International Double Taxation. Content, Consequences and Avoidance
- Part I -

Adriana CAZACU, ec.
Mehedinți, Romania

Abstract
This paper investigates the choice of international double taxation avoidance methods by two different companies engaged in cross border economic relations, in countries that mutually exchange foreign direct investment. We are examining the tolerance of Romanian and French investors to certain levels of tax generated by different scenarios: no Double Taxation Treaty concluded between the two countries; the existence of a Double Taxation Convention adopted by the two countries. The second part of the paper is divided into multiple sections concerning each unilateral method of avoiding the double taxation risk. Even in the presence of an international double taxation agreement, uncertainty is not entirely eliminated, affecting the foreign investment performance. Therefore, double taxation risk control is performed using two methods: exemption method and credit method (as prescribed by the OECD model treaty).

Key terms: double taxation, income, wealth, capital, legal person, exemption method, credit method

JEL Classification: K34, H87

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Introduction
In recent times, investors from around the world emphasized the significance of international diversification, as multiple studies indicated that internationally diversified portfolios produce better outcomes in terms of efficiency than the portfolios composed of domestic stocks. However, double taxation risk is believed to mitigate this potential benefit from international diversification by inducing an additional level of uncertainty. As a counteraction to this issue, the European countries critically evaluate double taxation risk attributable to international investments by taking into consideration the adoption of certain conventions, which aim to set a framework for double taxation avoidance. Through the conclusion of International Double Taxation Treaties (DTTs), the contracting states pursue the avoidance of double taxation for the same income (generated by a foreign investment) in the same fiscal year by two different fiscal sovereignties. The secondary purpose of such a treaty is to prevent tax evasion.

As an introduction, the Organisation for Economic Co-operation and Development (OECD) focuses on the harmful consequences of double taxation exercises on the movement of capital in the development of economic relations between countries. Under the laws of most states, income can be taxed based on either
source or residence. Thus, if a domestically based company in one country has income from a foreign business activity or foreign investment in another country, its income can be taxed on a residence basis by its domestic country and on a source basis in the other country. Most states emphasize an international agreement based on two principles: first, avoidance of double taxation is crucial for the normal flow of international direct investments and business activities (OECD, 2008); and second, a taxpayer’s state of residence should accept the burden of reduction in double taxation of the taxpayer’s cross border obtained income.

In this regard, Ştefănescu (1985) points out that “fiscal policy and legislation are a strict manifestation of the sovereignty of each state, therefore the phenomenon of international double taxation appears frequently, representing a difficult obstacle for foreign trade activity, especially slowing down investment abroad, technological transfer or proliferation of companies’ subsidiaries outside the national state.”

This paper examines the consequence of double taxation risk on the performance of international investments by employing two methods to reduce the tax fluctuation: credit and exemption strategies. The analysis is performed from the perspective of two countries, namely Romania and France, that mutually exchange foreign direct investments through multinational corporations (X Corp. and Y Corp.), each of them being domestically based in Romania, respectively France and both having a subsidiary in the other contracting state. Therefore, each state hosts a subsidiary operating domestically and a foreign subsidiary operating abroad (in the respective other country).

An estimation on the risk-return profile must be undertaken in order to construct the most appropriate investment strategy, considering the following issues: the existence of an international convention, which reduces the risk of double taxation, and the avoidance procedures chosen by different countries to mitigate the risk of double taxation. In our study, the above-mentioned topics are addressed with the aim of providing a theoretical research on the benefits of international diversification. Specifically, the main objectives of this paper are the following:

- to study the relevance of double taxation conventions and their impact on foreign investments by employing a theoretical approach;
- to investigate the tax level evolution of different investment alternatives and the proportion of tax variability attributable to double taxation avoidance methods by using a practical technique;
- to formulate a conclusion about the role of double taxation avoidance and the consequences of international tax agreements concluded between Romania and other states.

The paper is organized in several parts. Section I approaches a general perspective of the double taxation principles: the emergence of international double taxation, the need to eliminate double taxation, unilateral measures of international double taxation avoidance and, implicitly, double taxation avoidance treaties. In addition, we are focusing on the double taxation relief methods (both conventional and unilateral) and on the OECD Model Convention which made the creation of a framework for bilateral tax treaties possible. Section II contains the review of the literature relevant for the topic. Section III addresses taxation treaties from two perspectives: avoidance methods and the tax level variability across them. We have employed a practical case study, which is a comparative analysis between the relief procedures in international double taxation avoidance (the total exemption method and the progressive exemption method, the total credit method and the partial credit method). The purpose of this examination is to assess the double taxation relief effects both on the tax burden assumed by the companies engaged in cross-border operations as well as on the tax revenue obtained by each contracting state as a consequence of concluding a double taxation convention. Section IV presents the empirical evidence, while the last part of the paper presents a summary of the findings and results.
General aspects of international double taxation

The emergence of international double taxation

Cross-border economic relations, the globalization of the international market and the interdependence between different countries have resulted in the emergence of double taxation as more and more economic agents headquartered in a specific state carry out cross-border activities and obtain profits through subsidiaries located in other countries.

In this context, in the case of a company domestically registered in country X, partial or total corporate profit tax attributable to the exertion of foreign activities in country Y can be claimed by each of the respective states in the absence of an international tax agreement. Due to the importance of inter-country activities and the barrier that double taxation imposes on them, the OECD has developed a model for country-pairs to use in negotiating Double Taxation Treaties which are intended to eliminate the problem of double taxation.

Double taxation is the levying of taxes on the same income (or capital) of the same taxpayer in the same period, across two jurisdictions. “The emergence of international double taxation is therefore the consequence of the overlapping of two fiscal sovereignties, each of them exercising their right to impose a certain tax level on the activities carried out on the territory under which their jurisdiction operates or which belongs to a taxpayer residing in its territory.” (Văcărel, 1995) Therefore, the differences in national tax systems in terms of structure and the variability between corporate income tax rates across states lead to the emergence of double taxation which has as consequences higher tax burdens borne by the taxpayers and a decreased level of cross-border investments.

The double taxation phenomenon is specific to direct taxation and it applies only to the income and wealth obtained by the taxpayer. It is impossible to occur in indirect taxes such as value added tax. A citizen of a state which carries out purchasing activities in the territory of another state bears the same taxes as the ones imposed to goods and services acquired by nationals of that state.

The appearance of international double taxation is based on criteria that underlie the taxation of income or wealth: the criterion of residence (fiscal domicile), of citizenship and of the territoriality.

In order to establish the fiscal domicile of a legal person operating in two states that have concluded a double taxation agreement, we have to take into consideration the following international practice.

The company is considered resident in the state in which the board of its effective management is located, meaning where it has a permanent establishment, which is either legally owned or rented. Permanent establishment means a fixed place of business through which an enterprise carries on its business in whole or in part. The condition is that this place is to be used the majority of the year, not temporarily. If the company has a permanent establishment in each of the two signatory countries of the convention, it is considered a resident of the state in which it has the closest economic relations. If the company does not have a permanent establishment in either of the two states, the legal person is considered a resident of the state in which it has the nature of nationality.

As far as the citizenship criterion is concerned, taxes and duties apply on income obtained both in the country and in relation to cross-border activities. For internationally obtained income, the collection of taxes and duties attributable to it by the domestic country is applied only if no taxes or duties were paid in the state where the income was acquired or if there is a difference between taxes and duties paid abroad and those due in the territory of the state concerned. Taxes and fees apply to income obtained on the territory of the state, regardless of whether the beneficiary or acquirer is a citizen of that state or a foreign enterprise. As an exception
to this rule, deductions are established for certain incomes acquired by citizens according to the conventions concluded for this purpose.

- **The need to eliminate double taxation**

  Double taxation has negative consequences on the international movement of goods, services and capital, and constitutes a barrier for the development of cross-country economic relations.

  Firstly, dual taxation of income is a downside for legal persons. As a response to the high level of tax burden, companies tend to diminish the need of engaging in foreign direct investments. However, various research has indicated that internationally diversified portfolios generated better outcomes in terms of efficiency than the portfolios composed solely of domestic investments. In this context, in order to maximize the outcome, more and more companies can resort to foreign investments in countries where the tax systems ensure a lower level of corporate income tax and an even lower risk of international double taxation through International Double Taxation Agreements between the domestic and the host countries.

  Secondly, double taxation has also negative effects for the contracting states as well. Although, apparently, a high degree of tax represents an advantage for the state in terms of revenue, it can only be true if such a tax is collected. The increased level of taxation ends in a decrease in investments that eventually affects tax revenues negatively and therefore economic growth. Thus, the apparent advantage of excessive taxation ultimately has an adverse effect on the economic development.

  The purpose of eliminating double legal taxation is to reduce or mitigate the unfavorable impact of international double taxation by introducing fiscal rules designed to prevent repeated taxation by two or more different jurisdictions, granting deductions and reductions of taxes paid abroad or improving domestic law. Concerning this matter, states, as well as fiscal authorities, have proposed and adopted various measures to support double taxation relief. The most common ways to avoid double taxation are national regulations and bilateral or multilateral conventions across states.

- **Unilateral measures of international double taxation avoidance**

  International double taxation occurs in the following scenarios:
  - the contracting states apply taxes on the integral income of the same legal person (the principle of worldwide income);
  - a person who is a resident of one of the signatory states acquires income in the other contracting country and both tax authorities tax such income or wealth;
  - each contracting state is taxing the same person, who is not a resident of either of them, but operates in one of the contracting states through a permanent establishment, a phenomenon known as partially concurrent taxation taking place.

  In the international taxation practice, there are two common procedures of double taxation avoidance: A country may exempt its residents from tax on incomes from investments and activities performed outside the country or it may include foreign source income in the tax base of the residents, but allow a credit for taxes paid to other countries. Other countries use a mixed approach, applying either the exemption method or credit method to certain types of activities. Historically, many English speaking countries, including Canada, UK, Australia and the United States, have applied credit systems, while European countries have had exemption systems.
1. Exemption method – according to which the domestic state of the company, which acquires a certain income abroad, does not tax the profit. According to the international tax conventions, it is taxed in the other state (the source state). This method can be applied in two forms:

a) Total exemption – implies that, in the determination of the taxable base, the residence state will not take into account the taxable income obtained by the company in the source state, nor the income related to a permanent establishment in the other contracting state. Therefore, the state of residence grants a tax exemption, disregarding the existence of income from the other contracting state. Regarding the application of this method, the OECD and United Nations Model Conventions provide: “Where a resident of a contracting state derives items of income which may be taxed in the other contracting state in accordance with the provisions of Articles 10 and 11 (except to the extent that these provisions allow taxation by that other state solely because the income is also income by a resident of that state), the first mentioned state shall allow as a deduction from the tax on the income of that resident an amount equal to the tax paid in that other state. Such deduction shall not, however, exceed that part of the tax [...] which is attributable to such items of income derived from the other state.” (OECD – Model Tax Convention on Income and on Capital, Chapter 5, “Methods for Elimination of Double Taxation”, Article 23 A, “Exemption Method”, Paragraph 2);

b) Progressive exemption – requires the taxable income obtained in the source state or in the state where the company is permanently established not to be taxable in the residence state. However, this income is taken into account when determining the tax rate of the taxpayer’s worldwide income. “Where in accordance with any provisions of the Convention income derived or capital owned by a resident of a contracting state is exempt from tax in that state, such state may nevertheless, in calculating the amount of tax on the remaining income or capital of such resident, take into account the exempted income or capital.” (OECD – Model Tax Convention on Income and on Capital, Chapter 5, “Methods for Elimination of Double Taxation”, Article 23 A, “Exemption Method”, Paragraph 3);

2. Credit method – according to which the state of residence calculates the tax owed by a resident based on the total volume of income of the taxable subject. This implies that the state of residence will include in the taxable base both the taxable income obtained from the source state and the taxable income obtained in the state in which the permanent establishment or fixed base is located. Eventually, a deduction from the payable tax burden will be granted, equal to the income tax paid in the other contracting state. It also has two forms, namely:

a) Total credit – in which the state of residence deducts from the tax owed (attributable to the total taxable income obtained by the taxpayer both domestically and abroad) the total amount of tax paid in the other contracting state;

b) Partial credit – according to which the state of residence deducts (given the condition that the tax was paid in the other contracting state) an amount which may be equal to or less than the volume of tax which would be paid in the state of residence for the same income as the one obtained in the source state. The use of one of these procedures allows for the reduction of taxes due to the recognition of taxes paid abroad, a part of which is eventually subtracted from the tax burden in the residence state.

“Such deductions in either case shall not, however, exceed that part of the tax or capital tax, as computed before the deduction is given, which is attributable, as the case may be, to the income or the capital which may be taxed in that other state.” (OECD – Model Tax Convention on Income and on Capital, Chapter 5, “Methods for Elimination of Double Taxation”, Article 23 B, “Credit Method”, Paragraph 2).
Double Taxation Avoidance Treaties

The starting point in the adoption of common practices regarding double taxation is the year 1955, when the Organisation for Economic Co-operation and Development adopted the first recommendation in this context. At that time, there were 70 general bilateral treaties concluded between states that later became OECD members.

Therefore, the solution imposed by the OECD member states was to draft and adopt a Model Convention (in 1963), which would ensure the means of establishing a fiscal solution, on a unitary basis, which addressed the most common problem, the issue of international double taxation. In other words, the Model Convention seeks, where possible, to specify for each situation a certain rule, by defining taxable basis, harmonizing tax definitions, assigning taxation jurisdictions and indicating the mechanisms to be used to avoid double taxation in case it arises. However, “… treaties certainly differ from each other along many dimensions which are very difficult to quantify. In addition, the same treaty on paper can have vastly different consequences for different pairs of countries depending on the unilaterally adopted tax practices of the countries before entering the treaty”. (Davies and Blonigen, 2002) Therefore, at certain points, a degree of flexibility was necessary in the regulations of Double Taxation Convention.

Member states shall enjoy a certain freedom with regard to the determination of the tax rate by withholding tax on dividends and interest, the choice of double taxation relief method, the fulfillment of certain conditions and the proportional distribution of profits for a permanent establishment.

As Baker (2012) also mentions, the Double Taxation Conventions have an additional role, namely “a second purpose of DTTs is to prevent tax evasion. Therefore, the model convention also includes articles with respect to cross-border transactions between associated enterprises, information-sharing between the contracting states and restricting access to treaty benefits to residents of the contracting states”.

The importance of the Model Convention should be assessed not only judging by the large number of conventions concluded between the member states of the Organisation for Economic Co-operation and Development, but also by the fact that the impact of this Model Convention has expanded, becoming a reference document in negotiations.

Literature review

In the current globalized economy, the diversification and the expansions of cross-border economic relations determined frequent scenarios where multinational corporations belonging to a specific state derives profits from sources in another state. As far as each concerned country can claim tax jurisdiction, totally or partially, over the income obtained, this phenomenon created the coexistence of multiple complementary or competing fiscal systems, therefore causing multiple taxation of the same income (Alexandru, 2003).

Thus, international tax can lead to double taxation, which is the base of excessive taxation of certain taxpayers, constituting at the same time a barrier to capital movements and investments, which in fact determines the reduction of cooperation between countries and a decrease in the level of cross-country economic and financial connection. (Moșteanu, 2003).

In time, researchers in the field of international tax legislation have been formulating different definitions of international double taxation. For example, Spitz (1972) considers that international double taxation “occurs when the tax authorities of two or more states collect taxes concurrently with the same basis or the same impact in such a way that a person may bear a heavy tax obligation than if it would be subject to a single fiscal authority”.
Similarly, Romanian academics identified some common characteristics of the phenomenon of double taxation. Văcărel et al. (2007) state that international legal double taxation is seen “as submission of certain taxable raw by two different states, to the same type of tax, to the same financial year”, while Bistriceanu and Boajă (2006) note that “when income and property are imposed by the two countries on the same type of tax and in the same financial year, is an international legal double taxation.”

The healthy evolution of foreign trade and cross-border investment opportunities requires the adoption of appropriate measures of double taxation relief on income obtained in relation with foreigners. These procedures have the objective to secure a normal course of inter-country cooperation and mutual promotion and amplification of investment diversity (Condor, 1999).

In the specialized literature, the effects of double taxation avoidance methods on the international transfer of capital and investment opportunities has long been under examination, identifying primarily two methods of double taxation relief, the credit method and the exemption method.

The early studies of Hamada (1966) and Musgrave (1969) analyse the double taxation avoidance strategies from the point of view of its welfare consequences on given capital tax rates.

Musgrave’s (1969) study indicates that from a national point of view, a capital exporting country would obtain a higher level of capital allocation efficiency if it chooses to apply the deduction method. On the other hand, when it comes to global efficiency, a capital exporting country would be better off when choosing the credit method as a means of avoiding the negative effect of double taxation risk.

In contrast, Hamada (1966), employing a simple model on international capital movements, similar to the one introduced by Kemp (1962), finds that choosing a tax credit system may allow both parties to be better off than a tax deduction system. This possibility is determined by the ability of the tax credit strategy to yield a more efficient allocation of capital. In order to test this theory, he presents the case of two countries, which mutually invest in each other, based on the principle that taxation of income from investment activities is the major strategic decision. His findings demonstrate that international tax treaties to avoid the double taxation risk eventually lead to joint product maximization achievement.

The various double taxation relief methods were studied in association with strategic incentives attributable to the choice of tax rates. One of the studies which examines this case is the paper “Strategic Behaviour and the Rules for International Taxation of Capital” belonging to Bond and Samuelson (1989), which creates a comparative analysis between the deduction and credit methods using discriminatory tax rates. Following the principle of equilibrium in two countries, they demonstrate that international capital flows have the tendency to cease as the use of credit method generates prohibitively higher tax rates.

In contrast, opting for the deduction scheme, both countries obtain higher welfares and therefore this method is preferable from a national and global perspective. This result is explained by the conditions under the Nash Equilibrium based on which the authors state that: “Under the tax credit system, strategic behavior by the two countries leads to the elimination of trade in capital. The host country attempts to set a tax rate at least as high as the source country tax rate in order to capture tax revenue. The source country attempts to set a tax rate higher than the host country tax rate in order to gain some benefits from restricting capital flows. The only Nash Equilibrium will then occur when tax rates are set so high that there is no trade in capital. The tax deductions system, in contrast, yields an equilibrium with trade in capital in which both countries are better off than in the tax credits equilibrium. The equilibrium analysis thus reveals that tax credits rather than deductions produce an anti-trade bias and that capital exporters as well as importers will prefer deductions to credits.” (Bond and Samuelson, 1989).
Employing a strategy of non-discriminatory tax rates, in his paper “Corporate Income Tax Competition, Double Taxation Treaties, and Foreign Direct Investment”, Janeba (1995) indicate that capital importing states should apply for source taxation of capital in order to improve the trading conditions, while capital exporting country would be better off by abstaining from taxing capital. The study shows that both the adoption of the exemption and the credit method by the home country would yield efficiency in both countries. However, the major advantage of the credit method is that neither tax rate harmonization nor compensatory payment are necessary, compared to the case of the exemption strategy.

Davies (2002) has brought into light the choice of double taxation avoidance methods according to the OECD model convention, which implies that both the exemption and the credit methods would be recommended when using non-discriminatory tax rates. Having the purpose to assess the influence of host capital on investor’s and government’s behavior, the study is performed by analyzing a scenario where a capital exporting country (home) and a capital importing country (host) simultaneously set tax rates on the profit obtained from economic activities in order to maximize their national income. Under credit and exemption double taxation relief methods, higher home tax rates determine the increase in outbound investment, but lowers home national income. Under these circumstances, the best response would be the setting of a zero tax rate to promote the flow of foreign direct investment and higher national gains in both countries.

A common feature of the above-mentioned contributions to the specialized literature is that they are concentrating on the expansion of national income using taxes imposed by large countries. The following studies bring into light the role and consequences of double taxation relief methods under the conditions of tax competition model where the mobile capital taxation is used to finance public goods.

One paper elaborated in this context is represented by the study of Gordon (1992), “Can Capital Income Taxes Survive in Open Economies?”. In his research, a different model is employed, formed of one large capital exporter state and many small capital importer states. The result revealed that, in the case when the capital exporter concludes a double taxation treaty, the importing countries of capital would have an incentive to tax the import of capital at the same income tax rate imposed by the exporter country. The explanations come from the following assumption: “Since multinationals receive a full credit against their domestic taxes for taxes paid abroad on foreign-source income, these tax payments cost the firms nothing and do not discourage investment, yet still collect tax revenue. The capital exporting country, by adopting this convention, can then set the capital income tax rate worldwide when it sets its own tax rate. By inducing capital importing countries to adopt a source based capital income tax at the same rate it uses, through use of the double taxation convention, the capital exporting country eliminates the incentive its residents would otherwise face to evade domestic taxes by investing entirely abroad.”

As Gordon argues, the same situation would not be possible under the circumstances of exemption method, as the capital exporting country would not impose a capital tax on home firms. This is the reason why the credit method is preferred in this scenario, because it reduces the under-provision of capital goods caused by source based taxation.

Similarly to the study of Janeba (1995), in their paper “Optimality Properties of Alternative Systems of Taxation of Foreign Capital Income”, Mintz and Tulkens (1996) assume discriminatory tax rates with the purpose to demonstrate that both double taxation avoidance methods are nationally optimal tax system. However, differently than the study of Janeba (1995), they are employing two small countries, which mutually exchange foreign direct investments. Their findings exemplify the case where each of the two small countries is motivated to partly shift the tax burden onto the other contracting party, definition of the tax export, which eventually leads to inefficiently high taxes.
A more recent paper, “Exemption vs. Credit Method in International Double Taxation Treaties” of Dickscheid (2004), investigates the alternatives systems of double taxation relief in a bilateral double taxation treaty on a two-stage basis. In the first stage, two countries that mutually invest in one another choose between credit and exemption methods (recommended by OECD or the UN model treaty), while in the second stage of the paper each party sets nationally non-discriminatory tax rates on capital in an optimal way, contrary to Mintz and Tulkens (1996). Both the OECD and the UN validate the non-discriminatory character of taxation.

As far as the principle of tax competition is concerned, each country seeks to maximize its revenue from capital taxes generated in the source state with the purpose of financing public goods when the national resources are insufficient.

The findings reveal that under the conditions of perfect equilibrium, each country chooses to apply the exemption method to the detriment of credit method. The reason is illustrated by the fact that the mutual application of the exemption method generates the highest yields in terms of welfare for each of the two countries involved. The same conclusion is valid when the countries individually set the tax rate on capital. Even though the tax export effect determines, in general, both parties to set inefficiently high tax rates, this outcome is diminished if both countries chose to exempt the income attributable to cross-border activities from the domestic income.

In a setting of international tax competition, Oakland and Xu (1996) examine the impact that alternative income tax policies generate over the capital flow evolution and economic welfare. They design a comparative study between a fully deductible system of taxable income and one that assumes no allowance for foreign taxes. The theory is demonstrated by a two-country model, similar to the one used by Bond and Samuelson (1989), in which the home country is a capital exporter and the host country is a capital importer, both of them seeking to maximize the national welfare by choosing the tax rates to impose.

In their research, Oakland and Xu (1996) assume three policies of international taxation: “Three principal alternatives suggest themselves: (1) full tax credits for foreign taxes paid; (2) full deduction of taxes paid from taxable income; (3) no allowance for foreign taxes paid. Of the alternatives, (1) is the most generous to the investor. If the exporting country’s tax rate exceeds that of the host country, policy (1) effectively repeals the latter’s tax. Policy (3) is often labeled as double taxation because the exporting country’s tax is levied, in part, on the tax collection of the host country. Such an outcome is avoided by policy (2), which treats host country taxes as a cost of earning income; hence, in terms of tax burden, it occupies an intermediate position relative to policies (1) and (3).”

From the above statement we can observe that the policy, which implies no allowance for foreign taxes, has the lowest tax burden on the taxpayer. This conclusion is in line with the findings of the paper, which revealed that a capital exporting country would always benefit from a system with no deductibility because the national income, welfare and equilibrium capital flows are always greater than the ones generated by a system with full deductibility.

Each state has the right to tax as one of their sovereign powers, but different countries might have different tax law systems and therefore these differences often cause double taxation or, on the contrary, non-taxation of some entities operating in more jurisdictions.

As a response to the above-mentioned phenomenon, countries concluded Double Taxation Treaties as international instruments to regulate the taxing rights between countries, reducing uncertainty and reinforcing cross-states direct investments. The role of DTTs is also to limit tax evasion by improving the information exchange
between contracting countries. The following papers have the purpose to determine the impact of Double Tax Convention on foreign direct investment.

Under this scope, Baker (2012), in his research “An Analysis of Double Taxation Treaties and Their Effect on Foreign Direct Investment”, is employing a segmented data model to show that DTTs have no impact of foreign direct investments (FDI) when these are performed by a developed country to a less developed one. As data set, Baker used the outward FDI flows over three time adjacent segments, 1991-1995, 1996-2000 and 1999-2003, in order to reflect the dynamic possibility of the model in time.

The reason for his findings is based on the principle that regardless of the treaty status of the host country, the developed state unilaterally focuses on double taxation relief and prevention of the fiscal evasion. According to his study, more than 50% of the DTTs concluded after 2008 have been performed between a developed country and either a developing or transitioning state. Over time frame between 1990 and 2010, it was registered an increased level of FDI flowing from both developed and developing countries. Their result is exemplified in the below figure.

Source: Barthel et al., 2010.

In terms of the dataset used, Barthel et al. (2010) performed their research on a large unpublished set of bilateral FDI stocks, covering an expanded and more representative sample of countries. They employ various econometric specifications to indicate that DTTs result in higher investment stocks with important effects. They argue that the main advantage of their research compared to the existing literature is the dataset composed of an unprecedented number of both source and host states over a relatively long time period, which reduces the risk of distorted results due to a sample selection bias.

By using fixed effects estimations, Neumayer (2007) discovers that the conclusion of Double Taxation Treaties is associated with a 22 percent increase in FDI outbound stocks. The author is employing a dataset of 114-120 host countries (separated into two subsamples of middle and low income developing countries) and the DTTs concluded over the period between 1970 and 2001. He is arguing that a higher number of cumulative double taxation conventions determines both a higher FDI stock level, as well as increased FDI inflows, with an accentuated result for the middle income developing countries.

To be continued...
### References