2004)

When dividends paid are paid in a form of cash, such a dividends are subjected from taxes. Although when a company declares a stock dividend, rather than cash, then they have no tax consequences until the shares are sold to other entity. This type of dividend is expressed as a percentage rather than a dollar amount.

As an example, a company declare a stock dividend of 5 per cent, and the shareholder owns 1,500 shares, that investor receives an extra 75 shares of stock (1,500 x .05). (Ault, Arnold, 2004)

Again, same issue, as with other dividend types, dividend stocks become payable only when valid resolution come form the board of directors. Usually they are declared at regular quarterly intervals. As it has been mentioned in the text above, dividends cannot be paid out unless the corporation has presents positive figures (profit or surplus). Even though many companies declare stock dividends quarterly there are some companies, which do not have dividends stocks on their portfolio at all. (Ault, Arnold, 2004)

4.2.2   **Theory of Dividend Policy**

Dividend policy is well-known term form the business-finance theory. It represents a tool of profit distribution, means for rewarding corporate investors for an acceptance of a risk of providing their financial resources to the company.

Dividend policy is also one of the basic financial decisions and can be define as a principle or rule for distribution of income excess of the company that declare dividends. (Clayman, 2011)

Other source describes dividend policy as a compromise between undistributed profit on the one side and cash pay out and issue new shares on the other side. Issuing of the company shares is becoming a financial source for declaring dividends. (Clayman, 2011)

Decision of the amount of pay out dividends is frequently connected with other financial and investment decisions. Some companies pay low dividends because the rather keep financial resource for further business expansion. Whenever company exhausted all possibilities of expansion, the increase of pay out dividends is announced and the price per share decreases. Dividend growth will also affect investors, which might be disappointed from lost opportunities of corporate growth. Other companies can finance their capital expenditures by other liabilities (eg. bank loans) therefore have enough free financial resources to pay out dividends. (Clayman, 2011)

If the company decide to sell all assets and divide them among investors in a form of dividend, there would be nothing to pay with the debt. Therefore dividends are always paid from the profit excess. (Clayman, 2011)

General pay out dividend formula

The percentage of earnings paid to shareholders in dividends.

$$\frac{Yearly\ dividend\ per\ Share}{Earning\ per\ Share}$$

or equivalently

$$\frac{Dividends}{Net\ Income}$$

Modigliani-Miller Theorem
Mr. Modigliani and Mr. Miller stated that the portion of retained earnings between new investment and dividends do not influence the value of the firm. The key measure is the investment pattern and consequently the earnings of the firm, which represents the share price, or the market value of the company.

Therefore, during the process of passing any kind of financial decision, board of directors always have to consider the basic aim of the company to maximize the market value of the company. The structure of this decision making can be draw in following structure:
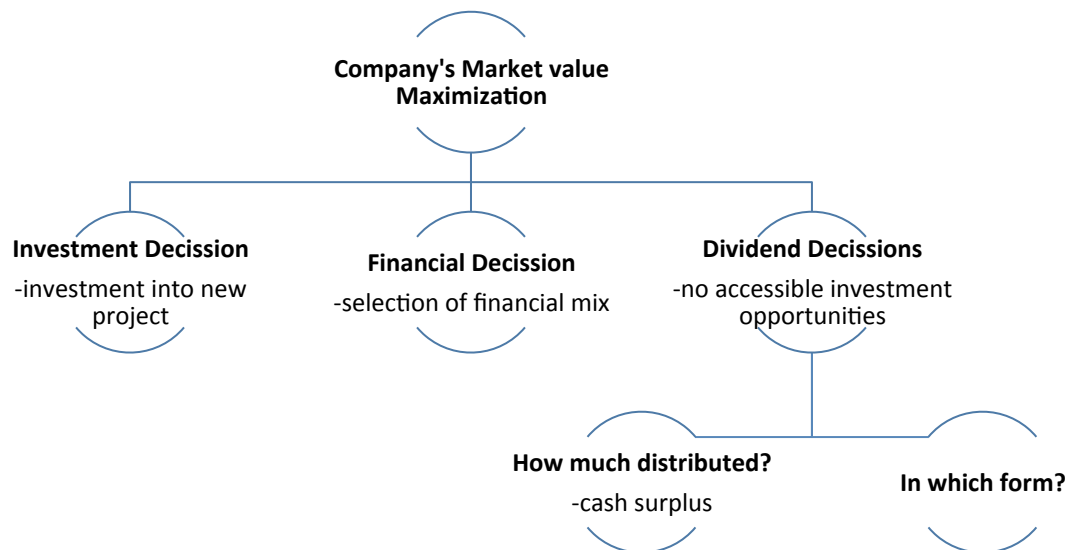
Fig.2:   Structure of Dividend Decision-making, Capital Maximization

Source: Clayman, 2011

4.2.3   Factors Influencing Dividend Policies

Corporations are influenced by large scale of factors while they deciding about the dividend policy to select. Generally factors can be influence either the amount of paid dividends or the type of a dividend. The factors can be summarized in to following (Růžičková, 2012):

> ➢ Legal Factors
>
> ➢ Financial Factors
>
> ➢ Business Internal decisions
>
> ➢ External Factors

Legal Factors
Through the legal (legislative) factor state setting up conditions that company must follow while practising a certain type of dividend policy.

There is no such a business or commercial law, across European member states, which would restrict that dividend declaration, is composure for company. Whether dividends will or not will be payout based on decision of the board of the company. However there are exact rules under which dividends are distributed (paid). (Růžičková, 2012)

- Net Profit Rule
- Insolvency rule
- Capital Impairment

Financial Factors

Financial factors representing financial ceilings. This pre-specified level of financial resources is setting up a portion of dividends that will be paid to investors. The boundaries are set up accordingly, on the assets side represent a portion of available financial resources (cash and cash on bank account) and on the liabilities side are described by capital impairment. (Růžičková, 2012)

However as it has been mentioned several times, the basic rule for the company is to keep certain level of financial resources in order to maintain liquidity (usually using the tool of financial liquidity ratios), therefore the financial resources cannot be used for dividend payments in full. (Růžičková, 2012)

Factor of Internal Business Decisions

Under this factor can be include decision-making process of board of directors, managers plans and investors expectations. The most important role is playing preferences and behaviour of consumers, crucial determinant of the complex market development. (Růžičková, 2012)

Very important is to be aware of the investors' preferences. In companies where shareholders expectations are very high, dividend payments are usually lower, while companies with lower preferences of investors spend more on dividend payments. (Růžičková, 2012)

The dividend dilemma always occurs. Firstly, shareholders and Board of Directors can decide for high dividend payments, however this would cause decrease of immediate financial resources, which can be missing for companies' expansion. Soon or later, company would have to find a source for missing fund and so it will have to issue more shares, current shareholders loss their power, due to the decrease of their lower share portion. (Růžičková, 2012)

Secondly, decision about low dividend payments leads to a sufficient amount of financial resources for a business and no need of issuing new shares. Investors will keep current shares and voting rights. (Růžičková, 2012)

External Factors

The macroeconomic indicators can be included between external factors that influencing the dividend policies. Especially inflation, increase or decrease of GDP, unemployment, etc. All these factors influencing trades and general at-

mosphere on the market, willingness of consumer to spend and so firm to expand, generate higher incomes, thus distribute dividends to investors. Moreover management of the company cannot affect anyhow those circumstances. (Růžičková, 2012)

Inflation caused the increase in the general price level of goods and services without an increase of actual money supply. For this reason companies hold their incomes in order to prevent the negative impacts of inflation effect. (Růžičková, 2012)

How Inflation can influence dividend policy depends also on the type of a dividend policy.

Under the stabile dividend policy and moderate inflation, dividends are growing in the same manner (speed) as inflation. Because the amount of income is changing according to the inflation development but dividend per share remains stabile. (Růžičková, 2012)

On the other side, when firm practising passive (residual) dividend policy, the effect of inflation is irrelevant, in reality it only matters whether the inflation is connected with stagnation or boom of the national economy. In case of recession or stagnation, business society has not many investment opportunities. Therefore more dividend payment will be distributed among shareholders. Opposite reaction will company have during recovery or boom times. Company will hold financial gains because new investment opportunities will arise and lower dividend payments would be paid. (Růžičková, 2012)

Dividend Policy of Sustainability Dividend Growth Path, the speed of growth dividend per share will be the same as the speed of growth of a price level, dividend level remains unchanged. (Růžičková, 2012)

4.3 Dividend Schools

The origins of the dividend theory as a part of a business finance area are going back to the beginning of 50's. And the approach to a solution of a basic question, how the dividend policy influences value of a company, finally profiles following dividend schools. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

4.3.1 Pro-Dividend School

At the beginning of 50's it was generally accepted (by financial manager as well as by shareholders) that investors prefer higher dividend payments above the increase of company market value and strengthening of its position on the market. Thus as an origin of a Pro-Dividend School is widely accepted a theory called *"Bird in the Hand"*. Theory is describing price of stock as very variable and so dividends represent more reliable source of income than capital income. Therefore certainty of higher income effect from dividend than form capital income leads to increase of pro-dividend policy. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

Formers of this theory, Benjamin Graham and David Dodd, in their piece from 1951 came up with the term "generous dividend". They advocate, that dividend payments to shareholders represent better investment rather than businesses using all of their financial gains for reinvestment. They also together criticized the recommendation that certain type of stocks is a good to buy with no focus on the price development. The disagreement came from the fact that the prospect of sustained stock price growth, without a good analysis of the business's actual financial condition. This theory remains relevant even now a day. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

Another important representative of Pro-Dividend School theory is M.J. Gordon. In 1959, he introduced a well-worked concept of an analytical model, which evaluates a risk of stocks connected with dividend policies. In conclusion to this model, higher dividend payments decreasing risk connected with stock investment, therefore in the model dividends can be discounted by the lower expected income ratio than future capital (equity level) would be. There is a price benefit add to every shares with higher dividend profit. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

In the Gordon model, dividends are considered as fundamental, explicit variable used for stock evaluation. If the price of dividend is growing the price of shares is also growing, according to this model. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

Gordon's theory explains finding through the fact that investor does not have to be indifferent on the current (dividend) income and future capital gains. Gordon together with Lintner argues that higher pay out ratio (of dividends) is generating higher market value of stock price pre income. Result, investors are averse towards a risk and they are not indifferent on current dividend income and future capital profit. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

4.3.2   Anti-Dividend School

An article of Miller and Modigliani from 1961 was based on perfect model situation on the market, where is non-existence of taxes, transaction and cost all accessible and relevant information about companies' dividend policies are equally distributed among all investors,. Later on during 1970 taxes and other costs were added. During this period Farrar and Selwyn (or Brennan) announced the recommendation of no-dividend policies within companies and no dividend payments because they are taxed by higher tax rate than capital incomes. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

The main argument of representatives was higher tax rate of dividend in comparison to capital income taxation. Representatives of this school believed that dividend payments has negative impact on a stock price because if the an investor wants to keep the stock, without a high dividend payments, he would have to generate higher gross income in order to ensure the same net income which he would reach by holding stock, that is not used for dividend payments.

In reality according to economists investors showing aversion to dividends. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

4.3.3   Irrelevance Dividend School

School of dividend irrelevance working with the expectation that shareholder or potential investor is irrelevant towards type of dividend policy because he is independent on the income dividend would generate. In other words investor/shareholder does not care if company pay out dividends or if is keeping profit for reinvesting. If company will hold the income for reinvestment, market value of a firm and stock price will increase. Stock price will reach such a level that in case of sale. Investor obtains income equivalent to unpaid dividends. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

The most significant representatives of Irrelevance School are M. H. Miller and F. Modigliani. The most famous argument these two gentlemen came with is that market value of a stock is a function (ceteris paribus) of income generated by company regardless to a future usage of this income. In other words, it is irrelevant/independent whether income will be distributed to shareholders in a form of dividends or used for internal business purposes (company's expansion). As it has been said Miller & Modigliani theorem is based on the existence of perfect capital market that can be characterized by equal distribution of information on the market and no transaction costs, which is impossible to ensure in reality. This model is completely abstracted from any market imperfections. They are expecting absolute certainty in decision-making process of economic subjects and their rational behaviour especially on the financial markets. Such a non-risky environment is causing that profit from all investment is equal to risk free interest rate. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

Described situation on the market allows observing pure preferences of shareholders independently on other factors. Due to the fact that current shareholders or potential investors behave rationally and due to complete information they can choose other investment place, the result is real evaluation of stocks (real market share) directly connected with current business results. Therefore there is no reason for any dividend policy (dividend policies are "irrelevant"), because in reality they do not influence market value of a company. (George Frankfurter, Bob G. Wood, James Wansley, 2003)

4.4   International Taxation

Nowadays, we can clearly see action towards developing of global taxation system form national and international taxation legislation, act, directives and regulations. This action comes from the market globalization, international economic and taxation cooperation among countries. First integration processes took place in USA and Canada, followed by EEC, later EU and in wider range OECD. (Láchová, 2007)

Reasons for development of an international taxation system

- Higher integration of national markets
- Higher number of tax frauds
- Strong tax competition between states
- Desire of a states control capital outflow
- Arising problem with allocation of capital gains thanks to existence of multinational corporation

  (Lachová, 2007)

4.4.1   **Tax Competition**

One of the biggest issues on the field of international taxation and global market economy is tax competition. Tax competition is an aspiration of states to fight for a mobile tax base by increasing attractiveness of a national tax system. States are trying to attract companies by benefits of the local tax systems, lower tax rates, or by any other form of tax-friendly environment. (Láchová, 2007)

Globalization in opening wider range of opportunities for legal entities to allocate their taxable base to a countries with a lower tax rates or hey could even try to avoid taxation completely by moving to tax heavens. Demand for this type of tax optimization and for lowering of a tax burden developing dangerous tax competition among sates. Very strong argument supporting tax competition is the undesirable development of government budgets in spite of increasing trend of tax revenues to GDP ratio. (Láchová, 2007)

Critics consider tax competition as a harmful phenomenon. It is proving the fact that public financial system is failing. We can come across many situations where tax payer taking advantage of paying low taxes in one state but using public services in other state, with high tax burden. The principle of the ability to pay, used commonly for tax collection, stipulate that taxpayer must pay taxes in the country where public services are consumed. (Široký, 2008)

Impacts of negative tax competition

- Inadequate structure of government expenditures
- Investment spurs instead of investment into a public services
- Deformation of capital investments streams
- Major states can irreversibly deform world prices

  (Široký, 2008)

From paragraphs above reader can notice that there is a complicated dispute in between tax harmonization and tax competition. Where on one side stands tax payers with they desire of a lowest taxation possible and on the other, regulatory, side governments with a primary focus on a high tax collections. (Široký, 2008)
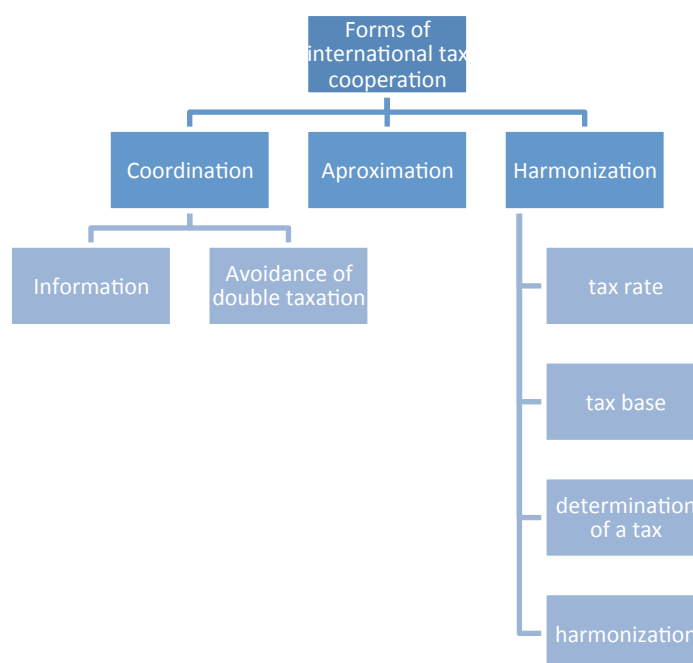
Fig.3:   Forms of International Tax Competition

Source: Široký, 2010

4.4.2   **Tax Coordination**

Tax coordination is a first step towards tax harmonization. It is characteristic by composition of new bilateral and multilateral schemas in order to avoid arbitrary deals. In this process agreements are closed with goal of elimination of a money laundering and other illegal activities associated with tax competition. The main objective is to set up a minimal standard for a transparency and information exchange on this field of international taxation. (Široký, 2010)

OECD Tax Coordination
OECD coordinates fields such as:
- Elimination of negative tax competition
- Formation of *OECD tax classification* (simplification of comparison different tax burden among member states)
- Recommendation of application *tax identification number* (faster and more transparent information transfer)
- Convention of a mutual tax-administrative support (Láchová, 2007)

EU Tax Coordination
In Lisboan Treaty form December 1st 2007 is obvious that tax harmonization plays secondary role and it is not that intensive as the monetary policy of EU. The adoption of a new proposals still have to be approve by 28 states which slowing down the whole process.

- However Lisboan Treaty defines wider frame of taxation field:
- Abolition of the "Pillar" system
- New institutional terminology – European Union, etc.

Act and directives coordinating taxation systems coming form suggestions and proposals, and prompts of national institutions and organizations like IOTA (Intra-European organization of Tax and Administration) focusing on exchange of international tax information and trying to increase efficiency of a tax collection. Institution dealing with customs duties is TAXUD (Directorate General: Taxation and Custome Union). Another organization is Confédération Fiscale Européene - CFE - that gathers tax advisors and auditors unions. (Láchová, 2007)

4.4.3   **Tax Harmonization**

The scientific research has proved that the level of business interactions across foreign countries depends on degree of integration of their legislation that is supervising trading. The critical part of legislation influencing trades is desynchronized tax systems. In order to resolved such a problem there is a high need of political will to integrate and harmonized the European tax systems among the member states. (Nerudová, 2008)

Harmonization of a tax systems is a convergence process where individual taxes and tax systems customized or modified in a manner of common rules. Tax harmonization is essential when speaking about unification of an infernal single market. (Nerudová, 2008)

Nerudová (2008) said, "Tax harmonization represents the process of tax system convergence based on common set of rules."

The long-term target of European Union is to create a single market. Different type of taxes with different rates creates barrier and resulting in poor business trading and economic relations.

Facts leading towards tax harmonization
- Globalization process
- Multinational companies
- State capital outflow

(Láchová, 2007)

By harmonization of tax systems is meant:
- Reconciliation of a national tax systems or taxes itself
- Selection of a type harmonized tax
- Harmonization of a tax base
- Harmonization of a tax rate

- Adjustment of a new member on the taxation system of entering territory (Láchová, 2007)

Positive Harmonization

Convergence of national tax system within EU area via EU directives, acts, etc. It means tangible benefit provided by the Union to citizens in their daily lives. Main goal of the areal harmonization is to set up the same rules among states. Unfortunately this process is very tricky because new system has to be accepted by 100% votes. (Láchová, 2007)

Negative Harmonization

Thanks to the operations of the Court of Justice of the European Union (CJEU) it is impossible to harmonize EU tax systems completely. There are many national tax provisions based on CJEU's jurisdiction. Judgements are only applicable in a specific state and can be used as precedence for a community law.

As an example Case no. C 234/01 Gerritse:

CJEU direct Germany to enable non-residents to assert their costs in case of application withholding tax while they proceeding with income taxation. Germany plays the role of a dominant market of EU with a high percentage of foreign capital investment, therefore it was strongly recommended to equalized condition for residents and non-residents.

Further division of tax harmonization development is can be split to:

- Direct harmonization process

- Indirect harmonization process

The **direct** harmonization process based on adopting directives and regulation, which straightforward affect taxes, and reinforces applying common rules. The regulation via different areas of law, for example corporate law, commercial law, etc., it is called **indirect** harmonization.

As quotes Nerudová (2008),the goal of European union on the field of tax harmonization is not setting up a fixedly unified tax system but to eliminate or remove obstacles and encourage the healthy and effective business environment on the EU market.

Kubátová (2006), mentioned, one of the very important factors, increasing efficiency on the market, is natural competition, through the effective allocation of recourses. One can argue that this is not the case of taxes.

The negative tax competition is an unwanted, harmful phenomenon creating unequal business conditions and therefore may be a cause of asymmetric shocks in the economy. (Kubátová, 2006)

By setting up new taxations rules, in favour of companies operating on the market – for example decreasing the tax base, or tax rates, for the purpose of obtaining better competitiveness of the state causes undesired lost. It explicitly decreases the budget revenues and implicitly slows down the economic growth of neighbour states. (Kubátová, 2006)

Many studies focusing on how tax rates influencing inflow or outflow of capital interments have been done in the past. The European commission presented one in the year 2001, where they proof high sensitivity of investors on tax rate fluctuation. Capital outflow occurs when tax rates were high, when tax rates decrease significant portion of capital inflow was noted. (Kubátová, 2006)

It can be concluded tax harmonization is desired in order to strength the European internal market and encourage the business interactions. Without tax harmonization, the negative tax competition is vey likely to occur. Tax competition is not the type of competition that is influencing the economy in a positive manner. Moreover it can be very harmful and effect significantly corporate investments. (Kubátová, 2006)

4.4.4   **Models of European Corporate Tax Harmonization**

Previously in the text, author mentioned that cross border investment is highly sensitive to any differences in the tax rates. The sensitivity is obvious especially, at the corporate level with high volume of investment placemen, in to a foreign market. Base on the European Commission recommendation, investment decision-making process should be independent on the corporate income tax rate. Therefore Commission prepare several proposals for the harmonization of the corporate income tax.

> #### *Four proposals:*

> ➢ **Home State Taxation** – corporations can choose if they want their profit to be taxed at one place (in the state where the headquarters is registered) or in each state separately

> ➢ **Common Consolidated Corporate Consolidated Tax Base (CCCCTB)** – common rules for setting up a corporate tax base

> ➢ **Compulsory Harmonized Corporate Tax Base** - system of uniform tax base for all companies across European Union

> ➢ **European Union Company Tax** – same system as the CCCCTB but only applicable for big multinational companies

From models above mentioned European Commission (EC) set up a targets with different priorities when they have to be fulfilled. This means that EC is trying to accomplish multiple goals at the same time. (Nerudová, 2008)

Very first harmonization model was *Home State Taxation (HST, 2001).* HST supposed to be designed and preferably used by small and medium size companies. In the year 2007 this project could have been started and least as a medium-term goal for five year, unfortunately difficulties in negotiating between EC and EU states occurs and non of the state has decided to participate on this project. (Nerudová, 2008)

From other sub-targets EC derive a long-term strategy and introduce the *Common Consolidated Corporate Tax Base* for companies across EU. EC expecting CCCCTB will brings benefits like eliminating of transfer prising, decrease of compliance costs of taxation, remove difficulties of acquisitions and merges, and tax fair competition among the states. (Nerudová, 2008)

4.4.5   Common Consolidated Corporate Tax base

Nerudonvá (2008) stated, the expected outcome of this model is defining clear rules for construction of the common consolidated corporate tax base followed preferentially by big multinational corporations but also by SME across Europe. No-a-days SME is the most powerful sector of a European market determines economical growth rate of a country.

Thanks to implementing of this model numerous obstacles should be removed and further market integration enhanced. Common consolidated corporate tax base, except previously discussed, should synchronized tax systems (one common rule, not 27 different), therefore decrease administrative costs for tax authorities as well as for companies. Last but not least it should also work as an insurance mechanism and provide a cross-border compensation of loss. (Nerudová, 2008)

Despite of numerous benefits CCCTB is going to introduce, it is necessary to present disadvantages as well. Crucial part appearing it comes to the economic activity of the business. This business activity must be happening within European frame otherwise company cannot apply/participate on the program of CCCTB. Another issue arising may be limiting and caused the collision, is the parallel existence of two tax systems, CCCTB and national taxation. Company can actually choose which of this system will apply. The negative impact will bring the tax arbitrations, tax evasion and all kinds of other speculations. Solution may be not easy access or exit from each system. (Nerudová, 2008)

Even thought the negatives appearing, EC is still positive and see CCCTB as a step forward towards an increase of competitiveness of the European Union on the global market. (Nerudová, 2008)

Conditions for consolidation

Eligibility to consolidation by a group (within a corporation) based upon a:

- ***Consolidation three-part test***
- ***Group structure eligible to consolidate***

Consolidation three-part test

  I.   Ownership (9 months, 75% shares)

 II.   Control (50% voting rights)

III.   Rights to profit (75% of profit)

Ownership

The thresholds outlined have to meet at least for *nine months*. If not, taxpayer would not be consider as a part of the group. Moreover thresholds need to be participating during the whole economic year. If the company decides to leave the group during this course of the tax year it cannot apply for the CCCTB.

The level of ownership would be set as a threshold of 75 per cent of the capital company. (Europa.eu, 2011)

Control

For the purpose of consolidation CCTB, parent company needs to be considering as a qualifying subsidiary, which means it has to exercise more than 50 per cent of the voting rights in the subsidiary. As soon as this is reached it counts for 100 per cent of the voting rights. If the holding is less than 50 per cent, parent company can exercise zero voting rights. (Europa.eu, 2011)

Rights to Profit

The parent company must be entitled to at least 75 per cent of profit form any subsidiary company for the purpose of consolidation. (Europa.eu, 2011)

Group structure eligible to consolidate

It is important to define the group structure that would be eligible to apply for CCCTB. The tax payer (company of EU member states) consider as a resident being a part of a group with qualified subsidiary companies (in other EU member state) can practice a CCCTB method. It will be applied full consolidation of a every group member regardless to the ownership. (Europa.eu, 2011)

4.4.6   Income From the Foreign Countries

Revenue from foreign countries is commonly understand an income coming from foreign sources, which is taxed abroad, according to an international agreement and it is cleared of related expenses (costs) under Czech law on income taxes. Deductible items and items decreasing tax base by foreign legislation cannot be applied in order to determine tax base. (Nerudová, 2008)

From the perspective of EU legislation, no EU-wide rules can enforce how EU nationals, who live, work or spend time outside their home countries are to be taxed on their income.

The country where this person is a **resident for tax purposes** shall most likely tax the entire worldwide income, earned or unearned at that moment. Which cover wages, pensions, benefits, income from property or from any other sources, or capital gains from sales of property, from all countries worldwide.

Each country has specific definition of tax residence (as it has been discussed):

Very briefly, person is usually being considered **tax-resident in the country where he spends more than 6 months a year.** If a person spends **less than 6 months** a year in another EU country, you will normally remain tax-resident in your home country. (Europa.eu, 2014)

Significant number of an income fro foreign county is represented by cross-border payments dividend payments, arranged via institutional investors (insurance funds companies, pension, mutual, etc.) that manage investments on behalf of the original investors. This also implies that the flow of profit from such institutional investors to the original investors may take many forms such as an annuity at retirement, a dividend payment or other capital gain when selling out shares in a mutual fund. (Europa.eu, 2014)

In the most straightforward version, the original investor invests in a foreign corporation through an institutional investor, who is a resident of the same country as the original investor. In this dividend flow, the most important question goes towards taxation. Taxation in the source county, in this situation, depends on how this country treats the institutional investor. There are cases, where institutional investors are not treated separately for tax purposes (tax transparent), using that source taxation always depends on the characteristics of the original investors. Different situations may occur, when institutional investors are recognized as two different entities and they are taxed as other portfolio shareholders, including the possibility of exemption at source or relief by refund. Important note, taxation of the institutional shareholder takes place in the country of residence. In the next chapter author will present European taxation system with the focus on taxation of dividends. (Helminen, 2010)

4.4.7   **Taxation of dividends**

In the previous chapters, author discussed what happened when company is generating excessive profit and how this profit can be distributed (in which ever dividend form). If company decide to declare dividends how they may be to pay out as resulting return on equity investments made by its shareholders. (Helminen, 2010)

As an example, company did generated a profit and with this excessive amount of disposable cash can decide now first reinvest money back to the business in order to generate higher earning in the next period or take the this fund and divide it among the company's owners/shareholders in dividend payments. (Helminen, 2010)

Dividends, as it has been said, are pay-out form company's profit after taxation. Thus in general shareholder is receiving dividends, which are in reality

taxed twice. Firstly income will be taxed by corporate income tax and secondly by withholding tax (WHT) of dividend. There we can see the double taxation, which is called "*economic double taxation*". (Kubátová, 2006)

In other words according to Helminen (2010)*"The economic double taxation refers to a situation in which two different tax subjects are taxed for the same income."* Under this tax system, shareholder is loosing a lot of money when elimination of double taxation is not applied.

Majority of states consider necessary to alleviate economic double taxation of distributed profit from the tax system. As it was mentioned above, most of the states already using semi-classical, more integrated system which eliminating this problem of double taxation. (Helminen, 2010)

Cross boarder dividends payments
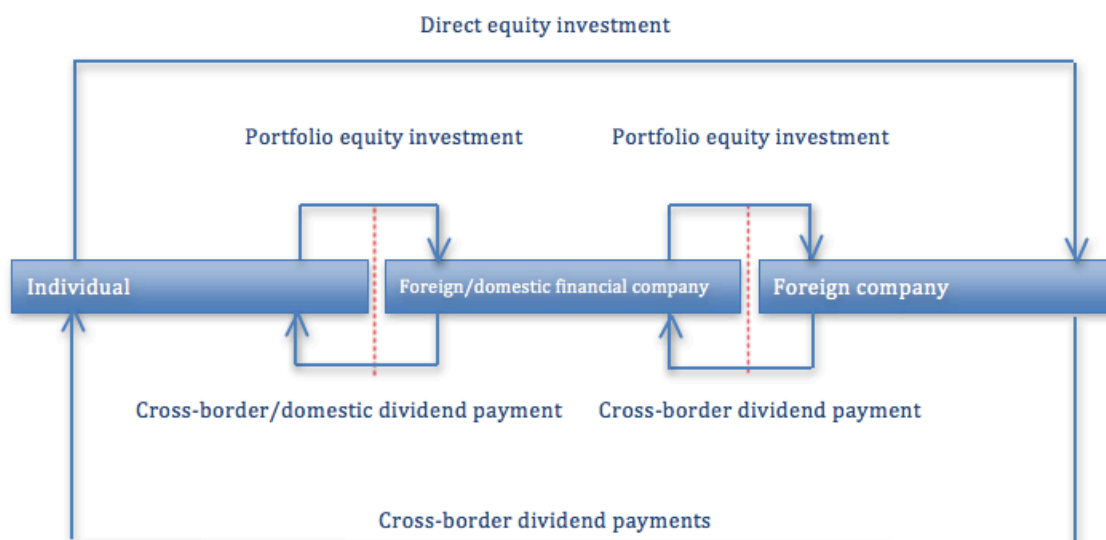
Fig.4:   Taxation of a Portfolio and Individuals' Cross-border Dividends

Source: Copenhagen Economics, 2010

Residence country	**County of the Source of Income**
• Tax on dividend income	• WHT on dividends
• Tax relief for WHT paid in source country	• Refund of excess WHT (If applied WHT is higher than Treaty)

The schema above it is displayed the simplest example, where an individual in residence country A creates a portfolio equity investment in a company in source country B, the expectation is receiving a return on his investment for example in the form of dividends. These dividends from profits have been already

taxed at the company level. This dividend is paid to the individual it will be subject to another tax, a withholding tax (WHT) in the country of source. In a general matter the ranging of WHT is between 5 to 30 per cent and there are countries, which apply zero WHT. European tax authorities are using tax treaties, which normally reduce WHT to 0-15 per cent among Member States. At the end of all this taxation process the investor is of course taxed in the country of residence. Nevertheless dividend, which has been already taxed at source, are usually relieves from the taxation in the residence country by international juridical double taxation. (Europa.eu, 2012)

4.4.8   Neutrality Principle

According to Nerudová (2007), the theory of neutrality is the key principle, where taxation and economics theory should be reinforce and hold as a part of general business satisfaction. Which will result in a higher integration and harmonization of tax systems in Europe. There are three types of neutrality:

- capital import neutrality
- capital export neutrality
- capital ownership neutrality

Capital import neutrality
Import capital neutrality holds, that all investors should be taxed equally regardless of their residential country. The income of one jurisdiction should be tax only up to the amount of this jurisdiction. The state of residence should exclude incomes of all residents generated in other state, because there were already taxed in the state of origin, which also set up the tax rate.

The goal of these investors is to competing between each other on the foreign market under foreign rules. (Nerudová, 2007)

Capital Export Neutrality
The opposite principal is the capital export neutrality. Where under this regime all investor should be subjected from the same type of tax, regardless of the state of investment. This type of investors is competing on the foreign market under the conditions domestic law. (Nerudová, 2007)

Capital ownership neutrality

Capital ownership neutrality principal stipulates that tax system could not caused transfers of the equity between individual countries. (Nerudová, 2007)

As Nerudová (2008) discussed in her paper, the observance of three neutrality principles discussed above, needs to be reflected in the context of the Common Consolidate Corporate Tax Base (CCCTB). Except the adoption of a rules setting up the CCCTB there is also need to adopt a common, unitary corporate income tax rate among whole European Union member states. The unfa-

vourable development occurs, because states do not want to loose their competitive tool of setting up the rate of corporate income tax.

4.5 Tax Optimization

A planned, purposeful utilization of the benefits offered by certain country (its tax systems) to optimize the overall tax burden for a person or group of companies. (Petrovič, 2002)

Tax optimization means finding the best combination of individual tax systems, eg .:
- different concept of withholding tax;
- benefits of individual agreements on avoidance of double taxation;
- different legislation against tax avoidance and beneficial attitude towards business operations. (Petrovič, 2002)

Transfer prising as an example of tax optimization
Transfer pricing are cost, that directly influencing price of a product. Companies use transfer pricing as a price-adjustment tool. The aim of the international companies is to set up such a level of transfer cost, which would lower final cost of product as much as possible. (Petrovič, 2002)

The fundamental usage of transfer pricing leads to the "transfer" of taxable income to subsidiary companies with a base in different country and operating under different jurisdiction. These transfers do not represent real movements of a capital but rather movements of the taxable income. Clear impact of such a shifting with transfer pricing is the decrease of whole (global) tax burden of multinational companies and redistributing this tax burden among states involved. (Petrovič, 2002)

Following schema is presenting technique, which allows decrease of taxable income of international company by artificial increase or decrease of costs or turnovers. In reality, subsidiary operating in a territory with relatively high taxes sells assets, for low price, to another subsidiary located in tax Haven and such a company will continuously proceed with selling of these assets, for high price. The substantial income of this multinational company is located in tax Haven with income tax-free policy. (Helminen, 2010)

For example: A parent company (A) sells an object (assets), with manufacturing cost 40 monetary units, to subsidiary company B for a price 60 monetary units (from now on, MU). Subsidiary company B resells this object for 100 monetary units. In a situation where earnings (from B subsidiary) will be semblance just little or not at all, net earnings represents 100-60 = 40. It is assumed that company A will be subjected to tax about 40%. Sales to subsidiary B generates a profit after taxation of the 12 MU. Profit of A + B after taxation amounts to 52 MU. In case of A mother company sells assets directly net profit amounts to 36 MU.

Taxable income can be also decrease by transfers of spare parts for lower price then assembly to the tax Haven followed by the sale of final product for a high price. (Helminen, 2010)

Manufacturing costs = 40
Sale Price = 60
Income = 20
Tax (40%) = 8
Net Income = 12

Purchase costs = 60
Sale Price = 100
Income = 40
Tax (0%) = 0
Net Income = 40

Net income A+B = 52 MU
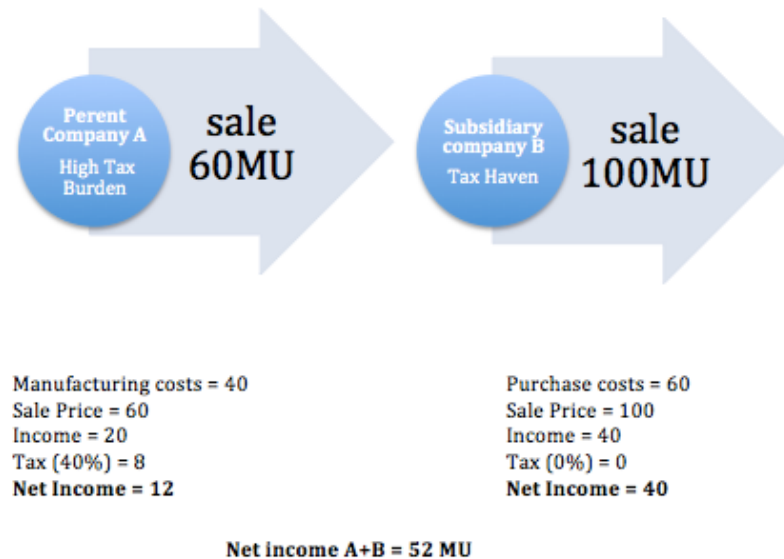
Fig.5:   Sale Through Subsidiary Company Located in Tax Haven

Source: Helminen, 2010

Manufacturing costs = 40
Sale Price = 100
Income = 60
Tax (40%) = 24
Net Income = 36
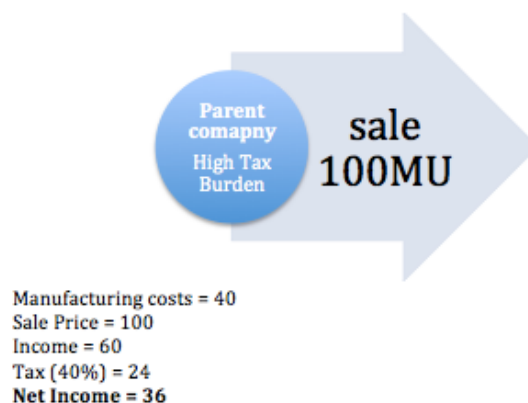
Fig.6:   Sale Through without Subsidiary Company Located in Tax Haven

Source: Helminen, 2010

Tragakes (2010), intercompany transactions are also called "fiscal termites". National tax authorities are facing the problem of transfer pricing, credit allocation, fixed cost, patents, etc.

Two side treaties of Double Taxation Avoidance are applied in order to prevent tax evasion through transfer pricing at the supranational level. In the OECD model treaty is Article 9 of - Associated Enterprises and the partial agreement in Articles 11 and 12. (Sojka, 2013)

Governments must ensure that the taxable profits of multinational companies were not artificially moved from a jurisdiction where multinational companies are making economic activity. OECD issued the Transfer Pricing Directive for Multinational Enterprises and Tax Administrations. The Directive contains a description of the transfer pricing methods and guidelines for selecting the most suitable method. OECD. (OECD, 2010)

The European Union is trying to eliminate a problem of transfer pricing by using the draft directive on a common consolidated tax base for corporate income tax ("Common Consolidated Corporate Tax Base "- CCCTB). As it has been previously described in details, Common Consolidated Tax Base is the single set of rules that companies operating within the EU could use for calculation of their taxable incomes. Except the simplification and harmonization of tax systems in EU, CCCTB would serve also to consolidate of a tax return for the entire activity of the EU enterprise. (Ault, 2004)

Corporate income tax is a type of tax, which significantly affects the business operating on a single market. The diversity in corporate taxation causes economic distortions due to its affects on businesses when they are deciding on a placement and financing of an investment. Harmonization in this area is essential to smooth the function of a single market among the European Union states. (Nerudová, 2008)

4.6   Double Taxation Treaties

Double Taxation Treaties are general convention between two or more countries with the aim of double taxation prevention. Convention covers any income or financial gains arising in one country that is paid to residents of another country. In a practice they work by dividing the tax rights each country claims and its national law over the same taxable income or any other kind of financial gains. Now a day we can find more than 1,300 worldwide existing Double taxation Conventions. Interesting example is United Kingdom, which has the world largest network of conventions treaties, contains over 100 pieces.

According to an internationally recognized principle, not only incomes from local sources but also incomes from other states must be taxed in the state of the so-called tax residence. In the practice it is necessary to apply firstly corresponding international treaty of double taxation avoidance and only after that local legislation. (Sojka, 2013)

Purpose of Double Taxation Avoidance Treaties:
- Fundamental purpose of the treaty is a prevention of double taxation in between two states where one of them is a state of origin and the other state of

residence. Such a characteristic is essential for income taxation. When two states negotiating treaty they have to agree whether income will be taxed in state of origin or in the state of residence.

- Legal purpose of the treaty is to prevent tax frauds and tax evasions on the international taxation field. For this purpose contracting parties are obligate to cooperate on information transmission, mutual advisory systems when solving disputable cases.
- Communal purpose of the treaty is to protect taxpayers and support them while realizing international transactions. Taxpayer is then informed in advance about what kind of taxation regime will be applied on the specific case and can adjust strategic business decision. (Vyškovská, 2010)

Moreover the primary purpose of the treaty is to prevent situation when same object is taxed twice. The goal is to distribute tax income fairly among state of residence and state of origin. As it has been mentioned in the paragraph above, treaties are superior to national legislation. National jurisdiction is further modified by treaty however there cannot be set higher tax burden than in national tax act. Except of Double Taxation Avoidance Treaties there are other acts regulating double taxation in the specific taxes such as road tax, etc. (Láchová, 2007)

The right to levy taxes and set up taxation rules is typical sign of a state authority. When state enter into the union and became a part of some of those integration processes decrease the level of sovereignty. Besides of Avoidance of the Double Taxation Treaties there are other agreements bilateral and conventions, which can influence income taxation such as Vienna Convention of Diplomatic Treaties of 1961 is an international treaty that defines a framework for diplomatic affairs between countries. Articles are considered as a cornerstone of modern international relations ships. As of April 2014, it has been ratified by 190 states. (Láchová, 2007)

4.6.1   OECD and UN Treaties

Due to the fact that companies are very often a part of a big international corporation it is necessary to take into the account the double taxation factor, which also influencing taxation process and through that the behaviour of investors.

International double taxation arises in case that taxpayer's income are subjected from a tax in more than one state. As it has been already mentioned in the previous text, the case when dividends are taxed in the state of residence and in the state of origin, at the same time.

In order to avoid this international double taxation, individual states are adopting treaties where is clearly stated, regulated and harmonized the tax legislation. They are dealing with topics such as: how is going to tax the income profit, and how to resolve a situation which may leads to double taxation (do a tax return in both states).

So far, there are two basic models, which are used for the purpose of the bilateral agreements: UN model treaty and OECD model treaty.

The main difference between the UN and OECD treaty is that OECD is a model treaty, which is concluded between two developed countries. It presents concrete figures of a maximal tax rates (for example in case of withholding tax) in the country of origin, which is closely related to the minimal amount of shares in the corporation, which must be at least 25 per cent.

Model UN is very typical for developing countries and it is not setting up any specific figures, rates or numbers. UN treaty saves this decision for the bi-lateral agreement contracts. (Láchová, 2007)

A specific chapter are international tax treaties concluded with USA. The main problem is arising from the different type of taxation system. The residency of a taxpayer does not based on a permanent establishment but on the nationality. Therefore avoidance of double taxation treaties where one of the contracting parties is USA is very often as a third type of model treaty. (Láchová, 2007)

OECD Model Tax Convention

OECD (Organization for Economic Co-operation and Development) adopted avoidance of double taxation treaty (OECD Model Tax Convention) in 1963. The OECD Model Tax Convention explains the basis for the negotiation and interpretation of more over 3000 tax treaties. This convention co-ordinates the income and corporate taxation of most states with the objective of removing tax barriers to cross-border trade and investment. (Láchová, 2007)

Since the first introduction of a convention concept, its importance and influence on the field of international taxation is increasing year by year. Taxpayers see the major advantage in the possibility of tax harmonization between states with different tax systems. Another proof of uniqueness, OECD Model Tax Convention has been used as a base for revision of the UN model which existed long time before the OECD model.

From the avoidance of double taxation point of view OECD convention introducing two types of law:

- **Primary right to tax** – every contracting state has a primary right to tax income or capital
- **Exclusive right to tax** – right to tax income or capital has a state where a tax payer is a resident (Láchová, 2007)

On behalf of the convention this mechanism warrants that income or capital will not be taxed twice, only if it will be taxed at least once in one of the state. In case of taxation of income in form of dividends and interest the tax rate is limited up to the amount of tax, that can state of source apply. On the other hand, the state in which the taxpayer (receiver of an income as dividends or interest) is a resident, must allow the to apply the exemption method or the credit method to the taxpayer, thus this leads to double taxation avoidance. (Affairs, OECD, 2012)

When taxation of income and property based on the agreement of the avoidance of double taxation according to the OECD model, three following situations may occur in the State of source:

I. **Taxation** of income and property in the country of origin is **unlimited** (eg. Income from property, profits from a permanent establishment, income from employment);

II. **Taxation** of income and property in the country of origin is **limited** (dividends and interest);

III. Income and property **may not be taxed** in the country of origin **at all** (eg. Royalties, gains from the alienation of shares, shares and other securities, pension, profit from operations international transport). (Nerudová 2007)

The OECD Model Treaty itself is clearly divided into **seven chapters**, which are thematically named: **Scope of the Convention, Definitions, Taxation of Income, Taxation of Capital, Methods for Elimination of Double Taxation, Special Provisions and Final Provisions.** Each chapter contains articles of the model contract. (Affairs, OECD, 2012)

UN Model Treaty

In the mid-60s of the last century was the concept of the international double taxation renewed as well in the UN Model Treaty. The aim was to encourage the flow of foreign investment into developing countries. This interest eventually resulted in a series of negotiations between years 1968 - 1977. Based on the results of the negotiations model treaty of the United Nations was designed and adopted in Geneva in 1979. UN concept was firstly published in 1980 under the title "Model treaty for the avoidance of double taxation between developed and developing countries ". (UN Model Double Taxation Convention, 2011)

UN Model Treaty represents a compromise between taxation in the state of residency and taxation in the state of source, whereas the UN Treaty is putting greater emphasis on taxation in the country origin than the OECD model treaty. When applying the principle of taxation in the state of source, the contract stipulates:

- Taxation of property income from abroad will be taken into account related expenses, thus it will only be taxed the net income;

- Taxation will only be high enough to avoid discouraging of a foreign investment;

- Income from investments will be fairly divided with a country that provides the capital. (UN Model Double Taxation Convention, 2011

The main differences between the Model UN and OECD model are found mainly in the following provisions: permanent establishment, corporate profit, dividends, interest, royalties, capital gains and other revenues. (Nerudová, 2007)

4.6.2   **OECD and UN Methods for Elimination of Double Taxation**

Lets imagines a case, where a legal entity is returning from his business performances abroad and is confronted with taxation, because his residence country wants to tax his foreign business activities as part of his worldwide income. But this threat of economic double taxation is normally relieved with financial compensation. The residence country applies tax credit or tax exemption, which has been stated in all bilateral tax treaties. Many countries however provide this double taxation exemption unilaterally. (Affairs, OECD, 2012)

In general, there are two ways to avoid double taxation:
- exempting foreign income from domestic taxation; and
- granting a credit for foreign taxes.

As already mentioned above, one of the objectives of international agreements of double taxation (whether by the UN or OECD model) is to prevent international double taxation. This can be done through various methods avoiding double taxation (Affairs, OECD, 2012)

For **credit method** is characteristic that the tax paid abroad can be offset against the tax liability in the State he is a resident. In case of the **exemption method** it does not matter whether this income was taxed abroad or not. It is exempt from taxation.

The fundamental difference between the methods is that the exemption method to deal with income, while the credit method to deal with the amount of tax paid abroad. (Nerudová 2007)

4.7   **Role of European Court of Justice in the Avoidance of Double taxation**

European Court of Justice[1] had a strong influence on legislation of European Community as well as on the European Union now a day. ECJ has an irreplaceable role in the interpretation of primary and secondary legislation since founding Treaty of Rome in 1957. The ECJ decides on harmonization of direct taxes of preliminary issues (Preliminary ruling) and direct prosecution of natural persons, legal persons, states and European Commission. Direct prosecution has the form of a public notification in the Official Journal of the EU. They may take the form of legal actions of nullity, legal action of inertia or inaction/refusal of legal actions, which serves, against Member States. This type of public notifica-

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[1] European Court of Justice - ECJ

tion plays important role when there is not such a directive implement into the national legislation. (European Parliament, 2010)

National courts of EU Member States submit the proposals of preliminary issues. The proposal is submitted, when a dispute arises due to ambiguous interpretation of any provision of the Act or of primary or secondary law. The ECJ role in such a situation is to provide binding interpretation base on which National Court will decide the specific case. The Court's interpretation is binding for all States of the European Union and is published in the Official Journal of the EU with a commentary how to proceed with the legal case. In this manner, significant numbers of the international tax disputes arising from EU legislation are resolved. The most common areas that address the European Court of Justice as part of preliminary issues include taxation of cross-border workers, dividend taxation, application of agreements on avoidance of double taxation and the application of the directive on subsidiaries and parent companies. (European Parliament, 2010)

Example of a case
Court of Justice of the European Union
PRESS RELEASE No 61/14
Luxembourg, 10 April 2014
Judgment in Case C-190/12
Emerging Markets Series of DFA Investment Trust Company v Dyrektor Izby Skarbowej w Bydgoszczy

"Judgement
A Member State may not exclude from a tax exemption dividends paid by nationally established companies to an investment fund established in a non-Member State if there exists between the two States an obligation of mutual administrative assistance.
It is however for the national court to examine whether the agreed mechanism for the exchange of information enables the tax authorities to verify the information provided by the investment fund

In Poland, the law on corporation tax1 provides, inter alia, that investment funds are exempt from the tax. In order to qualify for the exemption, those funds must however have their registered office in Poland.

Emerging Markets Series of DFA Investment Trust Company, an American investment fund, one part of its business consisting in investment in Polish companies, requested in 2010 from the Polish tax authority the refund of an overpayment of flat-rate corporation tax for the years 2005 and 2006. That tax had been levied, at a rate of 15%, on dividends paid to the fund by the companies established in Poland.

On the rejection of that request, the fund brought an action before the Wojewódzki Sąd Administracyjny w Bydgoszczy (the administrative court of Bydgoszcz, Poland). That court seeks a ruling from the Court of Justice on, inter alia, the question whether EU law precludes tax legislation under which

dividends paid by companies established in that Member State to an invest-
ment fund established in a non-Member State cannot qualify for the tax ex-
emption. " (ECJ, Judgement in Case C-190/12)

4.8 Tax planning

Tax payers, in general (natural person of legal entity) react very sensitively on
any changes in taxation. High pressure from state institutions on tax collecting,
forcing businesses to focuses on well-worked tax planning strategies, which al-
leviate high tax burden and increase profitability.

In other words the main goal is to set up an effective process of coordinat-
ing taxpayer's duties stipulated by tax law. Organize them as legally as possible
so the liability of the taxpayer subjected to income tax is minimized. This proce-
dure is closely connected with tax avoidance and tax saving planning. All tech-
niques leads to one result, which is not tax reductions or elimination but max-
imizing the after tax income. (Petrovič, 2002)

4.8.1 **International Tax Planning**

International tax planning is searching for a territory where taxes are in the
most favourable ratio towards the legal entity or natural person. International
tax planning is systematic analysis encouraging the usage of all available tools,
which can possibly lead to lowering of the final tax burden in recent, or future
taxable period. Especially tax planning is focusing on income taxed under dif-
ferent regimes in different countries (or territories) and try to consolidate its
location to the most favourable one. However as it has been mentioned already
all steps are concluded within the context of the law. (Petrovič, 2002)

By optimal usages of the tax act they can decrease a tax base and minimal-
ized tax returns that will leads to profit maximization. The main intension of
domestic company is to apply a decreased corporate income tax rate, receive
investment incentives and process as many assets write-offs as it is legally pos-
sible. (Dědina, 2005)

From the international perspective, corporate tax planning is also concern about
location of resources necessary for production, size of a market, existence of
qualified labour force, political and economical stability of the territory, corrup-
tion, etc. Very important factors are international treaties avoiding double taxa-
tions of income and the existence of tax Havens. Tax planning plays important
role in context of international transactions and can significantly influence all
business activities (trades, investment, etc.). Wide range of usage international
tax planning could be seen in case of licence fees, patents and know-how. Gen-
erally, for these specific cases corporations most likely resolve this by employing
tax Havens. (Dědina, 2005)

International Tax planning

Offshore Business   Onshore Business

Tax Havens   Offshore Financial Centers
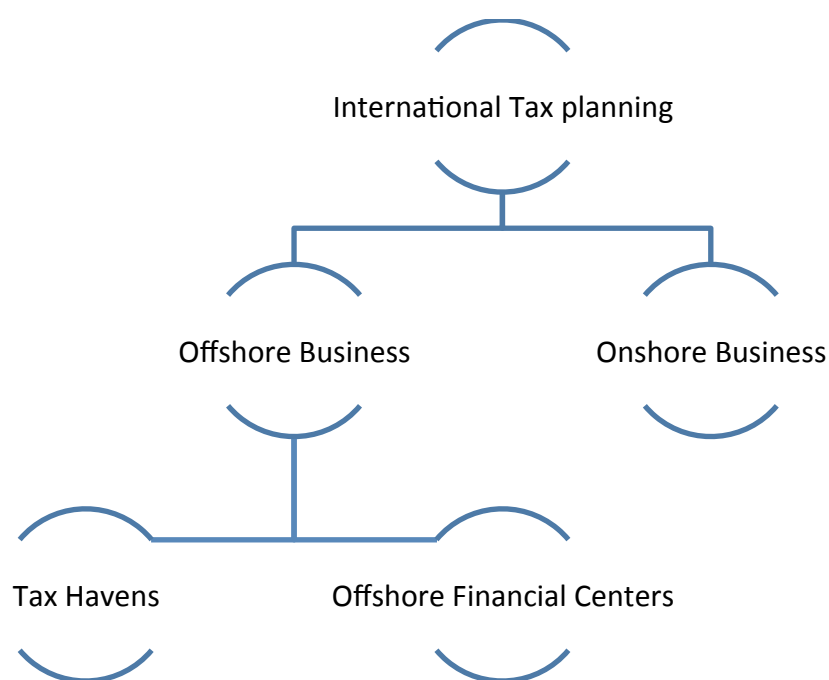
Fig.7:   International Tax Planning

Source: Own work base on Dědina, 2005, Petrovič, 2002

4.8.2   Offshore and Onshore Business

World globalization offers new business opportunities and allows corporations to penetrate new markets. This phenomenon also influence of companies international tax planning. From the international perspective two main trends are very popular no a days, onshore and offshore businesses.

Onshore
Onshore businesses are mostly continental companies incorporating in a domestic country or under its jurisdiction. Such a business is likely to be located within the OECD territory. Onshore businesses not only pay taxes but also must follow all other legal aspects of its home country, which are happened to be costly most of the time. Onshore areas are represented by countries big countries with high taxation, which eliminate some types of economic activities from their interest. (Klein, 1998)

Offshore
Opposite case represent Offshore businesses which are registered and incorporated in other than domestic country. The reason for this action is simple, foreign country offers more beneficial business environment (legal, financial and tax). Offshore countries can be called tax Havens where state administrative costs are not covered by tax collections but from other sources such as truism. Business activities located in these countries are usually not taxed base on the

local jurisdiction and offer various anonymity and asset protection benefits. Thus company can enjoy the benefit of lower overall operating costs. Tax Havens or offshore territories are usually small states or independent regions, islands (Bahamas or Cooks Islands) or other countries near to big and rich states (Andorra, Monaco). (Petrovič, 2002)

As it can be obvious by now, operation of offshore businesses, in context of international tax planning is nothing more than taking advantage of favourable tax policies and other acts coordinating businesses activities in a certain country. The fundamental purpose of business is accomplished a comparative advantage. Thus, in the aggressive business world, enterprises worldwide are seeking for this comparative advantage, for example cutting down operating costs through the international tax planning. (Petrovič, 2002)

Tab. 1   Comparison of Onshore and Offshore Business

	Onshore Business	**Offshore Business**
Common sign	Usage of favourable tax provisions	
Favourable tax provisions	• Tax benefits for certain area • Investment initiatives • Double taxation avoidance treaty	• Lower tax rates than in domestic country
Legal background	Stabile	Less stabile
Location	EU and USA states	Small (island) states

Source: Own work base on Petrovič, 2002, Klein 1998

4.8.3   Globalization and International Tax Planning

At present days individuals can decide, where to work, spend and invest their financial capital. Business entities can decide where to place their production. Decision making of this matter is mainly influenced by the tax burden at the place. Until tax systems will be different in each country, this aspect could be consider as one of the main factors of business placement. (Biswas, 2002)

The tension of business decrease tax burden as much as possible leads to international tax competition. Tax competition affect mostly income tax form financial capital (interest and dividends), value added tax base, legal entity in-

come tax. However tax competition is likely to be indifferent to income tax of natural person and to any kinds of property taxes. In the literature the phenomenon of tax competition (decrease of tax rates) above states is called "case to the bottom". (Biswas, 2002)

Thanks to the tax competition multinational corporations can easily decreased its tax burden. Generally big corporations base their decision of investment placement mainly on low tax rates and investment incentives. Another tax optimization can be done through the transfer pricing. (Biswas, 2002)

4.8.4   **Multinational Companies and Tax Havens**

Multinational companies are one of the results of economic globalization process and markets interconnection. Corporations basically lost their identity in national context. Multinational firms arise because capital is much more mobile than labor. When cheap labor and raw material representing inputs are located in other countries, multinational firms would establish their subsidiaries in such a country. They are very often criticized as being "*runaway corporations*". (Globalization, OECD, 2011)

Majority of economists cannot agree as to how should multinational or transnational corporations be defined. Multinational corporations have many dimensions, purposes and objects of businesses and can be viewed from several perspectives (ownership, management, strategy and structural, etc.) (Globalization, OECD, 2011)

In reality it can be seen that production is placed in country A, production resources are imported form country B, technology and design come from country C. The final product is completed in country D and distributed worldwide. As described previously, high fluctuation of mental and physical resources frequently occurs due to the pressure of management on a cost minimization. (Globalization, OECD, 2011)

According to article from Businessinsider.com, the top 25 multinational corporations (where 40% of a company's workforce is stationed outside its headquarters). (Business Insider, 2011)

Example of top ten multinational corporation, operation on the European market, from the perspective of market value:
- Royal Dutch Shell
- Nestle
- Gazprom
- HSBC
- Vodafone
- Novartis
- Total
- Roche

(Business Insider, 2011)

4.8.5   **Attractiveness of Tax Havens**

In general, as a tax haven is consider a country that exempts foreign investors who hold bank accounts or set up companies in its territory from most tax liabilities. (Palan, 2013)

The International Business Company is an offshore enterprise existing generally in tax havens. It is regulated by a favourable legislation. The main benefits cover exemption of tax liabilities, dispensation from having to file annual returns or accounts and the very simple ways of establishment and administration. (Palan, 2013)

The IBC is possible to form purely with a nominal capital, i.e. without any physical expenditure of money. Advantageous is a strict protection of privacy rules. Especially when names of the owners or shareholders do not appear in the public records or any important documents of incorporation, such as the certificate of incorporation and the memorandum and articles of association. (Palan, 2013)

The International Business Company targeted on non-residents. That means it cannot carry on business with domestic companies or citizens of a tax haven country. Also they cannot buy any property or real estate in the country. The possibilities of investing in the jurisdiction of incorporation are also restricted. (Palan, 2013)

4.9   Prevention of Aggressive Tax Planning and Tax Evasion

Countries worldwide have originally considered tax planning as a legitimate practice. Over time, the tax planning structures have become ever more developed and sophisticated. They were created cross various jurisdictions and effectively shift taxable profits into the states with beneficial tax regimes. The desired outcome obtained by implementing these practices is to optimize and so reduce tax liability through strictly legal arrangements, which however contradict the intent of the law. (European Commission, 2012)

Aggressive tax planning consists of taking legal advantage of the minor technicalities and other easily manipulated details of a tax system or of mismatches between two or more tax systems for the purpose of reducing tax liability. Aggressive tax planning can take many of forms. The phenomenon is usually resulting in double deductions (e.g. the same loss is deducted both in the state of source and residence) and double non-taxation (e.g. income which is not taxed in the source state is exempt in the state of residence). (European Commission, 2012)

4.9.1   Base Erosion and Profit Shifting

In business journals we can frequently find reports declaring that Multinational enterprises[2] paying minimal or no income taxes. At the beginning of the globalization process the main source of interest was the avoidance of double taxation. However now a day the situation is completely different and main issue OECD is dealing with is "double non-taxation". (PWC Tax Policy, 2013)

BEPS[3] is a new and very recent initiative of OECD dealing with tax practices designed to minimize tax burden through distortions of the tax bases and shifting profits to other countries (via system of transfer pricing). In February 2013 the OECD issued new document named BEPS, which declared that within 6 months an action plan would be developed for further progress in this area. (PWC Tax Policy, 2013)

Tax fraud and evasion are no longer the only reason of an outflow of tax revenue from national budgets. Even thought tax evasion field is not completely sorted, more attention is now turned towards the tax practices, which are used by MNEs to minimize their tax obligations. (PWC Tax Policy, 2013)

In spite of the fact, not only that they are paying taxes approaching zero level moreover, results from their activities are bringing negative impact on the smaller businesses and residents themselves. Due to the decline in tax revenues form corporate segment, governments are forced to seek for additional resources elsewhere, for example increasing VAT rates. This type of behaviour can also harm the unwritten morale codex and of other subjects - "Why should we pay than others?" (PWC Tax Policy, 2013)

Reasons for BEPS implementation

Rapid and massive globalization has forced states react quickly. In order to attract businesses and enforce capital inflow they had to first resolve the problem of income double taxation of income. Secondly, after they stabilized double taxation they had to moderate income tax rates and present tax benefits to increate their prestige on the market. (PWC Tax Policy, 2013)

In regards to this "double action", the OECD highlighted two facts:
- Regulations preventing double taxation based on principles developed in the 20's of the 20th century, by the League of Nations (now the United Nations);
- the majority of changes which have been done towards tax harmonization were very uncoordinated and was fully in the power of the respective countries. (PWC Tax Policy, 2013)

According to the OECD, it is necessary to revise current setting of taxation with respect to the international aspects and adjust the system on present conditions.

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[2] Multinational Enterprises - MNEs

[3] Base Erosion and Profit Shifting - BEPS

The OECD laid stress on the coordination of such an action in order to achieve the desired results.

BEPS form practical perspective

BEPS focuses on activities, done by international corporations, leading to profits shifting to countries with lower tax rates and shifting of costs to countries with high rates. These practices include:

- *Discrepancy in international terminology and non-harmonized designation of entities and instruments:*

    ➢ The different system of taxation in countries causes many difficulties: For example, in one country residents may tax the worldwide income. In other country residents can only taxed income related to the territory, including entities that are not residents of the territory. (PWC Tax Policy, 2013)

    ➢ Despite the existence of agreements on avoidance of double taxation it may happened that these two systems overlap each other or conversely, that a transaction or income remains completely out of both systems and it will not be taxed at all. There is a term used for this situation "double non-taxation". (PWC Tax Policy, 2013)

    ➢ Some countries also distinguish a tax treatment, which is using financing through debt and own resources. A debt interest is generally tax-deductible cost. In practice, inter-cooperation within a group of companies is very frequent. They are lending money to each other, while the lender is located in the country with low-tax rate and debtor is based in countries with higher rates. Debtor using this legal tool where gradual repayment of debt reduces the tax base. (PWC Tax Policy, 2013)

- *Transfer pricing:*

    Transfer pricing suppose to ensure a relevant profit share for all participating entities. Transactions between a taxpayer and an associated enterprise which is not a member of the same group should be subject to pricing adjustments in line with the "arm's length" principle[4], which is generally recommended criterion. Both sides involved in this process must to be treated fairly, which in a way means, the more is the contracting party involved (bears also higher risk from this transaction) the more should be rewarded. (PWC Tax Policy, 2013)

- *Other issues are discussed:*

- [4] Arm's Length Principle - The transactions between affiliated firms must be made purely on commercial basis both firms trying to maximize their advantage, and neither firm accommodating or favouring the other in any way. (http://www.businessdictionary.com/definition/arm-s-length-principle.html#ixzz3KgDV34P8)

Tools against tax evasion (Anti-Avoidance Rules). They are searching for the aggressive tax planning practices through the so-called GAAR (General Anti-Avoidance Rules). The purpose of this tool is also to react adequately on these practices and discourage their use. (PWC Tax Policy, 2013)

The Action Plan OECD cover topics:
- Tools neutralizing effects of Hybrid Arrangements (Hybrid Mismatch Arrangements)
- Improving rules of transfer pricing
- Finding solutions to identify the country, where company is subjected to tax digital goods and services
- More effective tool against tax evasion
- Strict rules for financial transactions carried out within the group of companies
- Effective action to defence against harmful tax regimes

(PWC Tax Policy, 2013)

In order to implement these changes quickly, OECD suggested preparation of a multilateral contractual instrument. Through this instrument new legislation will be implemented directly into existing treaties on avoidance of double taxation. The project is meant to be fully operational by the end of the year 2015. (PWC Tax Policy, 2013)

4.9.2   CMC and CFC concepts

The consideration the economic aspects of the nature and place of company management is no longer a mere possibility, but a necessity of the establishment of an international corporate structure for the purpose of tax planning and asset protection. The financial crisis has very clearly demonstrated that repetitive large government budget deficits together with limited opportunities to reduce spending are typical features of the European Union economies. Even though at the Community level, they are seeking for solutions to ensure fiscal stability States in a long run, the stabilization of a national budgets is currently mainly in a hands of Member States. This intention of countries logically leads to tightening of legislation what encouraging the economic entities to "optimize" thus avoid taxation. (Daňaři Online, 2011)

There are two important ways how European countries protect their tax revenues:
- Central Management and Control (CMC);
- Controlled Foreign Company (CFC).

Central Management and Control (CMC)

Typical for the principle of Central Management and Control, which is usually implement into national legislation, is the fact that most countries consider a tax resident (subject to tax worldwide income) not only companies incorporated in the State (A) but also companies established in another State (B) if the place

of effective management is located in State A. Similarly, in the OECD model treaty for the avoidance of double taxation, is a tax residence of a company allocate to a state where is firm's place of effective management. (Daňaři Online, 2011)

In countries with Anglo-American legal system is built on case law of a European Court (eg., Cyprus), the above mentioned rule are adopted implicitly. On the other hand countries with continental legal systems have implemented in their legislation the principle "Place of Effective Management" as the main factor for determining tax residence regardless of the place of incorporation. (Daňaři Online, 2011)

Controlled Foreign Company (CFC)

Another way how states can fight against tax evasion is the implementation of so-called CFC rules. CFC is a special set of rules that prevent residents of the state to establish a subsidiary in the state within EU territory with a low tax burden, for the purpose of tax avoidance in his home state. The fundamental purpose of these rules is to tax the profits of such entities at the level of its owners (without dividends been distributed!). It may turns out that the subject has no economic substance and the only reason for establishment was a tax burden optimization thought international tax planning. (Daňaři Online, 2011)

4.9.3   **Parent-Subsidiary Directive 2011/96/EU**

The parent-subsidiary directive was adopted in 2011. **Goals are to ensure that profits made by international corporations across the borders are not taxed twice.** For example in situation when the member states have to exempt from taxation any profits which parent companies receive from their subsidiaries established in other member states. It does this by eliminating the withholding tax. WHT would otherwise be imposed on certain cross border dividends and other profit distributions, and by requiring the territory of the recipient to provide relief through exemption or credit. The scope of the directive is wider than implied by its title it also applies to shareholdings of 10% or more. (Council of the European union, 2014)

Amendment of the Parent-Subsidiary Directive

During two years of function European Commission realized that this concept has to be modified in order to prevent capital outflow from state of parent companies and prevent aggressive tax planning and tax evasion. (Council of the European union, 2014)

Therefore in November 2013 the European **Commission tabled a proposal with two sets of amendments to the directive**, aimed at contributing to fighting tax evasion and aggressive tax planning:

- rules *preventing double non-taxation* of cross-border corporate groups which use hybrid loan arrangements

- introduction of a ***common anti-abuse clause***

(Council of the European union, 2014)

Under the anti-abuse rule, where a company is laying in between an EU resident bailout dividend and a non-EU based parent. In this case there is no purpose for the intermediate company other than to obtain benefits of the directive, the dividend will be treated as if paid directly to then on-EU resident company. Therefore this will deny the withholding tax exemption under the Directive. Exemption from tax of the dividend receipt will require the payment to not be deductible in computing the profits of the subsidiary. (Council of the European union, 2014)

The Council adopted the first set of amendments in July 2014 and is currently working on the second one, with the aim of adopting it in December 2014. (Council of the European union, 2014)

5 Practical part

This part of the thesis is dedicated to primary research. Author is going to introduce basic of researched area and elaborates quantitative research on which bases a qualitative research will be developed. The knowledge acquire from the theoretical part will be apply on the practical examples in this particular section, specially in topics concerning dividends, dividend taxation, international tax planning, Convention, Treaties for the avoidance of double taxation, CCCTB, and other approaches relevant to these issues. Through this practical part partial results will assist to get a complex overview of the economical and political situation on the European internal market. For this purpose, statistical method named Cluster Analysis will be performed based on methodology structure described in second chapter.

The research will be systematically organized into subchapters starting with the basic description of a field of study, introduction of data types, composition of a model, demonstration of Cluster analysis, comparative analysis and elaboration of practical examples. The practical examples require deep knowledge of the local as well as international economical and legal aspects connected to dividend payments. After finalizing this chapter we will be able to clearly see tax optimization preferences for capital investment.

For the purpose of this study I consider necessary to mentioned that all legal formulation, tax rates, figures, suggestions or solutions are tailored to the legal status up to June 1, 2014, and that on any given financial values and transactions presented in EUR it is used with 28, - CZK / EUR exchange rate. As a source of data was mainly Eurostat, OECD, reports from National Banks and tax journals from KPMG and PWC. Dada have been processed in statistical program MatLab and Microsoft Excel 2010.

5.1 Specification of a researched territory and some economic facts

The European Union (EU) will serve as a field of study for this work. Currently, EU is operating as a single market, which contains 28 countries.

Countries of European Union:

1.	Austria	9.	Finland
2.	Belgium	10.	France
3.	Bulgaria	11.	Germany
4.	Croatia	12.	Greece
5.	The Republic of Cyprus	13.	Hungary
6.	The Czech Republic	14.	Ireland
7.	Denmark	15.	Italy
8.	Estonia	16.	Latvia

17.	Lithuania	23.	Romania
18.	Luxembourg	24.	Slovakia
19.	Malta	25.	Slovenia
20.	Netherlands	26.	Spain
21.	Poland	27.	Sweden
22.	Portugal	28.	The United Kingdom

The EU is commonly considered as a world-strong trading and business power. After the creation of the single market there was a significant increase in trade and in general economic activity. Therefore this is often published as an essential purpose of EU common market creation. Nowadays the EU is trying to sustain economic growth by investing in transport, energy and research, while also seeking to minimize the environmental impact of further economic development. (EU Facts and Figures, 2013)

According to European journal the economy of European Union in terms of the goods and services it produces within this territory (GDP) is recently even than the GDP of United States (EU GDP in 2013 was €12 945 402 million). More over with just 7% of the world's population, the EU's in trading happily reached almost 20% of global exports and imports. (EU Facts and Figures, 2013)

An issue with financial management of corporate companies is majorly discussed no a days. Company dividend policy is integral of financial planning of every corporate company although company decided no to pay out dividends. In this case company is trying to increase company's equity by using residual dividend policy. Situation on a stock market in the Czech Republic is even more difficult due to the fact of a short history compare to other economies. (EU Facts and Figures, 2013)

5.2 Data

The following chapter author will gradually introduce and further discuss processes focusing on a description, preparation, correction, and standardization of data, involved in the final form of cluster analysis.

5.2.1 Source of data

For the purpose of Cluster Analysis primary data are used. Source of date was mainly from Eurostat websites and jurisdiction of each individual state of European Union. In order to receive and provide the most accurate result of analysis, data are not old then one year. Which means data origin in all cases is the year 2013.

5.2.2 Data types

Data selection is essential for every analysis, in order to receive comprehensive and explainable outcome. Type of data is directly depending on the specific pur-

pose and expected result of the examination field. For the concept of performed cluster analysis following data has been selected:

- Corporate Income Tax
- Withholding Tax
- Tax to GDP ratio
- CCCTB
- EURO
- Tax Free Days

Corporate Income Tax

Corporate income taxes are taxes against profits earned by businesses during a predefined taxable period. Generally, they are applied to companies' operating earnings, after expenses and depreciation have been deducted from revenues. There are different approaches of governments to the level of Corporate Income Tax rate. Some governments vote for lower corporate tax rates in order to obtain the opportunity of greater economic production if companies are taxed less. While others see higher corporate tax rates as a way to support government spending and substantial programs for the nation's citizens. For the purposes of performed analysis we assume that the desire tax rate, we looking for, is the lowest one, from the perspective of a company. (KPMG Tax Tools and Resources, 2014)

Withholding Tax

In order to examine taxation of dividend among European states, all taxes that can affect the final pay out ration has been included in the analysis. It is standard practice for the country of issue to apply a withholding tax to the dividend income of resident investors. Because taxation system differs among EU states, also application of WHT tax is not always the same. In order to use significant data, rates taken into account are used for taxation of intra-state dividends.

However the withholding Tax is generally the income tax withheld from employees' wages and paid directly to the government by the employer. The higher tax rate the higher state revenue, the higher portion of the income is withheld. The amount withheld is a credit against the income taxes the employee must pay during the year. For the purpose of this analysis was taken standard withholding rate with no other, extra exemption. (Deloitte – International Tax 2014)

Tax revenues to GDP ratio

Tax revenues-to-GDP (Gross Domestic Product) ratio represents the sum of tax revenues and compulsory social contribution in percentage of GDP. In other words, the tax-to-GDP ratio is an economic indicator that compares the portion

of taxes collected by a government to the amount of income that country receives for its products. The Gross Domestic Product (GDP) represents the sum of all products and services sold, private and government investment, and net exports. By comparing amount of tax revenues and the amount of GDP, we will get an idea of how much the economy is supported by the tax collection. (Eurostat – Europa 2014)

As an example of how the tax-to-GDP ratio is calculated, we can imagine a hypothetical country that uses the Euro and in some period of time, country's GDP was €1,000,000 Euro. Within the same time, it has collected tax revenue of €100,000 Euro. Calculation of the ratio would be $100,000 USD divided by €1,000,000 Euro, which comes to 0.10, or 10 percent in this case.

$$Tax - to - GDP\ ratio = \frac{collected\ tax\ revenue}{GDP}$$

The question is what would be the desired movement of this ratio, whether the higher percentage outcome is better or we looking for lower figures. As we already know gross domestic product is measured by summing-up all of the income gained from products and services sold in a country, with net exports included. The key information is that most tax revenues are levied on individuals and corporations. Due to this reason, a country with high tax rates tends to have a high tax-to-GDP ratio. (Eurostat – Europa 2014)

It is also very important to be able to consider changes of tax-to GDP ration from a wider economical perspective. We have to look at the tax-to-GDP ratio of a one country from the perspective and other countries as an indicator of economic standing. There are many other factors, which can affect an economy. For example how much debt the country has incurred to spur its economy or how inflation is affecting spending. Therefore developed countries will in most of cases tend to have higher ratios than developing countries. The best way to use this ratio is to study how it is grown or fallen in a certain country, and compare that the country's overall economic situation in that period. (Eurostat – Europa 2014)

From tax-to-GDP ratio we can deduce states financing strategy. If the tax-to-GDP ratio increases, by a certain percentage, government is trying to finance the overlaps of the state budget deficit. In states where the tax revenue has gone up significantly, the percentage of tax revenue that is applied towards state revenue and foreign debt is sometimes higher. When tax revenues grow at a slower rate than the GDP of a country, the tax-to-GDP ratio drops. (Eurostat – Europa 2014)

This information comes from the 2014 edition of the publication "Taxation trends in the European Union", issued by Eurostat, the statistical office of the European Union and the European Commission's Directorate-General for Taxation and Customs Union. (Eurostat – Europa 2014)
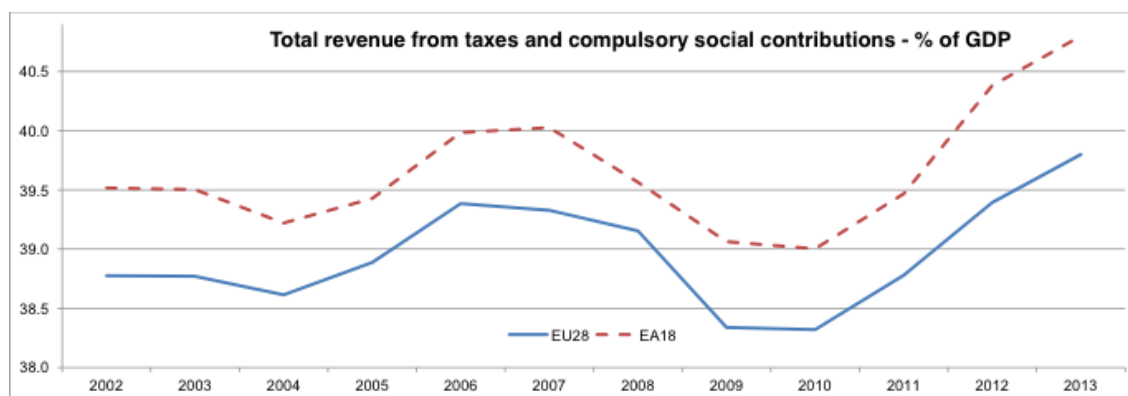
Fig.8:   Total revenue from taxes and compulsory social contribution

Source: Eurostat – Europa 2014

Graph above allowing for an accurate comparison of tax revenue-to-GDP development during last decade within EU28[5] and AE18[6].

Common Consolidated Corporate Tax Base (CCCTB)

In the Theoretical part, it has been discussed that the Common Consolidated Corporate Tax Base is representing a single set of taxation rules for corporations. They are operating under this system within the EU territory and it could use to calculate their taxable profits. In different words, a company or group of companies would have to deal with just one European system for computing its taxable income, rather than using different legislation rules in each Member State in which company operates. (Europa, 2014)

Furthermore, under the CCCTB, groups using the CCCTB would be able to file a single consolidated tax base and return for the whole of their activity in the EU. The consolidated taxable profits of the group would be shared out to the individual companies by a simple formula so that each Member State can then tax the profits of the companies in its State at the tax rate that they - each Member State – chooses. (Nerudová, 2007)
The European Commission proposed four regimes under company can work on. It is always dependent on the state adoption. Therefore different states adopt different legislation procedures.

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[5] **EU28:** Belgium, Bulgaria, the Czech Republic, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden and the United Kingdom. Euro area
[6] **EA18:** Belgium, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland.

As it can be seen from the table, the most desired one is the full consolidation of a corporate tax base regime and the less desired one is when the consolidated schema is not available at all. (Europa, 2014)

- Four main types of consolidation regimes:
- Full Consolidation
- Pooling of the result on the parent company
- Intra-group loss transfer
- Group taxation scheme not available (Nerudová, 2007)

Euro currency

For the purpose of the analysis the presents or absence of the Euro currency has been also employed. However it is not very clear how to evaluate whether is more beneficial to use Euro as a state currency or not. There are many discussions on this topic. Some economically strong countries do not use Euro and this is what preventing from many economic crises.

In this thesis, it has been decided that the optimal situation for the country in to actually use Euro as a common currency, especially for simplification of the trading and money circulation. (Europa, 2014)

Tax Free Days

During a regular taxable period (tax year), it eventually gets till the point, which is called Tax Freedom Day. This is the first day of a year when a state as a unit has theoretically earned enough income from taxes, to be able to financed its annual tax burden. The calculation used to determine this date suppose that everyone in the state works for eight hours per day from the beginning of January 1, and that every single currency unit earned is not spent. Number of tax freedom days is stated in the last column of the table. Obviously the more tax free days, the better situation for firms and consumers.

5.2.3   **Entrance data**

Individual data described previously are listed in the table below. Content of the table is in the original form they were found, without any changes. Some of the data are represented by numbers some of them by statements.

Tab. 2   Basic Data

	Withholding Tax	Corporate Income Tax	Tax to GDP Ratio	CCCTB	EURO	Tax Free Days
	[%]	[%]	[%]			[Days]
Austria	25	25	42,1	Pooling of the result on the parent company	Yes	162
Belgium	25	34	44	Group taxation scheme not avaiable	Yes	146
Bulgaria	5	10	33,3	Group taxation scheme not avaiable	No	228
Croatia	12	20	37,9	Group taxation scheme not avaiable	Yes	204
Cyprus	0	12,5	39,2	Intra-group loss transfer	Yes	293
Czech Republic	15	19	35,3	Group taxation scheme not avaiable	No	196
Denmark	27	25	48,1	Pooling of the result on the parent company	No	209
Estonia	0	21	32,8	Group taxation scheme not avaiable	Yes	252
Finland	28	24,5	43,4	Intra-group loss transfer	Yes	196
France	10	33,3	44,2	Pooling of the result on the parent company	Yes	159
Germany	25	29,58	37,1	Pooling of the result on the parent company	Yes	172
Great Britain	0	23	35,5	Intra-group loss transfer	No	252
Greece	10	26	31,2	Group taxation scheme not avaiable	Yes	252
Hungary	0	19	35,7	Group taxation scheme not avaiable	No	169
Ireland	20	12,5	28,2	Intra-group loss transfer	Yes	252
Italy	20	34,4	42,9	Pooling of the result on the parent company	Yes	175
Latvia	0	15	28,9	Intra-group loss transfer	Yes	252
Lithuania	15	15	30,3	Group taxation scheme not avaiable	No	197
Luxembourg	15	29,2	37,1	Pooling of the result on the parent company	Yes	221
Malta	0	35	48,2	Intra-group loss transfer	Yes	252
Netherlands	15	25	38,7	Full consolidation	Yes	203
Poland	19	19	31,7	Pooling of the result on the parent company	No	203
Portugal	25	23	31,3	Pooling of the result on the parent company	Yes	211
Romania	16	16	28	Group taxation scheme not avaiable	No	252
Slovakia	0	22	28,8	Group taxation scheme not avaiable	Yes	195
Slovenia	15	17	36,8	Pooling of the result on the parent company	Yes	208
Spain	21	30	33,6	Pooling of the result on the parent company	Yes	252
Sweden	30	22	44,5	Intra-group loss transfer	No	193

Source: Own work base on KPMG Tax Tools and Resources, 2014, Deloitte – International Tax 2014, OECD 2013, Nerudová 2007, Eurostat – Europa 2014, Europa 2014.

5.3   Composition of the model

Statistical classification technique in which data or objects (events, people, things, etc.) are sub-divided into group (clusters) such that the items in a cluster are very similar (but not identical) to one another and very different from the items in other clusters. It is a discovery tool that reveals associations, patterns, relationship, and structures in masses of data.

5.3.1   Conversion from Qualitative to Quantitative Data

From the table above it is obvious, that original data are in such a form where they cannot be compared between each other. This step is very important when dealing with parameters of different units and scales. Therefore there is a time when data has to be converted into the same manner for further operations. In general this techniques is transforming qualitative data into quantitative data. Consolidation regimes represents one of the example of a qualitative data, which needs to be transform to a quantitative data.

Tab. 3   Transformed Data

	Withholding Tax	Corporate Income Tax	Tax to GDP Ratio	CCCTB	EURO	Tax Free Days
						[Days]
Austria	0,250	0,250	0,421	4	1	162
Belgium	0,250	0,340	0,440	1	1	146
Bulgaria	0,050	0,100	0,333	1	0	228
Croatia	0,120	0,200	0,379	1	1	204
Cyprus	0,000	0,125	0,392	2	1	293
Czech Republic	0,150	0,190	0,353	1	0	196
Denmark	0,270	0,250	0,481	4	0	209
Estonia	0,000	0,210	0,328	1	1	252
Finland	0,280	0,245	0,434	2	1	196
France	0,100	0,333	0,442	4	1	159
Germany	0,250	0,296	0,371	4	1	172
Great Britain	0,000	0,230	0,355	2	0	252
Greece	0,100	0,260	0,312	1	1	252
Hungary	0,000	0,190	0,357	1	0	169
Ireland	0,200	0,125	0,282	2	1	252
Italy	0,200	0,344	0,429	4	1	175
Latvia	0,000	0,150	0,289	2	1	252
Lithuania	0,150	0,150	0,303	1	0	197
Luxembourg	0,150	0,292	0,371	4	1	221
Malta	0,000	0,350	0,482	2	1	252
Netherlands	0,150	0,250	0,387	7	1	203
Poland	0,190	0,190	0,317	4	0	203
Portugal	0,250	0,230	0,313	4	1	211
Romania	0,160	0,160	0,280	1	0	252
Slovakia	0,000	0,220	0,288	1	1	195
Slovenia	0,150	0,170	0,368	4	1	208
Spain	0,210	0,300	0,336	4	1	252
Sweden	0,300	0,220	0,445	2	0	193
Mean Value	0,140	0,227	0,367	3	679	212,7
Standard Deviation	0,101	0,070	0,061	2	476	36

Source: Own work

In particular case, transformation of the qualitative data to the qualitative data means, distribution of numbers, which stand for statements. In order to classify each regime numbers 1, 2, 4, and 7 has been used. Therefore number 1 represents "Group taxation scheme not available", number 2 "Intra-group loss transfer", number 4 "Consolidation by every member of the group", and number 7 "Full consolidation". I would like to strongly emphasize that umbers 1, 2, 4, 7 representing values, directly base on a **subjective** decision and opinion of an author. The basic intension is to distribute such weights, where 1 is the worse and 7 is the best, which would decrease strong influence of this data set.

Types of consolidation:
- **Full consolidation** - Total accounting profits across subsidiaries is disposed to the tax as if they would be executed by parent company – full consolidation of incomes takes place

- **Consolidation by every member of the group** - claim the accounting profit separately, afterwards they are offset at the level of the parent company
- **Intra-group loss transfer** - Every member of the group is taxed separately, losses can be transferred and offset between members of the group
- **Group taxation scheme not available** - It is not possible to compensate losses because the scheme of group taxation is not available under the taxation systems

The consolidation regimes are key indicators and have enormous impact on results of the analysis. In order to decrease such strong influence, another intervention had to be applied. This method will be further discussed in the following chapter – Data Standardization.

Other qualitative data that need to be transformed to quantitative form, named EURO, are in the fourth row of the same table. In case of EURO data set, this task is not very difficult. Type of this data set is called dummy. Dummy variables are used to sort data into mutually exclusive categories (yes/no). They are the ones represented by the value 0 or 1 in order to indicate the absence or presence of some categorical effect, which may be expected to shift the outcome. For the purpose of this analysis presence of Euro currency is denoted as 1 and absence of the Euro has zero value.

5.3.2 **Data Standardization**

Data collected for this analysis, represents mixture of numeric values and statements. In order to be able to work with them they all needs to be converted to the same figures. Rest of the data were also edit, thus complex outcome is ready for standardization. In this chapter data will be standardized.

As it can be seen from the table below, for calculation of standardized data was used Mean Value and Standard Deviation as it has been define in Methodology. Each column has been calculated individually, using Microsoft Excel Function. Results are displayed in the table below, where data are completely standardized.

Tab. 4   Standardized Data

	Withholding Tax	Corporate Income Tax	Tax to GDP Ratio	CCCTB	EURO	Tax Free Days
	[-]	[-]	[-]	[-]	[-]	[-]
Austria	1,087	0,322	0,883	0,930	0,676	-1,393
Belgium	1,087	1,610	1,196	-0,975	0,676	-1,832
Bulgaria	-0,895	-1,824	-0,567	-0,975	-1,427	0,420
Croatia	-0,202	-0,393	0,191	-0,975	0,676	-0,239
Cyprus	-1,391	-1,467	0,405	-0,340	0,676	2,205
Czech Republic	0,096	-0,536	-0,238	-0,975	-1,427	-0,459
Denmark	1,285	0,322	1,871	0,930	-1,427	-0,102
Estonia	-1,391	-0,250	-0,650	-0,975	0,676	1,079
Finland	1,384	0,251	1,097	-0,340	0,676	-0,459
France	-0,400	1,510	1,229	0,930	0,676	-1,475
Germany	1,087	0,977	0,059	0,930	0,676	-1,118
Great Britain	-1,391	0,036	-0,205	-0,340	-1,427	1,079
Greece	-0,400	0,465	-0,913	-0,975	0,676	1,079
Hungary	-1,391	-0,536	-0,172	-0,975	-1,427	-1,200
Ireland	0,591	-1,467	-1,408	-0,340	0,676	1,079
Italy	0,591	1,667	1,015	0,930	0,676	-1,036
Latvia	-1,391	-1,109	-1,292	-0,340	0,676	1,079
Lithuania	0,096	-1,109	-1,062	-0,975	-1,427	-0,432
Luxembourg	0,096	0,923	0,059	0,930	0,676	0,228
Malta	-1,391	1,753	1,888	-0,340	0,676	1,079
Netherlands	0,096	0,322	0,322	2,835	0,676	-0,267
Poland	0,492	-0,536	-0,831	0,930	-1,427	-0,267
Portugal	1,087	0,036	-0,897	0,930	0,676	-0,047
Romania	0,195	-0,966	-1,441	-0,975	-1,427	1,079
Slovakia	-1,391	-0,107	-1,309	-0,975	0,676	-0,486
Slovenia	0,096	-0,823	0,009	0,930	0,676	-0,129
Spain	0,690	1,037	-0,518	0,930	0,676	1,079
Sweden	1,582	-0,107	1,278	-0,340	-1,427	-0,541

Source: Own work

5.3.3   Implementation of Optimal Area ("BEST")

Outcome of the cluster analysis is a Dendogram, which cluster the most similar figures. However these clusters are not providing any comparative order. In order to receive ascending ranking of a countries with the most friendly business environment it is necessary to employ optimal area called BEST. At this moment all states and their values can be compared with the optimum and so ranked.

Optimal Area "BEST" always garners best result of the column, and so creating supposedly ideal environment for investment or for placement of a subsidiary company. Columns with tax rates are very clear. We are looking for the lowest possible tax rate. Tax to GDP ratio is first questionable and unclear variable. Due to the fact that the whole work is focusing only on an investor perspective, the lower Tax to GDP ratio the better for a tax payer (firm or any kind of a legal entity).

Figures representing Common Consolidated Corporate Tax Base have been already discussed and it is clear what is the desired outcome. For the BEST area,

we are looking for the highest number (full tax consolidation across the corporation), which is number 7 (in non-standardized form).

EURO is the second discussable data set. It is hard to decide whether state using Euro currency is more suitable for an investment or not. Two-side view base on Euro-scepticisms and Euro-optimists. Very strong argumentation used Paul de Grauwe, Euro-optimist and publisher of several studies about positive results of economies, which adopted Euro as a national currency. He mentioned multiple positive effects such as:

- **Reduction of Transaction costs** - With a single currency there will be no longer a cost involved in changing currencies. Tourists and firms who trade within the Euro area will observe benefits of single currency.

- **Price Transparency** - With a common currency it is easier to compare prices in different countries because they would all be in the same comparable values. This enables firms to reach cheaper raw material and consumers to buy cheaper goods and services. Eg. new car prices are higher in the UK than anywhere else, a single currency helps reduce these price differentials or make it easier for UK consumers to buy from the Eurozone and easy compare prices.

- **Elimination of exchange rate uncertainty** - unexpected swings in the exchange rate can destroy the profitability of exports (e.g. a rapid appreciation). The exchange rate uncertainty undermines business confidence in investing. Therefore with a single currency business confidence should improve leading to greater trade and economic growth.

- **Improvement in inflation performance** - The ECB which sets interest rates for the whole Eurozone area will be committed to keeping inflation low; countries with traditionally high inflation should benefit from this greater inflationary discipline. EU inflation has been low.

- **Low interest rates** - It was hoped membership of the Euro would help reduce bond yields as there was greater security belonging to a stronger currency. Initially this occurred with bond yields in Greece, Spain and Ireland converging on German bond yields.

The disadvantages of a single currency come from loss of national sovereignty and flexibility of usage of national monetary policies (currency depreciation and appreciation). For example changes in relative prices and wages are much more easily made through currency depreciation than by renegotiating individual contracts. Another argument goes hand by hand with a usage of monetary instruments. Eurozone countries are usually paralyzed by an asymmetric demand shock occurrence. They cannot absorb them and deal with them by using the monetary policy adjustment mechanism.

To conclude this endless discussion, for the purpose of this analysis Euro-optimistic approach has been employed and so the Optimal Area BEST is using Euro currency.

Very interesting data set can be seen at the column named Tax-free days. There is number of days tax payer is released from a tax burden. Obviously we are looking for the highest possible amount.

Tab. 5   Implementation of the state BEST

	Withholding Tax	Corporate Income	Tax to GDP Ratio	CCCTB	EURO	Tax Free Days
	[%]	[%]	[%]			[Days]
Austria	25	25	42,1	Pooling of the result on the parent company	Yes	162
Belgium	25	34	44	Group taxation scheme not avaiable	Yes	146
Bulgaria	5	10	33,3	Group taxation scheme not avaiable	No	228
Croatia	12	20	37,9	Group taxation scheme not avaiable	Yes	204
Cyprus	0	12,5	39,2	Intra-group loss transfer	Yes	293
Czech Republic	15	19	35,3	Group taxation scheme not avaiable	No	196
Denmark	27	25	48,1	Pooling of the result on the parent company	No	209
Estonia	0	21	32,8	Group taxation scheme not avaiable	Yes	252
Finland	28	24,5	43,4	Intra-group loss transfer	Yes	196
France	10	33,3	44,2	Pooling of the result on the parent company	Yes	159
Germany	25	29,58	37,1	Pooling of the result on the parent company	Yes	172
Great Britain	0	23	35,5	Intra-group loss transfer	No	252
Greece	10	26	31,2	Group taxation scheme not avaiable	Yes	252
Hungary	0	19	35,7	Group taxation scheme not avaiable	No	169
Ireland	20	12,5	28,2	Intra-group loss transfer	Yes	252
Italy	20	34,4	42,9	Pooling of the result on the parent company	Yes	175
Latvia	0	15	28,9	Intra-group loss transfer	Yes	252
Lithuania	15	15	30,3	Group taxation scheme not avaiable	No	197
Luxembourg	15	29,2	37,1	Pooling of the result on the parent company	Yes	221
Malta	0	35	48,2	Intra-group loss transfer	Yes	252
Netherlands	15	25	38,7	Full consolidation	Yes	203
Poland	19	19	31,7	Pooling of the result on the parent company	No	203
Portugal	25	23	31,3	Pooling of the result on the parent company	Yes	211
Romania	16	16	28	Group taxation scheme not avaiable	No	252
Slovakia	0	22	28,8	Group taxation scheme not avaiable	Yes	195
Slovenia	15	17	36,8	Pooling of the result on the parent company	Yes	208
Spain	21	30	33,6	Pooling of the result on the parent company	Yes	252
Sweden	30	22	44,5	Intra-group loss transfer	No	193
BEST	0	10	48,2	Full consolidation	Yes	293

Source: Own work

5.4   Cluster analysis

 In previous chapter data have been gathered and transformed into a form suitable for Cluster analysis. In this chapter Cluster analysis will be elaborated. Expected outcome of this analysis is a Dendogram, a graphical displaying of two closest neighbours.

5.4.1   Process of clustering

The Cluster analysis itself will be processed by program MatLab and some additional computation in MS Excel.

Until now, the main focus was on data editing in order to prepare them for the Cluster Analysis itself. Now data edited into a desirable form and so the clustering process shall starts.

Clustering methods based on the nearest neighbour distance, for this purpose Euclidean distance has been employed.

For calculation of a distance between objects following formula was used

$$d(x_i, x_j) = \sqrt{\sum_{k=1}^{p}(x_{i,k} - x_{j,k})^2}.$$

In the table below, we can see matrix with distances between objects, which serves as a base for further calculations.

Tab. 6   Original Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	0,00	2,37	4,69	2,76	4,91	3,46	2,67	4,31	1,62	1,94	1,09	4,42	3,90	4,02	4,05	1,49	4,54	3,98	2,15	4,11	2,48	3,12	2,25	4,70	3,95	2,15	2,96	2,72
2	2,37	0,00	5,33	3,04	5,74	3,74	3,64	4,64	2,06	2,45	2,42	4,89	4,05	4,18	5,04	2,14	5,35	4,46	3,26	3,94	4,51	4,43	3,70	5,23	4,15	3,85	3,94	3,12
3	4,69	5,33	0,00	2,83	3,06	1,88	4,38	2,76	4,23	5,13	4,76	2,16	3,24	2,16	2,89	5,21	2,56	1,57	4,13	4,93	5,08	2,79	3,98	1,76	3,00	3,28	4,39	3,72
4	2,76	3,04	2,83	0,00	3,00	2,19	3,69	1,97	2,05	3,15	2,82	2,89	1,93	2,63	2,55	3,13	2,51	2,58	2,39	3,32	3,89	3,10	2,59	3,06	1,95	1,99	2,95	3,06
5	4,91	5,74	3,06	3,00	0,00	3,93	4,88	2,06	4,27	5,07	4,99	2,89	2,85	4,20	2,91	5,12	2,06	4,03	3,68	3,72	4,65	4,25	4,10	3,50	3,52	3,14	3,79	4,84
6	3,46	3,74	1,88	2,19	3,93	0,00	3,22	3,05	2,99	3,97	3,45	2,31	2,92	1,67	3,12	3,89	3,30	1,00	3,29	4,39	4,48	2,05	3,17	2,00	2,83	2,89	3,66	2,26
7	2,67	3,64	4,38	3,69	4,88	3,22	0,00	4,83	2,61	3,32	3,04	3,81	4,48	4,11	4,68	2,89	5,16	3,97	3,10	4,08	3,45	2,95	3,50	4,34	5,07	3,26	3,52	1,56
8	4,31	4,64	2,76	1,97	2,06	3,05	4,83	0,00	3,71	4,22	4,08	2,27	1,25	3,16	2,53	4,30	1,25	3,14	2,91	3,30	4,45	3,68	3,35	2,84	1,71	2,84	3,11	4,48
9	1,62	2,06	4,23	2,05	4,27	2,99	2,61	3,71	0,00	2,73	1,94	4,03	3,17	3,91	3,50	2,14	4,20	3,61	2,29	3,59	3,51	3,35	2,43	4,07	3,74	2,39	2,78	2,16
10	1,94	2,45	5,13	3,15	5,07	3,97	3,32	4,22	2,73	0,00	2,00	4,22	3,98	3,91	5,00	1,12	4,73	4,64	2,21	3,10	2,75	3,89	3,31	5,32	3,83	3,00	3,32	3,67
11	1,09	2,42	4,76	2,82	4,99	3,45	3,04	4,08	1,94	2,00	0,00	4,24	3,45	4,08	3,86	1,28	4,34	3,90	1,68	4,07	2,41	2,94	1,72	4,45	3,64	2,28	2,31	3,05
12	4,42	4,89	2,16	2,89	2,89	2,31	3,81	2,27	4,03	4,22	4,24	0,00	2,56	2,44	3,48	4,31	2,64	2,64	3,14	3,43	4,35	2,78	3,74	2,34	2,93	3,25	3,39	3,70
13	3,90	4,05	3,24	1,93	2,85	2,92	4,48	1,25	3,17	3,98	3,45	2,56	0,00	3,49	2,32	3,77	2,01	3,08	2,40	3,30	4,26	3,30	2,71	2,67	1,99	2,81	2,31	4,07
14	4,02	4,18	2,16	2,63	4,20	1,67	4,11	3,16	3,91	3,91	4,08	2,44	3,49	0,00	4,05	4,28	3,41	1,98	3,81	4,42	4,80	2,91	4,05	3,08	2,54	3,40	4,50	3,46
15	4,05	5,04	2,89	2,55	2,91	3,12	4,68	2,53	3,50	5,00	3,86	3,48	2,32	4,05	0,00	4,67	2,02	2,76	3,23	5,02	4,28	3,02	2,38	2,30	2,94	2,40	2,95	4,14
16	1,49	2,14	5,21	3,13	5,12	3,89	2,89	4,30	2,14	1,12	1,28	4,31	3,77	4,28	4,67	0,00	4,80	4,55	1,82	3,29	2,60	3,65	2,75	5,07	4,05	2,88	2,69	3,25
17	4,54	5,35	2,56	2,51	2,06	3,30	5,16	1,25	4,20	4,73	4,34	2,64	2,01	3,41	2,02	4,80	0,00	3,07	3,24	4,28	4,33	3,46	3,24	2,72	1,97	2,66	3,34	4,85
18	3,98	4,46	1,57	2,58	4,03	1,00	3,97	3,14	3,61	4,64	3,90	2,64	3,08	1,98	2,76	4,55	3,07	0,00	3,73	5,12	4,79	2,05	3,25	1,57	2,78	3,07	3,96	3,01
19	2,15	3,26	4,13	2,39	3,68	3,29	3,10	2,91	2,29	2,21	1,68	3,14	2,40	3,81	3,23	1,82	3,24	3,73	0,00	2,93	2,07	2,79	1,66	3,83	3,05	1,78	1,19	3,38
20	4,11	3,94	4,93	3,32	3,72	4,39	4,08	3,30	3,59	3,10	4,07	3,43	3,30	4,42	5,02	3,29	4,28	5,12	2,93	0,00	4,31	4,91	4,44	5,08	4,07	3,93	3,50	4,44
21	2,48	4,51	5,08	3,89	4,65	4,48	3,45	4,45	3,51	2,75	2,41	4,35	4,26	4,80	4,28	2,60	4,33	4,79	2,07	4,31	0,00	3,21	2,49	5,06	4,43	2,24	2,65	4,23
22	3,12	4,43	2,79	3,10	4,25	2,05	2,95	3,68	3,35	3,89	2,94	2,78	3,43	2,91	3,02	3,65	3,46	2,05	2,79	4,91	3,21	0,00	2,28	2,47	3,48	2,33	2,98	2,74
23	2,25	3,70	3,98	2,59	4,10	3,17	3,50	3,35	2,43	3,31	1,72	3,74	2,71	4,05	2,38	2,75	3,24	3,25	1,66	4,44	2,49	2,28	0,00	3,39	3,19	1,60	1,61	3,36
24	4,70	5,23	1,76	3,06	3,50	2,00	4,34	2,84	4,07	5,32	4,45	2,34	2,67	3,08	2,30	5,07	2,72	1,57	3,83	5,08	5,06	2,47	3,39	0,00	3,19	3,42	3,64	3,62
25	3,95	4,15	3,00	1,95	3,52	2,83	5,07	1,71	3,74	3,83	3,64	2,93	1,99	2,54	2,94	4,05	1,97	2,78	3,05	4,07	4,43	3,48	3,19	3,19	0,00	2,87	3,52	4,52
26	2,15	3,85	3,28	1,99	3,14	2,89	3,26	2,84	2,39	3,00	2,28	3,25	2,81	3,40	2,40	2,88	2,66	3,07	1,78	3,93	2,24	2,33	1,60	3,42	2,87	0,00	2,36	3,25
27	2,96	3,94	4,39	2,95	3,79	3,66	3,52	3,11	2,78	3,32	2,31	3,39	2,31	4,50	2,95	2,69	3,34	3,96	1,19	3,50	2,65	2,98	1,61	3,64	3,52	2,36	0,00	3,75
28	2,72	3,12	3,72	3,06	4,84	2,26	1,56	4,48	2,16	3,67	3,05	3,70	4,07	3,46	4,14	3,25	4,85	3,01	3,38	4,44	4,23	2,74	3,36	3,62	4,52	3,25	3,75	0,00

Source: Own work

The principle of clustering objects by using nearest neighbour lies in the fact that we choose the lowest value of the above matrix of distances. We get number of objects in another table will form a cluster - namely objects 1 and 16, the following formula computes the distance of the cluster from other objects.

$$d(s_h, s_k) = \min\big[d\,(x_i, x_j)\big];\ x_i \in s_h;\ x_j \in s_k$$

Tab. 7   First Clustering

	1	2	3	4	5	6+18	7	8	9	10	11	12	13	14	15	16	17	19	20	21	22	23	24	25	26	27	28
1	0,00	2,37	4,69	2,76	4,91	3,98	2,67	4,31	1,62	1,94	1,09	4,42	3,90	4,02	4,05	1,49	4,54	2,15	4,11	2,48	3,12	2,25	4,70	3,95	2,15	2,96	2,72
2	2,37	0,00	5,33	3,04	5,74	4,46	3,64	4,64	2,06	2,45	2,42	4,89	4,05	4,18	5,04	2,14	5,35	3,26	3,94	4,51	4,43	3,70	5,23	4,15	3,85	3,94	3,12
3	4,69	5,33	0,00	2,83	3,06	1,88	4,38	2,76	4,23	5,13	4,76	2,16	3,24	2,16	2,89	5,21	2,56	4,13	4,93	5,08	2,79	3,98	1,76	3,00	3,28	4,39	3,72
4	2,76	3,04	2,83	0,00	3,00	2,58	3,69	1,97	2,05	3,15	2,82	2,89	1,93	2,63	2,55	3,13	2,51	2,39	3,32	3,89	3,10	2,59	3,06	1,95	1,99	2,95	3,06
5	4,91	5,74	3,06	3,00	0,00	4,03	4,88	2,06	4,27	5,07	4,99	2,89	2,85	4,20	2,91	5,12	2,06	3,68	3,72	4,65	4,25	4,10	3,50	3,52	3,14	3,79	4,84
6+18	3,98	4,46	1,88	2,58	4,03	0,00	3,97	3,14	3,61	4,64	3,90	2,64	3,08	1,98	3,12	4,55	3,30	3,73	5,12	4,79	2,05	3,25	2,00	2,83	3,07	3,96	3,01
7	2,67	3,64	4,38	3,69	4,88	3,97	0,00	4,83	2,61	3,32	3,04	3,81	4,48	4,11	4,68	2,89	5,16	3,10	4,08	3,45	2,95	3,50	4,34	5,07	3,26	3,52	1,56
8	4,31	4,64	2,76	1,97	2,06	3,14	4,83	0,00	3,71	4,22	4,08	2,27	1,25	3,16	2,53	4,30	1,25	2,91	3,30	4,45	3,68	3,35	2,84	1,71	2,84	3,11	4,48
9	1,62	2,06	4,23	2,05	4,27	3,61	2,61	3,71	0,00	2,73	1,94	4,03	3,17	3,91	3,50	2,14	4,20	2,29	3,59	3,51	3,35	2,43	4,07	3,74	2,39	2,78	2,16
10	1,94	2,45	5,13	3,15	5,07	4,64	3,32	4,22	2,73	0,00	2,00	4,22	3,98	3,91	5,00	1,12	4,73	2,21	3,10	2,75	3,89	3,31	5,32	3,83	3,00	3,32	3,67
11	1,09	2,42	4,76	2,82	4,99	3,90	3,04	4,08	1,94	2,00	0,00	4,24	3,45	4,08	3,86	1,28	4,34	1,68	4,07	2,41	2,94	1,72	4,45	3,64	2,28	2,31	3,05
12	4,42	4,89	2,16	2,89	2,89	2,64	3,81	2,27	4,03	4,22	4,24	0,00	2,56	2,44	3,48	4,31	2,64	3,14	3,43	4,35	2,78	3,74	2,34	2,93	3,25	3,39	3,70
13	3,90	4,05	3,24	1,93	2,85	3,08	4,48	1,25	3,17	3,98	3,45	2,56	0,00	3,49	2,32	3,77	2,01	2,40	3,30	4,26	3,43	2,71	2,67	1,99	2,81	2,31	4,07
14	4,02	4,18	2,16	2,63	4,20	1,98	4,11	3,16	3,91	3,91	4,08	2,44	3,49	0,00	4,05	4,28	3,41	3,81	4,42	4,80	2,91	4,05	3,08	2,54	3,40	4,50	3,46
15	4,05	5,04	2,89	2,55	2,91	3,12	4,68	2,53	3,50	5,00	3,86	3,48	2,32	4,05	0,00	4,67	2,02	3,23	5,02	4,28	3,02	2,38	2,30	2,94	2,40	2,95	4,14
16	1,49	2,14	5,21	3,13	5,12	4,55	2,89	4,30	2,14	1,12	1,28	4,31	3,77	4,28	4,67	0,00	4,80	1,82	3,29	2,60	3,65	2,75	5,07	4,05	2,88	2,69	3,25
17	4,54	5,35	2,56	2,51	2,06	3,30	5,16	1,25	4,20	4,73	4,34	2,64	2,01	3,41	2,02	4,80	0,00	3,24	4,28	4,33	3,46	3,24	2,72	1,97	2,66	3,34	4,85
19	2,15	3,26	4,13	2,39	3,68	3,73	3,10	2,91	2,29	2,21	1,68	3,14	2,40	3,81	3,23	1,82	3,24	0,00	2,93	2,07	2,79	1,66	3,83	3,05	1,78	1,19	3,38
20	4,11	3,94	4,93	3,32	3,72	5,12	4,08	3,30	3,59	3,10	4,07	3,43	3,30	4,42	5,02	3,29	4,28	2,93	0,00	4,31	4,91	4,44	5,08	4,07	3,93	3,50	4,44
21	2,48	4,51	5,08	3,89	4,65	4,79	3,45	4,45	3,51	2,75	2,41	4,35	4,26	4,80	4,28	2,60	4,33	2,07	4,31	0,00	3,21	2,49	5,06	4,43	2,24	2,65	4,23
22	3,12	4,43	2,79	3,10	4,25	2,05	2,95	3,68	3,35	3,89	2,94	2,78	3,43	2,91	3,02	3,65	3,46	2,79	4,91	3,21	0,00	2,28	2,47	3,48	2,33	2,98	2,74
23	2,25	3,70	3,98	2,59	4,10	3,25	3,50	3,35	2,43	3,31	1,72	3,74	2,71	4,05	2,38	2,75	3,24	1,66	4,44	2,49	2,28	0,00	3,39	3,19	1,60	1,61	3,36
24	4,70	5,23	1,76	3,06	3,50	2,00	4,34	2,84	4,07	5,32	4,45	2,34	2,67	3,08	2,30	5,07	2,72	3,83	5,08	5,06	2,47	3,39	0,00	3,19	3,42	3,64	3,62
25	3,95	4,15	3,00	1,95	3,52	2,83	5,07	1,71	3,74	3,83	3,64	2,93	1,99	2,54	2,94	4,05	1,97	3,05	4,07	4,43	3,48	3,19	3,19	0,00	2,87	3,52	4,52
26	2,15	3,85	3,28	1,99	3,14	3,07	3,26	2,84	2,39	3,00	2,28	3,25	2,81	3,40	2,40	2,88	2,66	1,78	3,93	2,24	2,33	1,60	3,42	2,87	0,00	2,36	3,25
27	2,96	3,94	4,39	2,95	3,79	3,96	3,52	3,11	2,78	3,32	2,31	3,39	2,31	4,50	2,95	2,69	3,34	1,19	3,50	2,65	2,98	1,61	3,64	3,52	2,36	0,00	3,75
28	2,72	3,12	3,72	3,06	4,84	3,01	1,56	4,48	2,16	3,67	3,05	3,70	4,07	3,46	4,14	3,25	4,85	3,38	4,44	4,23	2,74	3,36	3,62	4,52	3,25	3,75	0,00

Source: Own work

After such a procedure, new data matrix is compiled. We are going to continue with clustering process until we all objects belongs to some cluster.

Due to the fact, each subsequent step is exactly the same, I just first two steps are displayed.

In a graphical form clustering process can be seen on a chart below. The elimination is clearly visible in each step. Complete linkage has been used as a method of clustering which gave us great graphical overview of the situation on the European internal market. Pair of the closest neighbour (the most similar values) is cluster into a one (new) object in every step.
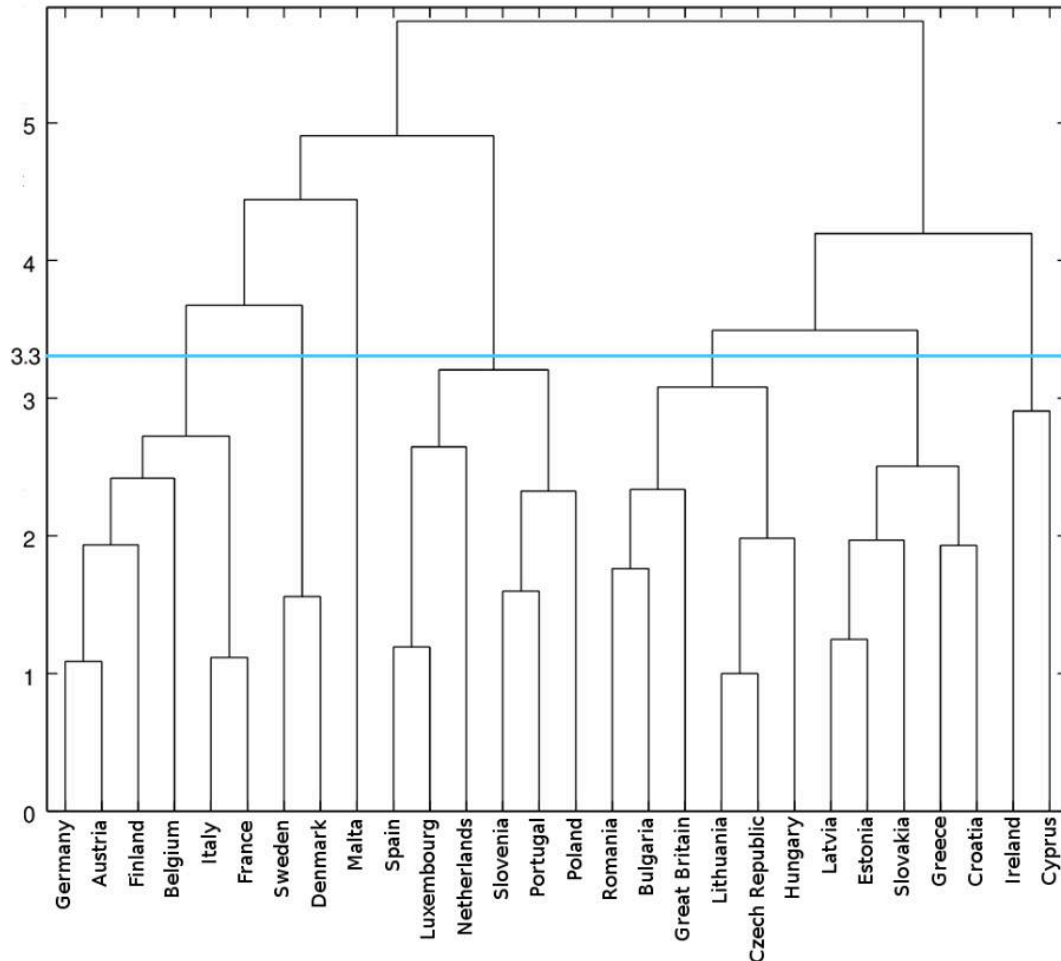
Fig.9:   Resulting Dendogram

Source: Own work

From the Dendogram above clusters can be estimated final number of clusters. However this is always strongly dependent on the subjective decision of author. Final Dendogram of hierarchical agglomerative clustering, complete linkage method was elaborated by using statistical software MatLab. Complete linkage tends to find compact clusters of approximately equal diameters. We merged in each step the two clusters whose merger has the smallest diameter, in other words the two clusters with the smallest maximum pairwise distance. Method of clustering, Complete linkage, has been selected for the purpose of this analysis base on the author's research of the most common methods used for similar dataset and aim of the clustering.

On this graphical map of clusters we can see a blue line approaching point 3.3 on the Y-axes. This point was decided to be the maximal distance of clusters. In other words up to this point objects can be clustered. Within this distance we

can observe seven clusters and Malta, which did not create any cluster up on till now. This number of cluster is considered as an optimal and they will be further discussed. If the distance is set up higher and blue line move up on the vertical axes Y in order to cover object (state) Malta to some cluster, number of cluster will decrease and number of object in each cluster increase, further discussion about characteristic of clusters will not be relevant.

The set distance 3.3 created following clusters (from right to left):

1st cluster: Ireland, Cyprus

2nd cluster: Croatia, Greece, Slovakia, Estonia, and Latvia

3rd cluster: Hungary, Czech Republic, Lithuania, Great Britain, and Romania

4th cluster: Poland, Portugal, Slovenia, Netherlands, Luxemburg, and Spain

5th cluster: Sweden, Denmark

6th cluster: Malta

7th cluster: Germany, Austria, Finland, Belgium, Italy, and France.

1st Cluster: Ireland, Cyprus

1st cluster shows perfect example of countries with beneficial regimes supporting foreign capital investments. Both states are trying to keep this competitive advantage and so strengthen their positions. Low tax burden (especially of corporate income tax) suppose to attract investors and create capital inflow.

Cyprus is a specific case, known as so-called Tax haven. The lowest rate of corporate tax only applies to a 12,5% tax rate. Very significant is a ration tax to GDP, because the amount of total tax revenues from corporations as a share of GDP is one of the higher in Europe. Due to the corporate taxation policy, Cyprus reaching high volume from tax income and other capital gains from a great amount of registered companies. Unlike traditional, conservative economies reaching the same result by high taxes. Tax payers happily using this taxation advantage as a tax optimization tool in international tax planning activities. Cyprus confessedly is trying to a considerable competitor to stronger economies of Europe. (BusinessInfo, 2014)

Ireland is another case of a state, which is trying to benefit from high number of registered companies thanks to low corporate income tax. However the power of political system is not as strong as before the world banking crisis and now a day taxes started to increase. This unfavourable phenomenon is mainly happening due to the need to cover the deficit of the state budget and increase revenues. But as it has been said Ireland has primarily seeks to maintain low corporate tax. (BusinessInfo, 2014)

2nd cluster: Croatia, Greece, Slovakia, Estonia, and Latvia

From the geographical perspective we can see that states like Croatia and Greece are cost-line states on the south of Europe and on the other hand Estonia and Latvia are cost-line states on the other (north) side of Europe. Estonia, Slovakia, Latvia applied zero WHT on intra-company dividends and Greece and Croatia applied also lower rates in comparison to European average level. This

is the main reason of formation of this second cluster and confirms the "low-corporate-tax" tool of how to support investment.

Greece is another case representing a county severely hit by the banking crisis in 2007, which has consequences up till now. Due to very high indebtedness and serious problems of financing state expenditures, Greece has to done numerous reorganization of the tax system. Tax system is still quite instable. In the year 2014 another reform will be introduce with the aim to support corporate business and promising to bring several tax benefits.

3rd cluster: Hungary, Czech Republic, Lithuania, Great Britain, and Romania

In the third cluster are greatly demonstrated countries, which have not adopted the EURO as a single currency, and so they are not part of the monetary union. In the description of parameters for cluster analysis it has been discussed what kind of effect might deliver common currency. We are quite often discussing how to encourage the internal trade of European Union. Common currency is one of the instruments, which might assist in this process. Entering the Euro-zone has not only bringing the benefit of single currency it also bringing costs of using it in a form of loosing the national monetary instruments.

Great Britain is the only "big player" in this cluster. Although rest of the countries would probably mainly benefit from the adoption common currency, UK is very sovereign and economically strong country, where is no need to adopt single currency and at the same time it can react on asymmetric demand shocks and fight with them by using effective tools of monetary policies. (the biggest weakness of the Euro-zone). Tax-wise courtiers hold average rates among the states in EU.

4th cluster: Poland, Portugal, Slovenia, Netherlands, Luxemburg, and Spain

In the cluster 4th we can observe a mixture of economically strong states Luxemburg, Netherlands, Poland versus economically weaker Portugal, Spain and Slovenia. From dendogram is obvious that these were the original clusters, which were lately merged together and created 4th cluster (after setting up 3.3 distance by author). If we separate countries into original clusters there we can see many similarities.

Situation in Netherlands is still worse than before credit crisis and country is fighting with slow economic growth. After tax reform in the year 2000 corporate income tax was decreased from 35% to 20% and 25% of excessive income over 200 000 Euro/year. Economists were hoping to increase a trend of capital inflow.

Luxemburg is a strong country with stabile economy. It is a dominant country of financial services, mainly in a banking sector. The biggest influence on tax legislation is coming from Germany. Due to the exclusivity of Luxemburg corporate taxation is quiet high in perspective of average EU taxes.

Poland after crisis has experienced very positive development. There are many tax benefits and natural person is taxed by 19% as well as corporate income tax.

Spain, Portugal and Slovenia are experiencing very similar development. All of the countries were severely hit by the credit crisis and their recovery is very costly and slow. Problem with high unemployment occur especially in Spain and Portugal. The tax to GDP ratio is rather low, below the EU average.

5th cluster: Sweden, Denmark

The 5th cluster is a perfect example of s states with of countries (Sweden and Denmark) where tax system is one of the most complicated worldwide. The tax burden in Denmark is the highest among the EU countries and Sweden is right behind. In case of those two countries we can talk about the best efficiency of economic system (tax to GDP ration is significantly high) which consequently bringing up the index of happiness among inhabitancies. Therefore Denmark has been occupying first places of this rating for couple years. Both states also using their national currencies and never adopted EURO.

6th cluster: Malta

Malta is a special case of a single cluster. Malta together with Cyprus is typical representative of weaker economies, which are trying to catch up the strong states by offering tax benefits. Cyprus was so far better off also because Malta levy the highest corporate income tax within EU (35%).

7th Cluster: Germany, Austria, Finland, Belgium, Italy, and France

The 7th cluster consists of countries Germany, Austria, Finland, Belgium, Italy, and France. They mainly referred to the original EU Member States, except Austria and Finland. The background of this cluster can be found in geographical location, which we can call them countries of Western Europe. Thanks to the location, neighbouring states were closely cooperated ever since they created the Union. This cooperation brought common aim and desire to simplify intra trade. Therefore strong forces enforce harmonization processes in tax and legislative systems. Countries of this group are represented by strong economical and political power and similar historical and institutional development, which reached advanced level.

5.5   Comparative analysis

The result from cluster analysis does provide a final cluster of two most similar objects. However, the expected outcome form this analysis we are looking for is an order of states. This ranking of European states will give us an idea which states has the best legal and economical environment for a capital investment.

Cluster analysis provides no explanation as to why such a clusters become to exist neither gives any interpretation, therefore further mathematical/statistical methods must be apply in order to explain or further examine de-

veloped clusters. In this chapter, the object (state) BEST is going to be intro-
duced.

The object BEST represents the optimal attributes above all data sets. We
can also call him best state/area with the ideal legal and political environment.
The object has been added into the analysis in order to obtain the possibility of
comparing desired attributes with real attributes of other objects. In general,
BEST setting up a perfect, optimal, ideal or desirable example of a country.

In the table below we can see accurate values of the BEST state.

Tab. 8   Data standardization of the state BEST

	Withholding Tax	Corporate Income Tax	Tax to GDP Ratio	CCCTB	EURO	Tax Free Days
	[-]	[-]	[-]	[-]	[-]	[-]
BEST	-1,39	-1,82	1,89	2,83	0,68	2,20

Source: Own work

Data in above table were inserted in the standardization format already for the
purpose of further calculations of the distances (dissimilarities). This method
comparing all 28 states with the "state" BEST and measure dissimilarities from
optimum. The result we can see in the table below. States with lower figures are
more similar to the "state" BEST.

Tab. 9   Dissimilarity from Best

States		Dissimilarity from BEST
1	Cyprus	3,52
2	Netherlands	3,92
3	Slovenia	3,98
4	Luxembourg	4,54
5	Latvia	4,69
6	Spain	4,82
7	Great Britain	4,86
8	Malta	4,91
9	Estonia	4,97
10	Denmark	5,01
11	Portugal	5,10
12	Ireland	5,12
13	Poland	5,17
14	Croatia	5,18
15	Slovakia	5,32
16	Bulgaria	5,33
17	France	5,45
18	Finland	5,46
19	Greece	5,46
20	Italy	5,57
21	Germany	5,66
22	Sweden	5,85
23	Czech Republic	5,87
24	Romania	5,88
25	Slovakia	5,91
26	Hungary	6,04
27	Lithuania	6,11
28	Belgium	7,02

Source: Own work

The results in the table above display that Cyprus is the most similar country to the BEST area. As we can see figures are in many cases quite similar however countries can be still arrange into a systemathical order.
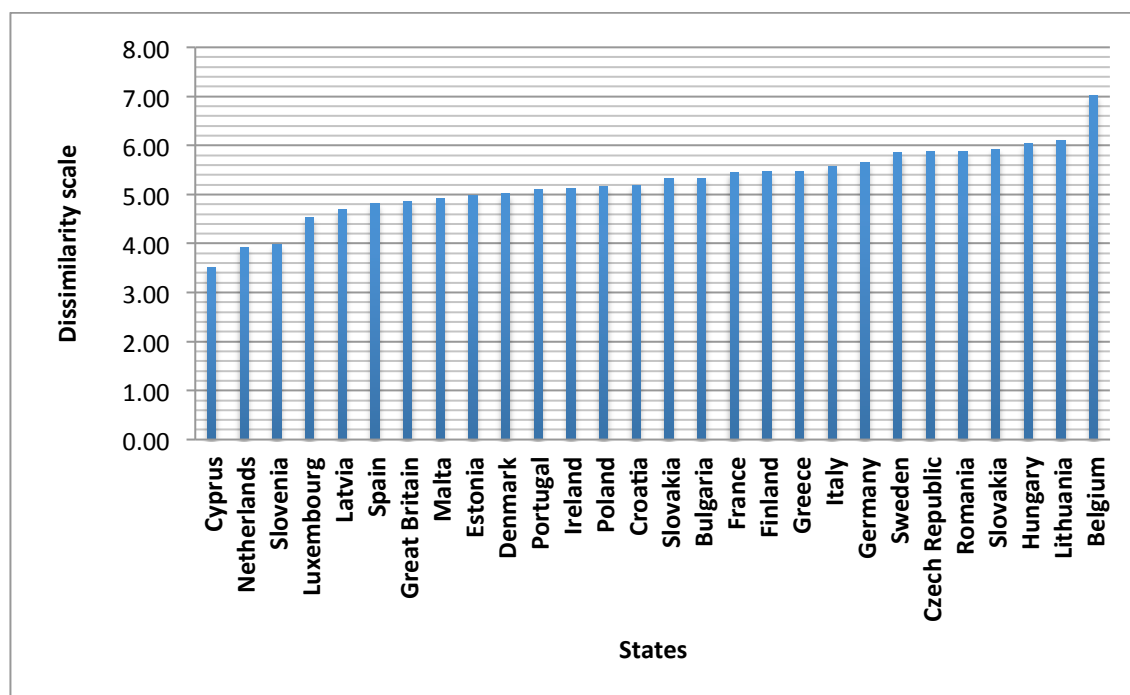
Fig.10:   Graph of dissimilarities from BEST

Source: Own work

Results of the analysis are graphically presented in the chart Dissimilarity from BEST. Again we can notice the less dissimilar, and so most similar, compare to the optimum BEST is Cyprus and the most dissimilar, and so least similar, conditions has Belgium.

5.6   Application of results on practical example

In this closing part of an analytical section, in order to present and explain results from the statistical analysis author will model a situation, which may occur on the market in context of dividend policy and tax planning.

Now, author will model a situation where typical Czech business entity want optimize a tax burden. Base on the findings from the analysis, Cyprus was evaluated as the most favourable business-legal environment from the perspective of dividend taxation. For this purpose two cases will be presented.

- Tax burden of a **current domestic company structure**
- **New structure** with a foreign (Cyprus) company

5.6.1   Introduction of the case

Lets assume, there is a typical Czech businessman is inquiring to optimize a current company structure with the aim to optimize his tax liability and obtain

higher dividend payments. This model will show clearly if which structure is more beneficial to use in order to optimize a tax burden and use the international tax-planning tool efficiently. For easier comparability of results all figures were converted to EURO currency.

The current structure, Czech parent company where the main business activity represents business sales. This company has one shareholder from the Czech Republic (100% shares own one natural person). Parent company is a 100% owner of two Czech subsidiaries, which are operating in a real estate business and production.
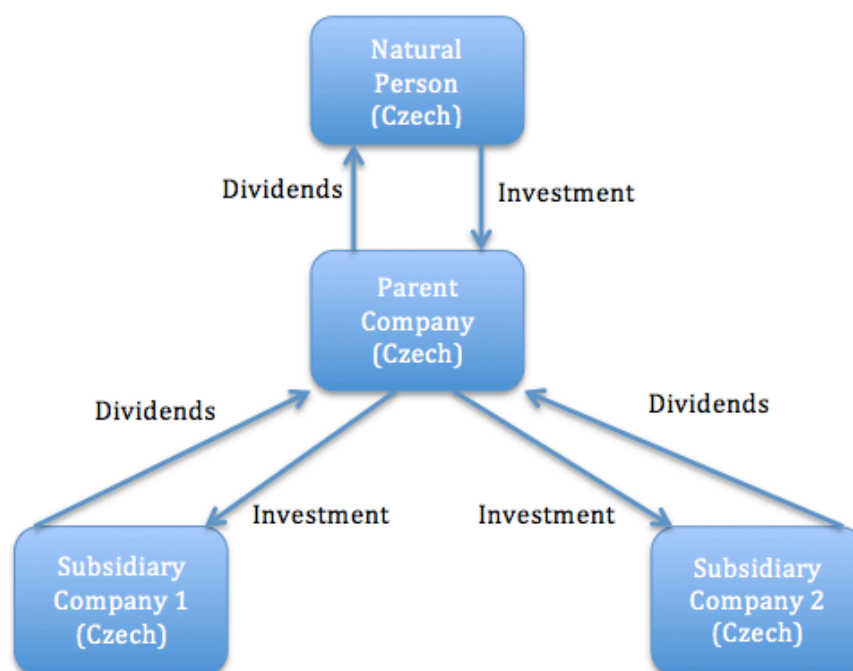

Fig.11:   Current company structure

Source: Own work

Under the current company structure Board of Directors decided to pay 100% dividends every year from both subsidiaries to the parent company. This transfer is exempted from taxation according to EU Parent-subsidiary Directive.

Tab. 10   Financial situation in Subsidiary company 1

Subsidiary 1	Thousands Euro
EBITDA[7]	500
Tax base	500
CIT (19%)	95
EAT[8]	405
Dividends[9] (100% to parent company)	**405**

Source: Own work

The table above shows the financial situation of a subsidiary 1, where EBITA of 500 Euro is subjected to 19% corporate income tax. Resulting amount (405 Euro) after taxation is transfer to the parent company in form of dividend.

Tab. 11   Financial situation in Subsidiary company 2

Subsidiary 2	Thousands Euro
EBITDA	500
Tax base	500
CIT[10] (19%)	95
EAT	405
Dividends[11] (100% to parent company)	**405**

Source: Own work

The table above shows the financial situation of a subsidiary 2, for the simplification of this example both companies have the same financial structure. Again, EBITA of 500 Euro is subjected to 19% corporate income tax. Resulting amount (405 Euro) after taxation is transform to the parent company in form of dividend.

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[7] Earnings before Interest, Taxes, Depreciation and Amortization

[8] Earning after Taxation

[9] Board of directors decide to pay 100% of dividends to the Parent Company

[10] Corporate Income Tax

[11] Board of directors decide to pay 100% of dividends to the Parent Company

Tab. 12   Financial situation in Parent company

Parent company	Thousands Euro
EBITDA[12]	2,000
Dividends	-810
Tax Base (rounded)	1,000
CIT (19%)	190
EAT	1,810
Dividend brutto	1,810
WHT[13] 15%	271
Dividends (net)	**1,539**

Source: Own work

Financial situation of the Czech parent company is demonstrated in the last table. Company is generating earnings (before taxation) in amount of 2000 Euro. Before we subject this amount to corporate income tax, under the Parent-subsidiary Directive we have to deduct received dividends from the earnings before taxation and subsequently modify tax base. Tax base is now subject to 19% CIT. The managerial board of directors decide to pay yearly 100% of EAT to the investor (natural person) in form of dividend. In order to do so, company must subject this profit (1,810 Euro) to 15% of withholding tax. Finally, the natural person will receive 1,539 Euro dividend income.

Before we start modelling suggestion of a dividend policy author will provide a brief overview of Cyprus and Czech Republic legal situations in context of dividend taxation and introduce aim of a holding company in the international perspective.

5.6.2   Cyprus

Cyprus occupies one of the first places on the list of countries of the focus of interest for international business companies (BIC). Holding company structure is in general greatly supported by the government in Cyprus. Thus this destination holds the role of strong competitor to other places such as Malta, Netherlands and Ireland also known as favourite holding jurisdiction.

Cyprus's main competitive advantages are strong and stabile political as well as legal system with the trust-worthy Anglo-Saxon roots. Cyprus is a member of European Union since 2004, adopted the EU Acquis Communautaire (legal system of EU) and EU Directives. Tax system in Cyprus is fully compliance

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[12] §19 Czech Income tax Law

[13] Withholding Tax

with the code of Conduct for Business Taxation and against harmful tax competition. As of April 2009, Cyprus proudly features on the White list of OECD.

Cyprus Island, located in southeast Europe in the Mediterranean See, already assumed one successful term of the EU presidency in the second half of 2012. In the year 2008, Cyprus became also a member of Eurozone, ever since that is using EURO as a national currency. Cyprus has also signed significant number of bilateral treaties, double taxation treaties (over 45 pieces).

Cyprus has, in the last decades, became a reputable and trust-worthy financial centre supported by highly developed legal, advanced accounting and banking sector. Cyprus benefits from large portfolio of skilled and multilingual workforce, great telecommunication systems and convenient infrastructure with great accessibility of flight connections.

The geographic location of Cyprus is connecting three continents - Europe to Africa, and though Middle East Europe to Asia. This disposition naturally makes the island a centre for business and trade operations.

There is a summary of features, which makes Cyprus very popular for setting up holding, financing and royalty structures, with the focus on foreign capital investments. Following main features provide highly interesting tax planning opportunities to the investor:

- One of the lowest corporate income tax rates in Europe at **12,5%;**

- Dividend income is generally **exempt** from taxation;

- **No** withholding taxes;

- Full adoption of the **EU Parent-Subsidiary Directive**, EU Mergers Directive, EU Royalty and Interest Directive and the EU Directive on Mutual Assistance and Cooperation; and

- Extensive network of **tax treaties (with 46 countries)** for the avoidance of double taxation. (KPMG, 2014)

Tax Residency
A company is considered to be tax resident in Cyprus if the management and control is exercised in Cyprus. (Place of Effective Management Principle) (KPMG, 2014)

Corporate Tax
Trading profits are taxed at the rate of **12,5%.** This is one of the lowest corporate income tax rates in Europe. (KPMG Tax Service, 2014)

Dividends
Inter-company Dividends

A Cyprus tax resident Company is ***exempt from tax*** when dividends are received from another Cyprus resident Company. And dividends are not indirectly distributed after the expiry of a four-year period from the end of the year to which the profits giving rise to the dividend relate. This regulation took place in force January 1st 2012. (KPMG Tax Service, 2014)

Dividends Received from Abroad
Dividends received from abroad are exempt from any tax if one of the following conditions is satisfied:

- The company that is paying out dividends is not entitled directly or indirectly in more than **50%** activities which lead to passive income (non-trading income) (KPMG Tax Service, 2014)
- The foreign tax burden on the income of the company paying the dividend is not substantially lower than the tax burden in Cyprus (An effective tax rate of at least five percept in the country paying the dividend satisfies this condition).

If neither of the above conditions is satisfied, then dividends received from abroad are taxed at the level of the Special Contribution for Defence (SCD) at the rate **17%** for years 2014 onwards. (KPMG Tax Service, 2014)

Foreign Tax credit
A tax credit will be applied according to the Double Taxation Treaties concluded by Cyprus. In the absence of a Double Taxation Treaty, Cyprus unilaterally apply a credit for the foreign tax paid on the same profit. For dividends received from other EU Member States the underlying tax credit is also available. (KPMG Tax Service, 2014)

Withholding Taxes
Non-tax resident persons (companies or individuals) are relieved form any further taxation (withholding taxes on dividend payments). (KPMG Tax Service, 2014)

Double taxation treaties – unilateral tax credit relief
The double taxation treaties that Cyprus has signed apply in full. At present Cyprus concluded more than 46 bilateral treaties and any resident companies may use their provisions and claim their relevant benefits. In addition, unilateral tax credit relief schema is also available in Cyprus legislation. (KPMG Tax Service, 2014)

Business International Treaties (BIT)
This schema is available in Cyprus only for direct investment, to protect international businesses.

The tax legislation of Cyprus has been prepared in a way to balance and encourage competitiveness of Cyprus with a large international business centers. Cyprus also has to holds its commitments towards the EU. As a result the competitive advantage has been developed and works as a tool for tax optimization, therefore tax-planning structures can be achieved. The Cyprus companies obtained the lowest taxation in Europe and other trading benefits. (KPMG Tax Service, 2014)

5.6.3   **The Czech Republic**

The Czech Republic is a traditional Central Eastern European Country (CEE) with an ideal accessibility to central European market. We might as well called Czech as an example of a country with conservative market. The Czech Republic has entered EU and became member in the year 2004. Country has a long history of industrial production and is the export always dominated over the import – typical export country.

   As a strength should be definitely named well-developed financial/banking sector with a strong independent central bank, ensuring extremely stabile national currency Czech Crown. Thanks to this monetary system Czech has a great resistibility and good capacity to withstand the global economic crisis or other asymmetric demand shocks.

   In a contrary to Cyprus, the Czech Republic has not entered Eurozone yet. From this perspective country is seen as very skeptical towards Europe and the lack of interest in the adoption of the Euro could discourage certain European entrepreneurs which is stopping capital inflow in form of financial investments. Moreover in the long term make the country less competitive. The lack of labor force also slows down the country's development (it is often necessary to hire foreign workers in order to fulfill production demands).

   Otherwise, the Czech republic has fully adopted the EU Acquis Communautaire (legal system of EU) and EU Directives. Tax system in Czech is fully compliance with the code of Conduct for Business Taxation and against harmful tax competition.

Summary of key features of the Czech Republic, in terms of foreign capital investment:

- The corporate income tax rates at **19%;**
- Dividend income is generally **not** exempt from taxation;
- Withholding tax is **15%;**

- Full adoption of the **EU Parent-Subsidiary Directive**, EU Mergers Directive, EU Royalty and Interest Directive and the EU Directive on Mutual Assistance and Cooperation;

- Extensive network of **tax treaties (with 76 countries)** for the avoidance of double taxation. (Deliotte, 2014)

Tax Residency

A company is considered to be tax resident in Czech Republic if the management and control is exercised in Czech Republic.
 (Deloitte, 2014)

Corporate Tax

Trading profits are taxed at the rate of **19%**. (Deloitte, 2014)

Dividends

Inter-company Dividends

Dividend payments between Czech companies are fully exempt from withholding tax in case of satisfying a holding in the subsidiary (parent-subsidiary directive) (Deloitte, 2014)

Dividends Received from Abroad

Inbound dividends – in Czech is a parent company - are exempt if:
- Dividends are paid by a subsidiary which is resident of a EU member state and the parent holds at least 10% shares for an uninterrupted period of at least 12 months
- paid by a subsidiary that:
    - is tax resident in a country outside the EU that has concluded a tax treaty with the Czech Republic
    - has a specific legal form
    - satisfies the conditions for the dividend exemption under the EU parent-subsidiary directive
    - is subject to home country tax similar to the Czech income tax at a rate of at least 12% (Deloitte, 2014)

Foreign Tax credit

Foreign tax relief (credit or exemption) is generally available only under bilateral tax treaties. If relief is not available under a treaty, income tax paid abroad may be consider as an expense and deducted in the following taxable period. (Deloitte, 2014)

Withholding Taxes

Dividends paid to a non-resident are subject to a **15%/35% withholding tax**, unless the rate is reduced under an applicable bilateral tax treaty.
- 15% standard rate is
- 35% rate levied on income paid to a tax haven (i.e. a jurisdiction that has not concluded a bilateral tax treaty or an agreement with the Czech Republic)

Under the rules of EU parent-subsidiary directive, dividends paid by a Czech company to a parent company located in another EU member state are exempt from withholding tax. (Deloitte, 2014)

Double taxation treaties
The ministry of Finance has listed all double taxation treaties that the Czech Republic has signed and can be apply in full. The Czech Republic concluded more than **76 bilateral tax treaties** based on which resident companies may use their provisions and claim their relevant benefits. (Deloitte, 2014)

The Czech Republic is a continental type of a country with a quite conservative approach towards liberalization of tax legislation in comparison to Cyprus. Czech has a great potential for foreign capital investment but unfortunately its volume restricted by EU skepticism and absence of single currency.

Tab. 13   Important factors for dividend taxation

	Corporate income tax	**Dividend taxation**	**Withholding tax**	**Parent-Subsidiary directive**	**Double taxation Treaties**
Czech	19%	Not exempted	15%	yes	yes
Cyprus	12,5%	Exempted	0%	yes	yes

Source: Own work

5.7   Suggested Dividend Policy in Context of International Tax Planning

In regards to the model example of Czech Company, which has enquired a decrease of tax liability and increase the dividend payments. The situation is calling for transformation of this current domestic model on to a new model with a possibility to use the international tax planning as a tool for a optimizing a dividend policy. From the results of the analysis and legislative overview of the states (Cyprus and the Czech Republic) the suggested company structure will follow.
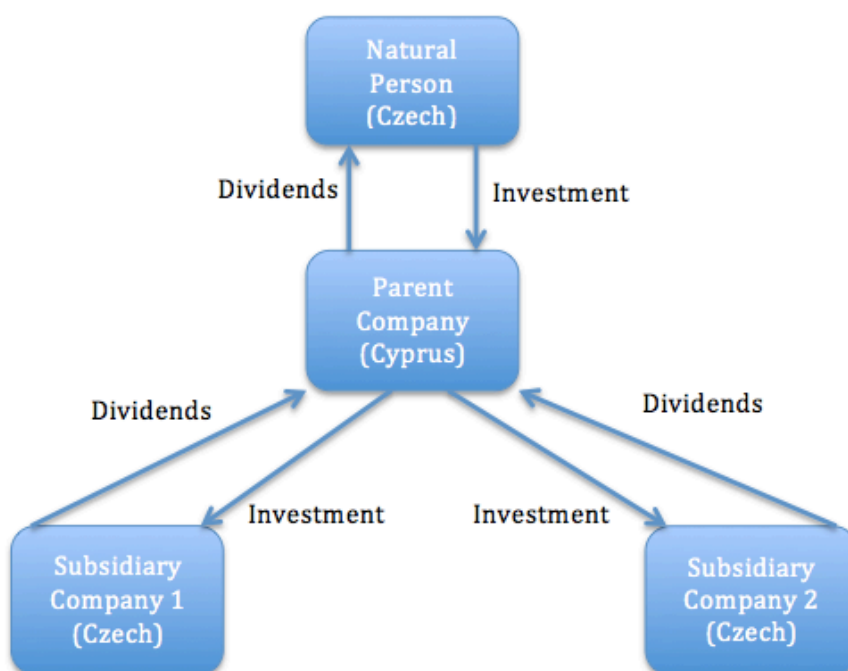
Fig.12:   Suggested company structure

Source: Own work

In order to fully utilize the benefits and tax advantages of Cyprus, author suggesting to locate parent company in Cyprus as it is demonstrated on the schema above. Both subsidiaries will be still located in Czech as well as 100% the owner/investor. In the following tables new financial situation of parent and subsidiaries companies will be presented.

Similarly as in the first case Board of Directors decided to pay 100% dividends every year from both subsidiaries to the parent company. This transfer is exempted from taxation according to EU Parent-subsidiary Directive.

Tab. 14   New financial situation of Subsidiary 1.

Subsidiary 1 (CZ)	Thousands Euro
EBITDA	500
Tax base	500
CIT (19%)	95

EAT	405
Dividends (100% to parent company)	**405**

Source: Own work

The table above shows the new financial situation of a subsidiary 1 under the same circumstances, where earning (EBITA) is the same as in the Czech structure, of 500 Euro is subjected to 19% corporate income tax. Resulting amount (405 Euro) after taxation is transfer to the parent company in form of dividend.

Tab. 15   New financial situation of Subsidiary 2.

Subsidiary 2 (CZ)	Thousands Euro
EBITDA	500
Tax base	500
CIT (19%)	95
EAT	405
Dividends (100% to parent company)	**405**

Source: Own work

Situation in subsidiary 2 remains unchanged.

Tab. 16   New financial satiation of Parent Company.

Parent company	Thousands Euro
EBITDA	2,000
Dividends	-810
Tax Base (rounded)	1,000
CIT (12,5%)	125
EAT	**1,875**
Dividend brutto	1,875
WHT 15%	281
Dividends (net)	**1719**

Source: Own work

Changes in financial structure are under the new location of a company are very obvious. Net dividends in a Czech regional structure were in the amount of **1,539 Euro,** relocation of a parent company to Cyprus brought **180 Euro increase** of dividends which in new international structure reached **1719 Euro**.

This model showed us clearly structure of a dividend policy, which is more beneficial to use in order to optimize a tax burden by through the international tax-planning tool.

Due to non-existence of tax neutrality, on the model situation above is clearly visible how different should be the resulting net dividend profit by using two different company structures. Dividend taxation in Czech is burdened by higher corporate income tax (19%) and withholding tax (15%) when dividends are pay out to final owner/investor/natural person.

Situation in Cyprus is more optimistic, mainly thanks to Cyprus liberal tax system. Corporate income is taxed only by 12,5% (lowest tax rate in EU) and dividends are exempted form further taxation by withholding tax. In this case transaction is supported by bilateral treaties on each side and regulated by EU Parent-subsidiary Directive rules.

In regards to personal interest of a natural person, he decided to buy a property of in Malta. Natural person with his family is spending there every year at least 90 days and at the same time abnegates the Czech residency. In the matter of this decision the residency of a natural person will be changed, which will bring different legislative procedures for this person. A dividend transfer from the parent company in Cyprus to natural person with a residency in Malta, such a dividends will be exempted from taxation entirely. In such a case the profit share paid to a natural person in form of a dividend will be **1,875 Euro**.

6 Discussion

For the purpose of the Diploma Thesis (Company Dividend Policy in Context of International Tax planning) it was essential to study the European corporate business market from a macroeconomic point of view.

While observing the global development of taxation in the European Union it is surely impossible to ignore its increasing importance. The growing importance of this development has mainly been based on the negative trend of rising state budget deficits in many countries.

The EU is commonly considered a world-strong trading and business leader. After the creation of the single market there was a significant increase in trade and economic activity in general. Thus this moment is often considered an essential purpose of EU common market creation. Current situations on the European market are quite difficult from the perspective of two participating sides – international companies vs. national governments.

One side represents cross-border business companies, which are trying to reach their goal of profit maximization, through usage of an aggressive taxation planning tool in order optimize their tax burden. On the other side, national governments, which are trying to maximize their tax revenues from this corporate sector.

From the macroeconomic point of view, the latest steps towards harmonization of transaction on the European market were greatly supported. Over time this harmonization process, which was supervising and suggesting common rules on the market, lead to tax competition and a fight of a national government to get sufficient amounts of financial resources from tax collection in order to cover their government expenditures.

This negative phenomenon, the tax competition, developed a very sophisticated model of the tax planning system, which soon became very popular. This system, created across various jurisdictions, is helping international companies to effectively shift taxable profits into the states with beneficial tax regimes or other business benefits. Such corporations create a new tax structure, used as a tool for optimizing the overall group tax burned. Typically, this is done through the establishment of offshore businesses in so-called tax havens, which in addition are bringing anonymity and protection of an investment. The problem of significant capital outflow from European countries to advantageous jurisdictions was one of the many failures, which started the last credit crisis.

The above-mentioned two "fighting" groups are coordinated by supranational organizations (OECD, UN, European Commission, European Court of Justice, etc.) that are supervising and proposing solutions of action taken on each side.

National authorities are also trying to eliminate capital outflow, the negative effect of tax harmonization, and restrict tax optimization processes, however their tools such as ***exchange of information*** with state authorities from other countries or current ***controls of transfer pricing*** were found to be insuf-

ficient tools to limit corporations from this action. Mainly all economically strong and developed countries have concluded Bilateral Treaties also called Treaties on Avoidance of the Double Taxation. These contracts are used to prevent double taxation of income, profits or property. Moreover it serves to combat tax evasion and also give legal certainty to taxpayers while concluding international transactions (cross-border businesses, dividend payments, etc.). These treaties are legally binding on the Force Majeure. In another words, they are used as a supranational law.

In business journals we can frequently find reports declaring that Multinational enterprises are paying minimal or no income taxes. At the beginning of the globalization process the main source of interest was the avoidance of double taxation, however the current situation is completely different and the main issue OECD is dealing with is "double non-taxation". In 2013 OECD introduced the new initiative Base Erosion and Profit Shifting (BEPS) which was supposed to propose action towards elimination of this phenomenon.

This brief overview of the situation on the European corporate business market evokes a question.

How can it be ensured that companies will tax at the place of source?
In my personal opinion I would find it essential to create **simple**, **understandable** and **fair tax legal structure** that is not creating a pressure, nor punishing a fair-minded taxpayer in a fight against profit from a legalization of a crime action. Reinforce the action of **Central Management and Control**, and coordinate the place of effective management. In fact, many countries consider a tax resident (subject to tax worldwide income) not only companies incorporated in the State (A) but also companies established in another State (B) if the place of effective management is located in State A. Also implementing rues of **Controlled Foreign Company,** where the fundamental purpose is to tax the profits of such entities at the level of its owners (without dividends having been distributed!). Finally, very promising and revolutionary new initiative of **OECD action plan BEPS** (Base Erosion and Profit Shifting plan). OECD will try to create a *harmonized information stream* among the states, neutralizing the effect of *Hybrid Arrangements*, finding a correct place to subject *company IT and digital companies to tax* (digital goods and online services), strict rules for *financial transaction within a group* of companies, and effective action against harmful tax regimes.

The focus of the work was European taxation of corporate profit – especially taxation of dividends. For a comprehensive outlook the Cluster analysis was elaborated in the practical part. The Cluster analysis illuminates relationships among EU countries. Groups of EU states (Clusters) were formed in the clustering process, which identifies similarities based on input criterions. The author set up a distance level and so countries were merged into seven clusters, which are further discussed in the previous section. Due to non-existence of the tax neutrality principle, similarities of clusters do not have complex character, and

different systems or approaches can be found. This fact can bring inspiration for innovation of national tax legislations. In the cluster analysis, criterions which the author found relevant in the context of dividend taxation, were used.

In the next step of the analysis the object (state) BEST was implemented in order to interpret results and obtain the ranking of states. BEST represents optimal attributes above all data sets. The object has been added into the analysis in order to obtain the possibility of comparing desired attributes with real attributes of other objects. In another words, BEST sets up a perfect, optimal, ideal or desirable example of a country for capital investment, therefore comparative analysis with results of other states was elaborate.

After completion of this part, Cyprus became a state with minimal dissimilarity from state BEST, the ideal state for capital investment based on determining criterions.

In the final part of the complex analysis the author was applying results in a practical example. The aim of this demonstration was to model a real situation, which can happen in the market and show how a dividend policy can, by using tool international tax planning, decrease a total tax burden of a company. The dividend policy is a very complex process of strategic intercompany decision-making about concepts proposed by a team of analytical experts. It represents a profit distribution tool for rewarding corporate investors for an acceptance of a risk of providing their financial resources to the company.

The dividend policy is the subject of intensive research and interest in financial theory since the mid-twentieth century. The basic questions are how dividend policy affects the market value of the company and position on the market, according to assumption of profit maximization. There are many methods, analytical schemas, mathematical models and formulas which are helping to evaluate and predict the attractiveness of the stock, position of a company on the market, market shares, and investment opportunities.

As an example the author introduced a company structure located in the Czech republic entirely and demonstrated a typical process of dividend payment from subsidiary to initial investor/shareholder/natural person through a parent company. By using a tool of international tax planning, the author suggested a different dividend policy and relocated the parent company to a different jurisdiction.

Current company structure **without** employing a **foreign jurisdiction**:
- Natural person is a 100% owner of a **Czech** company which is a **parent company** and 100% shareholder of two subsidiary companies located also in the Czech Republic.
- Every year profit shares (dividends) are paid in full from subsidiaries to parent company and finally to the natural person.
- **Total tax burden is 53%.**

This simple example clearly describes that dividend taxation in Czech is burdened by higher corporate income tax (19%) and withholding tax (15%) when dividends are paid out to final owner/investor.

Model situation **with** employing a **foreign jurisdiction**:
- Natural person is a 100% owner of a Cyprus company which is a 100% shareholder of two subsidiary companies located in the Czech Republic.
- Every year profit shares (dividends) are paid in full from subsidiaries to parent company and finally to the natural person.
- **Total tax burden is 46,5%.**

The savings by using this suggested model, with employing a foreign jurisdiction, equate to **6,5%.**

As we are comparing this situation to Cyprus it seems to be much more optimistic, mainly thanks to Cyprus' liberal tax system. Corporate income is taxed only by 12,5% (lowest tax rate in EU) and dividends are exempted from further taxation by withholding tax at the level of parent company. In both cases transactions are supported by bilateral treaties on each side and regulated by EU Parent-subsidiary Directive rules.

Results from the model situation have proven the assumption of the beneficial tax system of Cyprus and calculate the difference of net income from cross-border dividend transfer, in comparison to typical central Europe country the Czech Republic.

As it was discussed previously, predicting development of the situation on the market is very difficult. Scientific studies have shown that the behaviour of an investor can be very irrational. The main forces driving the market are supply and demand. In order to follow the concept of this work and the macroeconomic outlook, the dividend policy was decided on the fundamental basis of the external factor supported by the macroeconomic overview of Cyprus and the Czech Republic.

Decision making about the location of companies (or other entities subjected to the tax liability) is based on the freedom of business entities which is going along with non-existence of a tax neutrality. Both factors can lead tax payers towards optimization of a tax burden. In the practise we can find some other procedures which support international tax planning within a group of companies. Very frequently we can come across:

- Existence of what is called *"artificial cost".* When a parent company sends out invoice for *"artificial services"* which never happened in reality and which are very hard to enumerate (on a real basis).
- Transformation of one type of income into a different kind, which is subjected to favourable tax liability or is exempted for taxation completely (***transformation of a dividend to interest income***)

- ***Advantageous pricing of goods/products*** transfers within a group of companies

However, the taxpayer has to be ready and have a good explanation and documentation of all circumstances involved in above-mentioned activities, because these techniques will probably attract attention of national tax authorities, which will very soon be based on OECD BEPS initiative. The only advantage of a taxpayer is the opportunity the use of high proficiency and developed skills of tax advisors.

7 Conclusion

The international tax planning is a very popular tool used among taxpayers for the purpose of optimizing a tax burden. However, as usually, every coin has two sides. Although international tax planning is greatly appreciated by taxpayers on the other hand is strongly refused by states governments.

One side represents international business companies, which are trying to reach their goal of profit maximization, through usage of international taxation planning tool and relocation of their businesses into a tax beneficial environment, in order optimize their tax burden. On the other side, we have national governments, which are also trying to maximize their tax revenues with the focus on the corporate sector. National governments are trying to fight against this negative phenomenon and considerable a capital outflow.

This diploma thesis is describing how can be the international tax planning used as a tool for establishing a company dividend policy structure (profit maximization). The thesis provides an example of a transformation of a current domestic company structure into a new more tax efficient international structure.

The fundamental analysis, Cluster analysis, helps us to developed a macroeconomic overview of European conditions for taxation, with the focus on dividend taxation. States with similar conditions were clustered into groups, which were further discussed. The comparative analysis provided an order of states with attributes most similar to the ideal environment. This hypothetical state with optimal condition was named BEST. On the scale of dissimilarities from this state BEST, Cyprus has got the lowest figures, therefore under real circumstances was evaluated as the most suitable county for a capital investment and advantageous taxation of dividends.

In order to demonstrate the effect of international tax planning in context of company dividend policy imaginary company structure has been introduced. The aim was to model a new structure, which would be more efficient cost-wise. Original company structure contains the main shareholder (the natural person) with a Czech residency on the top, who is a 100% owner of parent company operating in business sales, which is a 100% shareholder two subsidiary companies focusing on production and real estates. Board of directors decided that dividends would be paid yearly in full (100%) amount to the natural person from subsidiaries through the parent company. This original structure was located in the Czech Republic entirely and also liable to tax of 53%. Dividend profit of the natural person was 1,539 000 Euro per year.

Newly developed, suggested structure holds the same business conditions, however based on the finding from Cluster and comparative analysis author recommended to transfer parent company to Cyprus, which offers beneficial environment tax-wise especially lowest corporate income tax (12,5%). Moreover, thanks to knowing the fact that our natural person in a mid of sixties has a desire to move abroad but still be able to coordinate business, from the economic point of view author suggested to move to Malta island. The natural person

has done all necessary procedures and obtain Maltese residency. Malta also proudly declares its tax friendly environment, especially in context of taxation dividends of residents, which paid 0% tax.

Final effect of suggested dividend policy and transformation of a company structure in context of international tax planning is that final receiver of dividends, resident of Malta, would pay zero withholding tax and on the corporate level would decrease tax burden by 6,5%, by moving his parent company to Cyprus.

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Annex

MatLab source code for calculation of distance table and Dendogram:

```
Y = [
1.09     0.32     0.88     0.93     0.68     -1.39
1.09     1.61     1.20     -0.98    0.68     -1.83
-0.90    -1.82    -0.57    -0.98    -1.43    0.42
-0.20    -0.39    0.19     -0.98    0.68     -0.24
-1.39    -1.47    0.40     -0.34    0.68     2.20
0.10     -0.54    -0.24    -0.98    -1.43    -0.46
1.28     0.32     1.87     0.93     -1.43    -0.10
-1.39    -0.25    -0.65    -0.98    0.68     1.08
1.38     0.25     1.10     -0.34    0.68     -0.46
-0.40    1.51     1.23     0.93     0.68     -1.48
1.09     0.98     0.06     0.93     0.68     -1.12
-1.39    0.04     -0.20    -0.34    -1.43    1.08
-0.40    0.47     -0.91    -0.98    0.68     1.08
-1.39    -0.54    -0.17    -0.98    -1.43    -1.20
0.59     -1.47    -1.41    -0.34    0.68     1.08
0.59     1.67     1.01     0.93     0.68     -1.04
-1.39    -1.11    -1.29    -0.34    0.68     1.08
0.10     -1.11    -1.06    -0.98    -1.43    -0.43
0.10     0.92     0.06     0.93     0.68     0.23
-1.39    1.75     1.89     -0.34    0.68     1.08
0.10     0.32     0.32     2.83     0.68     -0.27
0.49     -0.54    -0.83    0.93     -1.43    -0.27
1.09     0.04     -0.90    0.93     0.68     -0.05
0.19     -0.97    -1.44    -0.98    -1.43    1.08
-1.39    -0.11    -1.31    -0.98    0.68     -0.49
0.10     -0.82    0.01     0.93     0.68     -0.13
0.69     1.04     -0.52    0.93     0.68     1.08
1.58     -0.11    1.28     -0.34    -1.43    -0.54
];

dist = pdist(Y);
tree = linkage(dist, "complete");
mydend(tree);

table = squareform(dist);
save distances table

pause();
```