

**COPENHAGEN BUSINESS SCHOOL**  
MASTER OF SCIENCE  
ADVANCED ECONOMICS AND FINANCE

Master thesis  
Pages – 78, Characters – 150 634

**TAX HAVENS – FRIENDS OR FOES?**

Academic Supervisor:  
**Prof. Pascalis Raimondos-Møller**  
**Department of Economics**

Written by:  
**Ona Stasiunaityte**

**August, 2014**

## **Executive summary**

As the economy becomes more global and more companies start their business in multiple countries, the problem of base erosion and profit shifting (BEPS) increases. The existing domestic tax systems are not consistent with international laws and it creates the opportunity for multinational companies to exploit its advantages and avoid or evade paying taxes to the authorities.

The organisation for economic co-operation and development has been focusing on the issue for years. In 2013 it released an action plan on base erosion and profit shifting. The main purpose of the action plan is to improve the international tax system that will help to detect and avoid the problem of BEPS.

Low tax jurisdictions are mentioned in the action plan only briefly, even though it was seen as a main player in the tax avoidance in the past. Such unexpectedness raises a doubt whether tax havens are as harmful as thought previously. Three articles help to understand better the role of tax havens in the global economy. Slemrod and Wilson (2009) claim that existence of tax havens in the world decreases the welfare of other countries in the world. Hong and Smart (2010) opposes saying that tax planning increases welfare of the countries. The model of Johannesen (2010) which has similarities to both above mentioned articles, conclude that world is better off with tax havens than without.

## Contents

Executive summary .....	a
Introduction .....	1
PART I – Base Erosion and Profit Shifting .....	4
1. Globalization and tax avoidance .....	5
2. Significance of Base Erosion and Profit Shifting.....	9
3. Importance and need of the Action Plan .....	15
4. Action Plan for Base Erosion and Profit Shifting.....	17
4.1. Updates on Action Plan.....	24
4.2. International view on Action Plan .....	26
4.3. Connection between Action Plan and Tax Havens .....	29
PART II – Tax Havens .....	33
5. Description of Tax havens.....	34
5.1. Definition of Tax Haven.....	34
5.2. List of Tax Havens.....	36
5.3. Tendencies for a country to become a tax haven.....	40
5.4. Profile of Tax havens users .....	41
6. Methods of using Tax Havens .....	43
6.1. Debt contracts.....	44
6.2. Transfer pricing.....	44
6.3. Check-the-Box, Hybrid entities.....	45
6.4. Cross crediting .....	46
7. The position of Tax havens in the world’s economy .....	46
7.1. Tax Havens – Foes: existence of Tax Havens is harmful for the world’s economy.....	47
7.1.1. Theories supporting the conception ‘Tax Havens – foes’ .....	48
7.1.2. The model of Slemrod and Wilson (2009) .....	49
7.2. Tax Havens – Friends: existence of Tax Havens is beneficial for the world’s economy.....	58
7.2.1. Theories supporting conception ‘Tax Havens – friends’ .....	59

7.2.2. The model of Hong and Smart (2010).....	61
7.3. The Model of Johannesen (2010).....	70
Conclusion .....	75
Bibliography .....	79

## **Introduction**

Today's economy is becoming more global, firms are becoming multinational enterprises and business world is expanding. There is a fast progress in the international economy and it requires to be dealt differently. However the tax systems in countries are different and there is not up-to-date developed international tax system, therefore it creates gaps and frictions that multinational companies exploit and reduce their responsibility to pay taxes in a home country.

The problem of exploitation of differences in tax systems and avoiding paying taxes is called base erosion and profit shifting and it is a priority number one for Organisation for Economic Co-operation and Development (OECD). In 2013 OECD presented an Action Plan on Base Erosion and Profit Shifting (BEPS) to fight companies that take advantage of the current situation and differences in tax systems.

Action Plan is a set-up of 15 steps that must be implemented by September, 2015. The steps include fighting challenges of digital economy, eliminating effects of hybrid mismatch arrangements, tightening up the rules for controlled foreign corporations and financial instruments, re-evaluating transfer pricing rules and others. Every few months there are live webcasts on updates scheduled and aired for comments from everyone interested: corporations, authorities, consultants.

Tax havens that were considered as one of the main reasons for base erosion and profit shifting are only briefly mentioned in the action plan. It comes as a surprise, especially since it was strongly fought against in the past. For this reason, I am looking into the issue of tax havens in this thesis and answer the question, if they are really as harmful, as they were thought to be.

There are strong arguments on both sides in the debate of tax havens. There are articles and researches done suggesting that tax havens are harmful for the global economy and it decreases the revenues of high-tax countries. As a corner

stone to represent this opinion, I chose an article by Slemrod and Wilson (2009). They present a theoretical model which shows that elimination of tax havens in the world increase welfare in high tax countries. To contradict and introduce a now becoming more popular opinion I present an article by Hong and Smart (2010). In their theoretical model they show that if companies are using tax planning, it leaves the high-tax home country better off. If country decides to put some restrictions on tax planning, for example thin capitalisation rule, it would still bring an increase of welfare in the high-tax country. In the end I present a paper of Johannesen (2010). His model is similar to the model of Slemrod and Wilson (2009), but it shows that all the countries in the world are better off in the world with tax havens and separating equilibrium than in the world with no tax havens and asymmetric equilibrium.

The paper consists of two parts. First part describes the globalisation and tax avoidance problem in the world. It gives a description of BEPS and explains how big the problem is in the world economy. It is explained why action plan is necessary and needs to be implemented and the overview of every step of action plan is presented. Later available updates of the plan are presented and world's opinion about its importance and necessity is expressed.

The second part of the thesis talks about tax havens and their role in the world and in the problem of BEPS. It starts with a brief introduction to tax havens – what they are, how they are defined by the rest of the world and how they can be divided. There is also a list of tax havens presented. Since there is no one definite list of tax havens, I have included OECD list of tax havens (1998) and a list presented by Tax Justice Network, which includes some countries that are considered to be tax havens only after performing a reputation test. In order to better understand tax havens there is a brief explanation of which countries have tendency to become low-tax jurisdictions provided. Later it explains what companies and firms are more likely to be tax havens users and which methods are most popular among them.

Later on the theoretical models are presented. It starts with the model of Slemrod and Wilson (2009), followed by model of Hong and Smart (2010) and finished with model of Johannesen (2009). Based on the outcome of the models, final conclusions are drawn and presented at the end of the thesis paper.

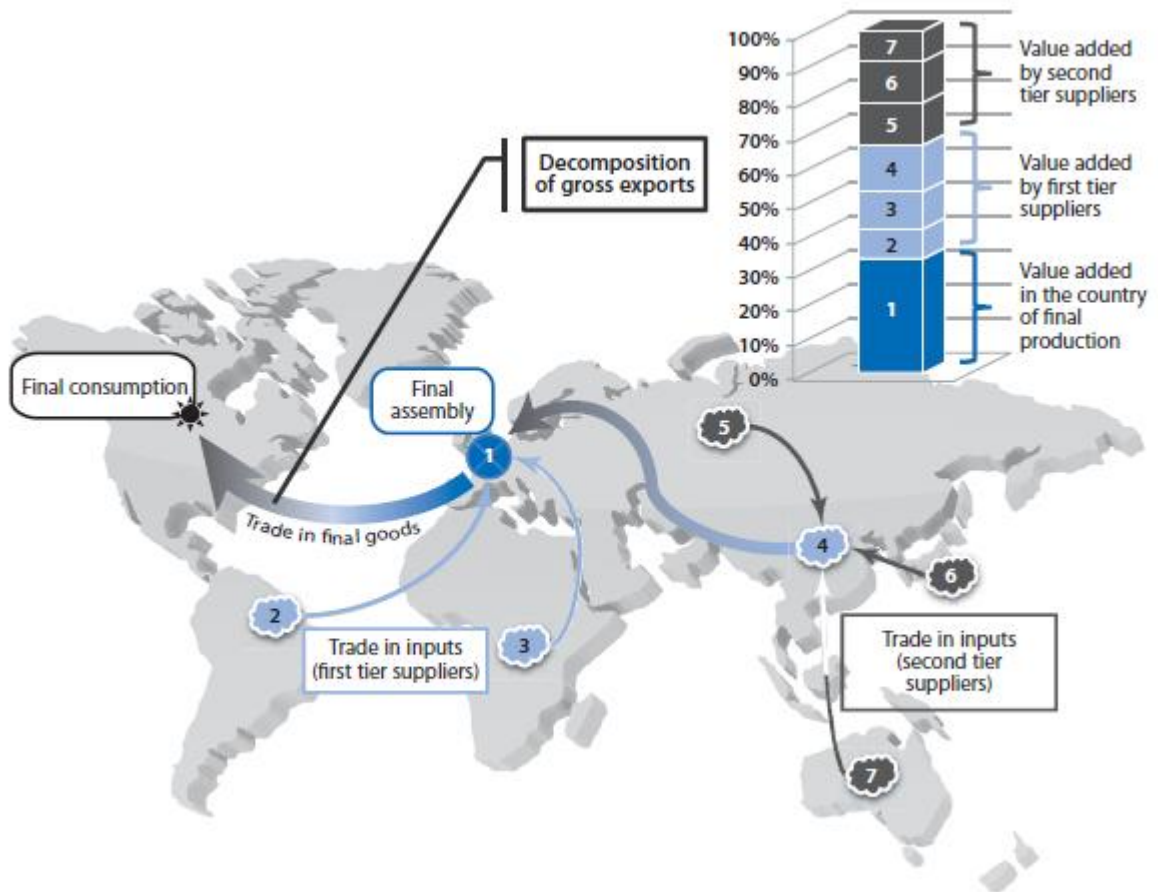
**PART I**  
**Base Erosion and Profit Shifting**



## **1. Globalization and tax avoidance**

Globalization is an inevitable force that benefits domestic economies. Integration of each country's economy to a global one is increasing rapidly in the last years. It is much easier to create and sustain an international business, with free movement of capital, more mobile labour and possibilities of changing a location of manufacturing from high-cost countries to low-cost ones. Technological and communication development, protection and usage of intellectual property, risk management and development influence an increase in international business activities around the globe. Since globalization effect took place, both international trading and direct foreign investments have increased in a lot of countries. All of these processes helped to grow economy, create jobs and speed innovation (OECD 2013a).

In today's economy, where the manufacturing process is not just domestic anymore, global value chains explain the production process that happens across borders. Figure 1 presents how global the world has become where inputs for the products and value to the final goods are added in different economies, final assembly takes place in another economy and the final product is presented to another market for customers and consumption.



**Figure 1.** A simplified representation of a global value chain

Source: OECD (2012), "Global Value Chains: OECD Work on Measuring Trade in Value-Added and Beyond", internal working document, Statistics Directorate, OECD, Paris.

Large proportion of national GDP is created by multinational companies and intra-firm trade and it is a significant share of overall international trade. World Wide Web introduced possibilities for companies to place businesses in one location while their customers or physical production activities are in other locations. Widely international enterprises find options for tax planning that offer legal exploitation of international and domestic laws and rules that results in lower paid taxes. Therefore more global companies choose rather aggressive tax strategies.

One of the biggest problems in the field is that while economy is becoming more and more globalized, companies are expanding into multinational enterprises, intangible assets are becoming more important, development of technologies and information spread is growing, is that rules for taxation are still mostly of

domestic importance. With the lack of international tax laws and integration of taxes in global economy, there is an available gap for companies and individuals to avoid paying taxes. International tax standards are still not completely up-to-date with the economy comparing to the global business practices. Digital economy and intangibles are used most often for minimizing paid taxes, because with the tax system that exists today, it is difficult to properly measure and tax businesses that use advanced digital systems and most of their assets are intangible. Businesses are becoming international and integrate across the countries faster, while tax systems in each country are still not coordinated and leave room for legal opportunities to take advantage of the differences in international and domestic tax laws (OECD, 2013a).

Cross-border businesses are taxed by the set of rules that include domestic tax laws, double tax treaties and other international laws and instruments that are applicable in the area of business. Often enough domestic tax laws are different and create possible gaps or mismatches in the system that companies rush to exploit. Multinational companies that are operating in more than one country tend to take advantage of differences in national laws by creating and following tax planning strategies that lead to Base Erosion and Profit Shifting (BEPS). Even though in most cases such tax planning strategies and BEPS are not illegal, it is still not fair to other, especially domestic businesses and to governments of the countries where activities are taking place, but none or only little profits are registered. And because more and more companies choose to participate in BEPS it is becoming a relevant and solution seeking problem for the global economy.

There are a few key principles that can determine the issues related to BEPS:

- Jurisdiction to tax. Tax system can be territorial and worldwide. Worldwide taxation system is based on taxing residents on their worldwide income that was earned inside and outside of the country. Territorial taxation system is based on taxing both residents and non-residents income, earned in the country. The interaction of domestic tax systems can get to a situation where an income can get taxed in more than one jurisdiction, ending in double taxation. It can also result in double non-taxation, when

income is not taxed in any of the jurisdictions, while using gaps of the interaction of territorial tax systems.

- Transfer pricing. Between two independent companies, prices of goods or services are usually set by the market. When two associated companies are trading goods or services, prices for them can be and often are determined differently. In order to assure that all transactions between related parties are consistent with the ones between unrelated parties, comparability analysis needs to be implemented. This way fair trade can be secured in the worldwide market.
- Leverage. Most countries have a system to treat taxable equity and debt differently. Since debt is technically a source that is not owned by a company, interest on it is deductible for tax purposes. However, dividends paid to shareholders are not tax-deductible. Such differences often lead to characterising payments in such way that they are not taxed or can be tax-deductible, even if initially it would have been otherwise.
- Anti-avoidance. There are many strategies for reducing tax benefit and they mostly work on deterring, detecting and giving response to aggressive tax planning. Their goal is to dissuade companies from aggressive tax planning. Tools like public rulings, promotions of penalties, additional mandatory reports are used to reach the goal. The most significant anti-avoidance rules are: general rules that reduce possibilities to tax benefits; controlled foreign company rules, that allow to tax income from controlled non-residents; thin capitalisation rules (and other, related to interests and deductions) that do not allow excessive deductions; anti-hybrid rules that eliminate possibilities of mismatches between tax systems in different countries; anti-base erosion rules that provide specific deductibility or withholding taxes rules for certain payments.

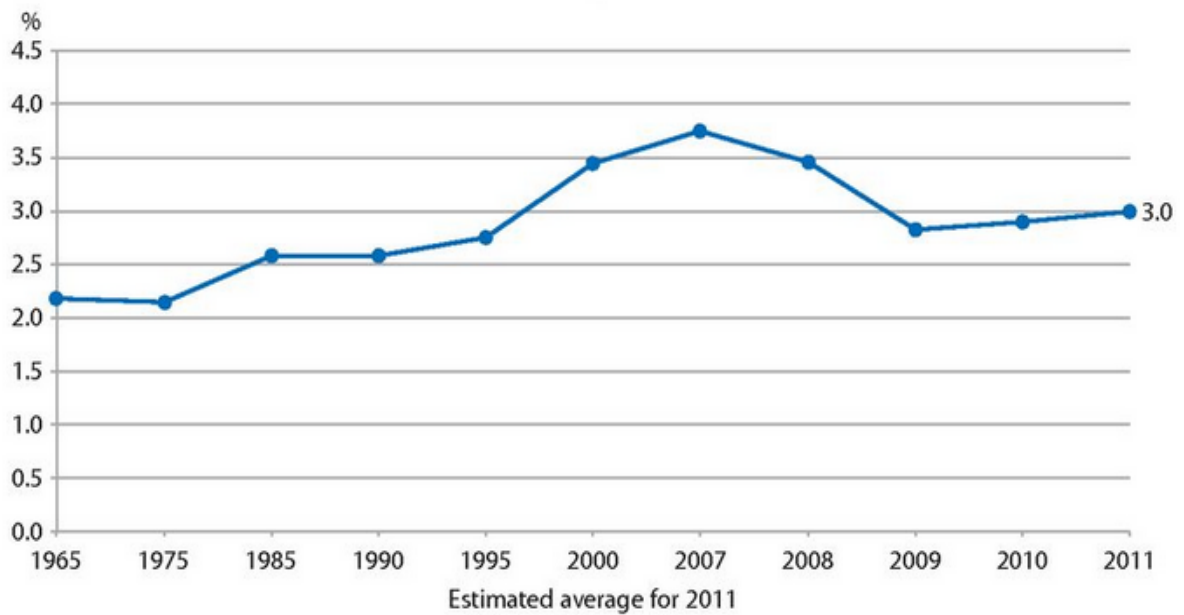
Since MNEs are actively using the opportunities to minimize their payable taxes in the high tax countries, it raises the issue of tax fairness. It causes troubles in the economy on three levels. Firstly, it harms the governments. Authorities collect less tax revenues and are forced to face higher cost in order to maintain the same services. Also, it harms individual tax payers. While big international

companies are avoiding taxes, it increases the tax burden for the others, such as individual tax payers. Lastly, other businesses are harmed as well (OECD, 2013). Especially domestic companies are usually unable to compete with MNEs, due to their ability to shift their profits to a low tax location and, just like individual tax payers, domestic businesses, such as family-businesses and new innovative companies are facing higher tax burden.

## **2. Significance of Base Erosion and Profit Shifting**

Base erosion creates risk to tax revenues, tax sovereignty and tax fairness for every country in the world. One of the main sources for base erosion is profit shifting. However it does not matter how much of the attention the topic gets, it is still difficult to come up with a solid conclusion on how big of a problem BEPS in the world actually is. Most of the articles on the topic are not conclusive, even though the evidence that the issue is wide spread exists (OECD, 2013b).

Corporate income tax is about 10% of total tax revenues or around 3% of GDP, on average in the OECD countries. Even though the percentages are not particularly large, collected corporate taxes are an important share of the revenues to the government of the country. Over time the part of corporate income tax in GDP increased. The average percentage of an increase is from 2.2% in 1965 to 3.8% in 2007 (OECD, 2013b). Numbers dropped in the next 2 years, 2008 and 2009, but it is slowly increasing since then.

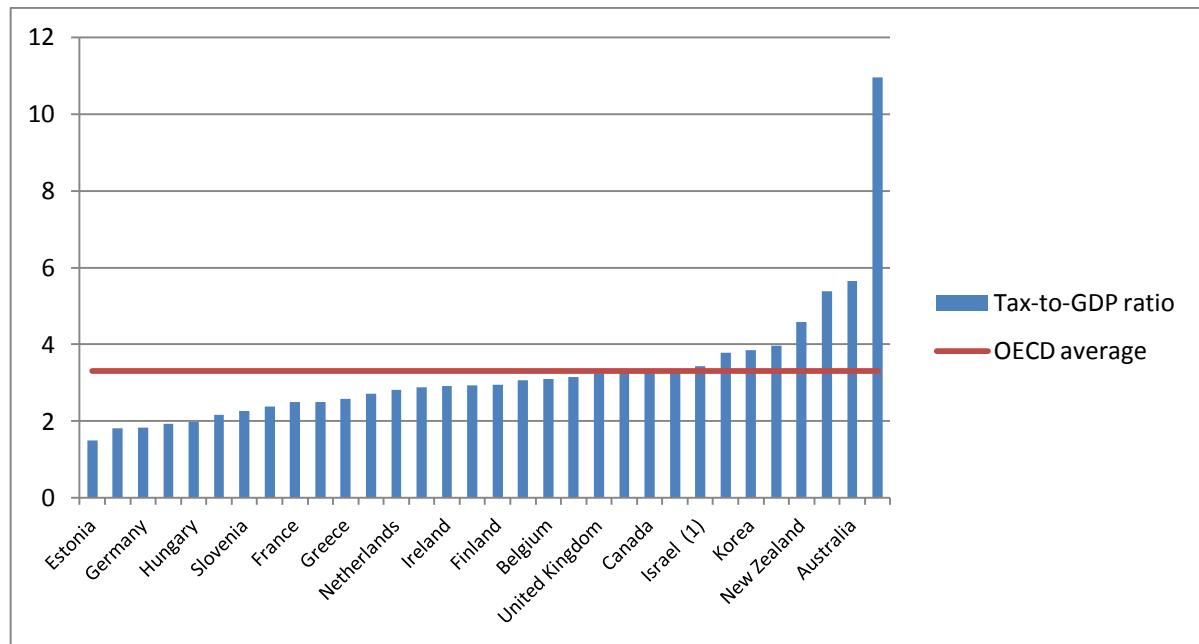


**Figure 2.** Taxes on corporate income as a percentage of GDP  
OECD unweighted average

Source: OECD (2012), Revenue Statistics 1965-2011.

However, trends of corporate income tax and GDP relationship do not provide proof of the BEPS problem. There are other factors in the economy that can cause changes in GDP and what part of it consists of corporate tax. One of the examples that can change fractions of GDP is national or international financial crisis.

Percentages of corporate tax as a part of GDP on the country level suggests that there may be a profit shifting and base erosion issue. Percentages differ from 1.5% in Estonia to 10.96% in Norway in OECD countries. Between 32 countries, only one collects more than 10% of its GDP from paid corporate taxes. Only 2 collect a little over 5%. Approximately only one quarter of countries collect more paid taxes than the average of OECD countries.



**Figure 3.** Taxes on corporate income as a percentage of GDP on country level  
*Source: OECD (2012), Revenue Statistics 2004-2012.*

OECD in their report `Addressing Base Erosion and Profit Shifting` (2013) find observations from the studies that are analysing BEPS. They find that a number of studies and data suggest that there is an increased separation between the place where the actual business and investments take place and the place where profits are reported and taxes paid. It would be possible to find more evidence for BEPS actions if effective tax rates were measured more consistently. One of the measures to test for profit shifting and base erosion is effective tax rate, which is lower than the statutory corporate income tax that is indicated in the country's laws and is used to calculate a tax liability of the business. If all or some tax allowance deductions are applied to the statutory corporate tax rate, it appears to be a significantly lower tax rate that is better known as an effective tax rate (ETR). The statutory corporate tax rate can be lowered by applying depreciation or acceleration rules and involving in other tax planning strategies. The general way to describe ETR is as an average rate of tax rate for the company. It can be calculated as a ratio of total tax expenses over taxable income. However, since ETR is affected by many factors, the data-based studies cannot provide with a definite answer if company faces low ETR because of smartly planned tax strategies by the taxpayers or because of obtainment by the

government policy, when it provides a possibility to decrease ETR by allowing to implement promoted cases, like a certain acceleration method for fixed assets. It is harder to come to a solid conclusion, since, even though the studies on both MNEs and ETRs are useful, but it is almost impossible to find two of them, using the same methodology for comparison. And since different methodologies are being used to calculate ETRs, the conclusions that studies arrive to are very different. The results from the same country or area can be different, sometimes even opposite. Different or opposite results aggravate finding the true reasons behind the BEPS (OECD, 2013b).

If we look at the changes in ETR in United States of America, it has a tendency to decrease as the time goes. Such fact alone is not a proof for profit shifting or base erosion. Statutory corporate tax rate has been decreasing in the USA as well, but not at the same pace and speed as ETR. And with new technologies, world becoming more global and businesses crossing borders more often, it suggests, that the decrease in ETR can be caused by corporations using gaps in the international tax system and differences in domestic systems to avoid paying taxes in the country and shift profits.



**Figure 4.** U.S. Effective Corporate Tax Rate 1947-2011

*Source: Federal reserve, 2012*



Some of the results, however, sound convincing. J.P. Morgan (2012) in a report of contrasting businesses that are operating globally and domestically only (in the USA), find that for the global companies ETR is 22.4% weighted-average, 10-year long-term effective tax rate, while for the domestic companies, weighted-average 10-year long-term ETR is 36.2%. Avi-Yonah and Lahav (2011) in their study analyse 100 largest MNEs based in USA and compare them to the largest MNEs based in European Union. They found out that even though statutory corporate tax rate in USA is approximately 10% higher than in European Union, effective tax rates in MNEs based in European Union is higher than in MNEs based in USA by around 4% (OECD, 2013b).

In a research working paper Markle and Shackelford (2011) studied data from almost 30 thousand financial statements of 11 thousand public corporations from 82 countries from 1988 to 2009 and estimated ETRs for the countries. They later tested data from years 2005 to 2009 to see how ETRs differentiate for MNEs and domestic companies. Findings suggest that both multinational and domestic companies are facing similar effective tax rates. However, the location of the headquarters of the company matter. Companies that base their headquarters in high tax countries are facing higher ETRs than companies that have their headquarters in low-tax countries (OECD, 2013b). This suggests that even though profit shifting problem is not as significant as viewed, it exists.

754 large non-financial multinational companies, based in the United States of America were analysed by Grubert (2012). Analysis offered that share of aggregate pre-tax income earned abroad increased to 51.1% in 2004 from 37.1% in 1996. Such increase was almost only reached by the income that is not repatriated back to the home country and the foreign share of total income increased to 31.4% in 2004 from 17.4% in 1996. Conclusions state that different effective tax rates in the domestic and foreign market influence the share of MNE income abroad significantly. The study also concentrates on correlation between company's ETR and its growth, both domestic and worldwide. There is no clear evidence that lower tax rates in foreign countries affect worldwide growth of the company.

The United States General Accountability Office in 2008 issued a report on corporate tax payers, domestic and international operations of the multinational companies. Results show that average ETR on national income for companies that have positive domestic income was around 25.2% in 2004. However one-third of these tax payers had effective tax rate of 10% or less and one-fourth over 50%. Average ETR on income coming from abroad was 4%, including both foreign tax credits and tax deferrals.

The effects of income-shifting of multinational corporations of U.S. were introduced by Clausing (OECD, 2013b). Significant differences were found between the actual operations of the affiliates in the other countries and the location of profits registered for tax purposes. Top countries for gross profit registration are the Netherlands, Luxembourg and Ireland, while top countries for employment are United Kingdom, Canada and Mexico.

United States Congressional Research service in the article by Gravelle (2009) finds evidence that registered profits for tax purposes are not consistent with countries of economic motivation. The study analyses the profits of foreign companies, controlled by the parent companies of U.S. as a percentage of GDP of the countries they are in. While the ratios differ from 0.2% to 2.6% in G-7 countries, numbers are much higher in lower tax locations. Table 1 represents the numbers.

**Table 1.** U.S. Foreign Company Profits Relative to GDP, Small Countries on Tax Haven Lists, 2008

Country	Profits of U.S. Controlled Corporations as a Percentage of GDP
Bahamas	43,3
Barbados	13,2
Bermuda	645,7
British Virgin Islands	354,7
Cayman Islands	546,7
Guernsey	11,2
Jersey	35,3
Liberia	61,1
Malta	0,5
Marshall Islands	339,8
Mauritius	4,2
Netherland Antilles	8,9

*Source: Internal Revenue Service, Gravelle (2009)*

Some of the results seem artificially inflated. And since the countries with highest percentages are mostly small tropical islands with little room for actual economic and manufacturing activities, it suggests that there is a high chance of tax avoidance and evasion cases happening.

### **3. Importance and need of the Action Plan**

Every country decides on its own domestic tax system. However, since there are more and more international businesses in the world's economy, if a country has not taken into consideration other countries tax laws, this could lead to gaps and frictions. Nowadays there are more and more businesses in the world that are

based in one country, but since it is mostly digital and businesses are run through the internet, most of the activities can be located in one country even though taxes are calculated and paid in another country. When a company is running in two countries there could be a friction in the tax systems of the countries that would create a double taxation problem. It could also be a gap between two systems where the company would not be taxed at all. If there is no coherence between the tax systems in two or more different countries, it leaves plenty of space for companies, accountants and tax consultants to find ways to minimize the tax burden (OECD, 2013a).

The problem of taxation of international businesses was noticed in the 1920s. It was noted that interaction of domestic tax system of two different countries can result in double taxation and in such way negatively affect growth of global economy. International laws were introduced in order to avoid double taxation and promote global economy. However nowadays in a rapid growing and much more globalised economy, such international rules create opportunities to minimize or avoid paying taxes in both of the countries the business is established.

Technically existing laws and rules of taxation do not give rise to BEPS. Cooperation between governments that are based on common standards usually successfully prevents the double taxation of profits. Recently, though, there have been noticed weak points that provide an opportunity for BEPS. Mostly BEPS appears where the difference in two or more tax systems leads to a possibility of double-non taxation or less than a single taxation. It also allows shifting profits from the location where activities generate profit to the location with no or low tax rates. The problem of BEPS is not the low or non-existing tax rates, but the fact that the profits are generated in one place but then shifted to another location for tax purposes (OECD, 2013a).

More difficulties arise when it comes to digital economy. It mostly consists of intangible assets, usage of data and multi-sided business models which makes it hard to determine where the value was created. It makes it difficult to indicate

where the value of the production was created and how profits were made. Therefore it is very important to investigate how such businesses generate their profits and add value in order to apply the existing rules or the specific features and prevent BEPS.

With weaknesses revealed, the now existing international and domestic tax law framework is not optimal anymore. It causes governments' losses of tax revenues, more international competition and replacement of current framework to one-sided measures. Such changes can cause a bigger problem, which could end in a double taxation situation. Double taxation takes place when an international businesses, due to the differences in tax systems is taxed in both home and host countries for the same activities. This is why it is very important to act in a timely manner and implement the action plan that OECD presents in the 'Action Plan on Base Erosion and Profit Shifting' (2013) and deal with arising weaknesses and gaps in the existing system. The main goal of the Action plan is to come up with a set of instruments and regulations, both on domestic and international levels that will adjust tax system to work efficiently in the real economic activities.

#### **4. Action Plan for Base Erosion and Profit Shifting**

In 2013 OECD presented an Action Plan for Base Erosion and Profit Shifting. It provides a fifteen step action plan for the period of 2 years which will help to avoid double non-taxation and minimize the intention to separate income and profit from activities that generate it, such as labour force and manufacturing process. The last steps are to be employed by September, 2015. Action plan is prepared to find the weak points in the existing system of international taxation and propose new rules and approaches, including anti-abuse provisions. There are three main goals that must be achieved:

- New proposed standards must align corporate income tax laws at the international level. Issues as gaps, frictions or mismatches between national tax systems and their interaction internationally will be included.

- Current taxation system must be reviewed and ensured to match international standards. It also must keep up with the changes in technology and business world. While current taxation system is effective in bilateral tax treaties, it needs an improvement when more than two countries are involved in the actions. At the same time laws and rules should improve when it comes to transfer pricing, especially focusing on intangible assets, capital and risks transfers.
- Further transparency, certainty and predictability must be ensured to be continued. Information on taxes and tax planning are still often not available and new methods to receive necessary information must be found. It is very important to allow all the information, necessary for the potential investors, be available in order to make right investment decisions.

Action Plans is as follows (OECD, 2013a):

1. Address the tax challenges of the digital economy.

Difficulties caused mostly by digital economy to the existing international tax system must be identified and a plan of how to address them has to be developed, including both direct and indirect taxation. Issues to discuss include situations like company's capabilities of having a significant digital presence in another country, but not being accountable to pay taxes because of the gaps in the international taxation system; value creation via use of digital services and products; descriptions of income that is collected by the companies that are using new business models; effective collection of taxes on digital goods and services that are moved across borders.

2. Neutralise the effects of hybrid mismatch arrangements.

Hybrid mismatch arrangements are all arrangements that exploit cross-border asymmetries in the tax treatment of financial instruments, entities and transfers. Basically hybrids are ways to have transactions or money to be treated differently in different countries while taking advantage of it and avoiding paying taxes. A model must be created in order to neutralise the effect of hybrid

instruments. Hybrid instruments would be, for example, double non-taxation (when a company avoids paying taxes in both countries it has activities in), double deduction (where the same loan or other financial instrument is being deducted for tax purposes in two different countries by the same company), long-term deferrals. This step includes changes in OECD Model Tax Convention, provision of local tax laws for deductible payments, co-operation and co-ordination rules if more countries aim to apply deduction rules to the same operation or transaction.

### 3. Strengthen CFC rules.

The area that has not been worked on in the past is Controlled Foreign Corporation (CFC) rules. The problem is that multinational companies have an option to create non-resident tax payers and then route income through the non-resident affiliate out of resident's company. There are already anti-deferral and CFC rules applied in the countries, but the results are not optimal, therefore CFC rules needs to be revised and optimized.

### 4. Limit base erosion via interest deductions and other financial payments.

Interest deductions can be used for both inbound and outbound investments and may cause double non-taxation issues. In order to avoid that, recommendations need to be introduced on how to prevent base erosion due to the usage of interest expense. For example, how to avoid actions where related-parties or third-parties use debt to reach excessive interest deductions or find a way to finance business with deferred income. The objective of the action is to find the effectiveness of possible limitations and their implementation. Guide lines will be presented for transfer pricing, giving a special attention to related party financial transfers, financial guarantees, derivatives and insurance options.

### 5. Counter harmful tax practices more effectively, taking into account transparency and substance.

Work that has been done concerning harmful tax practices must be reviewed and updated. The main focus should be concentrated on transparency issues, without forgetting compulsory exchange of decisions that were made in relation to

preferential regimes. The preferential regimes issues, related to BEPS should be re-evaluated and necessary changes must be added.

#### 6. Prevent treaty abuse.

Treaty abuse is one of the main concerns of BEPS and needs to be revised. A list of recommendations for treaty provisions must be created, including the national or domestic rules to prevent treaty benefits coming from improper conditions.

#### 7. Prevent the artificial avoidance of PE status.

The definition of permanent establishment (PE) is outdated and needs to be revised and updated to avoid abuses. In many countries, because of the definition of permanent establishment, it is possible for companies to avoid registering profits in the country where they were made simply by changing the status of their affiliate in the country to a distributor and shift profits out of the country. Therefore it is crucial for the changes to be developed in PE definition and ensure that there is no avoidance of permanent establishment status, not through specific activities or commissionaire arrangements.

#### 8. Assure that transfer pricing outcomes are in line with value creation: Intangibles.

A set of rules must be released to ensure there is no movement of intangibles among group member that causes BEPS. These rules should include a clear description of what intangibles are, assurance that profits will be registered appropriately according to the location of value creation, especially in the cases where transfer of intangibles were present. Also transfer pricing rules or measurements must be established for the intangibles that are hard to value and guide lines for cost contribution arrangements must be updated.

#### 9. Assure that transfer pricing outcomes are in line with value creation: Risks and capital.

Another set of rules must be developed in order to prevent BEPS by the transfers of risk or allocating capital between group members. It will assure that transfer



pricing rules and measures will be introduced so that returns will be accrued to an entity appropriately.

10. Assure that transfer pricing outcomes are in line with value creation: Other high-risk transactions.

A set of rules will be developed to prevent BEPS by participating in the transactions that would not normally appear between unrelated parties. Transfer pricing rules and measures will be used to explain under which terms transactions will have an option to be re-characterised; methods for profit splitting will be clarified; protection will be created against the most common payments that erode base, like management fees.

11. Establish methodologies to collect and analyse data on BEPS and the actions to address it.

Recommendations will have to be developed to make sure that there are tools to monitor, control and estimate how effective actions towards BEPS are and what impact it provides to the economy. There will also be an evaluation of the existing data on the issue. New collectable data will be recognized and methods on how to collect and use it on micro and aggregate levels will be developed.

12. Require taxpayers to disclose their aggressive tax planning arrangements.

Recommendations for compulsory disclosure of transactions or arrangements, that are abusive or aggressive needs to be established, including administrative costs for tax administration. The stress will be on international tax schemes with a definition for tax benefit so that aggressive or abusive transactions can be caught. With new developed models better information trade will be reached on international tax schemes between tax administrations.

13. Re-examine transfer pricing documentation.

Different information between tax payers and tax administrations is the main problem when it comes to transfer pricing and rises opportunity for BEPS. Therefore new rules need to be set for transfer pricing documentation and increase transparency for tax administration. Rules will include a demand that all

multinational companies will deliver all the information about global income, taxes paid in every country and economic activities necessary for the government.

#### 14. Make dispute resolution mechanisms more effective.

The option to use mutual agreement procedure (MAP) presents the possibility to BEPS. MAP has to be improved to avoid barriers for the countries to solve issues under the MAP. The solution will be found and will eliminate obstacles that are causing troubles for countries in solving disputes under the MAP.

#### 15. Develop a multilateral instrument.

Tax and public international law issues that are discussing multilateral instrument development must be analysed for the interested jurisdictions so that the measures, established during the period of work with BEPS, could be implemented and bilateral tax treaties could be edited. The same analysis will be used to create a multilateral instrument which will provide an improved way for international tax matters and will be able to adjust to changes in global economy.

OECD has been fighting taxes avoidance and evasion for a few decades now, but the results were not completely satisfying. Therefore an action plan of 15 steps is presented to the world that is supposed to change the history of taxation in the world and eliminate or at least minimise base erosion and profit shifting.

As promising as the idea sounds, the action plan itself may raise a few doubts. From the first look, the plan looks a little vague. For the simple reader it may seem like a little unorganized and definitely not a goal-reaching plan. Steps that need to be implemented are not specific. They do not include exact strategy to achieve the goal, specific measurements to identify causes of the problem and how relevant they are, tools to be used for achieving the promising results. Even in the time line specification of the action plan more structure and concreteness is missing. The idea of the action plan is very welcome. However, no matter how great it sounds in theory, it might be very hard or nearly impossible to

successfully implement it. The authors of the action plan had a great image on how the situation is supposed to be after the action plan is presented to the world and implemented, but they may be lacking the links with the realization.

However since the plan is working against tax planning issues, such as digital economy, value creation and intangible assets, it is a challenge to find an optimal way how to prevent unfair usage of them, since it is difficult to use measurements or calculations on processes or matters that are hard to define. It is easy to control, for example labour force or manufacturing process and eliminate or at least minimise the tax related violations on such matters. It is much more difficult to fight tax violations on matters that cannot be counted, calculated or measured properly, like intangible assets; therefore it is much harder to also draw guidelines on how to prevent such violations.

Taking into consideration that guidelines were prepared as concrete as possible for such matters, the time line seems to be very strict and highly optimistic. If it is true and Action plan on BEPS will be a turning point in the history of taxation of the world, the question remains, if it can be properly prepared and implemented in only 2 years. Most of the issues included in the plan have been issues OECD was working on for a longer time and they did not yield the results that were expected.

The surprising thing about the action plan is that the tax havens issue is not widely expressed in it. Knowing that one of the main focuses of OECD in the past years was harmful regimes and tax havens, this comes unexpected. In 1998 OECD published a report on `Harmful Tax Competition` which addressed proposals like establishment of guidelines on harmful preferential tax regimes, recommendations for actions in the situations related to tax havens and establishing a list of harmful tax havens. Base erosion and profit shifting, that were strongly linked to tax havens are now widely discussed in an action plan for BEPS, but mostly excluding tax havens.

Only step no. 5 is directed towards tax havens. It states "Counter harmful tax practices more effectively, taking into account transparency and substance". However, it was one of the OECD's priorities in the past and is already enrolled in the process. Other steps in the action plan are not related to tax havens or only address them indirectly. For example steps no. 8-10 and 13 are discussing transfer pricing and how to make sure it is used appropriately, but this can only be mainly addressed to bigger tax havens, such as Ireland, Singapore, The Netherlands. There are only a few countries that fall under a category of tax havens with more than one million inhabitants that are most likely hosts for companies who are engaging in a transfer pricing between related parties that is not fair to the global market.

Since fighting harmful tax regimes for profit shifting was one of the main actions of OECD in the past, it comes unexpected, that it is only briefly mentioned in the action plan for base erosion and profit shifting. Base erosion and profit shifting are clearly still relevant issues that need to be solved. However the action plan on how to limit or prevent those actions does not concentrate and involve tax havens and harmful tax regimes only limitedly. Thus the question arises, if tax havens and low-tax regimes are really that harmful for the global economy as it was stated in previous reports, like OECD in 1998.

#### **4.1. Updates on Action Plan**

In January, 2014, the OECD released a webcast and an update on an Action Plan of Base Erosion and Profit Shifting. Even though it is admitted that it is difficult to achieve ambitious goals, the organisation is on the right track.

The first update on the progress includes:

- Updates on work on digital economy. Business models and features of digital economy players are being identified and analysed. A draft for discussion is planned to be delivered in the second update, April, 2014
- Updates on treaty abuse. The goal is to prevent receiving treaty benefits by abusing existing laws in three ways: anti-treaty abuse provisions,

higher level of clarity on treaties so it does not end in double non-taxation and clarification of the bilateral treaties policy.

- Hybrid Mismatch Arrangements. OECD wishes to restrain the usage of hybrid mismatch arrangements to avoid double non-taxation, double deduction or deduction without corresponding income. A proposal for neutralising hybrid mismatch arrangements will be delivered in the second update of Action Plan in April, 2014.
- Transfer pricing aspects of intangibles. OECD is not rejecting arm's length principal, but raises a need for specific points to make sure arm's length principle is doing its job. In addition, the process of value creation needs to be updated to assure fair transfer pricing.
- Counteracting harmful tax measures. The main focus is still on the exchange of information and requirement of a substantial activity in the country where profits are registered. A problem of R&D is still to be solved as it promotes growth in one jurisdiction, but also can undermine tax system in the other. The report is planned to be published in September, 2014, but the solutions might not be completed by that time.
- Transfer pricing documentation. OECD wishes to develop documentation for transfer pricing activities that is beneficial both for businesses and authorities. Such documentation should include reports on income by countries, economic activities and taxes paid to the authorities by countries. This information will help to determine where the rules of transfer pricing are exposed.

In April, 2014 the OECD released a second update on Base Erosion and Profit Shifting (BEPS) project. It was focused on Tax treaty abuse, hybrid mismatch arrangements and digital economy.

In it OECD present 3 ways of how to approach treaty benefits, so they are not used to achieve benefits with inappropriate circumstances:

- Preventing treaty shopping using specific anti-abuse rules. Specific anti-abuse rules being minimum holding periods for dividend exceptions, rules

for establishment and maintenance of permanent establishments in third countries, special tie-breaker clauses for the entities of dual residents.

- Clearance that treaties are not to be used to attain double non-taxation. The original proposition is that treaty benefits will not be available where the main purpose of the treaty is to achieve benefits. However, in many cases this may not be enough. OECD provides 33 examples where it is stated when anti-abuse rules can be applied and when they cannot.
- Counter of using tax treaties to avoid having domestic laws applied to the business.

Differences in tax systems in different countries that create asymmetries and opportunities for companies to use the same non-taxation or deduction rule more than once, or so called hybrid mismatches are often used to obtain deductions for the same payment in more than one jurisdiction. OECD presented recommendations for changes in the laws to improve the situation. The purpose of these changes is to come with a set of rules that will minimize or eliminate tax mismatches without disturbing existing arrangements. The way to achieve it is to create a link between two jurisdictions for tax symmetry by refusing deductions on payments that are not included in an income and defining the priority of the rules to be applied.

Digital economy is suggested to be treated separately and according to ring fence, but e-commerce is a challenge. Changes in the definition of permanent establishment will be used in order to tax activities in the host countries that were not taxed there before. Another suggestion is to make sure that activities cannot benefit from being a permanent establishment, where certain activities are not viewed as main, but as auxiliary only and therefore, avoid being taxed.

## **4.2. International view on Action Plan**

Not surprisingly, a project on Base Erosion and Profit Shifting that is considered to be a turning point in the history of international taxation, attracted different opinions from experts and officials, advisers, taxpayers and lobbyists.

Angel Gurría, OECD secretary-general believes that implementing Action Plan will develop an international tax system that will motivate competition and growth but will not destroy the basic fairness. It will still provide possibilities for multinational businesses to function well but without putting tax pressure on local businesses and individual tax payers.

Anton Siluanov, Russian finance minister agrees that BEPS project can be considered as the biggest reform of international taxation so far. He calls BEPS action plan a movement that will produce results not overnight, but will be a long term change by countries accepting new rules for domestic and international laws.

Richard Collier, tax partner at PwC thinks that OECD is the best possible choice to bring this change into the international tax world. He notices that many elements in the Action Plan of BEPS can have far-reaching effects. However the question of the possible competition between the countries is important. Even though the worst possible outcome would be double taxation which would have a huge negative impact on cross-border investments and trade, the chances for that are low and with a political pressure in the world, even business leaders should be interested in coordinated international tax laws.

Tom Cardamone, managing director at GFI is happy to hear concrete proposals on how to limit or minimize corporate tax avoidance and tax evasion. He is certain that such changes will assure more effective, better equipped and more correct international economy.

Alex Prats, principal economic justice adviser at Christian Aid agrees that Action Plan provides significant suggestions to improve the situation in the international tax world, but is concerned that proposed ideas, like the aim of linking revenues of international companies to specific jurisdictions, are very complex and hard to implement. He also adds that most or all of the changes will have to be implemented through changes in the domestic laws and bilateral agreements and therefore, will take a long period of time.

Greg Wiebe, global head of tax at KPMG advises that since implementing fair rules for transfer pricing are close to impossible in developing or low-income countries, OECD should focus more on work with non-G20 countries and try to find additional solutions to the situation. It should also show more support for country-by-country reports that multinational companies must deliver to the authorities. This way the information about profits in low-tax countries can be easily tracked and dealt with.

Action Plan on BEPS by OECD is definitely a challenge and is aiming high under a huge time pressure. And while sceptics may look at the project suspiciously, number of articles in the news sites and discussions between tax authorities, Big 4 tax experts and business leaders give confidence that the Action Plan will actually work well and efficient.

The Irish Times news site announces an article "Accountancy representative warns of dangers from corporation tax changes" where Brian Keegan, director of taxation with Chartered Accountants Ireland, told a Joint Oireactas Sub-Committee on the Global Taxation that Ireland's tax regime "has become something of a target in the discussion of global tax policy" (The Irish Times, 2014). Since Ireland is considered to be a low-tax country and a shore for headquarters of many multinational companies, this becomes significant.

The article states that if Ireland responds to the international pressure, the treasury of the country may suffer. PwC head of tax in Ireland, Feargal O'Rourke agrees that Ireland will no longer be able to preserve its current corporate residency rules. Brian Keegan admits that some changes in the system are necessary, cannot be avoided and are in the progress of happening, but this also brings risks to national tax, if too much is done on a unilateral basis. He adds that if Ireland is the only country who changes the rules of residency of companies, businesses will move out of Ireland to other jurisdictions or new ways to find loopholes will be created.



Another article in The Irish Times claims that some of the tax structures that are used by multinational companies located in Ireland will be eliminated. The director of the centre for tax policy and administration at the OECD, Pascal Saint-Amans also believes that profit shifting to small tax havens, so called dots, that apply zero or close to zero profit tax will be eliminated as well.

Chartered Accountants Ireland points out that since BEPS project is going to eliminate the distance between jurisdiction where economic activities are taking place and where profits are registered. This will negatively affect Ireland. Just like other smaller countries, Ireland will lose to larger economies of the world.

### **4.3. Connection between Action Plan and Tax Havens**

Profit shifting and tax avoidance are not new issues in the world. However these cases are reaching new heights. Just in November, 2012 three huge corporations, Starbucks, Amazon and Google had to explain themselves in the Public Accounts Committee in UK. The situation worsens as more businesses choose tax planning strategies, sometimes aggressive ones and governments are not collecting enough tax payments from them.

There is no doubt that the problem exists and that it needs to be taken care of. Tax scandals keep happening, media takes time to discuss the matters that involve avoiding or evading taxes, famous people from politics, economics or businesses that are closely working with tax issues express their opinions. The question is, if all of those opinions and news from the media can be fully trusted, or maybe there is a hidden agenda and new opportunities for action in it.

Tax experts and consultants, the heads of departments of the companies like Big 4 (KPMG, PwC, Deloitte, Ernst&Young) will more likely exaggerate both the problem and the solution parts, since this will attract more business and profits for them. They might try to convince companies how many changes the action plan will bring and that they will need at least a consultation from their tax experts who have analysed the plan and its outcomes and can suggest the best solutions in the situation of the change.

Opinions coming from non-profit organizations can be more down to earth. They can be expressed by people with the same knowledge and experience in the field, but not directly affected by it. While OECD officials and tax authorities will express positive opinion about the upcoming changes, because they are either involved in the process or it will affect them positively if those changes are implemented successfully and will bear fruits.

So far it seems OECD is doing a good job. With the little more than half of the proposed time left, it looks like the right track is found. Despite the fact that plan sounds a little vague and lacking specific concrete activities, the progress is shown and is available for comments and further improvement.

The organization seems to be working hard on the project and is open for public comments and suggestions. By the amounts of comments they are getting from academia, NGOs, businesses, multinational companies themselves, law and account firms, it is clear that the process is rolling and all of the attention from different offices and people just confirms that the work is relevant and highly important to the world.

There are press releases on the updates of work on action plan, webcasts, comments on prepared drafts and other significant finished pieces every few weeks, sometimes even more often. Every new document or changes in the drafts are being discussed and improved, which suggests that action plan on BEPS will succeed in the end.

One of the biggest concerns is still the time limit. Even though the progress is visible and very promising, for such essential changes 2 years might not be enough time. There is also a chance that by the time OECD is fully issuing action plan against BEPS, tax experts and multinational companies will find new loopholes and new ways to work around the changes. Another challenging part will be constant updates and changes in the plan as the global economy changes. OECD will have to ensure that fighting against base erosion and profit shifting

will have the same flexibility and speed for updates as multinational businesses and technologies.

If work on action plan will continue at the same speed and with the same motivation and inspiration as shown so far, the results can be surprisingly positive. However we will have to wait for the actual outcome. After the action plan goes full speed, there will still be some time before we can see the actual results of the action plan. It will take time for the changes to take place, for the data to be collected, analysed and compared to the data before the action plan. Only after data is available and analysed, it will be possible to present if action plan was a success. The improvement of paid taxes to the authorities, figures in shifted profit and transfer pricing violations will be possible to observe only a few years after the action plan is implemented.

The lack of mentioning tax havens in an action plan is surprising, but only in the very beginning. For quite some time the main purpose of OECD was to fight what they called harmful tax regimes. Most of the countries that fell under the OECD definition of tax haven were forced to exchange information on their clients and accounts, sign contracts on transparency and cooperate, in order to minimize tax violations in the world.

To this day, since all actions that seemed to be necessary were taken, but the situation is not improving as expected, the topic of harmful tax regimes and tax having is not widely included in the action plan. Logical conclusion follows that maybe tax havens and low-tax jurisdictions are not as bad as it was thought in the past decade.

It seems from the action plan that there is a common understanding present, that tax havens are not a direct threat per say, but the reason that most of the avoided taxes end up in their economies, attracts attention to them. However, it seems that officials of OECD are now fighting the cause of the BEPS, which are gaps and differences in local tax systems and global tax system. Tax havens

themselves do not cause the problem of profit shifting, only offer a place to keep them.

In order to answer the question whether low-tax jurisdictions really are harmful for the global economy, or maybe to the contrary, useful for world's economy, more research needs to be done. In the next part of this thesis paper both opinions will be presented and analysed. As a cornerstone for the opinion that tax havens are harmful for the global economy Slemrod and Wilson (2009) paper is chosen, supported by a few with the same opinion. To counter their paper Hong and Smart (2010) research will be presented. For a confirmation of tax havens impact on the world's economy a model with both asymmetric and separating equilibrium by Johannesen (2010) will be presented. A conclusion whether tax havens are harmful or rather useful for the global economy will be presented in the end.

**PART II**  
**Tax Havens**

## **5. Description of Tax havens**

Since OECD shifted its focus from tax havens while trying to minimize the BEPS problem, it is worth to take a second look at low-tax jurisdictions. Better understanding what they are and how they operate can help to understand what is the impact they bring to the global economy.

The second part of this thesis will begin with a definition of tax havens and an official list of countries that are considered to be tax havens. After that an insight of which countries become tax havens and who are most likely to use services provided by low-tax jurisdictions will be explained. Later the most common methodology for shifting profits and minimizing globally payable taxes will be introduced.

After the presentation of tax havens two main models will be discussed. Both of them, pro-tax havens model and anti-tax haven one will be backed up by other researches and articles, supporting the same idea.

### **5.1. Definition of Tax Haven**

There is no one definition for what tax haven actually is and so there are quite a few. According to OECD (1998) tax haven qualifies as a country that does not have large public service expenditure and allow non-residents to use their offered services that allow companies to avoid paying taxes in their residence country. Also OECD defines tax havens as countries that have a tax system that creates a harmful competition for other, higher-tax countries. According to OECD other features that suggest country is a tax haven include different policies for non-residents and domestic companies, non-transparency and financial confidentiality. There are three main service lines that tax havens offer and ensure information secrecy. Those include providing a location for investments (so called "money boxes"), location for profits to be booked (only "paper profits" option is possible) and secrecy and confidentiality against other countries.

In order to identify a country as a tax haven, OECD suggests these criteria:

- no or nominal taxes;
- special conditions for non-residents;
- laws and administrative rules that prohibit information exchanges with other countries or their governments;
- questionable transparency;
- lack of requirement for any actual activity in the country.

Tax Justice Network (2007) suggests that the main criteria of a tax haven country is the laws that are created in such a way that it helps to evade or avoid tax laws in other countries or jurisdictions. Pure tax havens create these laws specifically to attract companies and it is their main economy. The main attraction object is secrecy. It includes both bank secrecy, which guarantees that information cannot be received by financial institutions or authorities in other countries, and legal entities secrecy, which assures that any information regarding companies, foundation, trusts, owners or other people involved, will not be shared with authorities of other countries. Tax Justice Network also agrees with OECD that low tax rates and special rules to non-residents are also criteria for a country to be called a tax haven.

Tax havens can be divided into 7 types (Tax Justice Network UK, 2008):

1. Incorporation locations

Examples: Montserrat, Anguilla

Usage: for registration in transactions with entities in other tax havens

Features: low effective regulation, minimal information disclosure.

2. Secrecy locations

Examples: Liechtenstein, Caicos Islands, Singapore, Dubai

Features: absolutely paramount secrecy and heavily protected.

3. Specific geographic market suppliers

Examples: British Virgin Islands, Panama

Explanation: Large numbers of corporate entities to service the Chinese demand for offshore entities.

4. Specialist service providers

Examples: Bermuda, Guernsey, Isle of Man, Cayman

Explanation: set out to secure markets on specific region or hedge funds.

5. Market entry conduits.

Examples: Malta, Cyprus, Mauritius, the Netherlands

Explanation: Seeks to earn margin from routing of transactions. Not considered to be pure tax havens

Usage: holding companies, funds from developing world to EU.

6. High net worth providers

Examples: Switzerland, New York, London.

Explanation: manage funds for wealthiest people and to ensure relative ease.

7. The tax raider

Example: Ireland.

Explanation: attracts relocation of profits. Provides high financial security, focuses on limited risk transactions.

## **5.2. List of Tax Havens**

Since there is no unified definition of what tax havens are, there is no unified list of tax havens either. According to Hines (2007) there are around 45 major tax havens in the world, such as Andorra, Monaco, Luxembourg, Ireland, Hong Kong, Cayman Islands, Panama and others. According to PwC there are 83 countries that are considered to be tax havens because of low or no-tax policy. Usually tax havens are small and affluent. Most of them are under 1 million in population



and have better governance quality, both voice and accountability. They offer more stable political situation, government effectiveness, corruption control and laws (Hines 2007). The main listing was introduced by OECD in the report about harmful tax practices in 1998, based on 4 main criteria from the same report: no or only nominal taxes, financial and information confidentiality, lack of transparency and lack of substantial activities. Initial list included 47 countries, in which 6 did not qualify to be a tax haven. Tax Justice Network announced its own list of tax havens in 2007. It includes almost all the countries from OECD list and those can be addressed as `pure` tax havens, standard ones that are offshore islands and offer tax avoidance services with financial secrecy and low or zero tax rates. TJN include countries that OECD name as harmful preferential tax regimes. Some more countries are added to the list after performing a reputation test (Tax Justice Network, 2007). This was done taking proposed countries as potential tax havens and researching their documentation of tax laws and rules.

**Table 2.** List of Tax Havens

<b>No.</b>	<b>Jurisdiction</b>	<b>OECD</b>	<b>TJN</b>
1	Andorra	Y	Y
2	Anguilla	Y	Y
3	Antigua & Barbuda	Y	Y
4	Aruba	Y	Y
5	Australia	M	
6	Austria	M	
7	Bahamas	Y	Y
8	Bahrain	Y	Y
9	Barbados		Y
10	Belgium	M	Y
11	Belize	Y	Y
12	Bermuda	Y	Y
13	British Virgin Islands (BVI)	Y	Y
14	Canada	M	
15	Cayman Islands	Y	Y

16	Cook Islands	Y	Y
17	Costa Rica		Y
18	Cyprus	Y	Y
19	Dominica	Y	Y
20	Dubai		Y
21	Finland (Åland)	M	
22	France	M	
23	Germany (Frankfurt)	M	Y
24	Gibraltar	Y	Y
25	Greece	M	
26	Grenada	Y	Y
27	Guernsey, Sark & Alderney	Y	Y
28	Hong Kong		Y
29	Hungary	M	Y
30	Iceland	M	Y
31	Ireland	M	Y
32	Isle of Man	Y	Y
33	Israel (Tel Aviv)		Y
34	Italy (Campione d'Italia & Trieste)	M	Y
35	Jersey	Y	Y
36	Korea	M	
37	Lebanon		Y
38	Liberia	Y	Y
39	Liechtenstein	Y	Y
40	Luxembourg	M	Y
41	Macao		Y
42	Malaysia (Labuan)		Y
43	Maldives		Y
44	Malta	Y	Y
45	Marshall Islands	Y	Y
46	Mauritius	Y	Y

47	Monaco	Y	Y
48	Montserrat	Y	Y
49	Nauru	Y	Y
50	Netherlands	M	Y
51	Netherlands Antilles	Y	Y
52	Niue	Y	Y
53	Nothern Mariana Islands		Y
54	Panama	Y	Y
55	Portugal (Madeira)	M	Y
56	Russia (Ingushetia)		Y
57	Saint Kitts & Nevis	Y	Y
58	Saint Lucia	Y	Y
59	Saint Vincent & the Grenadines	Y	Y
60	Samoa	Y	Y
61	San Marino	Y	
62	São Tomé e Príncipe		Y
63	Seychelles	Y	Y
64	Singapore		Y
65	Somalia		Y
66	South Africa		Y
67	Spain (Melilla)	M	Y
68	Sweden	M	
69	Switzerland	M	Y
70	Taiwan (Taipei)		Y
71	Tonga		Y
72	Turkey (Istanbul)	M	
73	Turkish Rep. of Northern Cyprus		Y
74	Turks & Caicos Islands	Y	Y
75	United Kingdom (City of London)		Y

76	Uruguay		Y
77	US Virgin Islands	Y	Y
78	USA (New York)	M	Y
79	Vanuatu	Y	Y

- OECD – Organisation for Economic Co-operation and Development;
- TJN – Tax Justice Network;
- Y – Country is considered to be Tax haven;
- M – According to OECD report (1998), OECD member country with potentially harmful preferential tax regime;
- blank – country is not considered to be a tax haven.

*Source: Tax Justice Network (2007)*

### **5.3. Tendencies for a country to become a tax haven**

Tax havens exist mainly because of the belief that low tax rates attract more investments and economic activities than it would excluding the factor of tax. They usually allow investors to preserve most of the income (Hines 2007) instead of paying high taxes in home countries.

Dharmapala and Hines (2009) in their paper “Which countries become tax havens?” find that smaller countries in size and population have more tendencies to become a tax haven. Smaller in this case means a country with a population of one million people or less. Another factor for a country to more likely become a tax haven is strong governance. For example, there are almost none tax havens in Africa and one of the reasons is that most of the countries in this continent have a weak governance system. The likelihood for a country with strong governance to become a tax haven is around 63% while for countries with weak governance only 24%.

There are two channels through which the relationship between country being a tax haven and better-governed can be explained. First one is that better governed countries are more likely to make better policy choices. As Dharmapala and Hines (2009) suggest, the optimal corporate tax rate for small economies in

order to maximize its welfare, is zero. Therefore, countries with strong governance will choose rules and policies that are closer to the maximizing corporate tax rate level, which will make them attractive for non-residents due to its minimal tax rates. Another explanation is that initially all small countries would prefer to be a tax haven, given that zero or small tax rates would maximize citizens' welfare, but only the ones with strong governance can provide conditions for non-residents that are stable and attractive.

The reason why zero or low corporate tax rate is optimal for small and open economies is pretty straight forward. Small countries, due to their size, do not affect the world equilibrium net return on capital. They also have a higher elasticity of capital with respect to corporate tax compared to bigger countries. Since small countries need to compete with larger countries in the world's economy, they need to choose lower tax rates in order to attract investments. And since the economy is so small, the other fees paid by companies, such as entrance and setting up an affiliate fees cover the necessary expenses of the countries. In such a way, having a zero or low corporate tax rate allows for small countries to successfully participate in the world's economy and compete with bigger and more powerful countries.

#### **5.4. Profile of Tax havens users**

Large and international companies, especially the ones, that have the majority of activities abroad, are most likely to operate in tax havens. This suggests that there must be economies of scale to avoid paying taxes in high-tax countries and using tax havens. Companies that are technology-intensive or working in industries that are characterized by extensive intra firm trade are more likely than others to operate in tax havens. Those are usually considered the companies that work in industries with low foreign taxes (Desai et al. 2004).

Most companies are using the possibility to avoid paying high taxes and instead shifting their profits to tax havens simply because every tax payer, when given a chance, will choose lowest tax possible to pay. In 1999 more than half

companies in USA with significant amount of foreign operations have been using tax havens through subsidiaries or affiliates (Desai et al. 2004).

There is a cross section, since American companies are more likely to establish tax haven affiliates if their investments in non-havens are increasing rapidly. It is consistent with the idea, that great foreign investments increases chances to use tax havens to avoid paying high taxes. Tax rates are definitely affecting size and location of foreign direct investments, since, logically high taxes leave companies with decreased after-tax profits and therefore, reduce funds for investments. Hines (1997 and 1999) estimated that tax rates are negatively correlated with investments by 0.6.

Larger firms are more likely to have tax haven affiliates. In addition, companies with great part of sales being abroad are more likely to have tax haven affiliates. Also firms with high R&D investments are more likely to have haven affiliates. But of all, companies with broad foreign investments are most likely to have tax haven affiliates. Firms that have more affiliates in low-tax countries are more likely to have haven affiliates. If a company is multinational and has a lot of activities and growth of sales outside of the home country, it is more likely to use tax havens to create affiliates (Desai et al. 2004).

Country tax rates are associated with tax payments; however, having affiliates in tax havens are associated with reduced tax payments. Desai et al. (2004) find that if a company has an affiliate in a tax haven, it pays 2.1% lower taxes. Affiliates in dots<sup>1</sup> help companies to reduce their taxes, but in smaller proportions than the ones in Big 7.

Empirical results show that greater activity outside tax haven require more activity in tax havens. Companies that are investing in economies with rapid growth are most likely to create new affiliates in tax havens. Empirical evidence suggests that one percent greater likelihood of having an affiliate in a tax haven

---

<sup>1</sup> Smaller tax havens such as Andorra, Bahamas, Isle of Man and others.

is related with 0.5-0.7 percent greater sales and investment growth (Dharmapala, Desai 2006).

## **6. Methods of using Tax Havens**

Every company is seeking for profit maximization and this process also includes maximizing it by using an opportunity and paying less taxes. Therefore, if tax minimization is the primary motive for firms to generate profits in tax havens, then one might reasonably expect havens to contain few active investment opportunities, leaving profitable multinationals with the choice between passive investments and immediate repatriations (Hines, Rice 1994). Obviously, many firms that are based in high-tax countries, having an opportunity, will involve themselves in a tax planning strategies to reduce their payable taxes and increase their after tax profits.

Large tax havens are more likely to be used for shifting profits of big multinational firms, since high profits in those locations attract less attention from authorities. Bigger companies with affiliates in tax havens that cover smaller amounts of total sales are more likely to use one of the Big 7 countries<sup>2</sup>. Higher foreign tax rates, greater industry sales and high R&D expenditures are associated with affiliates in Big 7. In general, high foreign tax rates among affiliates outside of tax havens are associated with big concentration of tax havens in Big 7 countries and this is consistent with the fact that income is shifted through transfer price (Desai et al. 2004).

Companies are able to use different financial tools in order to shift their profits, earned in high-tax countries to be taxed in havens. There are several different options, the most popular ones being: debt contracts, transfer prices adjustments and conversion of export income of high-tax country to income of tax haven, royal payments, dividend repatriation, intra firm lending (Hines, Rice

---

<sup>2</sup> Big 7 is tax havens that have more than 1 billion citizens, such as: Switzerland, Luxembourg, Hong Kong and others.

1994). The methods of how operations in tax havens are involved to avoid paying high taxes are explained in more details below.

### **6.1. Debt contracts**

The work around scenario is simple enough. Subsidiaries of the company in high-tax countries are being financed with as much debt as possible, while the ones in tax havens with as little debts as possible (Hines, Rice, 1994). That way registered profits in high tax country will be low and payable taxes will be small, while high profits will be registered in a zero or low tax jurisdiction where no or smaller amount of taxes will be required to be paid. This method is popular in companies, because it does not change the overall debt exposure of the company. A more specific practice is called earnings stripping, when unrelated debt is not considered as a tax subject or it is connected with related companies. As an example of earning stripping, from U.S. point of view we can consider the case where a foreign parent company lends money to the affiliate, located in the U.S. On the other hand, it is also considered an earnings stripping, if a U.S. company received debt from a company that is an unrelated foreign firm and is not a subject to tax in the U.S.

### **6.2. Transfer pricing**

Transactions with affiliates, established in tax havens can be used to place income from high-tax countries to tax havens or other low-tax locations. This increases potential for FDIs in tax havens (Hines 2007). Transfer pricing is the second most popular way of shifting profits from high-tax countries to low-tax countries. Normally the goods and services between related parties should be exchanged at the same price as between unrelated parties. However, nowadays, with patents, royal payments, brands and other intangibles, it is hard to set a fair market price, so it opens possibilities for companies to shift profits. It is done very easily. Goods and services from high-tax countries have lowered prices while from low-tax countries have their prices increased. For example, if there is a patent developed in the U.S. and is licensed to the subsidiary in one of the low-



tax countries, the profit shifting will be registered, if royalty or other payments related to that particular license will be lower than the true value of the license.

The problem with profit shifting to some low-tax jurisdictions is that in some cases real activities are necessary to generate the intangible good and those are not available in the chosen jurisdiction. However, there is an example for such activities and it is called "double Irish, Dutch sandwich". It is used widely by large corporations, such as Google. The method goes as follows: parent company in U.S. transfers intangible to an Irish holding company, which has a subsidiary firm, specializing in sales and sells advertising to Europe. Between these two companies, the Irish holding and Irish sales, there is a Dutch affiliate that collects royalty payments from the sales affiliate and then makes a transfer to a holding company. From the tax point of view, it can be observed that the Irish holding company is a taxpayer in Bermuda which offers a zero corporate tax rate (Gravelle, 2009). This way corporate tax in Ireland is avoided and also, since an affiliate in The Netherlands is used, Irish withholding taxes are avoided as well.

Quite often companies are establishing holding companies in tax havens. It is convenient, since holding companies can be used to deploy funds from a foreign operation to a foreign investment without returning money to the home country (Desai et al. 2004).

### **6.3. Check-the-Box, Hybrid entities**

Another way for shifting profits is provided by "check-the-box" provisions. Initially it was created to distinguish between partnership and corporation. It later led to the expansion of hybrid entities, where the entity is only recognized as a corporation by one jurisdiction, but not the other. For example an affiliate in low-tax country with a parent in the U.S. can lend money to its affiliate in high tax country having interest deductible, because the high-tax country recognizes a company as a separate entity. With check-the-box rules existing, the company in the high-tax country can choose to be disregarded as a separate corporation and in the eyes of authorities in the U.S. there is no interest income paid,

because both parties are related and belong to one corporation. It is also possible to use reverse hybrid entity, where for example, a corporation in the U.S. can benefit from foreign tax credit without recognizing the income (Gravelle, 2009). Let's say a corporation in the U.S. sets up a holding company in a jurisdiction where it can be seen as disregarded entity and this holding company has owner rights for a company which is seen as partnership in another jurisdiction. In this situation both holding company and parent company in the U.S. are liable, however, the income can be retained in such a way that U.S. authorities sees it as a separate entity. In the end the entity can be seen as a partnership for foreign purposes and as a corporation for the U.S. purposes.

#### **6.4. Cross crediting**

Cross crediting can be used to avoid paying taxes on the income from low-tax jurisdiction that is received in a high-tax country, for example U.S. Excess foreign taxes paid on one type of income or in one jurisdiction offsets the tax that would be payable on other income. Since every company has a right to choose the time of repatriation of income, it is possible for them to maximize the benefits of foreign tax credit. For example, if a company has income from jurisdiction with taxes in excess of U.S. taxes, it can at the same time realize income from other jurisdictions, like low-tax ones and offset U.S. tax on that particular income.

### **7. The position of Tax havens in the world's economy**

For a long time tax havens were viewed as harmful for the world's economy. Specific set of rules and secrecy were the main reasons low tax jurisdictions were raising suspicions and doubts. Many researches were released and most of them had similar outcome: due to the existence of tax havens in the world, countries are losing tax revenues. However, recently, more articles started to appear discussing the other side of the coin. Economists find either a proof that tax havens do not harm the world's economy or even are beneficial for it.

Today, there is no one opinion on tax havens. There are researches done and articles presented in the conferences and journals and there is still no unified opinion. Arguments are strong on both sides and empirical researches are also providing results, satisfying both sides. It is understandable that multinational companies who use tax havens services and avoid paying high taxes in their home countries are pro-tax havens and tax authorities are against, since it affects them directly as less tax revenues are collected. Both opinions are also met in the researches and articles presented by independent economists. Most of the papers about tax havens are based on the same basic assumptions and model in a small open economy. However, every author uses one or more specific assumptions in their work and it makes it difficult to compare the results.

Organisation for Economic Corporation and Development (OECD) for a long time was working against tax havens. It had a goal to minimise impact of low tax jurisdictions in the world and stop profit shifting to tax havens. There are several reports on the subject and years of work dedicated for the cause. It seems now that OECD is still on the way to stop profit shifting, but does not include tax havens in the process or includes them indirectly and only partially. Such change can only mean that focus is shifted from the tax havens to another cause that holds higher responsibility for the profit shifting.

The next part of the thesis will discuss the topic from both sides. There will be a presentation of opinions and reasoning why tax havens are harmful for the economy. There will also be an expression of the view that tax havens are not harmful and their existence in the world is bringing benefit for the other countries of the world, including high-tax jurisdictions.

### **7.1. Tax Havens – Foes: existence of Tax Havens is harmful for the world's economy**

In its report of 1998 OECD claims that tax havens are causing harm to the other countries by driving effective tax rates below its optimal levels. Tax havens misrepresent financial and investments flows and shadow the rightness of tax structures in other countries. They provide a chance for taxpayers to hide and

avoid taxable income and bring necessary adjustments for collectible taxes and spending on public goods. Since tax havens are mostly convenient for the mobile tax bases, such as revenues, it causes a bigger tax burden for immobile bases, like property or labour. In order to fight tax havens, governments are forced to face higher administrative costs (OECD, 1998). Even though there is no data available for detailed analysis, the available numbers suggest that investments to low-tax countries are increasing and rapidly, confirming that more companies are choosing to use the services that tax havens provide, this way avoiding paying some or most of the taxes to the government.

Tax havens are believed to damage the world's tax competition. It pushes tax competition to abnormal levels and together with legal structures can cause challenges to other jurisdictions. Due to tax competition, tax bases in countries become more sensitive and it can drive competition to "race to the bottom". Bigger countries cannot keep up such a race for a long time, and if it does, it needs to make radical changes in the public provision sector.

### **7.1.1. Theories supporting the conception `Tax Havens – foes`**

Economists in US are concerned that usage of tax havens can be a real life threat for the sustainability of country's local tax base in the long run. Those concerns are based on a possibility for big multinational companies to shift their income to low or no-tax countries. It could also lead to the movement of other economic factors, such as production or employment to tax havens. Hines and Rice (1994) reports empirical proofs that profit rates depend on local tax rates.

Hines and Rice (1994) when testing evidences on tax havens and tax rates estimated that tax rates have a negative effect on reported pre-tax income. In other words, an increase in tax rate by one percent decreases reported income by three percent. They also estimated that tax effect is the strongest when tax rates are low. This indicates that higher tax rates would mean for high-tax countries losing tax revenues, because multinational companies would use tools, such as foreign tax credits and shift their profits to the locations with smaller tax rates (Hines and Rice, 1994).

Grubert and Mutti (1991) find that tax rates on reported income are significant determinants. Revenues reported in high-tax countries are smaller in comparison to revenues in low-tax countries. With the model of the allocation of capital they came to the conclusion that for USA multinational corporations tariffs and tax rates are important when determining allocation of capital internationally. For example, a decrease of tax rate by 10% (from 20% to 10%) in the affiliate's country would increase its PPE by 65%. Analysis represents proof that all three factors: income shifting, foreign investment and trade are highly influenced by tax rates.

David Harris with a few other colleagues (1993) presented a research about income shifting in U.S. multinational corporations. They provide evidence on income shifting activities based on firm-level data. Data is collected from annual reports of 200 manufacturing corporations in the U.S. over the period of 5 years. Findings begin with the proof that U.S. manufacturing companies are participating in a profit shifting. Half of the companies in the research are multinational and have at least one foreign subsidiary. Results also suggest that U.S. tax liability is related to foreign affiliates' locations and confirm profit shifting assumption. If a company has an affiliate in low-tax jurisdiction, such as Ireland or Singapore, it is more likely to have lower U.S. tax ratio. Companies with affiliates in high-tax countries tend to have higher U.S. tax ratio. It shows that U.S. manufacturing companies are shifting profits from their affiliates in high-tax countries to the U.S. and from the U.S. to low-tax jurisdictions. Such scheme decreases U.S. taxes for multinational companies and it leads to reduction in aggregate taxes, collected by the authorities in the U.S.

### **7.1.2. The model of Slemrod and Wilson (2009)**

In 2009 the Journal of Public Economics published an article "Tax competition with parasitic tax havens" by J. Slemrod and J.D. Wilson. The model presented in the article is considered as one of the corner stone for the negative impact of tax havens in the world's economy. In this chapter the model is explained in more details to introduce the reader with its main findings.

The purpose of the model that Slemrod and Wilson (2009) presented is to establish a theory of tax competition including tax havens and show that countries should be worried about tax havens and its effects on welfare, provided to the citizens in high-tax countries.

It opposes to economic theory which states that having tax havens in the economy is beneficial. Authors suggest that it causes a decrease in an effective marginal tax rate on mobile capital. The critical assumption being that statutory tax rates cannot be differentiated for immobile and mobile capital, Slemrod and Wilson, adding relative tax rates on both immobile and mobile factors (labour and capital) come to these conclusions:

- Tax havens' existence causes wasteful expenditure of resources;
- Tax havens lead to `race to bottom` situation where countries reduce their tax rates more than necessary;
- Either partial or total elimination of tax havens leads to an increased welfare for high-tax countries' citizens;
- Partial elimination of tax havens will leave the remaining tax havens better off, not only the high-tax countries.

The model is based on a world that consists of a large number of countries, not symmetric or identical, each of them with a fixed number of identical residents and each resident contains one unit of labour and a share of capital. The utility function is defined by the private and public consumption. There are also some countries that act as tax havens and are known as parasitic on the revenues of the other countries in the model, that do not act as tax havens. Tax havens are modelled as juridical entrepreneurs that sell protection from national taxation. The price for the sold protection depends on demand for such services, which makes it partly dependable on a tax system in the non-haven countries, technology levels and availability of tax havens.

Each country has a certain amount of capital employed and the difference between the country's capital and the capital that the country's residents provide

is the import of capital. Constant-returns technology is used to produce the output which is sold in the market for private consumption or for the government as the only input for a public good. Capital, that is mobile, is taxed and collected taxes are used to finance the public goods. Technology for collecting and avoiding taxes is constant-return and reaches the equilibrium despite of the size of the country.

Assume that firms are using one unit of capital per firm and a part of the country's labour and makes a decision of how much income will be transferred to the tax havens. The production technology and labour is the same, and so the produced output is the same as well. The difference between firms is the cost of operating in tax havens.

The model is based on the idea that firms in the non-haven countries are buying the provided concealment services from the tax havens. The unit price of such services is a function of the overall purchases of them. Since there are a lot of tax havens in the world, it is safe to assume that price of the concealment services is at marginal cost.

There are three stages in the model. First stage – governments choose tax rates and enforcement expenditures. Second stage – firms are created including the movement of capital so that expected income, collected taxes, labour, tax-havens' services costs are the same. The expected income or a return on capital is not observable at this stage, because the cost of setting up a tax-haven operation is not known at this point. Third stage – the cost of setting up an operation in tax haven is exposed and firms produce and sell the goods, pay taxes and governments provide the public goods.

Capital income is taxed with a statutory rate, although firms are able to lower the average effective tax rate and tax base by creating affiliates in the tax-havens and shifting some of the profits to the low tax territories. In this case a firm faces the costs of setting up the operations in a tax haven, where income shifting function can be defined as a function of the units of concealment services

with fixed price and government's enforcement expenditures per unit of capital. The function is concave and increasing in bought concealment goods, but decreasing and convex in government's expenditure. Income shifting is equal to zero if firm is not purchasing any concealment services and between 0 and 1 if it does. Authors assume that increase in government's purchases of enforcement causes reduction of marginal productivity of the concealment services bought by a company and so decreasing firm's will to purchase more of those services. For the simplification in the model it is assumed that both government's enforcement expenditures and firm's concealment purchases are both positive.

Firm's, which shift some of its profit to the tax havens, after-tax profits can be calculated as expected return on capital, adjusted according to costs of shifting the profits and setting up the affiliate and saved amount due to unpaid taxes on shifted income. For simplicity it is assumed that tax havens have zero tax rates on capital income. A firm makes a decision on an income shifting and maximizes its return on capital. As the tax on the income is increasing in the country, the firm tends to buy more concealment services from the tax havens. Also, if tax on the income is sufficiently small, firms are more likely not to purchase any concealment services at all. Although it is possible that for any small tax in the country there would be still some concealment services bought. It shows that marginal deadweight loss from the increase in tax rate in the country is rather significant when tax rate is low, because of recourses used for the tax avoidance.

If the benefit from shifting some of the income to tax havens is greater than costs of setting up the affiliate there, then a firm will establish it and will not if costs are greater than benefits. If we adjust the aggregated pre-tax returns in a country with a number of firms that are using the tax havens it becomes a sum of expected returns, effective tax rate and social costs that arise due to income shifting in the country. If effective tax rate increases, then so does the statutory rate. It leads to more firms participating in tax havens and the ones that already participate, to increase the share of shifted income. Higher statutory tax rate will cause an increase in pre-tax income and later on in social costs. A government, in order to optimize its welfare, will choose its enforcement expenditures so that



the social costs are minimal. In short, the government will decide on the expenditures and capital tax rate so that deadweight loss is minimized depending on the fact that capital tax rate and enforcement expenditure level meet the effective tax rate.

Budget constraints should satisfy the following: for the government budget constraint cost of public good must be equal to the tax revenues minus the enforcement cost; for the residents' budget constraint consumption has to be equal to the sum of received wage and expected revenue from the capital.

### ***7.1.2.1. Equilibrium public good provision***

The rule of equilibrium public good provision is affected by the existence of tax havens in the economy. Optimization problem is to maximize the utility for the residents, where public good can be replaced by government budget constraint and private good by resident's budget constraint. Using both of the budget constraints and pre-tax return authors get unconstrained optimization problem with effective tax rate and enforcement expenditures as variables. First order condition derives the marginal rate of transformation between public good and private good and then equating it to the marginal rate of substitution between the goods which is also equal to the marginal cost.

Results show that marginal cost of public good increases with effective tax rate, taking into consideration that statutory tax rate and enforcement expenditure are both set for the maximized effective tax rate, and decreases in enforcement expenditures for the given effective tax rate.

If there was no tax avoidance and no tax havens in the world, then the marginal cost of public consumption would exceed the marginal resource cost. This happens because countries think of outflow capital as a cost due to the increase in the tax rates on capital. This gives benefit for other countries of inflow of the capital and suggests inefficiently low provision of public goods. However, when there are tax havens in the world, an increase in effective tax rate, caused by the raise in statutory tax rate, gives firms incentives to purchase concealment

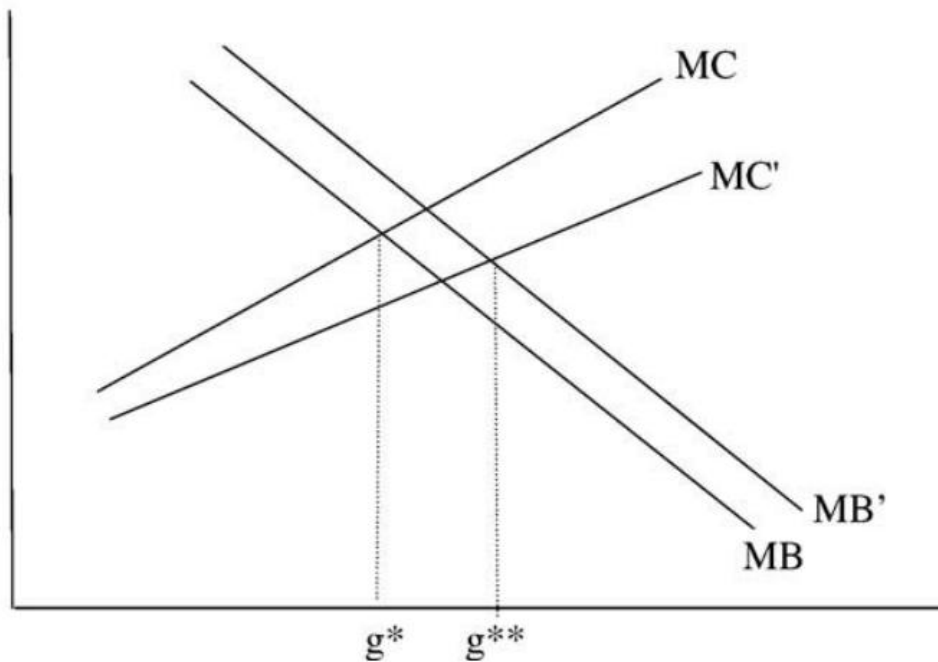
services. This causes higher purchases of concealment services as well as income shifting and more firms are likely to use the same strategy, so that the share of firms, who are involved in transactions with tax havens, increases. Therefore pre-tax returns become higher than in the economy without tax havens and causes bigger amounts of the income shifted abroad. In addition, since labour is not mobile, increased capital sensitivity to effective tax rate leads to a decrease of the wages in a deadweight loss.

### ***7.1.2.2. Undesirability of Tax Havens***

The argument for the undesirability of tax havens is straight forward – in case of absence of tax havens welfare increases and for two reasons. First of all, since there is no more income shifting, all the saved resources and income can be used for the benefits of the residents of the country. Also, if there is no income shifting to tax havens, the marginal cost of public goods decreases and more or better public goods can be provided.

The model shows that, according to the proposition 1: The elimination of tax havens raises the equilibrium level of the public good and increases country welfare (Slemrod and Wilson, 2009).

Eliminating tax havens from the economy does not affect wages or return on capital and if public consumption stays the same, the private consumption increases. However, the public consumption changes, because with constant public consumption, the increase in private consumption would raise the marginal benefit of public consumption. The marginal deadweight losses would be eliminated as well and the marginal cost of effective tax rate on capital would decrease as well, causing the marginal cost of effective tax rate on wages to fall as well. In such case, with a higher marginal benefit of public good the equilibrium would be reached with a higher public good provision.



**Figure 5.** Public good provision

*Source: Slemrod, Wilson (2009)*

If every country decides to raise its public good provision by only increasing their taxes, then capital stock remains the same and so do the wages. If capital stock does not change, then no capital is shifted from the country and the marginal costs of public good decreases. This creates a positive impact on public good, as the marginal benefit of it increases when more public good is provided because of raised taxes. An increase in the marginal benefit of public good causes it to exceed the marginal costs of public goods and so the welfare of the country increases.

Situation can be different if taxes on wages are present. However, even if assumed that wages are taxed at the same statutory tax rate as capital, it still could be better for the world to eliminate tax havens. Taxes on wages would increase levels of tax avoidance and evasion and so the government would face higher enforcement expenditures. If all tax havens were to be eliminated, costs for the government to fight tax avoidance and evasion would decrease but it might leave an effective tax rate too high, having in mind that both capital and wages are taxed at the same statutory tax rate. Since these two considerations

are working in different directions, it is impossible to say safely if having tax havens in the economy is good or bad. On the other hand, it is still beneficial for the world's economy to eliminate some of the tax havens.

### ***7.1.2.3. Partial elimination of Tax Havens***

Partial elimination of tax havens affects economy in a different way as the complete elimination would. If there are a few tax havens in the world, the supply of their services would go down, and the equilibrium price would increase. Authors of the model show that it is better for the countries to have a few tax havens in the economy with higher prices of concealment services.

If we define the income shifting function as a function of concealment services and enforcement expenditure then the equal change in both parameters would leave an overall shifted income amount unchanged. This shows that for the homogenous income-shifting function, if a government chooses to appoint money for the enforcement, then the concealment services price increase. And if we consider after-tax return constant, the increase of the price of concealment services causes an increase in country's welfare. Results are as stated because higher price for tax havens' services allow governments to lower the enforcement expenditures and use the saved money to increase public good. Countries choose to increase the public good provision due to the increase in the concealment services prices, which, eventually, decreases the after-tax return. While in the world with no tax havens such situation would lead to a higher increase in welfare, in the world with tax havens the after-tax return decreases to the level where the before-tax return is not changed and keeps income shifting unattractive for the residents. The welfare then rises in every country and since the tax rates are increasing at the same level, there is no incentive for income shifting. After tax return decreases just enough to keep the pre-tax return fixed reducing the will to shift capital to the zero level.

If there are only a few tax havens in the economy, then the public good must be underprovided, because higher statutory tax rates do not have much effect on activities related to tax havens. And since equilibrium level of public good is

inefficiently high, the elimination of most of the tax havens in the world would lead to an increase in welfare. Therefore, proposition 2 states that: assume a homogeneous income-shifting function, and consider equilibrium where enforcement expenditure are positive. By increasing the concealment price, a reduction in the number of havens causes all countries to increase their public good provision. Provided tax competition leads to under provision of the public good, this reduction in havens must raise welfare (Slemrod and Wilson, 2009).

#### ***7.1.2.4. Enforcement expenditures***

Another way to improve the status in the world is stricter coordination of the enforcement activities in the country. If public goods are underprovided, provision can be raised by the tighter enforcement policy. Such activity would cause several changes, like the mix of tax rates and enforcement expenditures in order to finance public goods and make it inefficient. Lower enforcement expenditure or higher taxes causes an increase in the price of concealment services by increasing the demand for such services. And this leads to an increase of welfare in the countries in the world. Such situation leads to the case where governments spend inefficiently high amounts for the enforcement even though smaller expenditures and increasing prices for the concealment services alone raises welfare in the countries. According to the proposition 3: assume that (1) the avoidance technology implies a homogeneous income-shifting function; and (2) government's enforcement expenditure is positive in the initial equilibrium. Then countries acting independently enforce their capital tax collections too stringently. In particular, if each country reduces the enforcement level by the same amount, while adjusting its capital tax to keep its cost of capital unchanged, given the equilibrium after tax return and concealment services price, then the price will rise and all countries will be better off (Slemrod and Wilson, 2009).

If one country in the economy increases the statutory tax rate and lowers enforcement expenditure in order to keep the effective tax rate constant, there would be no change in the deadweight loss as well, and pre-tax return would stay the same. However both of these changes causes higher demand for

concealment services and therefore the price for it, which will eventually lead to the benefit for all the countries as expressed in Proposition 3.

Authors finalise their paper concluding that elimination of all of the tax havens in the world makes non-haven countries better off. If there are no tax havens in the economy, governments do not face enforcement expenditures and receive higher tax revenues. This way more public good can be provided to the people and the overall welfare in the country increases. Partial elimination of the tax havens in the world would also increase welfare in the rest of the countries, due to increased price for concealment services and fallen demand for them. Therefore, tax havens are harmful for the world's economy, since partial or total elimination of tax havens will leave other, high-tax countries better off.

## **7.2. Tax Havens – Friends: existence of Tax Havens is beneficial for the world's economy**

Even though tax havens are usually considered as a threat for the high-tax part of the world, they are encouraging investments in other countries as well. Two conditions must be fulfilled: first of all transfer of income to tax havens has to improve desirability to invest in high-tax countries, and secondly if goods and services that have reduced costs due to the shifting income to low-tax areas are inputs to production or sales process in high-tax countries.

Companies that are most likely to initiate tax haven operations are considered to be the ones with growing activities in high-tax countries. Therefore saved income, due to reduced amounts of taxes paid through affiliates in tax havens promotes investments back in high-tax countries (Dharmapala, Desai 2006).

The competition of tax rates in the world that is partially caused by tax havens, keeps corporate tax rates not too high, so that new businesses can be created and old businesses be expanded in the high-tax jurisdictions. The less taxes corporations pay, the more money they have to invest back to the countries, either through FDIs or R&D. More people start to agree with an opinion that

having low or zero tax jurisdictions in the world can bring benefit for other countries.

### **7.2.1. Theories supporting conception `Tax Havens – friends`**

There is evidence found by Desai et al. (2006a) that low-tax countries promote activities in nearby high-tax countries. In fact one percent likelihood of having an affiliate in low-tax country reflects two thirds of a percent bigger investment or sales in nearby high-tax country. Economists agree that reduction of taxes collection in the high-tax countries cannot completely be explained by the existence of tax havens. Hines and Rice (1994) admit that there is a strong possibility that profitable businesses in tax havens can be the reason for additional investments back in high-tax countries.

Mintz and Smart (2004) find proof that tax sensitivity of real investment is lowered by shifting profit to a tax haven. This makes tax competition for real investment easier. Existence of tax havens improves the efficiency of welfare of high-tax countries by profit shifting (Johannesen, 2010). Tax havens have an effect on countries' revenues in several ways. Even though tax havens gain from profit shifting from high-tax countries, it also causes competition for profits to be less attractive. This leads to some of the low-tax countries becoming high-tax countries. Therefore even if the first result is reduction in revenue, later on it increases by diminished tax competition and increase of tax rates in low-tax country.

Tax havens are playing an important role in the world. They provide a low-tax platform for economic activity. They facilitate an efficient allocation of the capital. They encourage accumulation of the capital. And, since they create tax competition, high-tax countries are forced to issue better tax laws. They present greater fiscal responsibility and afford taxpayers the ability to enjoy higher after-tax income. Bigger earnings turn into savings, investments or skilled labour and are returned back into the world's economy. Because of tax havens' existence, the rest of the world is encouraged to promote economic well-being and offer a

safe haven for people subject to persecution. The main accusations towards tax havens are based on either bad methodology or inaccurate information (Mitchell 2005).

Havens with low taxes help to create an environment that leads to economic growth. The ideal tax system would include lowest possible tax rates on activities that generate wealth and income: labour, savings, investments, risk-taking and entrepreneurship. Optimal tax system should include low-rate, consumption-base, territorial system, like flat tax explained in Hall and Rabushka book 'The flat tax' (<http://www.hoover.org/publications/books/8329>). Tax havens also increase efficiency of allocation of capital by increasing efficiency of global economy where profits can be invested in the optimal options (Mitchell 2005).

Even critics of tax havens agree that lower tax rates and tax reforms help to improve economic performance. The positive effects of tax cuts on growth arise because lower marginal tax rates raise the reward to working, saving and investing. Holding real income constant, these lower marginal rates induce more work effort, saving and investing through substitution effect. Tax cuts or well-designed reforms may also reduce the extent to which taxpayers legally avoid and illegally evade taxes (Gale, Orszag 2004). Even OECD at times agrees with the necessity of low tax jurisdictions. In 1997 OECD economists presented their analysis and estimated that economies grow 0.5 percent faster with every 0.1 percent reduction in marginal tax rates. In general weight of tax is found as a negative effect on output per capita. (Mitchell2005). Tax havens existence in the world helps to create more competitive and open economy, which does not only help to improve economic efficiency, but also promotes better tax policy.

OECD publications also notes that 'lowering statutory corporate tax rates and rates on personal capital income in countries where these are particularly high, may increase the domestic tax base as there are less incentives to shift taxable profits and capital income abroad'. Logic suggests that when tax rates are low, people are reporting more income than hiding it. Therefore, decrease in tax rate may lead to increase of tax revenues (Leibfritz 1997).



Companies are saving their revenues by creating affiliates in tax havens, part of those savings are invested in the nearby non-havens. Therefore it seems that having an affiliate in a tax haven helps company to save money and gives possibility to increase their investments in high-tax countries, which would be lower, if tax burden was bigger or if tax havens were more expensive to use. By keeping the tax havens, high-tax countries leave themselves an open window for high taxes on capital income and foreign investments and still receiving significant amounts invested (Dharmapala, Desai 2006).

Therefore, thanks to tax competition with tax havens, high-tax countries are liberalizing their tax system, providing better environment for establishing business and this way increasing investments and earned revenues (Mitchell 2008).

### **7.2.2. The model of Hong and Smart (2010)**

European Economic review in 2010 published an article by Q. Hong and M. Smart "In praise of tax havens: International tax planning and foreign direct investment". The article presents an economical model which contradicts the popular opinion that tax havens are harmful to the global economy and must be fought and eliminated. It has strong pro-tax havens arguments and is often discussed next to Slemrod and Wilson (2009) anti-tax havens article. Their general equilibrium model shows that citizens of high-tax countries can benefit from tax planning.

In today's world, where increased mobility allows for companies to shift their revenues to one country or another can lead to forcing tax rates to minimal levels. Hong and Smart (2010) offer a simple model where they are testing competition and mobility's effect on international tax planning, tax bases and foreign investments. If more companies try to avoid taxes internationally, this can lead to an increase of statutory and effective tax rates on capital, together with an increase of welfare for citizens (Hong, Smart 2010). The key to the theory is that international tax planning reduces cost of capital for incoming investments and in this way increases investments. Initially they start with the

international taxation model and its affect assuming there is no income shifting present. Then income shifting is added to the model in order to find the optimal taxation system. Later on model is enriched with restrictions on tax planning, tax credit for further and deeper results.

The initial model shows the effects of international taxation in the absence of income shifting. Assume there is a world with workers and entrepreneurs and one good that can be produced by two different technologies. First technology is using domestic labour force and imported capital (multinational companies). Imported capital is received through parent companies abroad and is rented at a certain price. Second technology uses domestic labour and fixed domestic capital (entrepreneurs companies). Both production functions are strictly concave and constant-returns. Labour can be shifted between domestic and multinational sectors, but not abroad and is normalised to one. The output of both sectors is also normalised to one. Government collects an income tax on both sectors, where dividends of the multinationals to the parent companies are not deductible.

Firstly, model shows the profits of both multinational and entrepreneurial companies and revenues of the government from the collected taxes. Multinational company's profit can be described as a difference between after tax difference of output and labour cost and rental cost of the foreign capital. Domestic company's profit can be described the same as for a multinational, just without subtracting the rental capital cost. Government's revenue is the sum of taxes, paid by domestic companies and multinational ones. The taxes paid by domestic entrepreneurial companies are a percentage of the profits, size of a tax rate. Government's revenues from multinational companies, however, can be defined as a multiplication of imported capital and difference between gross-of-tax user cost and capital rental cost on a capital. This expression is derived using a zero-profit condition for the multinational firms, where pre-tax profit is equal to gross-of-tax user cost of capital multiplied by the imported capital. Since we assumed that labour in domestic and multinational sectors is normalized to one,

then implication of implicit function theorem to this assumption states that an increase in gross-of-tax cost of capital will lead to a decrease of wages.

For finding the optimal tax policy, assume that government wants to redistribute income to worker class from entrepreneurial class and tax revenues that are gained by taxing both multinational and domestic companies are paid for the workers once (in a lump sum). The objective function of the government in this case is the sum of the consumption of workers and consumption of entrepreneurs adjusted with a parameter on the consumption to entrepreneurs, relative to the consumption of workers. The consumption of workers can be defined as wages added to the corporate tax revenues, since tax revenues are paid for workers as a lump sum, and the consumption of entrepreneurs can be defined as after-tax profits. Gross national product (GNP) is simply outputs from both of the sectors minus the capital rental costs from the multinational sector or both workers and entrepreneurs consumptions. Described conditions above allow constructing government's maximisation problem, where the fraction of the profits, accrued to the entrepreneurs and defined by a parameter is subtracted from the GNP. This function shows that government can only use corporate tax to redistribute to local workers from entrepreneurs. It causes a decrease in GNP from its maximum and changes incoming FDIs to the country. First order condition is simply the equation between marginal deadweight loss brought by the change in statutory tax rate and marginal redistributive benefit at optimum. This equation defines the optimal statutory tax rate.

Results are easier to understand if considering extreme cases. If there is no local sector, then the optimal tax rate would be zero. If the government did not want to redistribute income to workers from entrepreneurs, then optimal tax rate would also be zero. No will to redistribute income would leave government without any need to tax capital, since it would only affect abroad investments in a negative way, as collected taxes would be shifted to the workers. If cost elasticity for international capital demand becomes high, then the optimal tax rate goes to zero. Therefore in a small open economy optimal statutory tax rate is not zero, but can be both positive (applied as a tax rate) or negative (applied

as a subsidy). The sign of the optimal tax rate is the same as of redistributive benefit of tax.

There are two redistribution effects of the change of tax rate. The direct redistribution effect is taxing entrepreneurs on their earned profits and then shifting them to the workers. The indirect effect is the deterrence of FDIs, which leads to a decrease in wages and an increase of pre-tax profits for entrepreneurs. Both effects, pre-fiscal, which describes taxes effect on wages and post-fiscal, which describes tax revenue transfer to workers are balancing and so government prefers multinational investments, since they lead to an increase of wages. If the indirect effect of statutory tax rate dominates the direct effect, then optimal tax rate would be negative. FDIs should be subsidized, in order to assure the increase in wages.

Model suggests a proposition no. 1: The optimal corporate income tax rate is positive if and only if, evaluated at the optimum point output per worker is greater in the domestic sector than in the multinational sector (Hong and Smart, 2010). In other words direct effect of redistribution must be of bigger importance than the indirect effect. It shows that labour demand is poorly affected by the capital market distortions and so the redistribution is better achieved applying direct taxation and not by subsidizing capital. Like authors points out, call centres are a good example of direct taxation, while financial centres should be optimally subsidized. If multinational sector is labour intensive, as call centres are, distortions of capital market do not have much effect on labour demand and so redistribution is better achieved by taxing capital. On the other hand, if multinational sector is capital intensive and not so much labour intensive, as financial centres are, it is better off by subsidizing capital and thus have wages raised.

### ***7.2.2.1. International planning***

Model is expanded by adding international planning to it. For simplification assume that every multinational company has an affiliate in tax haven and is using loan from low-tax jurisdiction to finance its investments. Interest payments

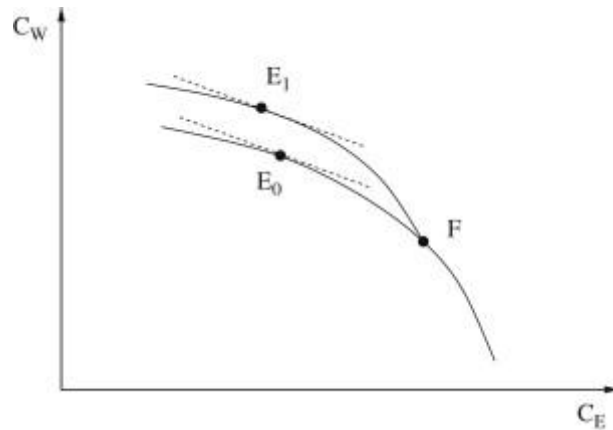
on the loan are deductible from the taxable income and tax havens have a zero income tax rate. The profit of the multinational firm therefore is the same as before but with interest payment to the affiliate in tax havens added. Borrowing money provides the tax arbitrage opportunity, but also creates deadweight cost. Suppose there is a restriction for the companies and issued debt cannot be bigger than a certain debt-capital ratio. Optimal profit, in this case, will be gained if the maximum possible amount of debt is issued. Tax planning with debt from the affiliate located in tax haven results in lowered revenue for the government, due to the deductible interest payments and in reduction of consumption of domestic workers.

Rather than finding an optimal statutory tax rate for the government, it is more suitable to finding and defining an optimal effective tax rate on capital, which is simply the difference between gross-of-tax cost of capital and rental cost of capital. Such defined effective tax rate depends on both gross-of-tax cost of capital and debt-capital ratio. Taking that into account, the optimal tax policy of the government will depend on how income shifting affects the marginal effective tax rate on capital in two ways. First there is an impact of income shifting on the pre-tax profits of the entrepreneurs, which is reached through effects on the wages. Tax on multinational capital reduces wages and redistributes to entrepreneurs. However, at the same time income shifting allows an increase in statutory tax rate which softens the effect of lower wages. First order effect of income shifting is an increase in effective tax rate on capital. Second order effect is an impact of income shifting on the capital distortion, because of the increase in statutory tax rate. Authors find that the marginal effect of income shifting is optimal when statutory tax rate is equal to half. Therefore if the statutory tax rate is lower or equal to half, then the comparative static effect can be signed as a Proposition No. 2: An increase in international planning causes an increase in optimal marginal effective tax rate on capital and a decline in foreign direct investment if optimal tax rate is equal or less than half (Hong and Smart, 2010). This also leads to the Proposition no. 3: An increase in international tax planning causes an increase in statutory tax rate, if tax rate is equal or less than half (Hong and Smart, 2010).

The outcome is opposing the popular opinion which claims that income shifting is causing lower collected tax revenues, decrease in statutory tax rates and consumer welfare. While tax revenues of the multinational companies reduce because of the increase in income shifting, it does not directly affect the consumers. There is, however, the indirect cause, which decreases effective tax rates on foreign direct investment and it allows for the statutory rate to rise reducing the foreign direct investments.

In short, proposition 3 suggests that statutory tax rates will increase (given that they are not too high to begin with) and proposition 2 suggests that it is optimal to increase the statutory tax rate so that it will have the desired effect: (1) increase in statutory rate more than offsets the effect of income shifting; (2) effective tax rate on capital increases; (3) as a consequence, the investment reduces.

In order to see the results in consumption space it is easiest to use the graph that authors used in their paper. It shows a utility possibility frontier (UPF) for the given economy given the extent of income shifting. Consumption levels of entrepreneurs and workers are defined by the budget constraints.  $E_0F$  is the initial utility possibility frontier.  $F$  defines the situation where slope of UPF=-1 and statutory tax rate is equal to zero.  $E_0$  has the slope of UPF=- $\beta$  and it is the optimal allocation given that the statutory tax rate is positive. Now assume that income shifting (debt-capital ratio) increases and the government holds user cost of capital constant. Both GNP and before tax wages would stay fixed and the statutory tax rate would increase in order to keep the user cost of capital constant. The consumption of entrepreneurs would fall and the consumption of workers would increase and so the new optimal point when statutory tax rate is positive, will move to the north-east direction ( $E_1$ )



**Figure 6.** Consumptions of workers and entrepreneurs.

Source: Hong and Smart, 2010.

Figure shows that consumption of workers must increase with the increase of income shifting. It can be done through 2 tunnels:

1. Reduction of user cost of foreign capital and increase in domestic wages;
2. An increase on rents transferred from entrepreneurs through the statutory tax rate.

It also shows that domestic social welfare must increase with the increase of income shifting and so is stated in the proposition 4: An increase in international tax planning causes social welfare to rise (Hong and Smart, 2010). This suggests that governments may be interested in allowing tax planning in order to improve its social welfare. Propositions 1 and 3 imply the Proposition no 5: An increase in international tax planning causes the utility of domestic entrepreneurs to fall if statutory tax rate is lower or equal to half.

#### **7.2.2.2. Restrictions on tax planning**

Later in the model authors present richer policy instruments or, in other words, restrictions on tax planning. They simply add deadweight cost to the model and see if governments seek to restrict such actions despite the restrains, naturally caused by the deadweight cost itself.

Few modifications are made to the model. First of all, the borrowing from the affiliate that is located in Tax Haven entails deadweight cost. This cost is differentiable, increase and convex in borrowing. Deadweight cost is a function of capital and borrowing and can be calculated with capital-debt ratio and cost per unit of capital owned by the affiliate in high-tax country. Also, assume that deadweight cost of the first dollar of a shifted income is very small.

Firm chooses how much income it is willing to shift and enrolled capital level in order to maximise after-tax profits. Since there is no thin capitalisation rule to apply at the optimum, benefit of borrowing capital from the parent company abroad is equal to marginal cost. Results show that income shifting is increasing in statutory tax rate.

Authors add a thin capitalisation rule on deductible interest expenses to the model. Assume that thin capitalisation rule is not greater than the rental price of shifted income, so that the limit is binding at the maximum. Now the government has two instruments to control the tax planning: effective tax rate on capital and limit on interest deductions. Government then chooses these parameters together with statutory tax rate in order to maximise social welfare. The impact of the thin capitalization divided into two:

1. Positive – its effect on domestic redistribution. Income shifting leads to an increase in statutory tax rate and in domestic redistribution.
2. Negative – its effect on deadweight cost. Thin capitalisation rule is interior. It means that if deadweight cost is present, then restrictions on tax planning are desirable, if thin capitalisation rule is equal or less than rental price of income shifting.

However, only some restrictions on tax planning are welcome. Complete elimination of tax planning is not eligible for the high-tax host country because of the social welfare maximisation. Here Proposition No 6 suggests: The socially optimal degree of tax planning is positive but less than that preferred by multinational firms (Hong and Smart, 2010).



Another tool of restricting tax planning can be tax credits, although it might not be a useful tool. Social planner might gain from taxing capital through negative credit rate for investments and preserving incoming investments while decreasing the statutory rates. Assume there is no tax planning and government applies subsidy rate to the capital. Since entrepreneurial capital is fixed, applying tax credit will only create a lump sum to the entrepreneurs, in which way it will increase entrepreneurs' consumption. Government remains with the same problem, but two instruments in order to maximise the welfare – gross of tax user cost of capital and subsidy rate.

Results show that the net effect can be both positive and negative. Positive effect comes from investment tax credit and its effect on increasing statutory tax rate inflicted on entrepreneurs' profits. Negative effect comes from capital levy. Globally, however, governments would never use investment tax credits, because it reduces the social welfare. As it is represented in Proposition No. 7: When domestic and multinational firms employ the same technology but differ in capital intensity, introduction of an investment tax credit at any positive rate must decrease the social welfare (Hong and Smart, 2010). In this case, subsidy rate is set to the smallest possible value. This is done because investment tax credit will increase the statutory tax rate, but keep user-cost constant. However, if with the same technology employed, multinational sector is more profitable than domestic one because it has access to the international capital. This is why it is better to tax capital than profits.

The model shows a new perspective of tax havens enrolment in international competition. Even though income shifting to low-tax jurisdictions may cause a decrease in country's tax revenues and increase in tax elasticity, it also makes real investment less influenced by the differences in tax rates. Allowing companies to some tax planning gives government availability to keep high tax rates and prevent from outgoing foreign direct investments. The effect of decline in tax revenue seems to be smaller than the effect of increase of investments effect, since the latter one positively affects statutory and effective tax rates. Tax planning provides with the investment enhancing effect and it can be dominate

revenue erosion effect. Both statutory and effective tax rates and welfare of citizens can be increased by the tax planning or tax avoidance, considering that initial tax rates were not too high.

### **7.3. The Model of Johannesen (2010)**

Both of the articles, Slemrod and Wilson (2009) and Hong and Smart (2010) have a lot in common. Both set models based on small, open economy with capital flows, modelled with international capital shifting. Both models have interaction of domestic income tax and international capital tax base. However, in the end Slemrod and Wilson conclude that income shifting to low-tax jurisdictions reduces welfare of the high-tax countries, while Hong and Smart arrive to an opposite conclusion. Opposite outcomes are not surprising, since authors of both articles focus on different type of capital. Therefore I am presenting a third article that has similarities to both of the previously explained articles.

This article presents an initial model of tax competition for real investment and profits. Then, in the second stage of model, author introduces tax havens to the model. Just like in the model of Slemrod and Wilson, tax havens are seen as jurisdictions that do not collect capital taxes. The main results of the article are compatible with Hong and Smart conclusions: existence of tax havens in the world can increase revenues of other countries.

An article is written by Danish economist Niels Johannesen in 2010. He published a research about tax avoidance through tax havens where he presents a new view to tax competition in the world without and with tax havens with asymmetric and separating equilibriums. Author believes that elimination of tax havens should not be desirable. Living in a havenless world would only create more aggressive tax competition and end up in the state, where some countries would take over as low-tax countries and gain most of the revenues, leaving the high-tax countries in a less desirable situation than they were before elimination of tax havens (Johannesen 2010).

He sets up a model with one multinational corporation (MNC) in the world with  $N$  identical countries, and in each of the country it has a functioning factory. Capital shifting is costless and the only income for the countries is levied tax of capital. There is a possibility to shift the profits from one country to another and there are shifting costs present. The model is based on a two-stage game where governments of each of the identical countries set capital tax rates simultaneously in the first stage and then anticipate the response of the MNC in the second one.

MNC sets the investments in each country and profit shifting amounts so that the overall after-tax profit is maximized. Profit shifting costs are very important for defining the profit of the MNC. Assume that these costs consist of two parts: fixed costs due to the shifting itself and variable costs, depending on the amount of the profit that has been shifted. Marginal costs of shifting then depend on:

- The proportional amount of profits shifted from one particular country to all other countries;
- The proportional amount of profits shifted from one particular country to another particular country.

Depending on the value of the parameters that define marginal costs, it can be dependable on only one or the other amount. For example, if marginal costs only depend on total shifted profits, then disperse of profit shifting to a lot of different low-tax countries loses its importance. The optimal way for a company would be to shift all of the profits to the country that offers the lowest tax rates in the world. This represents a situation similar to perfect competition, where low-tax countries have high elasticity for incoming profit shifting. If the other way around, then marginal cost only depend on the difference of the tax rate between two involved countries: shifting and receiving one. In this case, countries do not compete over the shifted profits and give a sense of every low-tax country acting as monopolist.

Governments set tax rates that maximize their collected taxes. It is being done by making sure that rate effect and base effect of the change of tax sum up to zero. Rate effect being a change in revenue without any behavioural response

and the base effect is the change in revenue, caused by the change in the tax rate.

The author defines a unique symmetric equilibrium in his model as a ratio of two parameters, defining the optimal capital stock. Symmetric equilibrium is a specific tax rate, set in all countries in the world so that neither could take advantage by increasing its revenues by changing the tax rate.

Asymmetric equilibrium can be reached in the world where every country decides if it sets a high tax rate or low. It's a vector, where some of countries set a low tax and the rest high tax and no country can increase its revenues by changing the tax rates. There are three necessary equilibrium conditions:

- Both high and low tax rates must satisfy the equality between rate effect and base effect;
- Revenues from both high and low taxes must be the same;
- Fixed cost of the profit shifting cannot be too high.

This suggests that if tax competition for profits is strong, there are two possible candidates for asymmetric equilibrium. If fixed shifting cost is low, both of these candidates are the equilibrium. If fixed cost is of the intermediate size, only one of them is the equilibrium. If fixed cost is high, there is no asymmetric equilibrium available.

There is a special case in the model, where large ratio of these two parameters implies that only a few countries will choose to be a low-tax country. It suggests that shifted profits depend a lot on the tax rate differences in low tax countries.

Tax rates increase as the fraction of low tax countries in the economy increases, but decrease as the fixed costs increase. Therefore the more low tax countries there are, the higher the tax rates will be in the world. But if there are only few countries with low tax rates, the equilibrium can be reached with higher fixed costs.

For further analysis, author adds tax havens to the model to see how it affects the revenue of countries in the world with separating equilibrium and where all tax rates are the same. A few assumptions need to be taken into consideration:

- Tax havens have no tax on capital;
- Tax havens have negligible capital endowment;
- Tax havens have little possibility to host investments.

A separating equilibrium in such economy is a tax rate that with a fraction of tax havens with zero tax rates no country can significantly increase its revenues by changing the tax rate. If we assume that the effects of tax differences and total shifted profits from the countries are the same as in the world without tax havens, then there is a certain value of how many tax havens are in the economy, which defines the unattractiveness of profit shifting if there are more tax havens than that in the world.

There are two conditions for the separating equilibrium tax rate to hold:

- There must be a large enough number of tax havens in the world in order to avoid tax competition;
- Fixed costs for profit shifting must be small to make sure that there is no loss in profit shifting and that revenues cannot be increased in the country by setting lower tax rates, so that companies would not shift any profits to the tax havens.

In the symmetric equilibrium, where all countries have the same tax rate, an existence of tax havens will reduce the revenues of countries due to the motivation to shift the profits to the countries where there are no profit taxes present. However in a separating equilibrium, where profit competition is close to perfect, the results are different.

There is a unique asymmetric equilibrium which can be compared to the separating equilibrium when tax havens are added to the model. Taking into the consideration that separating equilibrium can be reached if the number of tax

havens in the economy is more than half of low-tax countries and the threshold value which defines that fraction of tax havens can be between half of the low-tax countries to all of them, then for any fraction of tax havens that fits the description, revenues of the countries are larger than the ones that are earned under the asymmetric equilibrium in the world without tax havens.

The revenues of high-tax countries in the economy with tax havens and separating equilibrium are affected in three ways:

- Higher fraction of tax base of capital is not exported from high-tax country to the low-tax country, since tax havens cannot host real investments.
- The amount of profits shifted is smaller. While the existence of tax havens tend to increase shifted profits due to lower tax rates, the decreased possibility of diversification has the opposite effect;
- Since the tax sensitivity of shifted profits decreases from the fraction of low- tax countries which is higher than the fraction of tax-havens, the revenues increase and possibility to increasing the tax rates arises.

In general, any number of tax havens that is lower than the number of low-tax countries in the world ensures that revenues earned by high-tax countries are higher under the separating equilibrium with tax havens than under asymmetric equilibrium without them.

Tax havens are not only attracting the profits from high-tax countries. They also make the tax competition less attractive, which leads low-tax countries to become high-tax countries and by the loss of diversification of shifted profits, assuming that the number of tax havens in the economy is low enough, helps high-tax countries to increase their profits. Author concludes that by comparing two equilibriums, with tax havens and without, undoubtedly gross corporate profits are higher in separating equilibrium with tax havens than in asymmetric equilibrium without (Johannesen, 2010).

## **Conclusion**

We live in the world that is in a constant change and development. The business world is getting smaller as it is becoming easier to travel around, create new and expand old partnerships, shift goods, services, labour and capital overseas. Every day people in the field find new ways to optimise its business and maximise their earnings. New companies are being born, new affiliates abroad are being created and businesses are expanding faster than ever.

Fast development leads companies to become global and operate in a lot of countries in the world. However, the countries are not of the same development and the rules they apply to the businesses differ. While some countries have stricter policies and higher tax rates, other countries, usually smaller ones in size and population, have looser and more foreign-capital friendly tax environment. Multinational companies, seeing the opportunity, rush to use differences between countries to their advantage.

As more countries are becoming international, more taxes inequalities are experienced. Multinational companies with affiliates in a lot of foreign countries choose tax planning strategies and at the end of the year pay less tax as they would have, if they had been only operating on the home country. Bigger tax burden falls on the shoulders of domestic companies and local workers.

Organisation for Economic Co-operation and Development (OECD) has been trying to fight tax inequality for years now. It's main focus is to stop Base Erosion and Profit Shifting (BEPS). The most recent project of the organisation is called Action Plan on Base Erosion and Profit Shifting. It is a two year project consisting of 15 steps and by the September of 2015 it will eliminate or minimize the base erosion and profit shifting problem in the world.

In the past OECD named tax havens, countries with low taxes and foreigners friendly policies, as the main cause for base erosion and profit shifting. On the

contrary, the action plan on BEPS is focusing on other issues and only mentions low-tax jurisdictions seldom. This unexpected outcome invites to take a second look at the tax havens and the researches based on them.

There are three articles discussed in the thesis. The first one, by Slemrod and Wilson (2009) presents an opinion on how parasitic and harmful tax havens are for the global economy. In the second one Hong and Smart (2010) base their theoretical model on thin capitalisation rule and present an opinion that tax havens are useful for the economy. Lastly, an article by Johannesen (2010) is presented. It combines the ideas of the both previously presented articles and concludes that the existence of tax havens in the world can be beneficial for the other, high-tax countries in the world.

Authors of the first article present a small and open economy with a large number of countries with domestic and foreign capital firms. There are also low-tax jurisdictions in the world that offer concealment services for the firms in high-tax countries. Slemrod and Wilson propose that total elimination of the tax havens in the world raises high-tax countries public good provision and its welfare. However, as it states in their article, if both capital and wages are taxed, it is not certain whether tax havens are good or bad for the economy. Even though the opinion on tax havens is not very strict with a total elimination of tax havens, authors of this article are positive that partial elimination of tax havens makes all non-haven countries better off.

Contrary to this article, in 2010 Hong and Smart presented their research in the field. Their model is also a small and open economy and they show how competition and mobility affects tax planning. In their model every multinational company has an affiliate in one of tax havens and finances their businesses with a loan from a low-tax jurisdiction. Their main finding is that existence of tax planning causes welfare to rise. Authors agree that some restrictions can be beneficial. They add thin capitalisation rule to the model and the main results of the model does not change. It is beneficial for the economy to apply some



restrictions to the tax planning, but total elimination of tax planning is not desirable as it will push social welfare below its optimal level.

The last article discussed is a research that has similarities to both previously mentioned articles. It presents an opinion that elimination of tax havens is not desirable as it only creates a competition where high-tax countries end in the worse state than before the elimination. Author shows that tax havens do not just attract profits from other countries, but also make a tax competition less attractive for the users. When comparing equilibrium with and without tax havens in the world, the profits of multinational companies are higher when low-tax jurisdictions exist in the world.

The matter of base erosion and profit shifting exists and greatly influences the global economy. It is a known problem that needs to be solved and prevented in the future. However, there is no definite reason for why it is taking place in the world. For many years low-tax jurisdictions were to blame and fought against. Since after all of the precautions taking against the tax havens the problem of profit shifting still exists, the question of how harmful tax havens actually are to the world remains.

There are a lot of signs suggesting that tax havens are not that harmful, if at all. To begin with, we can see how Organisation for Economic Co-operation and Development shifted their focus from tax havens as a cause to base erosion and profit shifting to other matters. Such matters include differences in domestic tax systems and lack of co-operation between them, development of new economy branches that are difficult to properly define and tax in the existing system, a need for improvement in tax systems as they are not up-to-date as the business world is.

The jurisdictions that are providing low or no taxes are not the problem. However international companies that are using tax havens as shelters for their profits and this way avoid paying taxes in their home countries are the problem. Therefore, eliminating tax havens can only help to solve this problem

temporarily. As long as it is beneficial for a country to lower its tax rates and attract foreign capital profits, there will always be a fraction of countries that will be ready to do so.

Empirical researches are divided to two sides. For example Hines and Rice (1994) reports that if a tax rate increases by one percent, the reported income will decrease by three percent. Harris et. al (1993) also show proof of profit shifting. A company that has affiliates in low-tax jurisdictions are more likely to have lower tax ratio in home country. On the other hand, Desai et. Al (2006) show that if a company has an affiliate in a low tax country, it is likely that investments in a near-by high tax country will increase. Even though it is very hard to compare empirical researches, because it is almost impossible to find two researches that are using the same methodology, the more recent works show either no proof of harm of tax havens to the country or the benefits it brings to the world's economy.

Economic theories nowadays are more consistent with the opinion that tax havens are not harmful for the global economy. Even Slemrod and Wilson (2009) admit that if both capital and wages are taxed in the country, as it is usually the case in the countries, there is no certainty if tax havens are good or bad. Both articles, written by Hong and Smart (2010) and Johannesen (2010) conclude that the existence of tax havens in the world increases the revenues of high tax countries. Their conclusions are consistent even with partial elimination of tax havens, as it lightens the competition. Between Slemrod and Wilson's ambiguity whether tax havens are good or bad and Hong and Smart's and Johannesen's conclusion that with no elimination of tax havens the world's economy is better off and OECD's shift of focus from tax havens it is difficult to see tax havens as the harm to the global economy.

## Bibliography

1. Blundell, R. (2014). *Let's talk tax*. Retrieved 07/25, 2014, from <http://blogs.mazars.com/letstalktax>
2. Desai, M. A., Foley, C. Fritz, & Hines, J. R. (2004). Economic effects of regional tax havens. Cambridge, Mass: Cambridge, Mass. National Bureau of Economic Research.
3. Desai, M. A., Foley, C. F., Hines, J. R. Do tax havens divert economic activity? *Economics Letters*, 90(2), 219-224.
4. Desai, M. A., & Dharmapala, D. (2006). Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics*, 79(1), 145-179.
5. Dharmapala, D., & Hines, J. R. (2009). Which countries become tax havens? *Journal of Public Economics*, 93(9), 1058-1068.
6. Gale, W. G., Orszag, P. R. (2004). Budget deficits, national saving, and interest rates. *Brookings Papers on Economic Activity*, 2004(2), 101-210.
7. Gilleard, M. (2013). *The OECD's BEPS report: How did others react?* Retrieved 07/25, 2014, from <http://www.internationaltaxreview.com/Article/3234619/The-OECDs-BEPS-report-How-did-others-react.html>
8. Gravelle, J. G. (2009). Tax havens: International tax avoidance and evasion. *National Tax Journal*, LXII(4), 727-753.
9. Grubert, H. (2012). Foreign taxes and the growing share of U.S. multinational company income abroad: Profits, not sales, are being globalized. *The Department of the Treasury, Office of Tax Analysis*,

10. Grubert, H., Mutti, J. Taxes, tariffs and transfer pricing in multinational corporate decision making. *The Review of Economics and Statistics*, 73(2), 285-293.
11. Harris, D., Morck, R., Slemrod, J., Yeung, B. (1991). Income shifting in U.S. multinational corporations. Cambridge, Mass., USA:
12. Hines, James R., Rice, E. M. Fiscal paradise: Foreign tax havens and American business. *The Quarterly Journal of Economics*, 109(1), 149-182.
13. Hines, J. R. (1999). Non-profit business activity and the unrelated business income tax. *Tax Policy and the Economy*, 13, 57-84.
14. Hines, J. R. (2007). Tax havens. *Office of Tax Policy Research*, 1-7.
15. Hines, J. R. (1997). In National Bureau of Economic Research (Ed.), *Taxed avoidance, American participation in unsanctioned international boycotts*. Cambridge, Mass: National Bureau of Economic Research.
16. Hong, Q., Smart, M. In praise of tax havens: International tax planning and foreign direct investment. *European Economic Review*, 54(1), 82-95.
17. Johannesen, N. Imperfect tax competition for profits, asymmetric equilibrium and beneficial tax havens. *Journal of International Economics*, 81(2), 253-264.
18. Mintz, J., Smart, M. Income shifting, investment, and tax competition: Theory and evidence from provincial taxation in Canada. *Journal of Public Economics*, 88(6), 1149-1168.
19. Mitchell, D. J. (2005). The moral case for tax havens. *The Liberal Institute of the Friedrich Naumann Foundation*.
20. Mitchell, D. J. (2008). Why tax havens are a blessing. *Foreign Policy*.

21. Organisation for economic co-operation and development. (1998). *Harmful tax competition, an emerging global issue*. Paris: OECD.
22. Organisation for economic co-operation and development. (2008). *Policy brief: Tax effects on foreign direct investment*. OECD.
23. Organisation For Economic Co-Operation and Development. (2013). *Action plan on base erosion and profit shifting* Paris: OECD Publishing.
24. Organisation For Economic Co-Operation And Development. (2013). *Addressing base erosion and profit shifting* Paris: OECD Publishing.
25. Organisation For Economic Co-Operation And Development. (2014). *BEPS webcasts*. Retrieved 06/24, 2014, from <http://www.oecd.org/tax/beps-webcasts.htm>
26. Slemrod, J., Wilson, J. D. (2009). Tax competition with parasitic tax havens. *Journal of Public Economics*, 93(11), 1261-1270.
27. Tax Justice Network. (2007). Identifying tax havens and offshore finance centres. *Centre for Research on Multinational Corporations (SOMO) 1*.
28. Tax Justice Network UK. (2008). Tax havens creating turmoil. *Treasury Committee of the House of Commons*.
29. The Irish Times. (2014). *Accountancy representative warns of dangers from corporation tax changes*. Retrieved 07/24, 2014, from <http://www.irishtimes.com/business/economy>
30. The Irish Times. (2014). *'Double Irish' tax arrangements to be targeted by OECD plans*. Retrieved 7/25, 2014, from <http://www.irishtimes.com/business/economy>
31. Leibfritz, W. (1997). Indicators of fiscal and monetary policy, an international comparison.