The Tragedy of the Commons: The Impact of Tax Avoidance within the European Union

Is Hungary Becoming a New Tax Haven?

By

Ioannis Cangosz

Submitted to

Central European University

Department of Economics and Business

In partial fulfillment of the requirements for the degree of

Master of Arts in Economic Policy in Global Markets

Supervisor: Professor Eyno Rots

Budapest, Hungary

2020

Abstract

This paper aims to investigate the effects of international tax avoidance and profit shifting by multinational corporates within the European Union (EU), with a special focus on Hungary. Although, being legal procedures, tax avoidance technics hinder fair competition and harms both European citizens and enterprises, while European tax havens gain. Companies create complex cross-country structures to minimize their tax burden, with active participation of governments. According to a report by the European Parliament in 2019, after reducing its corporate income tax rate to a record low 9%, Hungary was declared to be a country with traits of a tax haven. This paper analyzes whether inward Foreign Direct Investment (FDI) and Effective Tax Rates (ETR) are good proxies to estimate tax avoidance in EU level, furthermore, based on evidence it examines whether Hungary indeed can be named a tax haven. Findings suggest that FDI inward flows and ETRs are better proxies than statutory tax rates, however, due to lack of data availability, used previous studies show limitations and vary in results. Regarding Hungary, evidence show that, although Hungary provides beneficial structures to multinationals, it cannot be considered as a European tax haven, as corporate income tax estimations are misleading and multinationals rather receive state aid and tax allowance, if investments have real economic implications.

Acknowledgement

I would like to express my deep gratitude to my supervisor, Professor Eyno Rots for his guidance, patience and encouragement throughout my work. I would also like to thank Professor Csaba László for his time and valuable comments. Furthermore, I also would like to thank my friend, Attila Sárkány for his time and invaluable assistance on the technical aspect of my thesis. Lastly, I would like to thank my family, my mother, Sarolta Falcione, my sister, Antónia Cangosz and my uncle, Dr. Szabolcs Lányi for providing me their constant support during my studies.

Table of Contents

Abstra	ct	i
Acknow	vledgement	ii
List of '	Tables	iv
List of]	Figures	iv
Introdu	iction	1
1. Th	eoretical Framework: Profit Shifting and Tax Evasion	6
1.1.	Corporate Income Tax and Tax Avoidance	6
1.2.	Tax Avoidance Practices in the European Union	11
1.3.	Existing Policies Against Tax Avoidance	16
1.4.	Tragedy of the Commons: Obstacles Towards Further Legislation	23
2. Ta	xation and Multinational Corporations	
2.1.	Multinational Corporations and FDI	
2.2.	Multinational Corporations and ETR	
3. A]	New European Tax Haven: The Case of Hungary	
3.1.	Taxation in Hungary	
3.2.	Tax avoiding practices in Hungary	
3.3.	Is Hungary a Winner or a Looser from International Tax Avoidance?	
Conclu	sion and Policy Recommendations	
Referer	nces	
Append	lix	

List of Tables

Table 1: The 15 Action plans of BEPS Directive	18
Table 2: Descriptives (2013-2018), million USD	33
Table 3: Inward and Outward FDI from and to the top 5 counterpart economies 2015-201	8,
USD million	65

List of Figures

Figure 1: Corporate tax rates in the EU countries (2020) and revenues from CIT as share of
GDP (2018), %
Figure 2: Distribution of CIT tax rates among OECD memebr EU countries (2005-2018)9
Figure 3: Inward and Outward FDI in top 10 economies in the world, SPEs included and their
shares to GDP, 2018, USD, billion
Figure 4: Distributions of FDI outflows and inflows (2013-2018), million USD
Figure 5: Correlation between variables and scatterplot between inward and outward FDI 35
Figure 6: ETRs, nominal rates and tax wedges for the period from 2011 to 2015 for EU
countries, %
Figure 7: Correlation between variables for years 2011-2015 and 2015
Figure 8: Share of CIT as percentage of all government income shares of CIT and LBT as %
of GDP (2016-2019)
Figure 9: Budget income share as share of GDP
Figure 10: The value-added share of foreign controlled non-financial subsidiaries, % (2008-
2017)
Figure 11: FDI outward and inward stocks and GDP total, million \$
Figure 12: Inward FDI flows (million USD) between the examined period, Corporate tax rates
between the examined period among V4 (2005-2018)
Figure 13: Planned and actual government income from CIT, million Ft (2011-2019)
Figure 14: Inward and Outward FDI flows (million USD) between the examined period,
among V4 (2005-2018)
Figure 15: Inward FDI positions broken down by SPEs and Non-SPEs as % of GDP (2009-
2018)

Introduction

Despite being one of the most powerful economic and political union with 450 million population, developed internal single market, complicated structural built-up, standardized and comprehensive systems of profound laws and regulations followed by its democratic and industrialized member states and strong market power, when it comes to taxation policies and especially to the corporate income tax, the European Union (EU) faces serious difficulties in reaching common understanding, while suffering significant losses. The corporate income tax related shortfalls and inefficiencies derive from two main reasons.

Firstly, during the second part of the 20th century, as a result of globalization the EU became more open towards foreign investments from international firms and vast amount of assets were brought into European countries. They developed their supply chains, founded affiliates, acquired controlling shares in companies. As commerce activities became more mobile, these firms complied with the new globalized business conditions and continuously advanced their tax planning endeavors (Marchgraber, 2018). From taxation perspective, if company groups think rationally and follow business logic, their main interest is to minimize their tax liabilities, to reduce their tax base and to report their income where tax burdens are the lowest (Simon - Földes 2012).

Secondly, the EU is a fragile system, in which member states still possess great autonomy. Countries, as separate sovereigns are interested in attracting foreign investments as multinationals create jobs, usually provide higher wages, create economic value-added, develop local economies, thus, they aim to create favorable environments to attract companies. This indicates that governments themselves are heavily involved in providing special tax exemptions or tax allowances for certain entities, which hinders fair competition. The economic freedoms within member states has been expanded on not only for persons, capital, goods and services but the will of arranging bilateral treaties across countries (Schön, 2003).

Multinational companies are actively pursuing intrafirm profit shifting and reallocation of their income in countries with relatively low statutory corporate income tax rates, even though being provided by lower advantageous effective corporate tax rates by governments, who have been treating tax planning as legitimate practices traditionally (Marchgraber, 2018). As a result, countries where profit is shifted from are suffering substantial losses, while countries, where the income is shifted towards to be taxed, are still losing considerable amounts, as government budgets receive less payments. These depend on both individual companies' strategies called *tax optimizing* and national authorities' tax policies, but those, who are suffering the consequences and the increased further taxes are the European citizens. According to a recent study, around \$420 billion corporate income is shifted out of examined 79 countries annually (Janský & Palanský, 2019). Furthermore, net revenue losses from profit shifting are estimated to be \$100-240 billion annually, which is equivalent to 4-10% of worldwide corporate income tax revenue, and which indicates that fewer resources are spent on services, such as health and education, infrastructure lowering the standards of living (OECD, 2020b).

States have been applying tax incentives since the 1980s to attract investment from abroad through lower taxes, and although tax competition by definition is not considered that harmful, problems lead to imbalances between public expenditures and tax revenues (OECD, 2020a). As governments either apply discriminatory tax regimes to tax transnational investment incomes more heavily than domestic ones or the contrary, give tax advantages and support foreign investment, will influence transnational investment flows and deteriorate free competition (Smit, 2012).

The resulting *tax competition* between member states has diverged from the traditional ideal of institutional government control led by the people of a states (Schön, 2003). Socio-

2

economic structures, like labor market policies, standards of living or income distribution within the advanced nations who employ fiscal regimes have all been influenced by globalization, which also has changed national fiscal and redistributive policies, due to international business mechanisms and mobile capital flows (Huerlimann et al., 2018). As a result, corporate tax avoidance has been described as one of the greatest challenges in our generation (Salihu et al., 2013).

As a response, supranational organizations and international bodies have tried addressing taxation issues. Over the years the OECD and the World Tarde Organization stood against harmful tax competition, however, both of them lack of the same legal power and institutional strength as the EU, which has also taken serious actions that, however, got stuck in the depths of bureaucracy (Schön, 2003). Albeit, these attempts to discourage the spread of destructive practices have been rather successful, impeding adverse tax competition still remains an issue to solve (Marchgraber, 2018).

The topic is gaining more attention and issues need to be discussed more. In recent years the number of academic contributions has increased, however, most papers focus on different aspects of the issue. This thesis provides evidence on how much the EU is affected by international tax avoidance, highlighting the prominent role of some European tax havens, furthermore, it analyzes the case of Hungary. The novelty of this thesis is that it examines the relation between FDI inflows, statutory and effective tax rates regarding the 6 European tax havens (Belgium, Cyprus, Irelands, Luxembourg, Malta, the Netherlands). Furthermore, in 2019 the European Parliament¹ declared Hungary to be the 7th country, which has the traits of tax haven, moreover, it cut corporate income tax rate to record low 9% in the EU (European Parliament, 2019). No such research studied this question comprehensively before. Given the motivation, in my thesis I collect evidence and support the following statements:

¹ European Parliament's Special Committee on Financial Crimes, Tax Evasion and Tax Avoidance

- 1. Inward FDI related pure financial flows and Effective Tax Rate (ETR) are better proxies than statutory corporate income tax rate (STR) for estimating profit shifting and tax avoidance activities.
- 2. Given the evidence Hungary possesses the characteristics of a European tax haven and can be considered as a one.

Throughout my research I use both secondary (previous research and findings) and primary (own computations) sources. I obtained cross-country panel data² on FDI flows from OECD, IMF, for tax rates KPMG data and for analysis I used Eurostat, World Bank and other sources. As ETRs are not publicly available data, I used results and numbers of previous studies. During my research, I did not found any comprehensive study about the level and significance of tax avoidance in Hungary. This limited my opportunities, however, motivated me to conduct comprehensive research of international studies, papers and Hungarian journal articles. I further obtained data from the Hungarian Central Statistical Office (KSH). I also conducted a semiformal phone interview with Professor Csaba László³, who provided me valuable information about the Hungarian taxation system, tax avoidance and state supports. The transcript of the interview is attached in the Appendix. For numerical computations I used Python 3 Jupyter Notebook and Microsoft Excel programs to show correlations, distributions and charts. Findings suggest that FDI inward flows and ETRs are better proxies than STRs, however, due to lack of data, studies used are limited in data and show different results. Regarding Hungary, evidence show that, although Hungary provides beneficial structures to multinationals, it cannot be considered as a European tax haven.

The thesis is structured as the followings. The current chapter provides a broad introduction and the motivation about my research topic. Chapter 1 reviews the literature and

² Data includes OECD member EU countries plus Cyprus and Malta

³ Professor Csaba László, Senior Partner at KPMG, former Finance Minister (2002-2004)

provides an overview about corporate taxation and international tax avoidance, emphasizing main tax avoidance methods and current international tax architecture, then introduces the main existing anti-avoidance measures, discusses the issues and limitations policy makers have to face with. Chapter 2 discusses the empirical evidences on the depths of tax avoidance within the EU and presents estimations with computations. Chapter 3 analyses Hungary and displays empirical evidence and results. Finally, the last chapter provides the concluding remarks and suggests both EU and Hungary related policy recommendations and proposes further research in international tax avoidance.

1. Theoretical Framework: Profit Shifting and Tax Evasion

In the following Chapter the main concept of corporate taxation and the basic features of the European tax avoidance environment will be introduced, focusing on the techniques most often used by the biggest multinationals in the region.

1.1.Corporate Income Tax and Tax Avoidance

Taxation is the key income for governments budgets to finance their spending and expenditures. As a compulsory levy, taxes are imposed by the state on the production, income, profit and wealth of individuals or corporate entities, which are expected to contribute this duty as failure of paying or evasion are against the law (Aronmwan & Okafor, 2019). The overall tax-to-GDP ratio, which refers to the sum of all taxes and net social contributions as a percentage of total output was 40.3% in the EU in 2018 showing a slight increase from 2017 (Eurostat, 2019). In the Eurozone, total tax revenue as a share of GDP was a bit higher in the same year, 41.7% precisely. As the pattern shows, Western and more advanced European economies have generally higher revenue from taxation and social contributions (42-48%) than the least developed, Eastern member states (23-31%).

Corporate income tax (CIT) is defined as an income tax levied on the net profits⁴ of enterprises, which also covers the capital gains of corporates (OECD, 2018b). It is a direct tax that must be paid by various types of companies and other legal entities after their generated profit from economic activity (europa.eu, 2019). Taxation rules and practices can wildly vary by country set by national authorities, however, there are a few standards used by nearly all nations. Corporations have to pay corporate tax (income tax) after doing business as usual, investing (in assets) and selling for more than they cost (chargeable gains)

⁴ Gross income minus allowable tax reliefs (OECD, 2018b).

(europa.eu, 2019). Most often, if a company is based in a given country (parent), it pays tax on all its profits from that country and abroad. If the company is not based in that specific country but has an office or branch there (affiliate), it only pays company tax on its profits from its activities arising through or from that office or branch in that country (europa.eu, 2018). The tax treatment of a multinational company (MNC) is determined the international taxation structures, which is based on separate accounting systems, meaning that MNCs are taxed at affiliate level in different countries, if certain conditions (like Permanent Establishment) apply (Beer et al., 2018).

In 2018, the average corporate tax rate among EU member states was 21.7%, while 23.7% in OECD countries (Bunn, 2018). The OECD's new database called Corporate Tax Statistics (OECD, 2017a), which includes information on various corporate taxation measures, shows that the average global statutory corporate tax rate (STR) has been consistently decreasing since the 1980s⁵, however, the average CIT revenues as percentage of total tax revenues and as percentage of GDP, on the contrary, have rose slightly (OECD, 2018b). In the EU this decline of CIT rates and rise of CIT revenues were mainly driven by corporatization (Piotrowska & Vanborren, 2008). The substantial decrease is explained mainly by pressure from the evolved tax competition, which is said to be compensated by broadening the tax base, by budgetary cuts or by shift to other, mainly indirect taxes (Schön, 2003). The database examining 88 jurisdictions worldwide shows that in 2016 CIT rate as a percentage of total gathered tax revenue was on average was 13.3% and CIT as a percentage of GDP in (in these specific jurisdictions) was 3%. The CIT as share of GDP within the EU was 2.7% in 2018 (Eurostat, 2019). If we compare the general contribution of corporate tax as the percentage of GDP for the Value-Added Tax (VAT), the most important and impactful indirect tax (10-20%)

 $^{^5}$ From around 40% to 25% by 2017 (Damgaard et al., 2019).

for most member states) with the general CIT rate (2.7% of GDP), we can say that CIT contributes less substantially to the taxation system.

Figure 1 displays the official STRs in 2020 across the 27 EU member states including the UK. The average is 20.8%, which is a record low since the formal unification of the EU. We can say that corporate taxes and all other direct taxes, such as personal income tax, are generally lower in Central-Eastern European member states, whereas indirect taxes, such as VAT are likely to be higher in this region. Currently Malta has the highest STR (35%) followed by Germany, Belgium and France, on the other hand Hungary has the lowest (9%) along with Bulgaria, Ireland and Cyprus. Furthermore, the figure shows the revenue coming from CIT, as a share of their GDP in 2018. We can see that the major Western economies, like Germany, France, Italy or the UK received around relatively lower, around 2.7% from CIT, however, some countries like Malta (5.6%), Luxembourg (5.8%) or Cyprus (5.5%) received much higher revenues, than EU average (2.9%) in 2018.



Figure 1: Corporate tax rates in the EU countries (2020) and revenues from CIT as share of GDP (2018), %

Source: KPMG (2020) and (Eurostat, 2019), self-edited (revenues include taxes on holding gains)

The following figure shows that over the examined 13 years countries set their STRs between 25-27% and 18-20% mostly, while 15% was the third most common rate.



Figure 2: Distribution of CIT tax rates among OECD memebr EU countries (2005-2018)

According to a research by OECD (2008), corporate taxes are the most harmful form of taxation for economic growth, followed by personal income taxes and then consumption taxes, while current taxes on immovable property appear to have the least impact. Countries with high CIT rate face the most considerable tax revenue losses. Estimations show that in 1999 Germany, which had the highest corporate tax base in Europe that time, would have grown by 14% if there were no profit shifting incentives (Dischinger et al., 2014). As this one-line item in companies' financial statements means significant business cost that reduces overall distributable profit available, which is undesired for wealth-maximizing stakeholders, companies have a tendency to look for tax avoiding opportunities (Aronmwan & Okafor, 2019). Regarding multinational corporates, they have the best opportunities to minimize their taxes than other taxpayers (Wittendorff, 2010).

Thus, almost every company implement some form of tax avoidance scheme to reduce the expenses rising form the tax rates, however, literature lacks coherent and accepted definition of the term, due to the various interpretations and approaches of the concept (Aronmwan & Okafor, 2019). Even the OECD admits that it is difficult to define, and it describes as the arrangement of taxpayers' affairs to cut tax liability, which is legal but usually contradicts the intent of the law (OECD, 2020d). According to Salihu et al. (2013, p. 414.), tax avoidance can be defined as "*the ability to pay a low amount of tax per*

dollar of reported pre-tax financial accounting income" or "downward manipulation of taxable income through tax planning that may or may not be considered fraudulent tax evasion" or as the "reduction of explicit tax liabilities". Tax planning, a synonym used interchangeably, is defined while highlighting its managerial aspect as "exploiting the loopholes and uncertainty in the tax system to consciously achieve an advantageous tax reporting position that will result in a predetermined objective of tax liability minimalization" (Aronmwan & Okafor, 2019, p. 23.). Despite the diverse definitions, we have to distinguish tax avoidance, which is a legal and sometimes supported model from tax evasion, which is an illegal practice of arrangements, such as hiding, ignoring or underreporting tax liability or information from tax authorities, and which is subject to criminal penalties (OECD, 2020d). Nowadays, however, tax avoidance seems to have been shifted to be an issue of morality from legal definition, depending on the aggressiveness (Aronmwan & Okafor, 2019).

Governments have always been interested in searching for new ways to finance their operations and policies. Expanding government budget income from taxation is desired in order to fulfil the duties and responsibilities they are expected by their citizens (Aronmwan & Okafor, 2019). Thus, the use of some tax avoidance techniques is even incentivized by governments. By 2018, 30 out of 36 OECD countries offered tax reliefs and have changed their policies from directly funding R&D (\$52 billion in 2016) to rather giving R&D tax incentives (\$45 billion in 2016) in the hope to spur innovation in their own economies (OECD, 2020f). Most of economies apply different combinations of direct funds and tax relief, where tax incentives on average make 46% of total state support scheme (OECD, 2019a).

Member states also arrange bilateral (or multilateral) *tax treaties* for the avoidance of double taxation (OECD, 2020d). Corporations also exploit disparities of two different states' income tax architectures and international double taxation rules of investment income that is

caused by the execution of taxation powers by two different countries at the same time and which negatively affects international investment flows and deteriorate free competition (Smit, 2012). The interaction of various domestic taxation structures and international standards to relieve double taxation, may create loopholes, which opportunities are exploited to eliminate or significantly reduce taxation on income (Marchgraber, 2018).

1.2. Tax Avoidance Practices in the European Union

Tax avoidance practices are said to be as old as tax themselves. Over the years, while having continuously increasing economic importance, MNCs have evolved exceptionally creative and sophisticated methods to avoid illegality (Salihu et al., 2013). CIT architectures were designed for the economic realities of the 1920-40s, when conducting business was related to physical or legal presence, however, today corporates evade the principle that companies should pay taxes in the country where profits are generated (European Parliament, 2017). Multinationals with several branches in many countries often construct complex tax avoidance schemes to profit from the different tax regulations. Governments and international organizations have a hard time dealing with these methods, since non-of them are considered as strictly illegal. Companies who are well managed and precise can attempt to minimize their tax burden, while complying with all taxation laws (Holtzblatt et al., 2015). Companies having a parent and an affiliate in different countries can legally avoid tax charges by cross-border profit distribution within the EU, if (europa.eu, 2020):

- the parent and the affiliate are located in different states (for tax purposes);
- both the parent and affiliate are subject to CIT;
- both the parent and affiliate are properly registered and incorporated, and
- the parent has minimum 10% holding in the capital (or in voting rights) in the affiliate located another EU country.

11

Following the 2008 financials crisis, financial scandals revealed the depth of offshore tax evasion and artificial profit shifting techniques, and gained international attention. In the followings, the most preferred and most widely used practices are introduced.

1. BEPS

Base Erosion and Profit Shifting (BEPS) includes tax avoidance practices used by MNCs to exploit gaps and mismatches in tax systems and to shift profits from high-tax jurisdictions to low or zero tax countries, where they might have little or no economic activity (OECD, 2019b). They use the differences across national tax systems, however, taking advantage of these tax rate differences, such as relocating real economic activities, does not itself account as BEPS (Bradbury et al., 2018). Deciding, however, which activities account for real economic ones poses serious challenges in measurement, especially now, when the importance mobile intangible assets increases. This legal practice undermines the fairness and integrity of taxation systems as these companies are gaining competitive advantage over enterprises in the domestic market. The practice of profit shifting is assumed to be the most pronounced method for large multinational corporates (Dischinger et al., 2014). These enterprises have cross-border complex corporate structures (Damgaard & Elkjaer, 2017).

2. Transfer pricing

The concept of transfer pricing or mispricing refers to the valuation and manipulation inter-company transaction prices within a MNC, which influences global tax base allocation between jurisdictions (Beer et al., 2018). It means that related companies under the same corporate group exchange goods and services. Firms usually trade under the *arm's length principle*, which refers to transactions, where both parties are independent and do not influence the other (Wittendorff, 2010). According to this, prices of selling goods and services within enterprises should be the same, as if they were unrelated (Holtzblatt et

al., 2015). However, as more than 60% of worldwide trade is intra-firm (executed between related companies) this practice can be easily violated, when related companies in different countries subject to different CIT conduct business at lower or higher prices than the market price. An adjustment implies simple redistribution of incomes between the taxpayers, they are balanced by decrease in one's and increase in the other's profits (Wittendorff, 2010). Due to the weakness of the principle, companies can price exports from high-tax to low-tax countries at artificial low prices, and can set high prices for imports coming from low-tax to high-tax jurisdictions (Beer et al., 2018). Selling goods and services between related affiliates affects FDI via profit and retained earnings, and can be really difficult to determine fair prices for tax authorities, especially in case of transfers of property rights and intangibles (Damgaard & Elkjaer, 2017). Empirical studies show that transfer prices for both related and unrelated transactions vary systematically with CIT rate differentials (Beer et al., 2018). However, transfer pricing practices according to law are subject to strict information and documentation requirements.

3. Intercompany loans and debt shifting

Firms can shift profits by intercompany loans. The given taxation rule differences between states create opportunities for distributing profits using intra-group interest payments, as subsidiaries in high-tax jurisdictions borrow money at higher interest rates from subsidiaries in low-tax ones (Tørsløv et al., 2020). According to Beer et al. (2018), CIT differences have significant effect on intra-group financing. Taxing the interest receivables can be avoided if the lender is in a low-tax country or enjoys favorable regime for taxing group interest (Smit, 2012). To avoid minimizing tax base, some countries have measures to defer and deny the deduction on interest payments from intra-group loans. Estimations say that around 15% of all shifted profit originates from interest, thus debt-shifting activities (Tørsløv et al., 2020). It lowers the company group's tax base without influencing the overall corporate debt exposure (leverage)

and its bankruptcy risks (Beer et al., 2018). However, as debt-shifting happens between various countries with different currencies, it might bring about other risks, such as currency and exchange rate risks, which originally would not occur (Holtzblatt et al., 2015).

4. Strategic location of intangible assets

By which assets profit shifting is engaged is largely unknown, studies assume that shifting activities are homogenous across companies, except for highly mobile intangible assets, the relevance of which has dramatically increased in recent years (Dischinger et al., 2014). Estimation of intangibles related tax avoidance is problematic, as their market prices are hard to determine, and as they are hardly observable by tax authorities, especially with R&D intensive companies. Firms may conduct and produce (but not finish) their R&D in one, usually high-tax, then shift the ownership of the patent to another, lower tax rate country, where income from sales will be taxed at lower rates (Beer et al., 2018). These non-monetary, non-physical assets from which they expect future economic benefits include intellectual property (IP) as the most prevalent, patent and copy rights, software, algorithms, logos, trademarks, innovation rights and firm-specific R&D. Shifting also includes intra-firm headquarter services (such as management, administration, design or marketing), financial services and information and communication services (Tørsløv et al., 2020). Thus, transferring the location of IPs from hightax to low-tax countries in order to lower taxable income, is hard to measure. Empirical research states that "a decrease in average tax difference to all other affiliates by one percentage point raises the subsidiary's level of IP application by 1.6 percent" (Beer et al., 2018, p. 8.).

5. Corporate inversions and HQ location

Taxes of repatriation can be avoided by varying the residence of the company or by corporate inversions happening via cross-border mergers and acquisitions, which are driven mainly by taxation considerations, according to studies (Beer et al., 2018). Between 1983 and

2015, 60 US companies' average savings of the firm's global corporate taxes increased by \$45 million for each company after corporate inversion.

6. Hybrid entities

It means using the differences between two countries' tax systems. Jurisdictions have different rules on the same transaction, such as on a loan payment. It can be considered as interest in one (sender), and dividend in the other (receiver) county, which both costs are deductible. Hybrid instruments are labelled as debt in one state, while equity in another jurisdiction, achieving tax benefits (Holtzblatt et al., 2015).

7. Avoidance of Permanent Establishment (PE)

It occurs, when companies aim to avoid having taxable presence in a state, which results in avoiding taxation of cross-border profit (OECD, 2019b). Corporates do not have real registered companies in jurisdictions, thus they are not subject to taxation.

8. Tax treaty shopping

It refers to finding and exploiting treaty networks and loopholes between countries to route profit. It means the attempt to indirectly enjoy the benefits of two different jurisdictions' tax agreements, while not being a resident neither of them, thus assessing treaty benefits, which should not be given otherwise. (OECD, 2019b).

9. Double taxation

Affiliates can conduct cross-border transactions (providing capital, loan) within each other by, which may imply flow of intra group dividend, interest and or royalty payments, which, in most member states are subject to withholding tax systems, which might be crucial in tax treaty negotiations (Smit, 2012). They face the risk that profits produced in another country can be taxed where it was actually made, and in the parent's country. Over the past decades more states have introduced mechanisms to reduce or abolish double or multiple taxation of income (Schön, 2003). To mitigate distortive effects on competition, member states

who consider transnational investment favourable, can decide to give avoidance of double taxation for resident firms receiving profit from abroad by "*either exempting foreign income from the taxable base of resident companies or by allowing resident companies to credit the foreign tax imposed on the foreign income against their domestic tax liability on the same income*" (Smit, 2012, p. 12.). Abolition of the economical double taxation via non-discriminatory tax regimes, thus, cannot be regarded that harmful (Schön, 2003).

Evidence suggest the existence of the aforementioned tax motivated avoidance methods, however, a there are much less proofs about the great arsenal of other exercises (Beer et al., 2018). These legal practices, when witnessed by other taxpayers, may discourage them from complying with domestic taxation rules, thus undermining trust and credibility of overall domestic architectures (OECD, 2019b).

1.3. Existing Policies Against Tax Avoidance

In the following section the main improvements on anti-shifting are presented. These initiatives aim to hinder aggressive tax planning schemes by MNCS and are already in effect or are currently being debated and awaiting for further discussions.

The topic of tax avoidance has been receiving more attention, due to growing number of research papers, which provide empirical evidence on how much profit shifting deteriorates the corporate tax base in high-tax jurisdictions (Beer et al., 2018). Additional momentum has been gained after substantial data leaks, like the Luxembourg (2014), Paradise (2017) or Panama Papers, which provided total 4.3 terabyte data about cash held in offshore tax havens, profit shifting and other practices (McCarthy, 2017). However, tax avoidance has been addressed before as well, as from 1977 the OECD has been continuously dealing with transfer pricing issues (Wittendorff, 2010). After the financial crisis of 2007, tax planning has gained substantial attention from international policy setting authorities, as tight and strict fiscal constraints followed by the depression and economic slowdown enhanced the concerns about inappropriate low taxation of large companies (Beer et al., 2018). People in charge realized they did not considered distortive MNC behavior on taxation as an important issue, thus, political responses have become inevitable (Marchgraber, 2018).

In the past decade, growing number of states have introduced or tightened their general anti-avoidance policies, such as strenghening capitalization rules or implementing trasnfer pricing doucmentation and administrational requirements (Dischinger et al., 2014). However, these are different from recent tax avoidance schemes since they do not provide comprehensive response to aggressive tax planning structures (Marchgraber, 2018). Also, the lack of quality data on company taxation is hindering measurement and monitoring the scale of shifting activities (OECD, 2015). The latest initiatives were pushed by the OECD/G20 and recently the EU Commission has joined the fight. These reforms receive considerable attention from politicians and the media with high hopes against shifting, however, BEPS directive, the most promising one (Beer et al., 2018) is under resistance and international debate deriving from the pressure from international tax regimes, as it is unlikely to lead to comprehensive systematic advancement of the current tax system (Marchgraber, 2018). Although, the sensitivity of the global tax base has been increasing due to the growing number of sophisticated avoidance measures, the improved anti-avodiance reforms increase the cotsts of profit shifting for the multinationals (Beer et al., 2018). Further topic for reforms mainly address challenges that the digitalized economy poses.

1. BEPS Directive

The most widely hightened initiative is the OECD/G20 Inclusive Framework on BEPS, which established 15 Actions to hamper tax avoidance methods, to improve international tax cooperation and to provide more transparent tax architectures (OECD, 2019b). The international collaboration, which currently involves 135 countries, began in 2013 and the

project, after being reported in 2015 is now in its implementation phase. It aims to strengthen the coherence of international CIT rules, to restructure taxation on income with where the revenue was actually made and to develop transparency (Bradbury et al., 2018). It also highlights the case of developing countries as they have higher exposure to international profit shifting. Table 1 displays these set of action plans, which participating jurisdictions are committed to implement, and from which 4 are minimum standards. The Directive includes solutions and improvements for the main tax avoidance issues, such as fighting against harmful tax practices, proposing country-by-country reporting and improving measurement and monitoring (Bradbury et al., 2018). Country-by-country reporting means that multinationals have to report aggregate data about worldwide distribution of their profit, tax expenses and economic activity within countries, where they pursue business (including country- and firm-specific financial statements) to tax authorities, statistical offices and international organizations (OECD, 2019b). It further addresses some aforementioned shifting methods, such as treaty shopping, transfer pricing, PE status avoidance and emphasizes the digital economy. Some of these measures can be implemented immediately, others, on the other hand, require restructuring and negotiation of existing bilateral and unilateral tax treaties (OECD, 2019b).

Action 1	Address the Digital Economy	Actions 8- 10	Transfer Pricing Measures		
Action 2	Hybrid mismatch arrangements	Action 11	Measuring and Monitoring BEPS		
Action 3	Controlled Foreign Companies (CFC) Rules	Action 12	Disclosure of Aggressive Tax Planning		
Action 4	Interest Deductions	Action 13	Transfer Pricing Documentation*		
Action 5	Harmful Tax Practices*	Action 14	Dispute Resolution*		
Action 6	Preventing Tax Treaty Abuse*	Action 15	Multilateral Instrument		
Action 7	Avoidance of PE Status	Action 15			

Table 1: The 15 Action plans of BEPS Directive

Source: OECD (2019b), self-edited (* = minimum standards)

Different methodology estimates expect total fiscal effect of harmful BEPS between \$80-647 globally (Bradbury et al., 2018). However, according to G20 reports (OECD, 2018a), by mid 2018 around €93 billion was identified as additional revenue coming from taxes, interests and penalties worldwide already, 175 taxation regimes have been reviewed, abolished or amended and 17,000 tax rulings have been identified, 1,400 tax treaties were contracted, \$414 million extra revenues have been collected with cost of \$4 million. Thus, the BEPS implementation seems to be successful so far. However, fighting against BEPS practices may result is appearing of new, even more creative tax avoidance tools.

2. ATAD

One year after the OECD launched BEPS Action plan in 2015, the European Council (EC) accepted the Anti-Tax Avoidance Directive (ATAD). In this scheme member states are also required to implement common set of rules, minimum standards and minimum level of protection against aggressive tax planning (Beer et al., 2018). It came into effect in January 2019 and this is the first comprehensive package within the EU (European Commission, 2020c). It sets rules against harmful practices that directly affect the internal market and demands more coherent approach against CIT abuse within the EU (European Commission, 2016).

It contains rules to address widespread tax avoidance schemes, which cause substantial tax base erosion, which are (Council Directives, 2016 and European Commission, 2020b):

- *Controlled foreign company (CFC) rule*: charging parent companies to pay after incomes incuring in the state of residence;
- Switchover rule: preventing double non-taxation of certain incomes and dividens;

- *Exit taxation rule:* preventing companies from avoiding tax when relocating assets by imposing tax on the value of a new product before the corporation moves it out of the country;
- *Interest limitation rule:* discouraging artificial debt arrangements designed to minimise taxes by limiting the amount of interest that a company can deduct, and
- General anti-abuse rule: counteracting tax avoidance when other rules do not apply.

These rules attempt to reduce the losses from tax avoidance in the European Union by disincentivizing large corporation to shift their profits to tax heavens. However, it is close to impossible to completely erase all the tax-loopholes, since the global tax environment is constantly changing, and many countries are motivated to make their taxation regulations attractive for corporations.

3. CCCTB

The Common Consolidated Corporate Tax Base (CCCTB) framework provides unified set of rules to calculate cross-border companies' consolidated taxable profits in the EU, and its main objective is to fight against aggressive tax planning (European Parliament, 2017). This scheme would result in reduction of compliance expenses and prevention of tax debates (Wittendorff, 2010). The Commission first proposed this initiative in 2011, but got stuck due to complicated negotiations and opposition from some member states, then relaunched in 2016 with some novelties (European Commission, 2018). The relaunch of the initiative was driven mainly by the growing revenue losses for EU members, which result in EU citizens having to pay more taxes and, thus, less money is spent on public sector, such as education or healthcare (European Commission, 2018).

According to this scheme, cross-border companies will have to comply with one, single EU system for computing their taxable income, rather than considering many different national rulebooks. Consolidated taxable profits will be shared between the member states in which the group is active, using an apportionment formula. Then each member state will tax its share of the profits at its own national tax rates, which belongs to national sovereignty (European Commission, 2018). Appendix A displays the difference between current and future taxation after implementing CCCTB. When corporate has affiliates in more countries, occurred profits and losses are taxed according to local tax rules, however, income can be shifted among each other. Nevertheless, CCCTB takes account not only occurred profits and losses of the affiliate, but all the incomes generated subsidiaries within EU countries. Furthermore, it incorporates new factors, such as employees, sales, wages, capital and shares on taxable profits and losses using apportionment formula between member states, according their economic activities in those particular countries (territorial approach) (European Commission, 2018). The initiative is expected to create a more transparent, efficient and fair system for calculating the tax base of MNCs, and to reduce administrational and compliance costs, as all separate affiliates along with the parent will be treated as one single entity. It is expected to combat tax avoidance by eliminating mismatches between national systems and by a harmonized system, leaving less room for tax planning (European Commission, 2018). The relaunch provided a two-steps implementation and – contrary to the original one – was mandatory for all companies and groups of companies with the greatest capacity for tax planning.

However, CCCTB has been highly criticized. People expect significant reduction of the tax base without any obvious benefits, also, making taxation even more complex and raise the level bureaucracy. Furthermore, if CCCTB was introduced only among EU member states, multinationals' incentives to shift profit out from the EU would increase. A solution might be to take a worldwide approach: when it comes to calculating a MNC's tax base, it should be based on not only their European but global profits in alignment with their share of not only the European but their global economic activity (European Commission, 2018). This way profit shifting in and out from the EU would be dealt with, but policy makers have to decide which one is harder to comply with: letting multinationals to operate and shift profits within the EU, thus harming the fairness of competition but still taxing in the EU, or creating a clear and strict

framework that would end tax planning, but which would also end in losing revenues, as companies would simply shift profits outside the Union into affiliates located in a 3rd country (European Parliament, 2017). The Council addressed again the initiative in 2019 and further debates are expected in 2020 as well.

4. DST

Current digital economy is not properly captured by taxation schemes. Companies generally pay CIT where the production happened, instead of where the final consumers or users (as digital services do not have physical presence) are located (Asen, 2020). The aforementioned BEPS Action plan addresses the issue by requiring companies to pay some of their taxes at the final consumers' country. However, some states decided to follow the EU initiative Digital Service Tax (DTS), introduced in 2018 and accepted in 2020, "which is tax on selected gross revenue streams of large digital companies", to rather impose unilateral measures to fight digital economy (Asen, 2020). The main objective is to tax digital economy by setting up a harmonized structure to tax digital services, which gain revenue from suppling these services (European Parliament, 2018). Physical presence of a company in a jurisdiction, where the service is used is not a requirement to be able to be taxed. Digital assets include search engines, social media platforms, online user-provided information and the supply of content via digital interfaces (video, audio, games, text using digital interface, advertisements) (European Parliament, 2018). DST would target giant digital multinationals that generate revenues worldwide stemming from the supply of digital services (like Google, Amazon, Facebook or Apple), companies whose total amount of worldwide taxable revenues exceed \notin 750 million, and revenues from the supply of digital services in a member state exceed \notin 7 million, and overall in the EU it exceed €40 million (European Parliament, 2018). So far, around half of OECD EU member states announced, proposed or actually implemented DST (Asen, 2020).

1.4. Tragedy of the Commons: Obstacles Towards Further Legislation

Over the years many factors stood as important reasons to hinder announcement or implementation. In the followings some of these reasons are introduced.

Regarding indirect taxes, directives ensure local tax rules to be harmonized at a supranational EU-level, however, direct taxes are not subject to any comprehensive regulation or harmonization for neither individuals' nor corporations' income (Simon & Földes, 2012). Taxes on income are related to the status of the taxpayer and its income. To decide which state is the rightful tax collector, tax harmonization was not necessary within the Common Market, thus, unlike indirect taxes, based on the principles of state sovereignty and subsidiarity, the regulation of direct taxes had remained in the member states' scope (Simon & Földes, 2012).

The EU had not harmonized direct taxes earlier, firstly, because corporate tax laws in each country are traditionally built on different nation-specific, complicated accounting principles, which are remarkably difficult to adjust and standardize. Secondly, corporate taxation and tax law, as being important source of income for government budgets, are essential elements of national fiscal policy, which member states intend to keep as autonomous right of theirs. Thirdly, certain government goals, such as attraction and retention of investments or production capacities can be supported by adjusting fiscal policies of tax rates (Simon & Földes, 2012). According to Schön (2003), member states vis-à-vis the EU tend to defend their sovereignty, as fundamental policy decisions on taxation, which affect national taxation architectures, have to be accepted by all member states according to the principle of unanimity.

Over the past two decades due to the liberalization of capital flows, countries had been actively participating in *regulatory competition* in order to attract foreign investments by creating favorable business conditions. The evolved harmful tax competition between member states involves manipulating CIT rates and providing advantageous tax laws (Simon & Földes, 2012). If a country is experiencing tax competition with another state, they can join and introduce further tax incentives into the domestic taxation structure or decrea CIT rate to keep domestic revenues inside the country, but this may result in a race to the bottom, which deteriorates competition (Schön, 2003). Earlier there had been several attempts for introducing a minimum tax rate to defend domestic tax bases within Europe, however, no consensus had been reached (Schön, 2003). Countries can, furthermore, implement counter measures against harmful tax competition to defend their domestic tax base and apply discretionary tax regimes (abolishing double taxation, for instance) (Schön, 2003).

In the 1990's the EU suggested tax harmonization, highlighting its positive effects (reducing compliance costs, providing transparency, redistributive effects and optimal allocation of taxation), along with the positive effects of tax competition (downward pressure on tax burden, fiscal discipline and proper of tax levels) (Schön, 2003). While the positive aspect of fair tax competition is supported by member states, however, harmful tax competition deteriorates market.

To abolish these distortions in free competition, the EU applies two forms of market integration: *positive integration* policies include abolishing distinctive prohibitive measures by means of common harmonization, while *negative integration policies* represent prohibiting jurisdictions to introduce discriminatory regimes hindering international business activities (Smit, 2012). Indirect taxation that influences international trade is rather subject to positive, while direct taxes, which affect international investment are characterized by negative integration, which derives not from harmonization, but contrariwise, from the principle of treaty freedoms (Smit, 2012).

There are further factors that have been hindering the European-level corporate income tax harmonization. While in the US both the labor and the financial markets are fully integrated with high mobility of all production factors, in Europe a highly integrated financial market and an advanced market for goods, services and labor have to be distinguished, where the latter still faces many non-legal obstacles, such as the burden of various languages or the different cultural backgrounds of the European citizens (Schön, 2003). Furthermore, EU member states' laws in certain areas are rather oriented towards domestic transactions than cross-border ones, for instance in the company law (Malke, 2010).

Finally, obstacles can be raised by lack of data and quantifying distortive measures. Measurement issues derive from high complexity of aggressive tax planning schemes and lack of comprehensive research. According to Beer et al. (2018), measurement is difficult, due to:

- Limited of evidence about interconnection of avoidance processes;
- Lack of insight into sectoral, country and corporate differences;
- Limited literature about how tax planning affects real economic activities and
- Little evidence about anti-avoidance schemes' impact on real economy, such as reduced investment and welfare.

Although, measurement and mindsets for reducing aggressive tax planning have improved substantially over the years in the EU, there is still room for improvement. After the introduction of the concept of tax avoidance, the main tax planning methods and the most important advancement form the OECD and the EU, the next chapter focuses on companies and their international investment.

2. Taxation and Multinational Corporations

The following chapter defines the concepts of multinational company and foreign direct investment, then reveals their connections to corporate income taxation. It displays estimates of how much net revenue is lost due to tax avoidance activities and explains the roles of European tax havens. It presents descriptive statistics, shows that FDI inflow and ETR are good proxies to estimate profit shifting and displays limitations.

2.1. Multinational Corporations and FDI

The world today can be characterized by high level of economic integration by international economic agreements, networks, which aim to advocate international trade and investment by eliminating impediments to global flows of capital, good, services and persons, thus improving growth and global welfare (Smit, 2012). These flows are transactions between companies, which can be carried out more efficiently, if internalized, rather than being separate independent enterprises (Wittendorff, 2010).

By definition, a multinational corporation (MNC) is "an enterprise that engages in foreign direct investment (FDI) and that owns or controls value-added activities in more than one country" (Dunning & Lundan, 2008, p. 3.). According to this explanation, two essential features of a MNC can be highlighted. Firstly, it traditionally operates across borders in more jurisdictions, it invests, trades and produces across borders at the same time (Smit, 2012). Secondly, it is a collection of several sovereign legal entities, such as subsidiaries and branches under one single corporate structure (European Parliament, 2017). From taxation aspect, however, the parent company and the affiliates are treated as independent, separate legal entities, irrespectively of that they all belong to one company group, and these entities are subject to the different tax rules, depending on their status and tax residence (Smit, 2012). Their profits and dealings, even within the corporate group, are subject to different tax bases set by various jurisdictions, thus, CIT structure does not fully capture the actual economic links based on physical or legal presence (European Parliament, 2017). Firms finance their business activities through debt and equity, however, given the different country-specific tax deduction rules on interests and dividends, their choice of inter-company transactions highly depends on local tax treatments (Smit, 2012).

Multinational companies have established their presence in various countries over the years. Due to globalization, a new era of international competition has risen that is reshaping global production and trade, and which is altering the structure of industries since the 1960s, as MNCs have been dividing their supply chains to find supplier with lower expenses (Gereffi, 2014). The "heightened competition in both domestic markets and abroad has led to new developments in corporate and industrial organizations and crossborder movements of intangible capital, like finance, technology, knowledge, information, and the ownership or control of assets" (Reincke, 1998, p. 12.). Firms became able to establish presence in foreign markets to realize efficiencies, to customize products for local markets by being physically close to the customers (Reincke, 1998). These companies are both horizontally and vertically integrated and execute cross country investments, such as Foreign Direct Investments (FDI). FDI flows are the value of cross-border transactions, which involve intercompany debts, equity transactions or reinvestments of earnings (OECD, 2020a). Global FDI (on current prices) over the past decades has grew exponentially, \$2.4 billion in 1962, \$35 billion in 1990 and \$565 billion in 2007 (Mudenda, 2015). EU countries experienced significant openness vis-á-vis third countries after accepting the Lisbon Treaty in 2009, which erased limitations on FDI coming outside the EU (Smit, 2012). According to Damgaard & Elkjaer (2017), among all FDI, equity represents roughly 80%, while debt accounts for 20%.

Outward flow shows the amount of investment domestic investors have in companies in the reporting country, while *inward flow* represents the value that foreign investors have in companies in the resident economy within a year (OECD, 2020a). FDI is cited as an important driver of growth, economic integration, job creation and increase of productivity through capital inflow and transfers, thus, many countries have implemented policies in order to attract foreign investments (Damgaard et al., 2019). The EU is considered the greatest provider and receiver for investment. In 2006, the share of word FDI outflow for EU was 34% and 20% for inflow, which implies that large amount of non-EU based companies were conducting business via operation of affiliates founded in one or more member states (Smit, 2012). Furthermore, FDI stocks held outside the EU by investors from the EU was around €8,750 billion, while FDI inside the EU held by third country investors reached €7,197 billion in late 2018 (European Commission, 2020a).

Determinants of FDI can be divided into economic, social, political and policy factors, where the latter one includes taxation architectures, tax incentives and corporate taxation, which is the most significant determinant among policy factors (Mudenda, 2015). However, despite governments ensure competitive tax environment for MNCs investments (while appropriate share of tax is collected from them), CIT is not the most relevant determinant (Mudenda, 2015). There is extensive literature on macroeconomic determinants of investment theory, which exceeds the scope of this study. According to Jun (1994), taxation systems in the home countries also significantly affect determining the volume and orientation FDI flows.

However, traditional FDI data as a proxy for real economic integration might hinder analyses as it causes distortions in the results. Firstly, research show that in most economic pairs' official published reports on FDI positions, there are substantial bilateral asymmetries implying that one nation's outflow does not match the counterpart's inflow, showing differences of double, but in some cases even ten times greater than reported numbers (Damgaard & Elkjaer, 2017). This discrepancy between examined 1,805 official economy pairs in absolute terms on average reaches \$5.9 billion. Secondly, FDI does not always bring foreign capital to be invested and to serve productivity gains. Substantial proportion is related to phantom investments, which are pure capital flows going through empty corporate shells (Special Purpose Entities, SPE), which do not have any real economic operation, but rather they "*carry out holding activities, conduct intrafirm financing, or manage intangible assets often to minimize multinationals' global tax bill*" (Damgaard et al., 2019, p. 12.).

FDI involves not only traditional *brick and mortar* investments but pure financial flows across countries as well, which are notable when a company has minimum 10% ownership share of the counterparty through a chain of affiliates that suggests long-term strategic investments (Damgaard & Elkjaer, 2017). Luxembourg, for instance, holds the same amount of FDI as the US, \$4 trillion respectively, furthermore, the amount of total global of phantom FDI has been growing slowly since 2010 but its share among all investments has soared up to 38% recently, amounting to \$15 trillion globally, which equals to China's and Germany's combined annual GDP (Damgaard et al., 2019). Although, the Netherlands and Luxembourg are considered to be one of the largest FDI receivers and issuers, they host many foreign MNCs and SPEs, which are not related to real economic activities but pure financial flows (Damgaard & Elkjaer, 2017).

According to the IMF's Coordinated Direct Investment Survey (CDIS) database, which provides overall FDI flows between countries, in Figure 2 we can see that in 2018, besides the aforementioned ones and some major economies like the United States or China, other small jurisdictions, such as Hong Kong SAR, Switzerland or Ireland were the top FDI inward receivers and outward issuers. Furthermore, we can see how much the FDI flows account as a share of their GDP in 2018. The major economies have, like Germany, Japan, the UK, China or the US have relatively low FDI flows regarded their GDP, however, the small economies show disproportionally huge FDI inflow-outflow to GDP shares. Switzerland 229-253%, Hong Kong 377%-362, the Netherlands 475-580% and Luxembourg, which had to be taken out, shows 5295-6483%. These high numbers are due to that IMF's CDIS database includes SPSs, however, if we compare to OECD data, which excludes SPEs, for Luxembourg the inward FDI-GDP ratio falls 393%, while for the Netherlands it decreases only to 97% (Damgaard & Elkjaer, 2017).





Source: IMF CDIS Database (2020) and OECD (2020d), self-edited

These small economies can be considered as *tax havens*. The term refers to jurisdictions that imposes very low tax on corporate income and is used by companies to avoid taxes they would be subject to pay in high-tax countries (OECD, 2020d). The traditional 'offshore' tax havens possess the following characteristics, also known as the *holy trinity of tax avoidance*: they have symbolic (nominal) or zero tax rates; their financial system lacks effective information exchange (bank secrecy); and they lack transparency of the administrative, legal or legislative provisions (secrecy of company registration). Countries like the Cayman Islands,

Mauritius, Bermuda or the British Virgin Islands belong here. However, the other group of havens include developed countries, where taxation structures provide advantageous 'offshore' conditions to certain corporates in certain industries. EU countries like Luxembourg, the Netherlands, Cyprus, Belgium, Malta or Ireland are included. These jurisdictions have strong presence of SPEs, which are "legally registered, subject to local national law, have few or no employees, have little or no physical presence, have little or no economic activity, are owned by non-residents, and which are rather pure financial transitory intermediaries than final targets of investment" (Damgaard & Elkjaer, 2017, p. 8.). The reason why these small European states have such prominent places is that they host SPEs, affiliates and financial centers, while the major economies rather host the parent companies. According to Tørsløv et al. (2020), 80% of all profits that are shifted out from the EU are routed to the biggest EU tax havens, while income taken away from the US is mostly shifted to non-EU tax havens. Other havens in Europe are Andorra, the Channel Islands, Gibraltar, Isle of Man, Liechtenstein, Monaco, San Marino and Switzerland (Holtzblatt et al., 2015). These jurisdictions tend to apply favourable taxation regimes, such as low CIT rates to make themselves attractive investment destinations, also, historically, they do not tend to comply with OECD directives (Holtzblatt et al., 2015). Income from CIT also represents higher revenues among all incomes for havens. According to Damgaard and Elkjaer (2017), the more the non-SPE share of total FDI increases, to more total inward FDI as a share of GDP decreases, implying that for tax havens, less room for artificial transitory companies may result in less inflowing investment.

Shifting paper profits does not affect a country's real economy, for instance, worker's productivity remain unchanged, however, shifting does influence high profit-to-wage rations of the companies that have business activities in low-tax jurisdictions, thus, inflating FDI statistics (Tørsløv et al., 2020). The total inward FDI is on average 34% lower after excluding SPEs among the examined jurisdiction, which number may be a lower limit of estimations (Damgaard
& Elkjaer, 2017). It further influences national GDP and balance of payment statistics, furthermore, shifting huge money out of a country can increase deficit, which is can be followed by EU level procedures (Bucsky, 2018a).

Countries have different opinion about tax competition. Swiss economists think it is useful for economic development, also, Luxembourg emphasized the positive effects of the competitive environment, however, Dutch legislators used to rather highlight its negative aftermath, so as the Polish authorities, for instance (Schön, 2003). Regarding geographical allocation, parent companies are more likely located in developed Western states, while the average affiliates can be found in smaller countries with relative worse socioeconomic characteristics (Dischinger et al., 2014). lol

According to Janský and Palanský (2019), those jurisdictions who have higher share of FDI from tax havens tend to record systematically and substantially lower income, implying that some shifting happened before they reported to high-tax jurisdictions. They also state, that relative to their economies, low- and high-income jurisdictions lose the same from tax planning activities. However, Cobham and Janský (2017) highlights, that lower-income states are more exposed and face difficulties in implementing anti-shifting policies, thus, they lose the most.

In academic literature, some studies examined the relationship between FDI flows and CIT rates, but there has not hitherto been coherent consensus made. A study shows that besides market potential, tax-differentials are important determinants in attracting FDI among 11 OECD jurisdictions, especially in places where tax incentives are present (Bénassy-Quéré et al., 2004). It states that high relative CIT rate discourages FDI inflow. According to Mudenda (2015), a low CIT rate cannot compensate for relative underdeveloped or unattractive environment for potential FDI. Another research shows that economic characteristics and mobility of business activities within the host country also increases the sensitivity of investment (OECD, 2008b).

In the followings I examine the relation of CIT on FDI inflows and outflows for those EU countries, which are OECD members (22 + the UK), plus Cyprus and Malta, which tend to show high FDI flows. Panel data between 2013 and 2018 were obtained from OECD and UN databases (FDI inflow, outflow, CIT rates). Table 2 displays the descriptives during the examined period. The mean outflow is \$16,563, while the mean inflow \$15,680 million indicating countries received slightly less than they invested. Maximum outflow is \$247,681 (Netherlands, 2017), while the lowest is -\$151,368 (UK 2014). Maximum inflow is \$258,569 (UK 2016) and the lowest is -\$70,573 (Belgium 2015). Negative FDI outflow means that the reporting countries pull back their investments (divestment), while negative FDI inflow indicates the amount by which reporting states investments were decreased by non-residential investors. In MNCs context, *"reverse investment from an enterprise to its parent is measured as negative outward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the parent and negative inward FDI in the economy of the enterprise, providing for symmetric recording " (Damgaard & Elkjaer, 2017, p. 7.). The net FDI flow mean is \$882 million, thus countries had greater outflows, on average. Statutory CIT rates vary between 9 and 44%, which is substantial.*

Table 2: Descriptive statistics (2013-2018), million USD

		year	outward_flow	inward_flow	ctax	net_fdi
	count	150.000000	150.000000	150.000000	150.000000	150.000000
	mean	2015.500000	16563.160335	15680.801547	22.347983	882.358788
	std	1.713547	38280.848926	36819.354240	6.727810	40660.680058
	min	2013.000000	-151368.126441	-70573.488630	9.000000	-296156.545209
	25%	2014.000000	152.312737	1066.878530	19.000000	-5378.071120
	50%	2015.500000	2838.540672	4933.825049	22.000000	-675.684969
	75%	2017.000000	26299.578963	21836.177760	25.000000	6838.048713
	max	2018.000000	247681.308930	258569.500675	44.428890	128136.439268

Source: OECD (2020a), OECD (2020f) and United Nations (2019), self-edited

Examining the data we can state that jurisdictions, which have relative lower average CIT rates (11-21%) within the examined period, have more negative average net FDI (Cyprus,

Ireland, Hungary), while others, with relative higher (22-36%) rates show mostly positive and higher average net FDI flows (France, Spain, Italy). This is an important observation as countries with lower (average) CIT rate tend to receive more investments. Next figures show the distributions of outward and inward flows. States rather invested into one other with relative smaller volumes, between -\$5,000 and \$10,000, furthermore, extreme values are not frequent.



To see how much variables are related I applied Pearson's correlation to evaluate the sturdiness of the linear relationship between the variables. The correlation coefficient between inward and outward flows is 0,414, which indicates a moderate positive connection, between net FDI is -0.512, which coefficient implies a moderate strong negative relationship, while between CIT tax rate is -0.037, which is a slight negative value. In the generated scatterplot we can see that relatively smaller inflows and outflows are correlated mostly.



Figure 5: Correlation between variables and scatterplot between inward and outward FDI

Source: OECD (2020a), OECD (2020f) and United Nations (2019), self-edited

The negative correlation between CIT rates and not inward but total FDI is proved by other studies as well. A report among OECD states in 2008 shows that if tax rate soars by 1 percentage point, total FDI on average falls by 3.7% (OECD, 2008b).

Theory would suggest that profit is shifted from all companies in high-tax countries towards low tax-country affiliates, however, in case of the headquarters-subsidiary relationship, it is not true. A research among EU member states show that companies are reluctant to take profit away from the corporate centers despite they are residents of high-tax jurisdictions (Harzing et al., 2001). It states that income reallocation is substantial from affiliate towards headquarter, if the latter is subject to a lower tax rate than its subsidiary, on the other hand, if the parent is incorporated within a high-tax jurisdiction, pulling income away from the headquarter is substantially smaller (Harzing et al., 2001). Profitability is higher in parent firms than among their affiliates, as they tend to keep the value creating activities under direct control in order to reduce agency costs and to compensate higher wages of management (Harzing et al., 2001).

The exact losses from shifting activities is hard to estimate, different measures give various results. The aforementioned OECD research on BEPS estimated annual government tax revenue loss around \$100-240 billion (Janský, 2019). Researchers at IMF predicted the losses globally around \$500 billion per annum (Cobham and Janský, 2017). To show tax

haven's share of the income redistribution, Tørsløv et al. (2020), estimated that in 2015 around \$600–650 billions of income was shifted to tax havens from parents' residence, which is around 40% of all the income made by MNCs. Beer et al. (2018) shows that the worldwide CIT revenue is deteriorated by 2.6%, which is 0.07% of the global GDP, due to profit shifting activities and states in conjunction with Tørsløv et al. (2020) that non-haven, bigger EU member countries are the prime losers with 20% decrease of their income. Most of the biggest companies that hold cash offshore are US MNCs (see Appendix B). In 2016, Fortune 500 US firms held around \$2.6tn offshore, from which the most substantial are digital giants, namely Apple, Microsoft, Google or Facebook, but other, more traditional ones appear on the list, such as Pfizer, GE or Exxon Mobile (Toplensky, 2018). US originated MNCs, furthermore, shift much more income than MNCs from other states (Tørsløv et al., 2020).

More scholars examined whether there is difference in the profitability among local and foreign firms depending on the CIT rates. Foreign-owned and domestic companies have substantial differences in pre-tax profits (expressed in the percentage of compensation of employees) depending on CIT rates. According to Tørsløv et al. (2020), due to profit shifting, in non-havens, where corporate tax rates are higher, such as Germany, Italy or the UK, foreign firms are less profitable than local firms. The stricter and higher corporate taxation, the less profitable cross-border multinational companies (see Appendix C). Both domestic and foreign firms have profitability ratio at around 36% on average in 2015. On the contrary, in case of tax havens, where CIT rates are lower, foreign firms, who even enjoy extra tax benefits, are with a magnitude more profitable than local corporations (Tørsløv et al., 2020). Puerto Rico's ratio reaches 1675%, while Ireland has 800% and Luxembourg shows 380% (see Appendix D). Despite setting tax rates low, tax havens manage to collect most of their revenues from taxing MNCs, and within the EU, Ireland seems to be to have received the most shifted profits in 2015. \$100 billion precisely, according to Tørsløv et al. (2020).

2.2. Multinational Corporations and ETR

Previously used computations and research papers to examine tax-motivated income reallocation primarily relied on global macro data due to its broader coverage, however, exploiting firm-level micro data is getting more availability and thus, attention (Beer et al., 2018). The problem with firm-level micro aggregate data, nevertheless, is that it is hard to observe profit shifting incentives at the subsidiary level. Different jurisdictions that provide national reports, used to exchange limited information due to unilateral or bilateral rules (Schön, 2003). However, due to increased number of foreign affiliates statistics, more data is available (Tørsløv et al., 2020). Measuring tax avoidance highly depends on what aspects are taken into account and faces limitations related to measurement, such as availability and credibility of sources or whether the proper aspects are captured (Salihu et al., 2013). Studies regarding tax rates used to rely on STR differentials between the parent's and the affiliate's countries (Beer et al., 2018). According to Beer et al. (2018, p. 22.), "profit before interest and taxation decreases, on average, by 0.86 percent in response to a one percentage point increase in the local statutory tax rate", implying a negative relationship. However, using STRs in computations might cause divergences.

As a result of better estimates, recent studies can use *Effective Tax Rate (ETR)*, which is estimated by analyzing balance sheets of firms, which can be used as a proxy for shifting activities (Janský, 2019). "*The low levels of reported profits after shifting imply a low effective tax rate generating a spurious positive correlation between the two variable*" (Beer et al., 2018, p. 16.). ETR is the share of income that firms expect to pay (Toplensky, 2018). It is usually lower than STRs considering interest deductions, fiscal depreciation rules, investment tax credits, tax exemptions and allowances, R&D incentives and other provisions, and which represent the amount companies actually pay under corporate taxation (Janský, 2019). These state-specific restructured tax bases tend to be better estimations about tax and investment

incentives within a country (OECD, 2018a). The difference might be an important determinant for investors when deciding whether to invest as it suggests how much potential taxable income differs from true economic income (OECD, 2008b).

Taxable profit and tax liability are the main inputs when considering measuring tax avoidance (Salihu et al., 2013). However, as ETR is estimated using public data, such as firms' financial statements, its availability is limited and is biased by poor quality, range or confidentiality (Janský, 2019). Data from financial statements or annual reports might differ, as regulatory frameworks and differences among financial accounting systems may cause divergences (Salihu et al., 2013). Furthermore, balance sheet data of firms tend to be based on financial accounting (the amount they officially paid) instead of tax accounting (the amount they actually paid and reported to authorities) (Janský, 2019). To illustrate, according to Orbis firm database, in 2016 the global consolidated profits of Apple amounted to \notin 55.3 billion, however, when summing all Apple affiliates' income worldwide total profit was \notin 2.0 billion only, indicating that difference disappears through tax havens, as well as in cases of other MNCs, namely Alphabet (Google), Facebook or Nike (Tørsløv et al., 2020). Such differences in databases cause measurement problems for researchers.

There are several ETR-based measures to estimate tax avoidance. A common characteristic is that they divide tax expenses from financial statements by before-tax accounting income (income before taxes), and they mainly differ from each other in how the nominator and denominator are computed (Aronmwan & Okafor, 2019). They all capture different aspects of tax avoidance and have different limitations (Salihu et al., 2013):

• Accounting ETR: it provides the aggregate share of the accounting profit payable as taxes, it estimates shifting relative to accounting gains (total tax expenses / accounting income before tax);

- *Current ETR*: it provides intentions of tax deferral (current-year tax expense / total accounting income before tax);
- *Cash flow ETR*: stated as a better proxy to actual tax burden, it excludes influence of accrual accounting, but operating cash flow can be negative, thus, distortive (tax expense / operating cash flow);
- *Long-run ETR:* includes cumulative tax expenses over and income through period of years (3-10) (cash taxes paid / pre-tax accounting income).

Other group of measures used in literature include Book-tax gap (GTG) computations, which takes the distinction between accounting and taxable profit into account, and where the size of the gap implies tax avoidance, which are both reported by companies towards different authorities subject to distinctive rules (Salihu et al., 2013).

Since the financial crisis, while STRs increased due to fiscal tightening in some countries, ETRs have fallen on average 9%, and this fall was more substantial regarding technology and industrial corporates (Toplensky, 2018). According to a recent report by the Greens/EFA Group⁶, MNCs within the EU pay significantly less tax, then elsewhere (Janský, 2019). The study used unconsolidated company data (specific information by the location of an affiliate instead of aggregate consolidated data) about MNCs between 2011 and 2015. The following figure represents EU 28 countries' average ETRs during the examined years, the STRs and the tax wedges. In most countries nominal or statutory rate is higher than ETR, except for Ireland, Romania and Greece. The case of Ireland is misleading, as Apple is not represented among the databases, thus it does not properly reflect true values (Tørsløv et al., 2018). In a few countries, the difference between the STR and the ETR is substantial. Biggest differences

⁶ The Greens–European Free Alliance Group in the European Parliament

in the two rates are in Luxembourg (29% vs 2%), Belgium (34% vs 14%), Malta (35% vs 16%) and tin he Netherlands (25% vs 10%), which are considered tax havens.

Furthermore, countries that have the lowest ETRs, however, have the highest tax wedges, which measures "*the extent to which tax on labor income discourages employment and which indicator is measured in percentage of labor cost*" (OECD, 2019d). The figure shows that tax havens, such as Belgium or Malta, have the highest burden on labor, but very low burden on corporate income. The average nominal rate is 23%, the average ETR is 15% with an average 8% difference in 2019, while in 2005, the average difference among the biggest 13 OECD countries was 7.1%, which implies substantial growth (OECD, 2008b). According to Tørsløv et al. (2020), the global ETR was around 19% in 2015, while the worldwide STR was 26%, implying a fall within 3 years. The smallest ETR's belong to the Netherlands (10%), Cyprus (9.8%), Bulgaria (9.5%), Hungary (7.5%) and Luxembourg (2.2%).



Figure 6: ETRs, nominal rates and tax wedges for the period from 2011 to 2015 for EU countries. %

Source: Janský (2019) and OECD (2019c), self-edited (countries are in decreasing order by their average ETR over the examined period)

The ETRs and STRs among the examined EU states are slightly correlated, with 0.313 precisely (see Appendix F). According to Janský (2019), companies seem to be taxed by

countries regressively, meaning the larger the multinational, the smaller the ETR. It might implicate that the biggest MNCs can use their bargain power to ask tax benefits.

I checked whether ETR rates are more correlated with inward FDI flows than statutory rates as I assumed ETR is a good proxy for estimating FDI inflow with a presumed negative relationship. If we repeat the correlation on data obtained earlier among the previously examined 25 jurisdictions for the years 2011 and 2015, for which we have ETRs from the study by Janský (2019), we can see that, while the average STR is 22.7%, mean ETR will be 15.4%. As seen in below figure, the complemented correlation, shows that, while the correlation coefficient between inward FDI and STR is -0.011, between inward FDI and ETR it is -0.004, indicating ETR has even weaker negative correlation with inward flows, almost 0. With outward flow, correlation is moderately positive strong, 0.545 namely. In a study, Tørsløv et al. (2020) estimated ETRs only for year 2015, thus I repeated computations, applying their estimates for ETRs for year 2015. In the second case, we can see that the correlation between inward FDI and STR is -0.377. Both of these values are more significant than the previous ones showing higher negative connection. Furthermore, in this case ETR is indeed more correlated negatively as assumed, indicating lower ETRs bring about higher FDI inflows. Correlation coefficient with outward FDI is also higher, 0.771.

The sensitivity between FDI flows, statutory CIT rates and ETRs has been increasing, which is a result of growing number of non-tax incentives and international mobility of capital (OECD, 2008b). Results suggest that inward FDI related pure financial flows and ETRs are better proxies than statutory corporate income tax rate for estimating profit shifting and tax avoidance activities. However, as ETR data are not publicly available, thus researchers apply their own estimates, which can result in substantial differences, as we saw, even though these studies used the very same Orbis database. As long as jurisdictions do not report ETRs comprehensively and publicly, limitation of data result in biased estimates.



Figure 7: Correlation between variables for years 2011-2015 and 2015

Source: OECD (2020a), OECD (2020f), United Nations (2019), Tørsløv et al.(2020) and Janský (2019), self-edited (ctax = statutory tax rate)

There is evidence that governments play active role in providing beneficial taxation environment for multinationals. Tax authorities in Ireland, Luxembourg and the Netherlands were accused by the Commission of allowing Apple, Fiat and Starbucks the usage of transfer prices to hide profit, thus, violating state aid EU rules (Damgaard & Elkjaer, 2017). In 2016 Google's Alphabet made \$19.2 billion in Bermuda, where it hardly had any workers or assets (Hobot, 2018). Apple used to operate with 0.05% symbolic ETR in Ireland after 2010, while CIT rate is a magnitude higher (Appendix G). Furthermore, Luxembourg was impeached of giving illegal state aids to Engie, which had a reduced ETR of 0.3% for a decade, also, McDonald's received tax benefits of not having to pay tax on their royalties across Europe (Janský, 2019). According to Toplensky (2018), the biggest MNCs tend to misreport about their tax payable, there are substantial gaps between what they are expected to pay and actually the amount they pay as revealed by cash transfers (see Appendix E). Firms with the greatest gaps are GE, Amazon and Facebook. Google achieved productivity while executing shifting, by setting up a complicated structure of Irish subsidiaries owned by Irish holdings, while their transactions are transmitted to a Dutch subsidiary, which is owned (and finally taxed at the end) by a holding located in Bermuda, which operates with 0% CIT rate (Irish-Dutch sandwich) (Holtzblatt et al., 2015).

States are willing to provide even lower ETRs for MNCs in return of their investment. However, this trend creates a race-to-the-bottom situation, where ETRs may reach zero in case of multinationals, while domestic companies have to comply with higher, statutory rates. If all jurisdictions applied the very same ETR (while keeping global FDI and income constant), which may abolish shifting incentives and would provide the same taxation rules for both domestic and foreign companies within a country, profits within high-tax EU jurisdictions would increase by 15% and decrease by 60% in tax havens (Tørsløv et al., 2020).

Multinationals, along with the help of states have successfully found the mismatches in taxation architecture and evolved their creative and sophisticated processes to minimize tax liabilities. The next chapter focuses on the case of Hungary.

3. A New European Tax Haven: The Case of Hungary

In the following session I introduce the taxation environment and current tax avoidance tendencies in Hungary. I focus on tax avoidance executed only by foreign entities. I examine tax rates from law perspective and changes in FDI flows. I display the advantageous environment provided by the state to MNCs and collect evidence for my statement that Hungary can be considered as a tax haven or not. I expect that the reduction of the STR in 2017 increased tax avoidance practices.

3.1. Taxation in Hungary

The different states, by historical reasons have developed various mindsets and concepts on tax competition and taxation regimes, which likely to be in line with social, legal and economic thinking (Schön, 2003). While Western states have long been debating on the topic, in countries, which had socialist regimes a few decades ago, discussion have not developed.

As other Central- and Eastern-European states, Hungary also became a new destination for international investment flows after the transition, which then mainly focused on privatization. Firms established in the country after 1990 have become the backbone of the Hungarian economy bringing about modernization. (Moldicz, 2019). It became a hub of FDI from mainly Germany, the US and Austria in the 1990's. The continuous growth, however, was hindered by the global financial crisis, which had substantial impacts on FDI flows (United Nations, 2019).

As the fresh legal architecture was not yet able to capture taxation mismatches, furthermore, the state intended to invite more FDI, the biggest investors received favourable tax exemptions, symbolic tax rates, allowances by a newly evolved *offshore regime*, which provided benefits to firms by advantageous financial structures, however, these moved mainly to Luxembourg after joining the EU in 2004 (Juhász, 2020).

In Hungary the corporate income tax is defined and regulated by the Statute on Corporate Income Tax and Dividend Tax (The Corporate Income Tax and Dividend Tax Act of 1996. LXXXI. Act, 2020), which has been amended on several occasions over the years. The Act distinguishes the subject of taxation by location of conducting business management (headquarter). Based on this all firms (even non-Hungarians) who have headquarters here count as domestic taxpayer and are subject to full/unlimited taxation (income generated in abroad and Hungary), while foreign taxpayers are based in different countries set up by foreign law, pursue business activity here through an affiliate, but their taxation obligation is limited only for the income generated within Hungary, thus having limited tax liability. There are exceptions regarding financial institutions, banks, insurance companies, advertising activities, telecommunication services and entities in the energy sector that are subject for various additional rates (Your Europe, 2019). The tax base is determined by amending the accounting income before tax by components, which increase or decrease it (royalties, depreciation of tax, R&D, tax loss carry forwards, dividends, thin capitalization, etc. (elaborated under the 7th and 8th § of the Act) (Accace, 2020). The corporate tax in Hungary on corporates' profits has changed from 1997 as the followings and current flat rate is defined by the 19th § (Juhász, 2020):

- from 1997 to 2003 18%,
- from 2004 to 2005 16%,
- from 2006 to 2007 16% (below 5 million Ft of tax base only 10%, in case of fulfillment of certain conditions),
- from 2008 to 2009 16% (below 50 million Ft of tax base only 10%, in case of fulfillment of certain conditions),
- from 2010 to 2016 19% (below 500 million Ft of tax base only 10%),
- from 2017 9%.

The tax rate has been decreasing continuously, however, it is not, surprising if we look at the global CIT fall. The huge cut in the CIT in 2017 is unique in the EU as it represents the lowest CIT rate. According to a research conducted by the Tax Foundation in 2018, excluding 0% ones, after Uzbekistan (7.5%), Turkmenistan (8%) and Montenegro (9%), Hungary had the lowest statutory corporate income tax rate in the world (Bunn, 2018).

Reducing STR might be a good message to magnet FDI. According to a report of international tax competitiveness index, among the examined 36 OECD countries Hungary reached the 4th place in corporate tax and the 2nd rank in international tax rules (Bunn & Asen, 2019). However, average firms below 500 million Ft profit were subject to 10% CIT already and after the reduction in 2017, thus, the one percentage point lowering in their tax liabilities is not significant. Furthermore, regarding companies with higher profits than the threshold (approximately 1300 entities in 2017), this ten percentage points decrease in tax liabilities might be generous, however, many of these had already been receiving some beneficial exemptions.

Moreover, companies in Hungary are also subject to a special tax, called *Local Business Tax* (LBT) since 1991, which has to be paid to local municipalities as the price for conducting business in their area. LBT is not determined by firm profits, is not included in the statutory tax and may even exceed CIT liabilities, however, it does not indicate that entities have to pay more than it is reflected from the statutory rate (OECD, 2019a). This is a different kind of direct tax set by local authorities that charges all temporary or permanent business activities (maximum 2% of net sales revenue) conducted in the territory of the local municipality, furthermore, local jurisdictions have narrowed power in providing tax allowances, and it is not subject to tax deductions either (except of a modification in 2019 regarding R&D related investments) (European Commission, 2020b). From below figure we can see that, while the share of CIT as GDP, as well as share of all government income has been decreasing since the reduction of the

statutory tax rate, the LBT has been increasing steadily and exceeding CIT. The reason might be that they expect real economic improvements locally, such on as job creation or wealth.



Figure 8: Share of CIT as percentage of all government income shares of CIT and LBT as % of GDP (2016-2019)

Source: KSH (2019) and (2020), self-edited

As next figure displays, since the CIT rate reduction as a share of GDP, budget income from corporates (CIT, taxes on customs and import, industry specific taxes, etc.) decreased, while taxes on consumption (VAT, consumption tax) increased slightly, so did burdens on residents (personal income tax), however total government income fell. The total revenues from all taxes and social contributions as percentage of GDP in Hungary were 39.6% in 2016, 38.4% in 2017 and 38.4% in 2018, showing a decreasing tendency, however, budget income as absolute values increased (Eurostat, 2019). These numbers differ slightly form the Hungarian Statistics Office's report. As both the payments from corporates (CIT and LBT) decreased, consequently, reducing the STR did not bring about increase income for the Budget from company taxation. Thus, it is important to note that payments from CIT represents only a minor part of budget income.





Why would Hungary seem as an attractive investment destination for multinationals besides low tax rates? Hungary possesses the highest VAT in the world, 27% precisely. Also, the country has one of the highest tax wedges, 44.6% exactly, the 6th biggest among OECD countries. It suggests how much employment is discouraged by tax burden on labor income as a share of labor cost (OECD, 2019d). Despite a slight reduction, when comparing tax wedge on labor with other member states, it is still large for particular low-income groups (European Parliament, 2019). Hungary had the highest share of taxes on production and imports among EU member states in 2018, 18.6% (EU average 13.6%) of GDP, precisely (Eurostat, 2019). However, Hungary has cheap but skilled labor force, relatively high productivity, lower direct taxes but high taxes on consumption and work and relatively weaker currency. Furthermore, in 2017 Hungary was the 21st in receiving the greatest amount of FDI globally according to the CIA World Factbook, with \$302,900 millions as stocks (CIA, 2019). However, these large investments inflows tend to outflow from the country as loan or capital impacting budget calculations.

According to Smit (2012), FDI inflows have positive impacts on the economy by job creation, optimal resource allocation, technology transfer and spill-over effect, growth in overall wealth, trade and competition, furthermore, the domestic economy will be incentivized by this competitive pressure to spur innovation and provide new technologies. After the 1990's,

Source: KSH (2019) and (2020), self-edited

Hungary attracted green-field investments, which substantially impacted economic modernization by job ceration, technology transfers and capital inflow (Moldicz, 2019). The most substantial investments arrived to the manufacturing industry, mostly owned by foreigners. The new automotive industry, as the most important brach has the most impactful contribution to export, inward FDI (14.8% within manufacturing), GDP and employment (Moldicz, 2019). Regarding services, vehicle repare (10.8%), information and communication (5.5%) and financial services (8.8%) are the most prominent. Currently, the most important trading partners for investment, when we include foreign affiliates' activities, are Germany, Austria and France (OECD, 2017b).

Hungary has a strong presence of and dependence on multinationals. While foreignowned companies produced 24% of all gross value added within the EU member states on average, this share in Ireland was 53%, 47% in Luxembourg, 28% in the Netherlands, 22% in Malta and 13% in Cyprus, while in Hungary it was 52%, which was the second highest in 2014 (KSH, 2016), however, foreign firms in Hungary tend to contribute more to real economic activities, while tax havens have surplus in pure financial flows. Although, foreign nonfinancial affiliates make only 4% (around 17 thousands) of all enterprises in Hungary, they generated 52% of all revenues in 2016, from which 79% was produced by automotive, electronics and trade (KSH, 2017). Below figure displays sectors are ruled by foreign firms in value added production. Over a decade the foreign share of electronics decreased, while manufacturing and transporting increased indicating the growing presence of German car manufacturers.





In 2018 the number of foreign controlled firms decreased to 14.5 thousands (2.5% of all operating companies), which means that tax reduction did not result in growth in the number of foreign companies (KSH, 2018b). They provided 26% of employments in 2014 (OECD, 2017b). Among all non-resident companies 70% had their parents within another EU state and 18% within the US (KSH, 2016). According to the Foreign Affiliates Statistics, this 30% of share of foreign-controlled companies controlled by a non-EU country is below EU average, which is 38%, indicating Hungary is mostly exposed to European corporates (Eurostat, 2018). This share in case of Luxembourg is 81%, 44% in Ireland and 43% in the Netherlands. Foreign-owned firms are three times as export intensive as domestic firms, being one of the most export-oriented states within the OECD, as 48% of value added produced in Hungary is exported (OECD, 2017b). Foreign-controlled firms, furthermore, tend to be bigger and have more employees (KSH, 2018b). Moreover, larger firms tend to be more efficient in tax management given the huge resources, which is need for tax planning (Salihu et al., 2013). These substantial contributions, however, may indicate that competition for domestic firms is becoming harder.

Profit shifting is incentivized by the difference in the CIT rates between parents and affiliates (Dischinger et al., 2014). In 2018, value added was mainly produced by German (28.5%), US (17%) and Austrian (8.1) firms (KSH, 2018b). Tax differentials in the same year were 21% with Germany (CIT 30%), 18% with the US (CIT 27%) and 16% with Austria (CIT

Source: KSH (2018), self-edited

25%) indicating that greater tax differentials also can be important when decisions on investment.

The country is a net recipient of inward investment as shown in below figure, also, wages paid by foreign MNCs reached 11% of GDP, which is one of the highest among OECD states (OECD, 2017b). Furthermore, economic activities are mainly driven by MNCs, as around 80% of exported goods was made by these firms, while 20% accounted for domestic firms' export. FDI stocks in 2018 were 19.6% outward and 60.7% inward as share of GDP, the latter of which is relatively high among EU countries, only the six tax havens (Ireland with the highest of 261% of GDP), and Estonia (78%) exceed it.



Figure 11: FDI outward and inward stocks and GDP total, million \$

Source: OECD (2020a) and World Bank (2020), self-edited

In 2019 the government initiated a new investment strategy in which they emphasized the importance of outward investment strategy, too. According to Moldicz (2019), \in 100 billion inward FDI stock can be contrasted to \in 50 billion outward FDI stock regarding Hungary. Also, as attracting FDI still remains priority for the government. They established the Hungarian Investment Promotion Agency (HIPA), which assists to foreign firms when consdiering investment (United Nations, 2019).

Hungary is usually compared to the other V4 countries (Poland, the Czech and Slovak Republics). The below figure displays FDI inflows and the statutory CIT rates during the examined period. In case of the Slovak Republic, tax rate increased in 2012 from 19 to 23%,

while FDI inflow decreased by \$604 million, where decreasing the rate resulted in slight increase of investment afterwards. A similar pattern can be observed in case of Hungary. Increase of tax rate in 2005 caused slight decrease in inflows. In 2015 the country suffered substantial divestment, investors pulled out capital by \$14,545 million, which could be a reason for tax rate reduction in 2017. However, after the statutory rate change, the magnitude of investment inflow decreased, despite lower tax rates should incentivise foreign flows in theory, what is more, Poland and the Czech Republic still receive greater investments while opearinng with magnitude higher CIT rates.

Figure 12: Inward FDI flows (million USD) between the examined period, Corporate tax rates between the examined period among V4 (2005-2018)



3.2. Tax avoiding practices in Hungary

Although, most of the research and the literature coherently do not consider Hungary as a tax haven among developed countries, a new report by the Special Committee on Financial Crimes, Tax Evasion and Tax Avoidance (TAX3) declared Hungary as the 7th European country that *"display traits of a tax haven and facilitate aggressive tax planning"* (European Parliament, 2019). The report addressed financial crimes, tax evasion with authorities involved, the lack of political will in EU countries to tackle the problem, and made recommendations for establishing EU financial police, setting up EU anti-money laundering watchdog, setting up global tax body within the UN along with other recommendations (European Parliament, 2019). Moreover, the report stated that the substantial tax reduction implies fiscal risks in the medium term and the tax collections system is overwhelmed by administration burdens, in addition, local tax rules may be exploited by MNCs to engage in aggressive tax planning structures. Furthermore, some entities, which offer offshore services stated Hungary to be an 'overlooked' tax haven (Holtzblatt et al., 2015). In the followings I introduce evidence and practices exploited by MNCs whether Hungary is indeed a tax haven within the EU.

1. Direct government support & Tax allowances

To attract foreign FDI, besides low tax rates the government sets other opportunities. Foreign investors can receive incentives such as direct government support (even EU subsidies if registered in Hungary), tax allowances, favourable loan conditions or supported land purchases (Accace, 2020). These are usually determined through *Individual Government Decisions* (IGD), which are non-public, decided by the government, and despite called individual, have to be in line with EU rules, furthermore, above a certain threshold they have to be accepted by the Commission (Appendix G). Nevertheless, it is important to differentiate these supports (direct funds or tax allowances), which are expected to affect the real economy by creating jobs, developing infrastructure, induce spillover effects from pure financial structures (intercompany loans, transfer pricing), which are financial flows without any economic activity (Appendix G). Thus, decisions are given strictly conditional on various factors, such as the sector, territorial development but mainly their minimal investment amount and potential job creation effect, however, the latter was deleted in 2019, which might weaken the justification (Portfolio, 2019).

Tax allowances, which decrease the tax base or reduce tax liability are given mainly on CIT and LBT, however, in case of a greenfield investment the firm might not be able to use it as profit is not usually produced in the first 1-3 years (Appendix G). Other strict rules apply as

Hungary used to grant tax holidays (temporary exemption) based on investment volume but such distortive practices were cancelled to comply with EU rules (Santander Trade, 2020).

As utilizing direct funds does not depend on profit, corporates prefer direct funds to tax allowances. The government have been generous in fund allocation: foreign controlled companies received 346 billion Ft direct aid between 2010 and 2018, in an increasing tendency⁷ (Papp, 2019). Although, creating 45 thousand jobs, this discriminatory aid allocation excluded domestic SMEs, whose tax liabilities have not decreased, whereas obligations of MNCs did (Bucsky, 2019b). T-Systems Hungary used to be granted allowances but recently receives direct subsidies of 10 billion Ft for development projects (Ministry of Justice, 2020), while Audi got 13 billion Ft, Opel 6 billion Ft and Mercedes 22 billion, which shows the supremacy of car manufacturing (Ministry of Finance, 2013). Granting government aid is strictly monitored, nevertheless, secondary contracts on land purchases, infrastructure buildup or suppliers are determined with less visibility, thus, with greater freedom in price setting (Appendix G).

These practices when prognosticated real economic effects are underpinned, are done in other EU member states a well, and are not considered as offshore-like tax avoidance, however, excessive state support in Hungary indeed distorts competition (Appendix G).

2. Deductions

Firms not only receive vast amounts of direct subsidies or tax allowances, they can also exploit advantageous deduction policies effectively, in order to either decrease the tax base or reduce tax liability. The tax base can be adjusted by increasing and decreasing items (such as deductions or allowances), which MNCs tend to exploit more effectively than domestic firms due to their technical knowledge, know-how and international background (Bucsky, 2019a).

Companies may shift income by intra-group trade and borrowing or by creating corporate-specific intangibles (brand name, logos) and use royalties to sell the right within each

⁷ 64 billion Ft in 2016, 71 billion Ft in 2017 and 87 billion Ft in 2018.

other more efficiently (Tørsløv et al., 2020). To mention the most preferred rules, Hungary offers double deduction (200%) for direct R&D costs, deduction on loan interest and 50% CIT base reduction for royalties (KPMG, 2018). Moreover, withholding taxes are not levied on payments of dividends (depending on bilateral treaties), on interest payments, on patent and copyright royalties, on fees for technical services to non-resident companies (KPMG, 2018). Regarding holding rules dividends enjoy exemption except for collecting from a CFC⁸, also, exemption is accessible for capital gains if not coming from investment in a CFC (KPMG, 2018). Furthermore, tax losses obtained after 2015 can be transferred for 5 years and can be leveled out up to 50% of the base (KPMG, 2018). Finally, a unique structure, called *CIT Support* allows companies to offer a part of their CIT to support organizations (sport teams) or goals (movie industry), while they reduce their tax liabilities (Juhász, 2020). These rules create beneficial opportunities for MNCs to effectively lower their tax base and utilize mismatches between countries.

3. R&D incentives

In Hungary, businesses are provided R&D related tax reliefs by CIT based tax allowances, by a Development Tax Incentive (an investment-based CIT offset) and by full exemption of social security (SSC) and vocational training contributions (VTC) (OECD, 2019c). Hungary has been offering R&D tax incentives since 1996 but its relevance has decreased. According to the OECD (2017), in 2016 Hungary spent roughly 0.25% of its GDP for supporting businesses R&D, the 6th biggest share among OECD countries (only Belgium had higher share among tax havens), from which 2/3 was direct government funding (grants), 1/3 was tax incentives/tax support. However, unlike OECD countries, Hungary does not yet follow the general shift of R&D supporting schemes towards less discretionary forms and rather

⁸ Controlled Foreign Company.

sticks to direct funding than providing more incentives to encourage innovation and growth, which companies otherwise prefer (OECD, 2019a).

The CIT rate is directly linked to the value of tax deductions as tax subsidy rates dropped after introducing reduction and alignment of CIT rates for the SMEs and larger firms (OECD, 2019c). Hungary gives the same rate implied tax subsidy rates on business R&D expenditures for 2018 for large firms and SMEs (OECD, 2019a). LBT deduction (equivalent to 10% of the base of research costs) accounted for 20% of all tax support in 2017 from 7% in 2010, suggesting the increased importance of LBT.

The government announced its openness towards technology in 2013, putting emphasize from *made in Hungary* to *invented in Hungary* (Moldicz, 2019). The long-term aim is to develop Hungary into a strong innovator state by 2030 and transform from current manufacturing and assemble hub into an advanced manufacturing and innovation center of the EU (OECD, 2020h). Over the past years the state have been supporting MNCs to bring R&D into the country (so did Audi), because R&D functions usually show higher profitability where they are located, not mentioning its spillover effects on the real economy (Harzing et al., 2001). However, R&D is an example of an immaterial asset for which it is hard to determine market price, which might give space of price manipulation activities.

4. Double Tax Treaties & Treaty Shopping

Besides deduction policies, pure financing structures depend on complex bilateral treaties between states. According to KPMG (2018), currently Hungary has double tax treaties with 81 jurisdictions to avoid double taxation, which are also incentives for companies for minimize taxes. These treaties might be 40-50 years old, thus, being beneficial for modern tax planning strategies. Due to its advantageous rules Hungary was utilized to finance US firms, and, albeit, the renewed treaty between the two countries was submitted in 2010, the US has not yet since ratified it due to its serious data exchange requirements (Appendix G). Besides

these double tax treaties, companies usually exploit mismatches between the bilateral treaties, called *treaty shopping*. If a transaction is taxable between two jurisdictions, companies use a third country as a mediator to get away with tax obligations.

5. GTC⁹

States themselves can create special constructs in favour of certain entities. The government introduced a new initiative, called *Growth Tax Credit* (GTC) Program in mid 2015. It states that if a company operating at least 3 years in Hungary experiences substantial growth (earns revenue sixth times greater compared to last year revenue) can defer CIT payment on the increment up to 2 years, paying quarterly, in 8 equal instalments, thus providing extra liquidity for these firms, which can be spent on further growth (Magyar Közlöny, 2015).

From this construct, however, budget received 683 billion Ft (\$2.3 billion) over 2016 and 2017, 40% of CIT income was originated from GTC. It is said that the program was tailored for an affiliate of GE, one of the most prominent investors, GE Hungary to bring profit to the country and have it taxed there, using the state as a tax haven (Kovács, 2017). The subsidiary reported 536.3 billion Ft (\$1.8 billion) as tax liability, which was 5% of all government income in that year, with pre-tax of more than 4000 billion Ft (\$13.6 billion) shifted from Switzerland, which was 10% of Hungarian GDP in 2015. The company, furthermore, acquired a French energy company, Alstom and GE Energy Switzerland, boosting pre-tax profit, moreover, they sold royalties that is subject to 50% CIT deduction (Rádi, 2016). Below figure displays the expected and actual incomes from CIT payments to the budget. Between 2015 and 2017, income soars substantially (by 60% in 2015 and 70% in 2016 compared to the planned values), indicating that GE paid its 2015 liabilities through more years, as GCT offers.

⁹ Növekedési Adóhitel Program (NAHI)





Source: (KSH, 2020b), self-edited

If we recall the previous graph of FDI inflow and complement with outflow, we can observe that the country experienced substantial losses in inflow of \$14,545 million (4,508 million Ft) and in outflow \$16,118 million (4,995 billion Ft)¹⁰ in 2015. The below figure displays these substantial losses and shows how much on single entity could influence the FDI flows. This case was special as the M&A transaction brought about actual CIT payment, while tax avoidance is characterized mainly as pure financial flows (Appendix G). Similar volatilities can be observed within historical FDI statistics, which may be pure financing structure and thus, tax avoidance related, however, with much smaller volume. After all, the government did not receive any forms or punishment or warning for performing discriminatory state-aid.





Source: OECD (2020a) and OECD (2020f), self-edited

CEU eTD Collection

¹⁰ On 2015 exchnage rate

6. Transfer Pricing (TP)

International corporates can shift their income by TP manipulation, however, the volume of this practice is difficult to estimate, as each transaction belong to separate TP administration, which are confidential information. Usually non-manufacturing firms can benefit from TP as undistorted profitability suggests the importance of their affiliates and thus, cannot differ substantially (Appendix G).

TP practices require strict documentation worldwide. According to OECD guidelines applicable, every firms in Hungary are obliged to report how intercompany transfer prices are estimated, which should be based on comparing to average market prices (Bucsky, 2018). Country-by-Country (CbC) reporting introduced in 2017 demands transfer pricing documentation on all transactions, which if missing, is subject heavy punishment (Accace, 2020). However, foreign MNCs are prepared and can avoid punishment by using *Advance Pricing Agreements* (APAs), by which firms can pass their transfer pricing documentation rules with the Hungarian tax authority (NAV)¹¹ up to five years (KPMG, 2018). According to OECD, in 2017 Hungary 'only' had 11 international transfer pricing disputes (2 closed since then) mostly with Germany and Austria, the greatest investors (Bucsky, 2018).

According to a study, in 2015 due to transfer pricing activities \$2.4 billion (1.7% of GDP) profit was shifted out of Hungary, while tax havens benefitted from transfer pricing (Belgium 2.7%, the Netherlands 6.9%, Ireland 31.9%, Luxembourg 75% and Malta 98.3% of their GDP) (Bucsky, 2018b). However, as currently Hungary has the lowest CIT rate within the EU, companies might not be incentivized to shift profit out from the country by transfer pricing practices (Appendix G). On the other hand, according to a study, stricter TP frameworks disincentivize MNCs from shifting income from high- to low-tax jurisdictions, suggesting that less profit would be taxed in Hungary (Marques & Pinho, 2016).

¹¹ Nemzeti Adó- és Vámhivatal (National Tax and Customs Administration)

Despite tightening regulations, TP activities for increasing number of intangibles (R&D, advertisement, brand or services), which are difficult to determine price for, might be harmful, while determining market price for tangible assets (car engine) is more verifiable (Appendix G). This might be notable regarding Hungary considering the government's recent policy for inviting more R&D and intangibles to the country. Despite its complexity and high bureaucracy, the NAV does not address the issue (Bucsky, 2018b).

7. ETR

Hungary has been providing beneficial effective rates to multinationals, sometimes substantially lower than the statutory tax rate. The average ETR for the country is difficult to estimate. Before 2017, companies were subject to 19% CIT rate over 500 million Ft revenue, but many were given allowances. Various ETRs have been estimated over the years: 11% for 2015 (Tørsløv et al., 2020), 10% for 2017 (OECD, 2019a) and even lower, 7.5% on average between 2011 and 2015 (Janský, 2019). The latter study suggested a rate lower than all tax havens' (except for Luxembourg's 2.2%) within the EU. Other extreme estimation states that the biggest 30 MNCs operating in Hungary were subject only to 3.6% ETR in 2017, causing harms of more ten billions Ft (Bucsky, 2019a). These MNCs, furthermore, paid significantly higher taxes in the parent countries, 23.4% on average (Bucsky, 2018c). As stated in the Fiscal Budget Proposal for 2021, the current ETR in Hungary for year 2020 is estimated to be 5.9% (compared to nominal rate of 9%), furthermore, by next year it is predicted to decrease to 5.5% with approximated income from corporate taxation of 553.9 billion Ft (Baka, 2020). As backward-looking ETRs shows how much firms were able to capture beneficial tax effects during past years, the decreasing estimated ETRs for Hungary suggest that firms have been increasing their potential in tax planning and tax base reduction activities (Bradbury et al., 2018). Moreover, ETRs tend to be lower for MNCs than for local SMEs as multinationals can acquire better allowances and exploit opportunities due to their bargain power, broader knowledge and resources (Janský, 2019).

MNCs (along with the biggest domestic entities) receive beneficial direct funds and other discriminatory allowances from the government through IGDs, however, ETRs are not explicitly determined (Appendix G). ETR is the average tax rate on profit after considering the effects of various deductions, tax holidays, allowances and other tax-base decreasing items (Baka, 2018). As discussed previously, IGDs consider relocated real investment decisions and other, such as VAT, payroll tax, excise tax, social security contribution, personal income tax, LBT, or various sectoral taxes, which represent higher burdens on an MNC's liability. Moreover, CIT income represents only a minor part of the Hungarian taxation system as we saw before. Thus, studies should not use CIT rate and ETR for approximating tax avoidance in Hungary as they tend to exclude other obligations (Appendix G).

ETRs were significantly low for the biggest car manufacturers over the years. Audi, Mercedes, Opel and Suzuki produced 138 billion Ft pre-tax income in 2014 but paid only 29 million Ft together into the budget as CIT, suggesting that they could decrease their tax bases effectively and enjoyed tax allowances (Menedzsment Fórum, 2015). Regarding T-Systems, a telecommunication company, in 2019 it made 50.8 billion Ft profit and paid 11.5 billion Ft as total taxes on income, from which, however, CIT was 1 billion while LBT made 8.3 billion displaying tax burdens MNCs are subject to (Ministry of Justice, 2020).

As shown in the previous chapter, lower ETR brings about higher FDI flow and greater potential for profit shifting but not in the case of Hungary, where rates do not capture actual tax burdens. Classic offshore practices involving tax avoidance can work well where huge amount of money can flow that is not backed by physical effects, such as job creation, land, investment or value added, meaning the jurisdiction where tax is paid does not have economic activity, whereas in the economic activity's location no tax is paid (Appendix G). In Hungary financing structures including intercompany loans, royalties and transfer pricing manipulation can be exploited well from taxation perspective, while relocation of manufacturing production would indicate huge costs (Appendix G). However, extra actual payments to budget are essential as fiscal deficit is close to the forbidden 3%, which would indicate initiating the excessive deficit procedure against Hungary (Trading Economics, 2020). It is a tradeoff the government has to consider leaving some space for tax optimizing to invite MNCs.

3.3.Is Hungary a Winner or a Looser from International Tax Avoidance?

To decide whether Hungary loses or wins from international tax avoidance practices and tax competition we have to consider more factors and compare different results. A study concluded that in 2013 Hungary appeared to make revenue gains from tax avoidance, \$121 million, which was 0.1% of GDP (Cobham & Janský, 2017). According to Beer et al. (2018), due to profit shifting activities Hungary is a winner, in 2015 it gained 0.3% of tax base, and gained revenue of 0.48% of GDP.

However, other studies prove the opposite. According to Tørsløv et al. (2020), Hungary in 2015 reported \$21 billion pre-tax profit, from which \$10 billion was made by foreign firms and \$2 billion was shifted away. They further state that 29% of corporate tax revenue is lost because of all tax havens, from which EU havens make 24% (Ireland itself accounts for 12%), which loss is greatest in the region and among V4 countries¹². Due to allowances, deferred taxes, exemptions and other beneficial practices in 2019 saved 82.4 billion Ft for the companies not paid into the budget (Baka, 2018).

Further evidence for shifting activities in Hungary is the case of American Express Holdings Kft. The Hungarian affiliate was owned by a firm located in Curaçao, in the Caribbean which did not have economic activity but showed 246 billion Ft losses in 2017 after a change

¹² Database available at <u>https://missingprofits.world/</u>

in the ownership structure, furthermore, they were subject to 2.73 billion Ft CIT liability. Further estimates suggest that Google and Facebook, which own 53% of web advertisements and, which have more than 100 million Ft dues towards the tax authority avoided paying taxes after advertisement, VAT, LBT and CIT of 16.7 billion Ft over 7 years (Bucsky, 2017). Furthermore, they are not yet registered as taxpayers in NAV's database. Another research suggests that the biggest 30 foreign MNCs, which produced 11,000 billion Ft revenue (11% of total Hungarian company revenue) contributed with only 4% of total company CIT payment to the budget, which indicates that 48 billion Ft is avoided by MNCs (66 if we consider tax rate of 9%) (Bucsky, 2018c).

Companies usually show higher profitability in parent firms (among OECD countries) than in affiliates, even though CIT is higher there for various reasons: parents usually serve core market, they are more apprehensive of their domestic tax authorities and as previously discussed, intangibles attract profits more intensively (Appendix G). German companies showed 16.3% profitability at home, while only 3.5% in Hungary, because these firms rather sell their products not on the markets but within the corporate group (Bucsky, 2018c). This, however, suggests that these manufacturing firms show less value added produced in Hungary, which distorts GDP computations, however, US firms that operate *Shared Service Centers* (SSC) in Hungary can boost GDP as they bring phantom profits here to enjoy low tax rates (Bucsky, 2018c). These estimates might show massive tax losses, it is important to recall that using CIT rates as proxy for tax avoidance is misleading regarding Hungary, as companies are obliged to pay other liabilities not taken into accounts in studies and articles.

However, while these estimates are related to companies with real economic effects, other types of firms have to be taken into account. SPEs are identified by the Hungarian Central Banks as entities with special business register, low number of employees (1-3 persons), high share of foreign assets in balance sheets, export revenue driven turnover and

have minimal ties to the domestic country (OECD, 2020c). As mentioned before, the share of SPE-related FDI can be a good proxy for estimating profit shifting. Following the computation of Damgaard & Elkjaer (2017), where Hungary was the 3rd among OECD countries in FDI share of GDP (after Luxembourg and the Netherlands), I obtained inward FDI data from the IMF's CDIS Database, which includes SPEs as well and extracted OECD's inward FDI. Below figure shows how much SPEs make among total inward FDI as a share of GDP. From the figure we can see that SPEs related FDI inflows, although, decreased after the crisis, from 2013 and from 2017 as well, still make relevant amount, 99% of GDP on average during the examined period. The share of SPEs was the greatest in 2009 and 2016 and after the reduction of new CIT, it decreased. High shares, however, inflate FDI as SPE excluded total FDI inflow positions are 30% lower than when SPEs are included, globally (Damgaard & Elkjaer, 2017).





Source: IMF (2020), OECD (2020d) and World Bank (2020), self-edited

Janský & Palanský (2019) examined the average share of SPE in outward FDI for 2016, and while major economies had this share around 5-15%, European tax havens showed substantially high numbers: Luxembourg (95%), Netherlands (65.2%) and surprisingly Hungary (83.9%) (Janský & Palanský, 2019). According to this study and my computations, we can conclude that SPE presence is significant in Hungary.

The below table displays the main FDI partners of Hungary between 2015 and 2018. Most FDI was invested from the Netherlands, Luxembourg, Germany, Irelands and the US, while most FDI's destinations were Switzerland, Luxembourg, Ireland and the US. We can see some other jurisdictions, like the Cayman Islands, which provided the greatest amount of investment in 2018 or Curaçao, which is an island in the Caribbean belonging to the Netherlands, and which received substantial investment in 2015. This data was obtained from IMF's CDIS database, which contains SPE-related flows, thus the result is biased as most of these flows (including European tax havens) are not related to the real economy, but by nature are rather purely financial flows.

	I	nward FDI		Outward FDI			
	Total investment	177 299	100.0%	Total investment	118 427	100.0%	
	Cayman Islands	20 578	11.6%	Switzerland	51 164	43.2%	
8	Netherlands	19 343	10.9%	United States	18 323	15.5%	
201	Ireland	19 222	10.8%	Irelands	8 727	7.4%	
	Germany	18 953	10,7%	Netherlands	5 394	4,6%	
	United States	18 331	10,3%	Croatia	4 270	3,6%	
	Total investment	249 944	100,0%	Total investment	195 590	100,0%	
	Netherlands	60 220	24,1%	United States	84 258	43,1%	
17	Luxembourg	38 619	15,5%	Switzerland	49 548	25,3%	
20	Ireland	32 039	12,8%	Ireland	5 878	3,0%	
	Germany	22 337	8,9%	Korea	4 965	2,5%	
	Cayman Islands	17 626	7,1%	Croatia	4 286	2,2%	
	Total investment	240 435	100,0%	Total investment	193 383	100,0%	
	Netherlands	51 458	21,4%	United States	81 454	42,1%	
16	Ireland	40 243	16,7%	Switzerland	47 383	24,5%	
20	Luxembourg	35 728	14,9%	Luxembourg	13 793	7,1%	
	Spain	23 906	9,9%	Ireland	3 928	2,0%	
	Germany	22 594	9,4%	Korea	3 642	1,9%	
	Total investment	198 252	100,0%	Total investment	146 632	100,0%	
	Ireland	37 630	19,0%	Switzerland	49 118	33,5%	
15	Netherlands	25 462	12,8%	Luxembourg	30 400	20,7%	
20	Germany	19 578	9,9%	Curaçao*	10 054	6,9%	
	Spain	16 604	8,4%	United States	7 186	4,9%	
	Austria	14 443	7,3%	Israel	4 629	3,2%	

Table 3: Inward and Outward FDI from and to the top 5 counterpart economies 2015-2018, USD million

Source: IMF CDIS Database (2020), self-edited, (*=Kingdom of the Netherlands)

Foreign companies can move substantial amounts of profits, which are more impactful in case of entities, which are not related to real economic activities, such as SPEs. These shifts are more significant if we recall the strong presence of MNCs, which suggests that GDP and balance of payment statistics can be heavily distorted. However, all the research presented before focus data before tax rate reduction in 2017. The new 9% net CIT rate makes Hungary attractive, as it is non-discriminatively applicable for every entity, is less bureaucratic and involves less risk, while EU tax havens can achieve lower rates by using creative practices (Appendix G). Financing structures probably exists today as well but the intensity has decreased in Hungary. They are mainly executed by royalty and intercompany loan structures, which require stable structure by accountants, consultants, however, no such statistics are available yet (Appendix G).

It is important to consider that over the years Hungary has agreed on joining common actions towards tax planning. According to the OECD, Hungary has accepted more OECD initiatives and been complying with them (OECD, 2019b):

- Under the Exchange of Information on Request (EOIR), it is part of the Global Forum Membership, it is largely compliant with EOIR and the Mutual Administrative Assistance Convention is in force;
- Under the Automatic Exchange of Information (AEOI), Hungary is committed to Common Reporting Standards (CRS) since 2017;
- Adapted the Inclusive Framework on BEPS, concluding that no harmful regime exists (Action 5), that legal framework is set up (Action 13), Information Exchange Network is activated (Action 13) and Multilateral Instrument are revised (Action 15). Regarding BEPS, Hungary is currently under review and has been advised with recommendations for advancement on Exchange of Information on Tax Rulings (Action 5), Preventing Treaty Abuse (Action 6) and on Effective Dispute Resolution (Action 14).

The country furthermore adopted new CFC rules in 2017, transfer pricing and thin capitalization regulations, CbC reporting, and new new anti-hybrid and tratey shopping rules within General Anti-Avoidance Rules (GAAR) (KPMG, 2018). Hungary also planned to introduce DAC6¹³, which obliges experts (consultant, accountant, lawyer, banker) to report aggressive tax planning structures to the authorities (Appendix G).

According to Asen (2020), in 2020, along with other five countries Hungary implemented the Digital Service Tax (DST) scheme as well, however, the introduced DST structures substantially differ from each other. As Austria, Hungary has reduced taxable revenues only that comes from online advertising, with a tax rate of 7.5%, albeit, this tax rate is currently 0% till end of 2022, as a temporary regulation. Also, while the threshold for global revenues to be taxed in the other five states is \notin 750 million, Hungary has set it to \notin 300 million with no distinction regarding domestic revenue.

Considering all the evidence Hungary rather shows the attributes of a non-tax haven and the discriminatory treatments towards MNCs are rather economic-political questions, which take potential real economic effects into account. Adapting new anti-avoidance regulations suggests Hungary is willing to reduce tax avoidance practices as increased transparency and reporting between jurisdictions and authorities set great burden on unfair methods, which are clearly not attributes of tax havens.

¹³ Uder Action 12, it would have been introduced in July 1st 2020 but was postponed with 6 months due to COVID-19
Conclusion and Policy Recommendations

In this thesis I aimed to show how international tax avoidance affects the European Union and especially Hungary. MNCs use complex corporate-wide structures, which are hardly observable by tax authorities to avoid taxes and exploit mismatches between taxation systems, causing enormous losses for member states, except for a few member states. European tax havens are actively providing advantageous environment, thus, distorting competition and creating a race to the bottom by reducing tax rates. Moreover, these states block initiatives of harmonization as they enjoy CIT revenues to a higher extent.

In my thesis I stated that inward FDI flow related financial flows and ETR are better proxy than statutory CIT for estimating profit shifting. I used OECD and IMF panel data with various ETR estimations from other studies (using commercial databases Orbis and Amadeus), as no such database exist. I found that offshore-like EU tax havens show a magnitude higher FDI flows, which can be explained by pure financial income reallocation activities. This suggests that using SPE-involved FDI flows substantially distort balance of payment and GDP statistics. I also found ETRs are indeed show stronger correlation than statutory rates, however, due to relying only previous research, results vary substantially even when using the same database.

My policy implications are advocating for better research opportunities, by which policy makers could use for making comprehensive decisions. Countries should report FDI flows with and without the effects of SPEs, as they clearly show statistical distortions. I also support that countries should report overall their average yearly ETR as no such public data is available and which would be essential for further studies. Janský (2019) recommends introducing a unitary minimum ETR within the EU to stop current race to the bottom, however, I think, as countries' economies highly differ from each other, an ETR proportional to their statutory rate (GDP per capita, FDI flows, Labor costs as well) should be introduced for each member state, which

would set a limit in differing too much from the nominal rate. This would reduce profit shifting possibilities in countries. The, furthermore, the Commission should reconsider the principle of unanimity regarding direct taxation systems as tax havens are expected to block further initiatives, which would limit their taxation policies. An aggressive policy change in state sovereignty would, however, strong opposition from nation states. Further studies could involve the effect of introducing environmental taxes on pollution and resources whether they would take the burden off relying on heavily on corporate income taxes.

BEPS is a promising and effective initiative, however, if regulation is too strict, policy makers will have to decide which one is harder to comply with: letting MNCs to operate and shift profits within the EU, thus harming the fairness of competition and putting greater burden on domestic taxpayers but still contributing to budgets, or creating a strict framework that would reduce tax planning, but that would also result in losing revenues, as companies would simply shift profits outside the Union into affiliates located in a 3rd country.

The thesis analyzed the case of Hungary as I stated following a report by the European Parliament that it can be considered as a European tax haven. During my research I collected evidence from articles and studies and examined, whether the tax rate reduction in 2017 increased FDI inflows and tax avoidance. It was considered to provide beneficial environment for tax avoidance as studies focused on statutory and effective rates mainly. However, despite having the lowest statutory tax rate in the EU (and even lower ETR for MNCs on average), companies are subject to other liabilities (LBT, sectoral taxes, etc.), which studies ignore. Also, one should consider that CIT income represents only a minor part of taxation, thus, these studies can be misleading. Furthermore, ETRs are not directly determined, but involve all the benefits a company may receive. Hungary is the second most exposed state to MNCs in the EU and have highly favourable structures for deductions and state support in direct aids and tax allowances, however, these are provided if substantial real economic impacts can be estimated and not considered as classic tax avoidance structures.

Furthermore, since the reduction, unlike EU tax havens, in Hungary income from CIT is decreasing, the number of MNCs is decreasing, the amounts of FDI flows and stock are decreasing and the share of SPE-related FDI is decreasing as well. Furthermore, it has been following OECD and EU directives recently to mitigate tax planning practices. The low tax rate indicates that companies can tax their profit without the risk of using aggressive tax planning structures. Financing, royalty and transfer pricing structures are still present but are not gaining momentum. However, despite falling, SPE-related pure financial flows are still high, which distorts GDP and balance of payments statistics. Moreover, overly beneficial treatments toward MNCs distort the competitiveness of domestic enterprises. Looking at the evidence, I deny my hypothesis and do not consider Hungary a tax haven. It has practices that may be questionnaire but is still inside the thin borderline of legality.

Policies should focus on mitigating the high share of SPE-related FDI flows to avoid distorted FDI statistics. Monthly or quarterly FDI flow statistics could help to filter pure financial flows without real economic activities. Furthermore, the government should reconsider its beneficial treatment towards MNCs and rather support domestic entities, which lack the capacity of exploiting tax allowances. However, the government has to consider the trade-off between making Hungary an attractive destination for investment and, thus, bear CIT losses and between potential future real economic advantages and other indirect incomes.

The thesis faced limitations regarding data availability. ETR computations do not exists, furthermore, commercial databases, such as non-public Orbis and Amadeus have available unconsolidated data about companies only till 2017. I also checked Foreign Affiliates Statistics (FATS), which contained data about Hungary only before 2017. Further studies should implicate updated international and domestic data, thus, we could analyze what effects the 2017

CIT reduction had, as currently it is not observable. Also, one should consider the inequality perspective and analyze, how domestic entities are affected by international tax avoidance.

References

- Accace. (2020). 2020 Adózási Segédlet: Magyarország (Taxation Briefs, p. 18). Acccace. https://accace.hu/wp-content/uploads/sites/6/2020/04/2020-Accace-Hungary-Ad%C3%B3z%C3%A1si-seg%C3%A9dlet.pdf
- Aronmwan, E. J., & Okafor, C. (2019). Corporate Tax Avoidance: Review of Measures and Prospects. *International Journal of Accounting & Finance (IJAF)*, Vol.8, No.2(September 2019), 21–42.
- Asen, E. (2020, March 16). *Digital Services Taxes in Europe*. Tax Foundation. https://taxfoundation.org/digital-tax-europe-2020/
- Baka, Z. (2018, July 5). *Íme a bizonyíték, hogy Magyarország adóparadicsom (Here is the evidence that Hungary is a tax haven)*. Menedzsment Fórum.
 https://mfor.hu/cikkek/vallalatok/ime-a-bizonyitek-hogy-magyarorszag-adoparadicsom.html
- Baka, Z. (2020, 06). Adóparadicsommá vált Magyarország? Jövőre még inkább az lesz. (Has Hungary become a tax haven? Next year it will be. Menedzsment Fórum. https://mfor.hu/cikkek/vallalatok/adoparadicsom-marad-magyarorszag-jovore-meginkabb-.html?fbclid=IwAR2vRoZf39WZXbP2TygpoQuw4U7i2LU4M-Z8NwMB7ktXBWhvKY1e5bemzxY
- Beer, S., de Mooij, R., & Liu, L. (2018). International Corporate Tax Avoidance: A Review of the Channels, Magnitudes, and Blind Spots. *IMF Working Paper Fiscal Affairs Department*, WP/18/168.
- Bénassy-Quéré, A., Fontagné, L., & Lahrèche-Révil, A. (2004). *How Does FDI React to Corporate Taxation?*

- Bradbury, D., Hanappi, T., & Moore, A. (2018). Estimating the fiscal effects of base erosion and profit shifting: Data availability and analytical issues. *Transnational Corporations, Volume 25*, 91–106.
- Bucsky, P. (2017, October 27). Hat év alatt 17 milliárd forinttól szabadította meg a Google és a Facebook a magyarokat (In six years, Google and Facebook freed Hungarians from HUF 17 billion). G7. https://g7.hu/kozelet/20171227/hat-ev-alatt-17-milliardforinttol-szabaditotta-meg-a-google-es-a-facebook-a-magyarokat/
- Bucsky, P. (2018a, November 5). *Már a magyar GDP-t sem tudjuk kiszámolni a multik adótrükkjei miatt (We can no longer calculate Hungarian GDP due to the tax tricks of the multis)*. G7. https://g7.hu/vallalat/20181105/mar-a-magyar-gdp-t-sem-tudjukkiszamolni-a-multik-adotrukkjei-miatt/
- Bucsky, P. (2018b, November 9). *Magyarország az egyik legnagyobb vesztese a multik transzferár-trükkjeinek (Hungary is one of the biggest losers in the transfer pricing tricks of multis)*. G7. https://g7.hu/kozelet/20181109/magyarorszag-az-egyiklegnagyobb-vesztese-a-multik-transzferar-trukkjeinek/
- Bucsky, P. (2018c, November 12). Évi 48 milliárd forintnyi társasági adót trükközhet ki az országból 30 magyarországi multi (30 Hungarian multis can shift HUF 48 billion in corporate taxes per year). G7. https://g7.hu/vallalat/20181112/evi-48-milliardforintnyi-tarsasagi-adot-trukkozhet-ki-az-orszagbol-30-magyarorszagi-multi/
- Bucsky, P. (2019a, January 22). *Magyarország lassan tényleg adóparadicsom lesz (Hungary is slowly becoming a tax haven)*. G7. https://g7.hu/kozelet/20190122/magyarorszag-lassan-tenyleg-adoparadicsom-lesz/
- Bucsky, P. (2019b, February 11). Szinte példátlanul kiszolgáltatott Magyarország a külföldi cégeknek (Hungary is unprecedentedly vulnerable to foreign companies). G7.

https://g7.hu/vallalat/20190211/szinte-peldatlanul-kiszolgaltatott-magyarorszag-akulfoldi-cegeknek/

- Bunn, D. (2018). *Corporate Income Tax Rates around the World* (No. 623; Fiscal Fact). https://files.taxfoundation.org/20190603100114/Tax-Foundation-FF623.pdf
- Bunn, D., & Asen, E. (2019). International Tax Competitiveness Index. Tax Foundation. https://files.taxfoundation.org/20190930115625/2019-International-Tax-Competitiveness-Index.pdf
- CIA. (2019). Country Comparison: Stock Of Direct Foreign Investment. Central Intelligence Agency. https://www.cia.gov/library/publications/the-worldfactbook/rankorder/2198rank.html
- Cobham, A., & Janský, P. (2017). Global distribution of revenue loss from tax avoidance: Reestimation and country results. *United Nations University - WIDER*. https://www.wider.unu.edu/sites/default/files/wp2017-55.pdf
- Council Directives. (2016). Laying down rules against tax avoidance practices that directly affect the functioning of the internal market. *Official Journal of the European Union*. https://eur-lex.europa.eu/legal-

content/EN/TXT/PDF/?uri=CELEX:32016L1164&from=DE

- Damgaard, J., & Elkjaer, T. (2017). The Global FDI Network: Searching for Ultimate Investors. *IMF Working Paper Statistics Department*, WP/17/258.
- Damgaard, J., Elkjaer, T., & Johannesen, N. (2019). The Rise of Phantom Investments. *IMF*. https://www.imf.org/external/pubs/ft/fandd/2019/09/pdf/the-rise-of-phantom-FDI-intax-havens-damgaard.pdf
- Dischinger, M., Knoll, B., & Riedel, N. (2014). The role of headquarters in multinational profit shifting strategies. *International Tax and Public Finance*, 21(2), 248–271. https://doi.org/10.1007/s10797-012-9265-5

- Dunning, J. H., & Lundan, S. M. (2008). *Multinational enterprises and the global economy* (2nd ed). Edward Elgar.
- europa.eu. (2018). *Company tax in the EU Ireland*. Your Europe European Union. https://europa.eu/youreurope/business/taxation/business-tax/company-taxeu/ireland/index_en.htm
- europa.eu. (2019). *Company tax in the EU*. Your Europe European Union. https://europa.eu/youreurope/business/taxation/business-tax/company-taxeu/index_en.htm
- europa.eu. (2020). *Taxes on parent companies and subsidiaries*. Your Europe European Union. https://europa.eu/youreurope/business/taxation/business-tax/taxes-parentcompanies-subsidiaries/index_en.htmyoureurope/business/taxation/business-tax/taxesparent-companies-subsidiaries/index_en.htm
- European Commission. (2016). Accompanying the document Proposal for a Council Directive amending Directive (EU) 2016/1164 as regards hybrid mismatches with third countries (Commission Staff Working Document).

https://ec.europa.eu/taxation_customs/sites/taxation/files/swd_2016_345_en.pdf

- European Commission. (2018). *Common Consolidated Corporate Tax Base (CCCTB)*. European Commission. https://ec.europa.eu/taxation_customs/business/company-tax/common-consolidated-corporate-tax-base-ccctb_en
- European Commission. (2020a). *Investment*. European Commission. https://ec.europa.eu/trade/policy/accessing-markets/investment/
- European Commission. (2020b). *Taxation and Customs UnionTaxes in Europe Database: Local Business Tax*. European Commission. https://ec.europa.eu/taxation_customs/tedb/legacy/taxDetail.html?id=305/1424159206 &taxType=Other+direct+tax

- European Commission. (2020c). *The Anti Tax Avoidance Directive*. European Commission. https://ec.europa.eu/taxation_customs/business/company-tax/anti-tax-avoidance-package/anti-tax-avoidance-directive_en
- European Parliament. (2017). Common consolidated corporate tax base (CCCTB). PE 599.395.

https://www.europarl.europa.eu/RegData/etudes/BRIE/2017/599395/EPRS_BRI(2017)599395_EN.pdf

- European Parliament. (2018). *Text adopted by Parliament, 1st reading/single reading* (Legislative Observatory). Text adopted by Parliament, 1st reading/single reading
- European Parliament. (2019). *Tax crimes: Special committee calls for a European financial police force* (Press Releases). https://www.europarl.europa.eu/news/en/press-room/20190225IPR28727/tax-crimes-special-committee-calls-for-a-european-financial-police-force
- Eurostat. (2018, January 16). Archive:Foreign affiliates statistics—FATS. Eurostat: Statistics Explained. https://ec.europa.eu/eurostat/statistics-

explained/index.php?title=Archive:Foreign_affiliates_statistics_-_FATS

- Eurostat. (2019). Taxation in 2018: Tax-to-GDP ratio up to 40.3% in EU. A one-to-two ratio across Member States (166/2019; News Release). Eurostat.
 https://ec.europa.eu/eurostat/documents/2995521/10190755/2-30102019-AP-EN.pdf/68739572-f06a-51e4-3a5b-86e660a23376
- Gereffi, G. (2014). Global value chains in a post-Washington Consensus world. *Review of International Political Economy*, 21(1), 9–37. https://doi.org/10.1080/09692290.2012.756414
- Harzing, A.-W., Sorge, A., & Paauwe, J. (2001). HQ-subsidiary relationships in multinational companies: A British-German comparison. *Middlesex University, UK*.

https://www.researchgate.net/publication/228920278_HQ-

subsidiary_relationships_in_multinational_companies_a_British-German_comparison

- Hobot, P. (2018, July 26). Addig trükköztek a multik, hogy ellopták a világ lakosságától a nyereség adó 9 százalékát (Multis had been tricking until they stole 9 percent of income tax of the world's population). G7. https://g7.hu/kozelet/20180726/addigtrukkoztek-a-multik-hogy-elloptak-a-vilag-lakossagatol-a-nyereseg-ado-9-szazalekat/
- Holtzblatt, M., Jermakowicz, E. K., & Epstein, B. J. (2015). Tax Heavens: Methods and Tactics for Corporate Profit Shifting. *International Tax Journal, January-February*. http://www.epsteinnach.com/wpcontent/uploads/2015/09/Article_Tax_Heavens_081815.pdf
- Huerlimann, G., Brownlee, W. E., & Ide, E. (2018). Worlds of taxation: The political economy of taxing, spending, and redistribution since 1945. Springer Berlin Heidelberg.
- IMF. (2020). Coordinated Direct Investment Survey (CDIS) (IMF Access to Macroeconomic & Financial Data). https://data.imf.org/?sk=40313609-F037-48C1-84B1-E1F1CE54D6D5
- Janský, P. (2019). *Effective Tax Rates of Multinational Enterprises in the EU* (A Report Commissioned by the Greens/EFA Group in the European Parliament). Greens/EFA. https://www.greens-efa.eu/en/article/document/effective-tax-rates-for-multinationcompanies-in-the-eu/
- Janský, P., & Palanský, M. (2019). Estimating the scale of profit shifting and tax revenue losses related to foreign direct investment. *International Tax and Public Finance*, 26(5), 1048–1103. https://doi.org/10.1007/s10797-019-09547-8

- Juhász, I. (2020, March 6). Az adóreform és az azóta eltelt időszak társasági adó 2. (The tax reform and the time since then—Corporate tax—2.). Adó.hu. https://ado.hu/ado/az-adoreform-es-az-azota-eltelt-idoszak-tarsasagi-ado-2/
- Jun, J. (1994). How Taxation Affects Foreign Direct Investment (Country-specific Evidence) (Policy Research Working Paper No. 1307). Policy Research Dissemination Center. http://documents.worldbank.org/curated/en/498591468739199710/pdf/multi-page.pdf

Kovács, G. (2017, October 4). A kormány megúszta a nagy adóparadicsom-manővert (The government has evaded a major tax haven maneuver). Zoom. https://zoom.hu/hir/2017/10/04/a-kormany-meguszta-a-nagy-adoparadicsommanovert/

- KPMG. (2018). *Hungary Country Profile* (06/2018; Country Profile). EU Tax Centre. https://assets.kpmg/content/dam/kpmg/xx/pdf/2018/06/country-profile-hungary.pdf
- KPMG. (2020). *Corporate tax rates table*. https://home.kpmg/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html
- KSH. (2016). A Magyarországon működő külföldi irányítású leányvállalatok tevékenysége a 2015. Évi végleges és a 2016. Évi előzetes adatok alapján (2015/2016). Központi Statisztikai Hivatal (Hungarian Central Statistical Office).
 http://www.ksh.hu/docs/hun/xftp/idoszaki/pdf/kulfleany15.pdf
- KSH. (2017). A Magyarországon működő külföldi irányítású leányvállalatok tevékenysége a 2016. Évi végleges és a 2017. Évi előzetes adatok alapján (2016/2017). Központi Statisztikai Hivatal (Hungarian Central Statistical Office).
 https://www.ksh.hu/docs/hun/xftp/idoszaki/pdf/kulfleany16.pdf?fbclid=IwAR1iB6Su LZP-Ue-nudZ3bJElJ05fadInm5HyMc_pHpL1NRqAzv3vxCMqX40
- KSH. (2018a). 3.2.21. A külföldi irányítású, nem pénzügyi leányvállalatok hozzáadott értékének nagysága és aránya nemzetgazdasági ág és a végső tulajdonos székhelye

szerint (Size and proportion of value added of foreign controlled non-financial subsidiaries by industry and location of ultimate owner (2008 -) (3.2.21.; Data tables). https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_qtd004a.html?down=241

KSH. (2018b). Külföldi irányítású vállalkozások Magyarországon, 2018 (Foreign controlled enterprises In Hungary, 2018) (No. 2018). Központi Statisztikai Hivatal (Hungarian Central Statistical Office).

http://www.ksh.hu/docs/hun/xftp/idoszaki/pdf/kulfleany18.pdf

- KSH. (2019). 3.1.2. Gross Domestic Product value in HUF, Euro, Dollar and PPP (A bruttó hazai termék (GDP) értéke forintban, euróban, dollárban, vásárlóerő-paritáson (1995–)). KSH. https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_qpt015.html
- KSH. (2020a). 3.7.3. Income and Balance of Government Budget (A központi költségvetés bevételei és egyenlege). KSH.

https://www.ksh.hu/docs/hun/xstadat/xstadat_evkozi/e_qse006a.html

KSH. (2020b). *A központi költségvetés bevételei és egyenlege (2005–)* (Yearly report 3.7.2.). KSH. https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_qse006h.html

Lithuanian Free Market Institute. (2017). Effects of CCCTB. 4liberty.

http://4liberty.eu/effects-of-ccctb/

- Magyar Közlöny. (2015). Az adózással összefüggő egyes törvények módosításáról és a rendvédelmi feladatokat ellátó szervek hivatásos állományának szolgálati jogviszonyáról szóló 2015. Évi XLII. törvény módosításáról. 2015/90. http://www.kozlonyok.hu/nkonline/MKPDF/hiteles/MK15090.pdf
- Malke, C. (2010). Taxation of European companies at the time of establishment and restructuring: Issues and options for reform with regard to the status quo and the proposals at the level of the European Union (1. Aufl). Gabler.

Marchgraber, C. (2018). Double (non-)taxation and EU law. Wolters Kluwer - Eucotax.

- Marques, M., & Pinho, C. (2016). Is transfer pricing strictness deterring profit shifting within multinationals? Empirical evidence from Europe. *Accounting and Business Research*, 46(7), 703–730. https://doi.org/10.1080/00014788.2015.1135782
- McCarthy, N. (2017). *Paradise Papers: The Scale Of The Paradise Papers Leak*. Statista. https://www.statista.com/chart/11698/the-scale-of-the-paradise-papers-leak/

Menedzsment Fórum. (2015, May 29). *Alig fizettek társasági adót a hazai autógyárak* (*Domestic car factories barely paid corporate tax*). Menedzsment Fórum. https://mfor.hu/cikkek/makro/Alig_fizettek_TAO_t_a_hazai_autogyarak.html

Ministry of Finance. (2013). Válasz a K/10270 számú írásbeli kérdésre: "Milyen vállalatok kaptak 10 0 millió forintot meghaladó összeg ű vissza nem térítendő támogatást az elmúlt 1 5 évben?" (Answer for question K / 10270: "Which companies received n-refundable aid exceeding 100 million HUF no for the last 15 years?") years? ".
Ministry of Finance. https://www.parlament.hu/irom39/10270/10270-0001.pdf

Ministry of Justice. (2020, April 15). *T-Systems Hungary Ltd*. Elektronikus Beszámoló (Electronic Report). https://e-

beszamolo.im.gov.hu/oldal/beszamolo_megjelenites?arrivalNumber=V34bib1EEow4 %2b11%2f7uSsl75DbivVovOb2N4ngk774vo%3d

Moldicz, C. (2019). Hungary Economy Briefing: Outward And Inward Investment In Hungary (Vol. 20, No. 2 (HU); Weekly Briefing). China - CEE Institute. https://chinacee.eu/wp-

content/uploads/2019/07/2019e0778% EF% BC% 881% EF% BC% 89 Hungary.pdf

Mudenda, L. D. (2015). Corporate Income Tax Rate and Foreign Direct Investment: The Case of Southern African Economies. [Umea University]. https://www.divaportal.org/smash/get/diva2:845659/FULLTEXT01.pdf

- The Corporate Income Tax and Dividend Tax Act of 1996. LXXXI. Act (A Társasági Adóról és az Osztalékadóról szóló 1996. Évi LXXXI. Törvény), 1996. Évi LXXXI. törvény [Tao tv.] 165 (2020). https://net.jogtar.hu/jogszabaly?docid=99600081.tv
- OECD. (2008a). *Tax and Economic Growth* (Woeking Paper NO.620). http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en &cote=eco/wkp(2008)28
- OECD. (2008b). Tax Effects on Foreign Direct Investment? Public Affairs Division, Public Affairs and Communications Directorate.

https://www.oecd.org/investment/investment-policy/40152903.pdf

OECD (Ed.). (2015). *Measuring and monitoring BEPS, action 11, 2015 final report*. OECD. https://www.oecd-ilibrary.org/docserver/9789264241343-

en.pdf?expires=1590270127&id=id&accname=guest&checksum=F7ACDCFB784C0 3C720979E083389401B

- OECD. (2017a). Corporate Tax Statistics Database. http://www.oecd.org/tax/taxpolicy/corporate-tax-statistics-database.htm
- OECD. (2017b). *Hungary Trade And Investment Statistical Note* (International Trade, Foreign Direct Investment and Global Value Chains). http://www.oecd.org/investment/HUNGARY-trade-investment-statistical-countrynote.pdf
- OECD. (2018a). Oecd Secretary-General Report To G20 Finance Ministers And Central Bank Governors. http://www.oecd.org/ctp/oecd-secretary-general-tax-report-g20finance-ministers-july-2018.pdf
- OECD. (2018b). *Tax on corporate profits* [Data set]. OECD. https://doi.org/10.1787/d30cc412-en

- OECD. (2019a). Corporate Tax Statistics (First Edition). https://www.oecd.org/tax/taxpolicy/corporate-tax-statistics-database-first-edition.pdf
- OECD. (2019b). International collaboration to end tax avoidance. OECD. https://www.oecd.org/tax/beps/
- OECD. (2019c). *R&D Tax Incentives: Hungary*. OECD, Directorate for Science, Technology and Innovation. http://www.oecd.org/sti/rd-tax-stats-hungary.pdf

OECD. (2019d). Tax wedge. OECD. https://data.oecd.org/tax/tax-wedge.htm

OECD. (2020a). FDI flows. OECD Data. https://data.oecd.org/fdi/fdi-flows.htm

OECD. (2020b). *Fighting tax evasion*. OECD. https://www.oecd.org/ctp/fightingtaxevasion.htm

OECD. (2020c). Foreign Direct Investment statistics metadata. OECD. https://qdd.oecd.org/subject.aspx?Subject=fdi_metadata

OECD. (2020d). Glossary of Tax Terms. OECD.

https://www.oecd.org/ctp/glossaryoftaxterms.htm

OECD. (2020e). *Gross domestic product (GDP)*. https://data.oecd.org/gdp/gross-domesticproduct-gdp.htm#indicator-chart

OECD. (2020f). Measuring Tax Support for R&D and Innovation. OECD. http://www.oecd.org/sti/rd-tax-stats.htm

OECD. (2020g). *Statutory Corporate Income Tax Rate*. Organization for Economic
Cooperation and Development; Country representatives on the OECD Working Party
2: Tax Policy and Tax Statistics of the Committee on Fiscal Affairs.

https://stats.oecd.org/Index.aspx?QueryId=78166

OECD. (2020h, May 13). Individual Government Decision. STIP Compass OECD. https://stip.oecd.org/stip/policy-

initiatives/2017%2Fdata%2FpolicyInitiatives%2F16076

Papp, Z. (2019, April 29). A tavalyi támogatás felét már elköltötte a külgazdasági tárca (Half of last year's support was already spent by the Ministry of Foreign Affairs).
Világgazdaság (Worldeconomy). https://www.vg.hu/gazdasag/gazdasagi-hirek/a-tavalyi-tamogatas-felet-mar-elkoltotte-a-kulgazdasagi-tarca-2-1483729/

Piotrowska, J., & Vanborren, W. (2008). The corporate income tax rate-revenue paradox: Evidence in the EU. Office for Official Publ. of the Europ. Communities. https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxatio n/gen_info/economic_analysis/tax_papers/taxation_paper_12_en.pdf

Portfolio. (2019, October 21). Egyedi kormánydöntés – tegnap és ma (Individual Government Decision—Yesterday and today). Portfolio. https://www.portfolio.hu/premium/20191021/egyedi-kormanydontes-tegnap-es-ma-404401

Rádi, A. (2016, June 4). Kevesebb mint 2%-os társasági adó? Csak a pálmafák hiányoznak a
GE Hungary tavalyi beszámolójából (Less than 2% corporate tax? Only palm trees
are missing from GE Hungary's report last year). Átlátszó.

https://atlatszo.hu/2016/06/04/kevesebb-mint-2-os-tarsasagi-ado-csak-a-palmafakhianyoznak-a-ge-hungary-tavalyi-beszamolojabol/

- Reincke, W. (1998). Global Public Policy: Governing without Government? Globalization of Economic Activity: Definition, Sources, Measurement, and Limits. (Edition Unstated edition.). Brookings Institution Press.
- Salihu, I. A., Obid, S. N. S., & Annuar, H. A. (2013). Measures Of Corporate Tax Avoidance: Empirical Evidence From An Emerging Economy. *International Journal of Business* and Society, Vol. 14 No. 3, 412–427.
- Santander Trade. (2020). *Hungary: Foreign Investment*. Santander Tarde Markets. https://santandertrade.com/en/portal/establish-overseas/hungary/foreign-investment

- Schön, W. (2003). *Tax Competition in Europe: General Report* (p. 39). Max Planck Institute. http://vvww.eatlp.org/uploads/Members/GeneralReportSchoen.pdf
- Simon, I., & Földes, G. (2012). *Financial Law 2. (Pénzügyi jog. 2.).* https://regi.tankonyvtar.hu/hu/tartalom/tamop425/2011_0001_520_penzugyi_jog_2/ch 03s04.html
- Smit, D. (2012). EU Freedoms, Non-EU Countries and Company Taxation (M. Lang, P. Essers, & E. Kemmeren, Eds.; Vol. 36). Kluwer Law International B.V.
- Toplensky, R. (2018, March 11). *Multinationals pay lower taxes than a decade ago*. Financial Times. https://www.ft.com/content/2b356956-17fc-11e8-9376-4a6390addb44
- Tørsløv, T., Wier, L., & Zucman, G. (2020). *The Missing Profits of Nations*. https://missingprofits.world/
- Trading Economics. (2020). *Hungary Government Budget 1995-2019 Data*. Trading Economics. https://tradingeconomics.com/hungary/government-budget

United Nations. (2019). World Investment Report 2019. United Nations.

- Wittendorff, J. (2010). Transfer pricing and the arm's length principle in international tax law. Kluwer Law International; Sold and distributed in North, Central and South America by Aspen Publishers.
- World Bank. (2020). *GDP (Current Prices)* (World Development Indicators, Data Bank). https://databank.worldbank.org/source/world-development-indicators#
- Your Europe. (2019, October 23). *Company tax in the EU Hungary*. Your Europe -European Union. https://europa.eu/youreurope/business/taxation/businesstax/company-tax-eu/hungary/index_en.htm

Appendix

Appendix A

Example on how EU taxation works currently and how it is expected to work after implementing CCCTB



Source: Lithuanian Free Market Institute (2017)

Appendix B

Fortune 500 US companies' offshore cash in 2016, with over half of that in just 25 companies (amount held offshore, \$bn)



Source: Toplensky (2018), self-edited

Appendix C

Pre-tax corporate profits in non-haven countries (% of compensation of employees)



Source: Tørsløv et al. (2020), self-edited

Appendix D

Pre-tax corporate profits in tax haven countries (% of compensation of employees)



Source: Tørsløv et al. (2020), self-edited

Appendix E

Gap between the reported ETR and what is paid in cash, 3 years average ETR (%)



Source: Toplensky (2018), self-edited

Appendix F

Correlation between nominal CITs and ETRs in 2018



Source: Janský (2019), self-edited

Appendix G

Interview Transcript (relevant parts)

Interviewer: Ioannis Cangosz (IC) Interviewee: László Csaba, Senior Partner, KPMG (CSL) Date and time: June 10th 2020, 13:00 Interview type: Phone interview Language: Hungarian

IC: *IGDs have to be accepted by the EU. Why would they allow distortive measures that are close to prohibited state aid?*

CSL: States can provide direct funds or tax allowances for investments, which create jobs. It is done all over the EU, however, competition neutrality can be questioned sometimes. These measures can sometimes have effects on restriction of competition, but the EU has built a structure to control them. De minimis aids, which are under a certain threshold, there is no need for EU involvement. Rules set by the EU have to be followed, in some cases special bodies of the Commission have to accept measures that can be direct state aids or tax allowance. These, however, do not belong to classic offshore as they are not tax avoidance strategies. Most relevant items are tax allowances on corporate tax rate and local business tax, but other things can be considered as well. A new company or investment might not even make profits in the first few years, thus firms prefer direct aids, which, if is not enough, can be followed by tax allowances, however, it cannot be utilized for 2-3 years. For instance, a big company that transfers innovations and novelties and makes 100 billion Ft revenue has 9 billion Ft tax allowance, it can utilize and extract this amount from the tax base. However, if another firm, which is a new one

receives 2 billion Ft tax allowance for CIT, maybe it won't be able to use it for 2-3 years as it won't be profitable. All in all, it is important whether a company is new or has already been conducting profitable business in Hungary. Furthermore, they take into account if the investment is predicted to have real economic effects: creating jobs, spillover effect, contract suppliers. Government support cannot differ substantially from EU rules and main predicted numbers are public. In case of offshore, there is no economic activity where the income is taxed and where economic activity is located, no tax payment happens. Government support has advantage from economic policy perspective, is not offshore-like but can have strong competition restrictive effects. Unfair advantages can be given rather in case of other 'invisible' supports, like infrastructure related (for how much the company gets land, what costs does infrastructure built-up take for local municipality, etc.). IGDs depend on the size of investment, job creation, but ETRs are not explicitly determined. It considers factors, such as geographic location, sectoral features, etc., but is usually predictable how much the maximal amount of support can be, where the upper limit can vary.

IC: Reports state Hungary is applying low ETR rates. What do you think about it?

CSL: We should see what drive these numbers. Namely what the tax base is, what allowances are used, what the other 'tricks' are. But the reported ETRs are clearly very low on which effects of IGDs are substantial as it appears as tax allowance. The Act on CIT regulates and specify what kind of tax allowances can be used, furthermore, ETR can be calculated for CIT rate. Calculating with CIT in Hungary is misleading, as LBT is 1.5-2 times bigger and other special structures distort these numbers. Moreover, CIT is not the most important income of budget, many non-professionals, academics and journalist do not take this into account. Furthermore, companies look at how much VAT will be, what re the extra taxes on labor (personal income tax, social contribution, labor contribution), excise duty, LBT, which are all greater than CIT. A firm can be subject to 10-20 other dues, which shall be considered together when the state decides on whether to give tax allowances. It can be beneficial for the government if this is the price for MNCs to come to Hungary. If we do not provide allowances and supports, companies may not come here and no income on corporate profit would be made. When considering ETR, they have to take into account all the other benefits it enjoys.

IC: *Has there been any similar cases like the GE one?*

CSL: I am not aware of similar cases of this volume or this feature. This case was special as the firm had actual tax liability. Hungary has been considered as a good place for financing structures. If we could see monthly FDI statistics up to 20 years, we saw high volatilities in which more billions of USD move in and out. Many flows did not happen in the same month, which distorted balance of payments statistics. According to a 10-year old study by the US Congress, which examined the main financers of the US, Hungary was one of the firsts indicating many US companies used to be financed by Hungarian firms. The bilateral treaty with the US was introduced in 2010 but still has not been ratified by the US. Regarding the GE case, it was rather an M&A and not financing transaction. By financing structures vast amount of money can be moved, probably they still exist today. However, such a structure needs more accountants, consultants, banks because of the infrastructure. In Hungary, neither the big banks (HBSC, Citi, Morgan Stanley, etc.) nor technology companies pursue these activities. Here the royalties and intercompany financing structures are more relevant, but no statistics exists to examine.

IC: What are the most frequent tax avoidance practices within Hungary?

CSL: It is impossible to tell. Transfer pricing affects 10,000 companies. It is difficult to estimate the price of a diesel engine, not easily definable as it is not a stock market asset and depends on many factors (own cost, etc.) and whether there is intention to manipulate prices. Hungary has always had lower CIT rate, but a German CEO rather is conscious about the German tax authority. Headquarters appears to be significantly more profitable than affiliates (within OECD members), even if they have higher CIT rate. They report higher profits as that is their initial home market and R&D and royalties related activities attract profits. Regulation are still not that stable, the system is unimaginably bureaucratic, and companies can be creative in transfer pricing, however, usually not manufacturing companies pursue it, as they have to see the actual profitability of the affiliates to decide which one to close. Offshore activities can work well where huge profits can be shifted that are not backed real economic activity and which do not have physical effects (not lands, employees or investment are related). Financing structures and royalty structures can be used for avoiding taxes. Reallocation of \$2 billion loan, royalty or brand is easier, quicker and more manipulable, then reallocation of manufacturing plants.

IC: Why is Hungary a good place for conducting business?

CSL: A multinational corporate group can exploit tax shields. Given 5 related affiliates with 5 different tax rates one has to consider the allocation of the credit- capital ratio. Interest is deductible from CIT and dividend is paid from taxed profit, thus capital-credit ratio determines the ETR. Furthermore, withholding tax rules differ between states. Countries A and B may have withholding taxes on interest payments, but C may not have between A and B. This means that if we provide loan directly From A to B, interest is subject to tax, while if we provide it indirectly through country C, no interest payments might be due at all. Exploiting tax shields and treaty shopping along with the thin capitalization rules determines beneficial environment for financing structures. The advantage of Hungary is (again) that the low tax rate of 9% does not involve any 'tricks'. 9% is 9%, while the other EU tax havens provides/used to provide lower rates by using creative ways. Furthermore, the country has over double tax treaties with over 70-80 jurisdictions, which makes Hungary attractive for financing structures. The country was about to introduce DAC6 rule under BEPS on 1st of July, but was postponed due to the virus with 6 months. Under this directive anyone who is involved in taxation structures (consultant, accountant, lawyer, banker) has reporting obligation towards tax authority if unfair or illegal practices are detected. In case of the 9%, no 'tricks' will be reported as it does not carry risks and is less bureaucratic, unlike in Ireland or Luxembourg, which were revealed by leaks.

IC: Income as CIT payments decreased substantially after the rate reduction. Was it worth reducing it?

CSL: The question is how much real economic benefits can be brought to the country, what the extra gained income on other tax expenses (LBT, VAT, social contribution, personal income tax, etc.) and how many jobs are created. The CIT decreased but many other factors determine taxable income. It clearly has tax loss effect, but many people say that more money will be paid in the long-term. However, no such study exists which would examine this question if it does worth.

IC: Can Hungary been considered that it is close to being a tax haven? Is it a winner or loser?

CSL: We have to consider two things. It is an economic political question, the state provides supports and tax allowance in return for attracting real economic activities. This not a classic tax avoidance strategy. Hungary is rather an active player of doing this. If an MNC receives 20 billion Ft as direct aid it has nothing to do with taxes. But if it receives it as tax allowance and can use it within one year, that might be a problem. It is hard to decide whether it is an issue of taxation or state support, but should be examined. However, whether it is direct aid or CIT support, it is irrelevant from budgetary perspective. International tax avoidance includes transfer pricing, royalty structures, financing structures (a list over 60 elements). And Hungary has been following OECD and EU directives recently. The low 9% is an attractive feature of the country and it is less true that offshore structures are operated in Hungary. The country follows data exchange rules (FACTA with the US, bank account information, public company registry, no tax amnesty) and financing royalty structures are not increasing. Furthermore, even Google and Apple have been moving real economic activities (jobs) into Ireland to defend themselves better. BEPS is strong regarding data exchange treaties and transfer pricing rules, furthermore, DAC6 is a relevant step toward anti-avoidance. There is still a long way to go but it has become more difficult to hide money.