Corporate Taxation and International Profit-Shifting: A Survey of the Evidence and Directions for Policy

by Nicolas Germain

1731148

Major Paper presented to the

Department of Economics of the University of Ottawa

In partial fulfillment of the requirement of the M.A. Degree

Supervisor: Professor Jean-François Tremblay

ECO 6999

Ottawa, Ontario

December 2014

Abstract

This paper aims to inform international tax policy development in light of three of the most prominent tax avoidance channels: treaty shopping, debt structure and transfer pricing. Looking at Canadian domestic tax laws as well as the tax treaties, I find that although several policies in place work well to counter profit shifting, the rules would benefit from strengthening. Specific, quantifiable tests such as those of the limitation-on-benefits article in tax treaties are more effective than overarching rules such as the general anti-avoidance rule of the Income Tax Act to combat treaty shopping. Thin capitalization and earnings stripping tests should be widened to include third-party debt and should have added flexibility to recognize that different industries require different levels of leverage. For transfer prices, priority should be given to two-sided profit allocation tests whenever a satisfactory comparable uncontrolled price cannot be found as opposed to the simpler one-sided tests. I also advance policy proposals that are more difficult to implement but that may have a greater impact. Multilateral tax agreements can obviate treaty shopping. A comprehensive business income tax would invalidate profit shifting through debt and a formula apportionment can potentially render profit shifting through any channel obsolete.

Table of Contents

1 - Introduction

There is a growing perception that substantial corporate tax revenues are lost because of international tax planning. Multinational companies can structure their activities and transactions in such a way as to obtain more favorable tax treatment than was intended by governments or they can even escape taxation entirely.

Low corporate taxation is not necessarily bad. When it is achieved through profit shifting, however, elected officials lose the ability to establish effective corporate tax rates in their jurisdiction. In addition, lower corporate tax receipts force governments to shift the burden of tax to other actors in the economy, namely wage earners and consumers. The public, exposed to media reports, views low effective corporate tax as unfair, which undermines the integrity of the tax system. Smaller domestic firms, which do not have access to international tax planning strategies, are at a competitive disadvantage relative to international firms which leads to less innovation and a less competitive world economy. From a global welfare point of view, inefficient allocation of resources will result from international firms targeting projects with a higher after-tax return but lower before-tax return. Governments therefore agree actions should be taken to ensure their tax sovereignty, as made evident by the Organization for Economic Co-operation and Development's (OECD) recent focus on the issue.

This paper considers recent international tax policy developments, with a particular focus on the Canadian context. I identify the main channels through which multinationals can shift profits thereby causing base erosion. I detail the tools at the tax authorities' disposal to counter this profit shifting and evaluate their effectiveness. Countries face differing situations and incentives that make cooperation and agreement on international rules difficult. These incentives are examined and incorporated in the analysis. Finally, I propose policies that can be applied in the short term to limit base erosion as well as long-term actions that hold the potential of dealing decisively with profit shifting and base erosion issues.

While existing base erosion rules are effective at curbing the use of certain channels, these rules should be strengthened. Quantifiable tests measuring actions are preferable to general rules based on the taxpayer's intent. Rules on interest deductibility should be expanded to include loans from third parties and should have flexibility with regards to different industries' circumstances. Transfer pricing based on only one tested party should be discouraged in favor of two-sided tests. In the longer term, governments should prepare for multilateral tax agreements, comprehensive business income tax and formula apportionment.

2 - Empirical Evidence of Profit Shifting

Early studies examining base erosion focus on foreign direct investment in tax havens. Hines and Rice (1994), for example, offer as evidence the extraordinarily high profit rates on tax haven investments. In fact, in 1982, one third of foreign profits of American multinationals were derived from these tax havens despite representing 4.3% of the multinationals' foreign employment and 4.2% of its plants, property and equipment, a result consistent with profit shifting behavior.

Despite being the focus of early academic attention, tax havens are not the full extent of profit shifting. Bartelsman and Beetsma (2003) demonstrate that profit shifting takes place between large, developed countries as well. They isolate the effect of profit shifting from the effect of tax on real activity by regressing the ratio of total value added to wages payments on tax rate differences. For the manufacturing sector, they estimate that 65% of the additional revenue from a unilateral tax increase is lost to other OECD countries. Considering the amount of intra-firm trade between developed countries, this is not surprising. More trade linkages offer more opportunity to shift profits whereas it can be more difficult to justify to tax authorities shifts to tax havens where little or no real activity takes place.

The effect of variations in the tax rate on profitability, even while controlling for changes in real activity as accomplished by Bartelsman and Beetsma (2003), may give biased results due to unobserved variables. For example, changes in the tax rate may be correlated with changes to the country's political or social environment, which can affect a firm's profitability, leading to spurious results. Consequently, Dharmapala and Riedel (2013) propose a different identification strategy. Exploiting exogenous earning shocks at a parent firm, they investigate how these shocks propagate across the firm's high and low tax subsidiaries. They find further evidence of profit shifting since a positive shock to the parent's earnings has a significant effect on the low tax affiliates' reported profit relative to the high tax affiliates'.

Multinationals do not only shift profits to tax havens or between parent and foreign affiliate. They can also shift between affiliates. Huizinga and Laeven (2008) find that profit shifting activities are dependent of the tax regimes of all the jurisdictions in which a multinational operates, not just the tax rate difference of parent/affiliate pairs. Furthermore, studies looking strictly at the parent/country pairs would underestimate the extent of profit shifting due to a headquarters bias. Multinationals tend to shift profits towards the parent when its tax rate is lower than the affiliates' but the shifts away from the parent when it is located in a high tax country are considerably smaller. Dischinger and Riedel (2013) offer supporting evidence of the headquarters bias using a European dataset.

Profit shifting can be accomplished within an intra-national setting as well. Mintz and Smart (2004) take advantage of the fact that groups of Canadian corporate affiliates submit provincial tax returns individually whereas multi-province companies that do not incorporate separate affiliates in each province submit a consolidated tax return and the profit is distributed to provincial jurisdictions using a formula based on real activity. The elasticity of taxable income with regards to the tax rate is far greater for the former since they have the ability to shift profits between affiliates than it is for the latter since the apportionment formula they must follow is statutory.

3 - Profit Shifting Channels

There are a number of channels that multinationals may use to shift profits away from the location that generated the profits to lower tax jurisdictions. This section will examine those channels and strategies to better inform policy meant to counter base erosion.

Treaty Shopping

Tax treaties are agreements between two countries to mitigate the effects of double taxation. Prior to tax treaties, when a foreign investment was made, both the country in which the income was produced (the source country) and the country which supplied the capital (the residence country) would fully tax profits. Tax treaties are intended to reduce barriers to trade by reciprocally reducing the required taxes of one country for residents of the other country. Treaties' provisions may vary greatly but many are based on a model convention provided initially by the League of Nations, then by the United Nations and the Organization for Economic Co-operation and Development (OECD).

To minimize the amount of tax they pay, firms can route profits through different countries to take advantage of the specific conditions of tax treaties in force in those countries, a strategy often referred to as t*reaty shopping.* Specifically, treaty shopping is the practice of a firm not entitled to the benefits of a tax treaty in a country to obtain these benefits by way of artificially establishing operations in a third country using conduit entities or special purpose vehicles. The conduit entity's tax residence being in one of the treaty countries, it claims the benefits of the tax treaty despite the fact that the persons that will ultimately benefit from that income should not be entitled to those benefits. All laws, whether domestic or international, have been respected therefore this practice is not considered tax evasion. Firms are simply utilizing treaties, meant to relieve double taxation, as legal means to obtain less than single taxation.

The simplest way a firm can gain the benefits of a tax treaty despite not being a resident of either treaty country is by the ***direct conduit strategy*** with the use of special purpose entities (SPE). SPEs, such as financing subsidiaries, holding companies and shell companies share common features: they are legal entities with their own tax residency, they typically employ very few and have little by way of operations or production, they are owned and controlled by a non-resident and all their assets and liabilities are foreign investments (OECD 2013a). In effect, SPEs serve to channel funds from a non-resident to another non-resident while the SPEs' managers have little or no discretion as to how to deploy their resources.

To illustrate the conduit strategy, let us say a firm residing in country A (the country of residence) derives business income from country B (the source country) which does not have a tax treaty with country A. The firm could incorporate a conduit company in another country (country C) which benefits from tax treaties with both A and B. Profits would be channeled from B to C and from C to A with the benefit of no or lower withholding tax. The net result is that country B receives less tax revenue, the conduit country (country C) receives more tax revenue and the firm pays less total tax than if the income was transferred directly from B to A. In this case it is clearly to the benefit of country C to allow the use of conduit companies, to the detriment of country B.

Lower withholding tax rates are not the only benefit that can be obtained in this fashion. While a large percentage of treaties are based upon the OECD's model convention, many treaties contain other, specific clauses that resulted from bilateral negotiations. Multinationals can tailor their structure based on those specific clauses. An example of this strategy will be presented using the case of capital gains realized on publicly listed shares using the Canada-Luxembourg treaty in the section on the current policy landscape below.

A second commonly used tactic is called the ***stepping stone strategy*** (Kallas, 2002). As before, a firm whose tax residence is in country A derives income from country B. The firm established an SPE in country C which benefits from a low tax regime. The SPE either owns assets (often intellectual property or other intangibles) that it leases to the firm in country A, makes loans to that firm, charges commissions, royalties or management fees under a special tax exemption regime. Alternatively, country C can be a high tax if that country regards the activities carried on in the SPE to not be significant enough to produce a taxable presence[1]. Profits flow from country B to country A but are offset by the payments the affiliate in country A makes to country C, which country A deems deductible. In the end, the profit that would have been registered in country A is shifted in country C at no or low tax, effectively eroding country A's tax base.

The domestic tax laws of different countries do not uniformly recognize the legal structures of certain entities, such as trusts, partnerships and limited liability corporations. One country can consider this kind of entity as a taxable person while another country considers it "transparent" for tax purposes in a way similar to check-the-box rules in the United States.[2] To demonstrate the application of this *hybrid entity strategy* (OECD, 2013a), assume a firm in country A receives a loan from its parent in country B. The interest payments will be deductible in country A but country B considers the firm fiscally transparent for tax purposes and the receipt of income is therefore not subject to any tax. The result is a deduction without accompanying taxable revenue, violating the reciprocity principle. While tax treaties are not what make this strategy possible as much as gaps and frictions in domestic tax laws, treaties remain the most appropriate tool to address the situation.

Results similar to those of the preceding example can be achieved using a *hybrid instrument strategy* (OECD, 2013a). Certain financial instruments, such as preferred shares, exhibit features similar to both debt and equity. If country A considers the instrument to be debt and country B to be equity, a payment from a subsidiary in country A would be deductible as interest but would be considered a dividend in country B. This is especially advantageous when country B employs a territorial tax regime[3] since no tax would be levied on the dividend; it would be deemed foreign active business income.

To summarize, treaty shopping refers to a situation where a person or firm not residing in either treaty countries establishes operations in one of the treaty countries to obtain treaty benefits they were

---

[1] Article 5 of the OECD's model convention, on which most tax treaties are based, grants the source country the rights to taxation only if the firm has a "permanent establishment" in that country

[2] The check-the-box rules consider certain payments between foreign affiliates owned by the firm to be non-events. The payment is not deductible for the debiting firm and not taxable for the firm receiving the payment since a firm cannot transact with itself and no taxable passive income is attributed to the parent company.

[3] A territorial tax regime refers to the practice of taxing only domestic income. Foreign sourced income is not taxed. For example, Canada does not tax foreign active business income. In contrast, a worldwide tax regime taxes income regardless of where it is earned. (Advisory Panel of International Taxation, 2008)

not intended to receive. The result is that the benefits of a treaty negotiated between two countries are extended to a resident of another country in a way not intended by the treaty countries. Incidentally, since no tax treaty exists between the third country and the country where the income was generated, residents of the source country would not have access to the same benefits for any income earned in the third country.

While there is unfortunately no data that would allow us to quantify the loss of tax revenue to treaty shopping, anecdotal evidence suggests the amounts are substantial. The New Zealand government settled cases of hybrid mismatch with 4 banks for a sum exceeding NZD 2.2 billion (OECD, 2012b). Apple and Google achieve a very low effective tax rate by routing profits through Irish and Dutch subsidiaries (Graetz and Doud, 2013).

Tax treaties generally include provisions for the sharing of information and collaboration on tax avoidance issues. Since the residents of the third country can access the benefits of tax treaties without the third country having to negotiate their own treaties, the third country's authorities have less incentive to engage in negotiations (Dept. of Finance, 2013). This leads to less openness and collaboration in tax administration, making it easier for countries to opt to engage in harmful tax competition, such as tax havens and countries encouraging the use of conduit companies. In some cases, the income may avoid taxation altogether, especially if the country of residence has adopted a territorial tax regime and exempts foreign income. In the end, the result is erosion of the tax base and a shifting of the tax burden to other actors in the domestic economy, namely labour and consumers (Schwarz, 2007).

Transfer Pricing and Intangible Assets

When two unrelated companies engage in trade, both parties are expected to try to maximize their respective profits and the price on which they will settle is considered the market price. However, when two subsidiaries of the same multinational engage in a trade, the group's profit maximization does not occur if both parties negotiate a market price. It occurs, though, if the multinational firm registers its profits in the jurisdiction with the lower tax rate (Madiès, 2003). It therefore has an incentive to overprice (underprice) the trade if the source country has a lower (higher) rate of tax than the recipient country. Since intra-firm trade represents a large proportion of international trade (Clausing, 2001), transfer pricing abuse may be a large contributor to profit shifting.

Authorities have long recognized this threat; the model convention upon which tax treaties are based includes an article dedicated to this purpose. Article 9 of the model convention stipulates that for trades between related firms and firms under common control, if the profits resulting from one or a series of transactions are different than if the trade has been made between independent enterprises, the country's tax authority can adjust the price. In other words, the price to use for intra-firm trades is the market price. This is called the arms-length principle. The OECD also sets out guidelines and detailed methods of determining the market price in the *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrators* (OECD, 2010a).

When a market exists for the goods being traded, the arm's length principle provides a useful price benchmark. For products where no market exists, however, the application and enforcement of the arm's length principle is no simple task. Take, for example, a small subcomponent developed by a firm to fit in a specific assembly. The subcomponent would not fit in any other firm's products therefore no market for it exists. The OECD guidelines set forth a variety of different methods to calculate an appropriate transfer price. Since the firm can choose which method to utilize, there remains some leeway for firms to engage in profit shifting by choosing the method most favorable to them.

Swenson (2001) provides evidence of this type of price manipulation by examining changes in the price of American imports and exports when exposed to changes in tax incentives. She finds a statistically significant yet modest effect. Clausing (2001), on the other hand, finds that effective tax rate differences have a very large effect on trade flows. These contradictory results can be reconciled when considering that trade flows include transactions of an intangible nature that would not have been considered by Swenson's study of duties paid on imported/exported goods. These intangible assets include digital assets/software or intellectual property (patents, copyrights, trademarks and business secrets). If the majority of profit shifting using prices were to be concentrated in the pricing of intangibles, it would explain Swenson's results.

Intellectual property and digital assets (IP hereafter) income and royalties are highly mobile; there exists strong tax competition amongst countries to attract this income. Merrill et al., (2012) provides us with examples. Hungary offers a deduction of 50% for IP royalties and gains of the sale of qualified IP that can offset up to half a firm's income, resulting in an effective tax rate of 5%. Belgium allows a deduction of 80% of patent income while expenses are deductible at the normal corporate rate, which can result in a negative effective tax rate. The Netherlands also taxes IP income at a rate of 5%.

The base erosion problem stems from the allocation of the IP to a low-tax jurisdiction and then using advantageous transfer pricing to shift profits to that jurisdiction. One way this can be accomplished is by the outright sale of the IP from the parent where it was developed (usually a high tax country) to a subsidiary in a country with generous IP taxation rules. To the extent that the parent receives a lower price than if it had sold the IP to a third party, the firm reduces its tax burden. Alternatively, the parent can retain the IP but license it to the low-tax subsidiary in exchange for royalties, where it will be used to generate business income. Should the royalties be kept low (achievable since the firm can argue that all the business risk is taken by the affiliate) the profits from exploiting the IP will be registered in the low tax jurisdiction (Graetz and Doud, 2013). The same outcome can be attained using business restructurings (OECD, 2010b) where the IP and high value-added / high risk activities are retained in the low-tax jurisdiction while routine, low risk activities are performed in the high tax jurisdictions.

These internal IP licensing agreements are quite common. Intra-firm royalties are estimated to represent 70% of all global royalty payments for intangibles (Mehafdi, 2000) and therefore represent a very important opportunity for firms to shift profit to lower tax jurisdictions. International e-commerce taxation and digital asset commercialization (such as Google's search algorithm) present additional tax challenges but they lie beyond the scope of this paper. See OECD (2004) for a discussion on the subject.

Financial Structure

To finance international operations, firms can either issue debt or utilize equity. Debt, whether through third party lending (credit markets, banking credit facilities) or from related parent/subsidiaries (intra-firm loans), gives rise to interest payments which reduces the taxable amounts reported as profit. Dividends given to the owners of equity, on the other hand, are not deductible expenses when calculating taxable earnings. For that reason, firms tend to hold a greater portion of their debts in higher tax jurisdictions (Schwarz, 2009).

Jog and Tang (2001) provide evidence that firms shift the location of profits using financial structure by examining the debt-to-asset ratio of Canadian firms during the tax reforms in the late 1980s and early 1990s. During this time, Canada went from having a lower tax rate than its main trading partner, the United States, to a higher rate. Canadian firms with the ability to shift debt between jurisdictions (Canadian controlled firms with foreign affiliates or foreign controlled firms, the near totality of which are controlled by an American parent) dramatically increased debt held in Canada, while the debt-to-asset ratio for domestic firms without foreign affiliates remained essentially unchanged. The authors estimate this debt shifting decreased Canadian corporate tax revenues by $3.5 billion in 1994 alone.

Multinationals can also utilize loans between the affiliates they control for the purpose of minimizing taxes. Consider the following situation: as a group, the multinational does not have any external debt but its high tax subsidiaries are fully financed by debt borrowed from its low tax affiliates. The affiliates in the high tax jurisdictions report little or no profit since they have a large interest expense to offset any net income. The profits are therefore effectively shifted to the low tax country. It should be noted that this intra-firm debt financing approach can be used in conjunction with the treaty shopping methods described above to subject the income to the lowest withholding tax possible. When implementing this kind of arrangement, it is beneficial to find a pair of countries that negotiated a reduction or elimination of withholding tax on interest. Alternatively, the multinational can make use of hybrid arrangements. Double non-taxation can be achieved even on affiliates in two high tax countries when using a financial instrument considered deductible from tax in the source country while the related income is exempt in the other country.

Admittedly, there exists some legitimate reasons for using intra-firm loans. The credit market may be more developed and accessible in some jurisdictions and better terms can be negotiated with third parties (Ruf and Schindler, 2012). Firms might simply be engaged in arbitrage across their affiliates' jurisdictions, borrowing more where the after-tax interest rate is lower. Buettner and Wamser (2007), however, demonstrate that these loans are indeed used as a profit shifting tool. They find that the statutory tax rate faced by an affiliate does not explain the presence of intra-firm loans as would have been expected if the multinational was trying to minimize the cost of capital assuming constant interest rates across jurisdictions[4]. The difference in tax rates faced by an affiliate and the lowest-taxed affiliate in the corporate group, on the other hand, did significantly explain intra-firm loans since this tax rate difference represents profit shifting's potential tax savings.

Jog and Tang (2001) hypothesize that profit shifting through financial structure is the channel preferred by multinationals since it is subject to less scrutiny by tax authorities than other channels such as aggressive transfer pricing and therefore should account for a large portion of all base erosion experienced by high tax countries. In contrast, while Buettner and Wamser (2007) find that intra-firm loans are used to shift profit, they report that the magnitude of the resulting base erosion is modest,

[4] The authors allow for different rates of interest, creditor rights and the size of the credit market by including country fixed effects.

signifying that the cost associated with the use of this channel is high. The evidence therefore suggests that the majority of base erosion occurs through the use of third-party loans instead of intra-firm loans.

A few studies have attempted to determine the relative importance of the two main profit shifting channels – debt structure and transfer pricing. However, the current literature has not been able to quantify the extent of base erosion caused by treaty shopping. Strategic use of debt was found to be the main mechanism for transferring earnings shocks to affiliates in Dharmapala and Riedel (2012) whereas Clausing (2001, 2006, 2007) and Bartelsman and Betsma (2003) see transfer pricing as the more important shifting tool. To shed some light on the issue, Heckemeyer and Overesch (2013) conduct a meta-analysis on the estimates of 25 other econometric studies. They conclude that financial structure accounts for only 28% of shifting activities, while non-financial means such as transfer pricing and licensing are used for the lion's share of shifting activities.

To summarize, there exists ample evidence that multinationals engage in tax avoidance activities through profit shifting to low tax jurisdictions that erode the tax base of high tax countries. This profit shifting is the result of treaty shopping, financial structure or transfer pricing strategies. The current literature has not yet been able to quantify the extent of base erosion caused by treaty shopping but debt loads, particularly through third-party debt financing, are an extensively used profit shifting tool. The profit shifting method responsible for the most base erosion is transfer pricing, especially the pricing of royalties and fees for intangible assets.

4 - Incentives and Effects of Reducing Base Erosion and Profit Shifting

Before evaluating policy prescriptions to counter profit shifting, it would be beneficial to understand the incentives at work for stakeholders. It will be evident that obtaining national governments' endorsements to cooperative policies that could reduce base erosion and profit shifting may not be easily achievable. To do so, tax competition must first be defined and viewed in light of a country's size and openness to trade. A jurisdiction's right to tax economic activity must also be defined since changes to the current system would affect each country differently.

When firms look to expand to a new jurisdiction or market, they jointly make 4 simultaneous decisions (Devereux, 2006). First, they choose (1) whether to produce domestically and export or produce abroad. They then choose (2) a location and (3) the level of investment conditional on that location. Finally, they choose (4) where to allocate the profits among the locations they operate. The first three choices relate to real economic activity. Governments seek to attract this economic activity since it creates employment and generates tax revenue. They compete with other jurisdictions by setting a lower corporate tax rate and providing attractive conditions to prospective firms (Haufler and Schjelderup, 2000). This is real tax competition. The fourth choice faced by the firm, the allocation of profits, does not involve any real economic activity. To the extent profits are mobile, the firm will simply allocate them to the lowest tax jurisdiction it can. Some governments have adopted the strategy of attracting this mobile tax base by offering very low tax rates even though they cannot host real activity. This will be defined as virtual tax competition.

The two types of tax competition are not independent of one another. When firms have access to profit shifting strategies, they may locate their activities in a high tax country knowing they will be shifting profits to another jurisdiction. The effective tax rate the firm will be facing is therefore not the high tax jurisdiction's rates. The presence of profit shifting therefore makes real decisions less responsive to tax rates (Mintz and Smart, 2004). Should measures be taken to lessen or prohibit profit shifting, real tax competition would be expected to intensify as multinationals would have an increased incentive to take real economic activity out of the high tax country. The loss of economic activity entails reductions in employment and downward pressure on wages and therefore lower income and consumption tax revenue. Keen (2001) notes that virtual tax competition limits the scope of tax competition to the most mobile bases and that its elimination is not guaranteed to lead to a net societal improvement. Since the net effect of base erosion rules on high tax countries is not unambiguously positive, some high tax countries may be reticent to participate in enforcing profit shifting rules without some measure of cooperation on tax rates and policies to mitigate the possibility of a "race to the bottom" with real tax competition.

A predictor of whether a country will be affected by base erosion rules is its openness to international trade (Clausing, 2006). If a country's economy is dominated by domestic firms that only operate within the country, it is more likely to be indifferent to changes to tax treaties or international tax law. The greater the proportion of multinational firms in an economy, the more the country will be affected. More policy engagement can therefore be expected from very open economies, whether in support of curbing base erosion or in opposition.

The economic size of a country influences its incentive to participate in policies restricting base erosion and profit shifting. Large countries, whose domestic tax base is bigger than the pool of mobile international profits, can generally not gain from tax competition, whether real or virtual. The domestic revenues lost by reducing the tax rate will be greater than the gains made by attracting foreign profits. This predictably results in a national welfare loss (Bucovetsky, 1991). Notwithstanding the intensification of real tax competition, large countries would therefore arguably gain from protecting their tax base by promoting anti-avoidance regulation, especially large countries with substantial trade linkages. For small countries, however, the opposite is true. Their domestic tax base is small when compared to the attracted foreign tax base and therefore tax revenues from foreign profits shifted to their jurisdiction more than compensate for the reduction in domestic tax revenue. Smaller countries, especially those that have adopted a strategy of attracting mobile tax bases (tax havens) would be expected to oppose changes to counter base erosion (Rixen, 2011).

Generally speaking, tax treaties confer the right of first taxation of active business income to the source country while that right is retained by the residence country for passive and investment income (Rixen, 2011). Many countries do not tax active business income at all as the residence country. These countries have adopted a territorial taxation regime. Under this regime, foreign active business income is not taxed domestically; it is only taxed by the source country. For example, a Canadian company will not pay Canadian income tax on income earned by a foreign affiliate, provided that affiliate is located in a country with which Canada has a tax treaty. For countries with this tax regime, profit shifting between foreign affiliates has no effect on the taxes paid domestically; only income shifting with the domestic headquarters or foreign-owned domestic affiliate results in base erosion.

Some countries such as the United States, the United Kingdom and Japan tax worldwide active business income when that income is repatriated in the form of dividends but provide a tax credit for foreign tax paid. For example, an American company repatriating profits from a Canadian subsidiary will pay the Internal Revenue Service 13.5% (the American corporate tax rate of 40% less 26.5% for the Canadian corporate tax paid). For these countries, profit shifting between foreign affiliates would reduce the credit awarded when the profits are repatriated. Continuing with the example, if the Canadian affiliate successfully shifted its profits to Ireland then the American tax authorities would perceive 27.5% of the repatriated dividend (40% less the 12.5% Irish tax rate). With a high domestic tax rate, these countries suffer the same base erosion from the headquarters as the country with territorial taxation but that loss is at least partially offset by the higher tax receipts on dividend repatriation. While some foreign profits may never be repatriated, any amount would lead to increased tax receipts.

Countries with a worldwide taxation regime are therefore less likely to benefit from anti-avoidance rules than countries with territorial regimes. (Clausing 2007, Bartelsman and Beetsma, 2003)

The interests of capital exporters differ from that of capital importers. Capital importers (countries that need foreign direct investment to fuel development) are more likely to engage in real tax competition to attract these investments. While they may welcome and support policies that would reduce profit shifting, the resulting intensification of real tax competition may offset any revenue gains. In addition, capital importers would prefer more source country taxation while tax authorities of capital exporters would prefer residence-based taxation (Rixen, 2011). This last distinction is important when contemplating policies that would impact the current distribution between source and residence taxation.

Thus, policies that reduce base erosion and profit shifting will elicit varying levels of support from various countries. While they would be encouraged by large, open, high tax economies with a territorial taxation regime, resistance is expected from smaller open countries and indifference from closed economies. It is, however, encouraging that the G20 countries have endorsed the OECD's mandate to examine the issue. In addition, governments should be mindful of the effect of those policies on the intensification of real tax competition, since the race to the bottom may result in lower corporate tax revenue for all countries.

5 - Current Policy Landscape

Policy makers have long anticipated the possibility that bilateral treaties with the aim to avoid double taxation could enable capital flight and lead to double non-taxation (Rixen, 2011). Anti-avoidance measures have therefore already been introduced both through negotiation in tax treaties and unilaterally in domestic tax laws. The following section explores measures currently in place to limit base erosion, with a special emphasis placed on the current Canadian system. The domestic law measures to be presented include abuse of law provisions such as the general anti-avoidance rule, the controlled foreign affiliate regime, the taxation of passive income, measures to limit the deductibility of interest such as earnings stripping, and thin capitalization rules as well as transfer pricing regulations. Attempts to curb base erosion directly through tax treaties consist of the concept of beneficial ownership and limitation on benefits provisions.

Treaty Shopping

Governments often include provisions in their domestic law disallowing tax benefits (reductions in tax payable or increases in tax credits) in cases where a transaction was arranged primarily for the purpose of obtaining that tax benefit. In Canada, section 245 of the Canadian Income Tax Act, commonly called the *General Anti-Avoidance Rule* (GAAR) serves this purpose. In theory, this rule effectively counters any treaty shopping strategy. Whenever a transaction or series of transactions are avoidance transactions, treaty benefits can be denied. Avoidance transactions are defined as transactions that result in a tax benefit unless the transaction was arranged for bona fide purposes other than to obtain the tax benefit through the misuse of the provisions of the Income Tax Act and Regulations or Tax Treaty.

Countering abusive cases of treaty shopping using GAAR, however, has proven difficult. While the Canada Revenue Agency (CRA) has attempted to take legal action against a number of what it considered the most flagrant cases of treaty shopping, it was successful only once (Dept. of Finance, 2013). In the case of Crown Forest Industries Ltd. v. Canada (1980), a New Zealand company, Fletcher Challenge Limited, owns two foreign affiliates. The first is Crown Forest Industries, a Canadian subsidiary, which rents barges from the second subsidiary named Norsk. While Norsk is incorporated in the Bahamas, its office and place of business was solely in the United States. Norsk is considered under U.S. tax law to be foreign corporation exempt from U.S. tax. Crown withheld 10% of payments to Norsk based on the US-Canada Tax Treaty. Canada has no treaty with the Bahamas; a 25% withholding tax should apply. The Supreme Court of Canada ruled that Crown Forest Industries Ltd. had abused the Canada-United States Income Tax Convention since the benefits of the convention were only available to “residents of the Contracting State” (the U.S.) and that to be a resident of a state you must be liable to pay tax.

For policy development, however, it will be more informative to analyze the failed legal actions. In 2006, the Canadian Federal Tax Court rendered a judgment in favor of the defendant, MIL Investments. MIL Investments was a holding company based in the Cayman Islands (a jurisdiction with which Canada does not have a tax treaty) but moved to Luxembourg (where Canada has a tax treaty that exempts foreign capital gains from Canadian taxation) shortly before disposing of Canadian shares worth over $420 million. The result was that Canadian taxes on the capital gains were exempt by treaty and no taxes were due in Luxembourg since the shares were transferred to that country with a cost basis equal to the sale price. Authorities attempted to demonstrate this was a violation of the general anti-avoidance rules of Income Tax Conventions Interpretation Act since the choice of relocating the company to Luxembourg was clearly and solely motivated by the tax implication of the impending share sale. The judgment, however, was in favor of MIL Investments. It was found that no article of the Canada-Luxembourg treaty was misused, therefore the general anti-avoidance rules could not apply. Consequently, the choice of relocating to Luxembourg, while being recognized as an avoidance transaction, do not contravene to GAAR. Specifically, the MIL (Investments) S.A. v. The Queen (2006) decision notes:

> There is nothing inherently proper or improper with selecting one foreign regime over another. Respondent's counsel was correct in arguing that the selection of a low tax jurisdiction may speak persuasively as evidence of a tax purpose for an alleged avoidance transaction, but the shopping or selection of a treaty to minimize tax on its own cannot be viewed as being abusive. It is the use of the selected treaty that must be examined.

This judgment exposes GAAR's weakness as a tool to counter treaty shopping. Relying on too wide a rule makes enforcement problematic (Dept. of Finance, 2013). Language that is more specific is needed to provide clarity as to what type of transactions constitutes abuse. This case demonstrates the need to include a provision in either or both the Income Tax Conventions Interpretation Act and future tax conventions to the effect that treaty benefits should be denied if the primary motivation for tax residency is tax avoidance.

In addition, Copthorne Holdings Ltd. v. the Queen (2006) established that no penalties or fees can be levied when GAAR has been found to be contravened; only the disallowed tax benefit in question must be repaid. The firm is therefore no worse off than if it had not attempted to engage in treaty shopping at all.   In this case, the expected value of engaging in treaty shopping is always positive if the probability of getting caught is less than a certainty and firms always have an incentive to try their luck.

Most countries have enacted legislation regarding the treatment of income earned by *controlled foreign corporations*[5] as a way to counter the transfer of passive income to low tax jurisdiction. In the United States, a complex set of rules commonly called Subpart F disallow the deferral of taxes for passive income in situations often used in tax avoidance schemes (Gravelle, 2010). Canada's approach has been the foreign affiliate regime. Under this regime, active business income from a foreign affiliate is taxed in Canada when repatriated to the parent company through a dividend unless the foreign

---

[5] A foreign controlled corporation is any foreign corporation for which domestic residents hold, directly or indirectly, more than 50% of the voting rights.

country has a tax treaty with Canada, whether the affiliated is a controlled foreign affiliate or not (Advisory Panel of International Taxation, 2008). Passive income such as interest, dividends (except from foreign affiliates as described above), royalties and 50% of capital gains, earned by a foreign affiliate is taxed in Canada as it is earned whether or not the income has been repatriated if the affiliate is controlled by the Canadian taxpayer through the foreign accrual property income (FAPI) regime. When the foreign affiliate is not controlled, this type of income is taxed using the credit method[6]. The intuition here is that there is more opportunity for avoidance if the Canadian taxpayer controls the foreign affiliate hence controls the amount and timing of profit repatriation. The result is that passive income of firms headquartered in Canada is subject to Canadian tax whether or not the assets generating that passive income are held abroad.

CFC rules seem to properly serve their purpose. Several recent empirical papers show that these rules are successful at curbing the shifting on passive income to low tax countries (Ruf and Weichenrieder, 2012 and Egger and Wamser, 2011). In addition, the Canadian Advisory Panel on International Taxation (2008) observed broad consensus concerning the appropriateness of the rules during its consultations.

The vast majority of tax treaties in effect in the world are based on the OECD's model tax convention. Having anticipated the risk that double tax relief could lead to double non-taxation, the OECD has incorporated a number of provisions and safeguards to deter profit shifting. In this section, I present the concept of beneficial ownership. I also detail the limitation on benefits article which has recently been added to certain treaties.

I begin by examining a concept imbedded in these conventions intended to safeguard against profit shifting using conduit entities. Dividends, interest and royalties paid to residents of the other contracting state are only entitled to treaty benefits if the ***beneficial owner*** of that income is a resident of the contracting state. While the term beneficial owner is not explicitly defined in the model convention nor in the Commentaries on the Articles of the Model Convention, the commentaries clearly state the term's motivation includes the prevention of fiscal avoidance. (OECD 2010c)

> The term "beneficial owner" is not used in a narrow technical sense, rather, it should be understood in its context and in light of the object and purposes of the convention, including avoiding double taxation and the prevention of fiscal evasion and avoidance.

[6] Under the credit method, the income is subject to domestic tax but a tax credit is provided for foreign taxes paid.

Considering the spirit and intent of this language, tax authorities would be expected to be well equipped to counter profit shifting using conduit entities on the basis of beneficial ownership. In Canada, however, results have not been promising. The concept of beneficial ownership was unsuccessfully challenged in court on two occasions (Dept. of Finance (2013), Baum and Watson (2012)).

In the case of the Queen v. Prévost Car Inc. (2009), the crown argued that Prévost Holding B.V., a corporation resident in the Netherlands, was a conduit company for Henlys Group plc in the U.K. and Volvo Inc., incorporated in Sweden. If the dividends had been paid directly to Henlys and Volvo, a 10% and 15% withholding tax would have been applied, respectively. As a result of the Canada-Netherlands tax treaty, only 5% withholding tax was levied on dividends to Prévost, which then redistributed the income to Henlys and Volvo. The ruling acknowledged there exists no unambiguous definition of beneficial ownership. The Judge formulated the following from general, technical and legal meanings of the term:

> Where an agency or mandate exists or the property is in the name of a nominee, one looks to find on whose behalf the agent or mandatory is acting or for whom the nominee has lent his or her name. When corporate entities are concerned, one does not pierce the corporate veil unless the corporation is a conduit for another person and has absolutely no discretion as to the use or application of funds put through it as conduit, or has agreed to act on someone else's behalf pursuant to that person's instructions without any right to do other than what that person instructs it, for example, a stockbroker who is the registered owner of the shares it holds for clients.

There was no evidence that Prévost Holding had “absolutely no discretion” as to the use of the funds and while it did redistribute 100% of the dividend to Volvo and Henlys, nothing in Prévost’s incorporation act obligated it to do so. The holding company was therefore judged to be the beneficial owner of the dividend and was entitled to the treaty benefits.

The second case challenging the concept of beneficial owner is that of Velcro Inc. v. the Queen (2012). The structure utilized by Velcro Inc. is the classic stepping stone strategy described above. Velcro Canada Inc. paid royalties to Velcro Holdings B.V., a tax resident of the Netherlands. A sub-licensing agreement then obligated Velcro Holdings B.V. to remit 90% of the royalties received to Velcro Industries, a resident of the Netherlands Antilles. Canada does not have a tax treaty with the Netherlands Antilles therefore a 25% withholding tax would have applied if the royalties were paid directly. Routing the income through the Netherlands resulted in a 5% withholding tax. The crown argued that the Dutch holding company had a contractual obligation to remit the royalties to the parent company in the Netherlands Antilles within 30 days of their receipt and therefore should not be considered the beneficial owner of that income. The decision, however, was again made in favor of the taxpayer. Despite the contractual obligation to remit the 90% of the royalty, the holding company had "possession" and "use" of the income, assumed some risk in relation to that income and exercised some measure of control. There were therefore no pre-determined flow of funds to the parent company and consequently the holding company was deemed to be the beneficial owner of the royalties.

These two cases demonstrate that authorities cannot rely on the concept of beneficial ownership to counter the use of treaties to achieve double non-taxation or less than single taxation (Baum and Watson, 2012). As with the use of GAAR, concepts must be explicitly defined to provide certainty for both the taxpayers and enforcement agencies.

Some countries, most prominently the United States, have adopted a different strategy to counter treaty shopping. Following the third protocol of the Canada-US treaty (1995), a new article was introduced to restrict treaty benefits in specific circumstances. Contrary to the GAAR and the concept of beneficial ownership, article XXIX A of the treaty, the *limitation on benefits* article, provides more outcome certainty by specifying tests to determine whether treaty benefits apply. The intent of these tests is to grant treaty benefits only to persons whose residence in the contracting state is not motivated by the existence of the convention.

The limitation on benefits article consists of two types of tests. First, a series of objective tests are applied to determine residency and ownership requirements. If the taxpayer satisfies any of those tests, he is deemed not to be treaty shopping and thus entitled to treaty benefits. Should the taxpayer not meet any of the objective tests, the taxpayer can apply for a final, subjective test to review the entitlement to tax benefits by the relevant tax authority (Canada–United States Tax Convention Act).

The first objective test relates to qualifying persons. Natural persons, government entities and estates are not considered a threat when it comes to treaty shopping therefore they automatically satisfy the qualifying persons test. Since the regulatory requirements of companies traded on the stock market are seen as a major deterrent for the use of such entities for treaty shopping purposes, companies or trusts whose principal class of shares are traded on a recognized stock exchange satisfy the qualifying persons test and qualify for benefits. Not-for-profits organizations are also considered qualifying persons as long as 50% or more of its beneficiaries, participants or members are qualifying persons.

This leaves us with privately held companies and subsidiaries, the entities most commonly used for treaty shopping. These companies undergo a second test, an ownership test. For subsidiaries to qualify for treaty benefits under this test, more than 50% of the vote and value of the shares must be owned, directly or indirectly, by five or fewer persons each of which must be qualifying persons as described above. For example, a subsidiary where two qualifying publicly traded companies own 51% of the shares would qualify for treaty benefits regardless of who owns the remaining 49%. In addition, the full chain of ownership must be composed of qualifying persons. Should a parent company in a contracting state own a subsidiary in the other contracting state through a controlled corporation in a third state, the subsidiary would not qualify for benefits under this test.

For privately held companies other than subsidiaries, an ownership test and a base erosion test are jointly applied. To qualify, 50% of the vote and value of shares must not be owned, directly or indirectly, by persons other than qualifying persons and the amount of deductible expenses paid or payable to persons who are not qualifying persons must be less than 50% of gross income. The use of the double negative in the ownership test is intentional. It is meant to disallow situations such as the following example, which would have been allowed had the wording have been "more than 50% of the vote and value of shares must be owned, directly or indirectly, by qualifying persons". Consider a privately held corporation for which a single qualifying person holds 51% but that this qualifying person is itself partially owned by non-qualifying persons. While it is true that a qualifying person directly holds over 50% of the vote and value of shares of the corporation, it is also true that non-qualifying persons indirectly hold over 50% of the vote and share value (Kallas, 2002). The second part of the test, the base erosion test, is meant to prevent companies that pass the ownership test from serving as conduits through which income could be distributed to third parties that are not entitled to receive treaty benefits. This condition effectively prevents companies using the stepping stone strategy described above from obtaining treaty benefits under the ownership test.

Should a company not qualify for treaty benefits under the preceding tests, an active trade and business test is applied. When a company is earning active business income in one contracting state and derives income related to this business in the other contracting state, the company will be entitled to treaty benefits for the related income. Let us take the example of a car manufacturer in one contracting state. Any income derived from the manufacturing of car parts (upstream), the distribution and sale of cars (downstream) or car manufacturing (parallel) in the other contracting state would be considered related income to the company's active business income and therefore would qualify for treaty benefits (Kallas,2002). The business activity in the contracting state, however, must be substantial for the income in the other contracting state to qualify for benefits. A resident of a third country could not establish a small scale operation in one contracting state simply to allow the large amounts of income from the other contracting state to flow through with treaty benefits. Under the US-Netherlands treaty, this substantiality test consists of the ratio between the two country's assets, gross income and payroll expenses. Each ratio must be greater than 7.5% in the last completed year and the average of the three ratios must be greater than 10% (Kallas, 2002). The Canada-US treaty, however, does not specify values or ratios for the substantiality test.

The final objective test that can allow treaty benefits is the derivative benefits test. The motivation behind this test is that if a firm is owned by a resident of a third country and that third country has negotiated similar benefits with the contracting states through their own treaties, then the firm established its presence in the contracting states for reasons other than treaty shopping and treaty benefits should not be denied. This test is similar to the ownership and base erosion tests described above. It states that the company will be entitled to treaty benefits if more than 90% of the vote and share value are owned, directly and indirectly, by either qualifying persons or persons who are 1) resident in a country with which the contracting states have a tax treaty and would have qualified for benefits under that treaty if the income had been transferred to that country directly 2) that would qualify under the other tests above should that person have been a resident of one of the contracting states and 3) the withholding tax rate between the contracting states and the third country is at least as low as the rate between the contracting states. In addition, a base erosion test is jointly applied. The amount of deductible expenses paid to non-qualifying persons must be less than 50% of gross income.

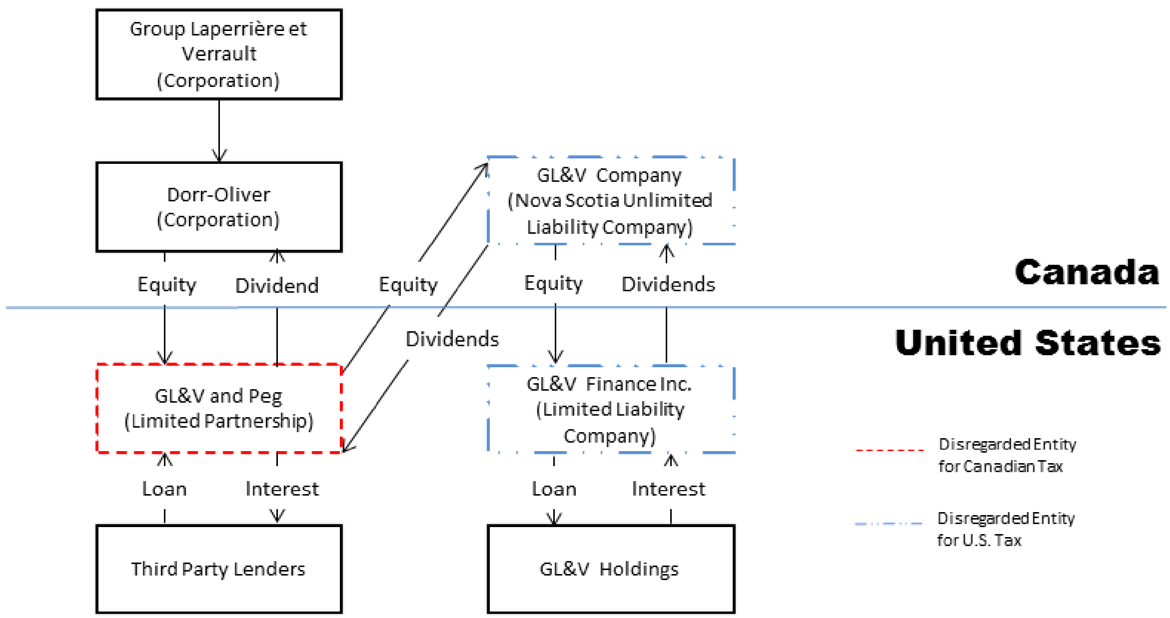
In the event that none of the tests qualify a company for tax treaty benefits, the company can submit itself to a subjective test to the competent authorities. It will be asked to provide evidence that the company was not created for the purpose of obtaining the benefits of the tax treaty and that it would be inappropriate to deny it the benefit. The company must seek this ruling in advance of claiming benefits but the ruling can be applied retroactively.

The limitation on benefits article provides much more clarity and precision to both taxpayers and tax authorities. Treaties with this article effectively deny benefits for many types of treaty shopping. A firm employing the conduit strategy would clearly not satisfy any of the tests, including the final subjective test. The stepping stone strategy could still be employed but the base erosion test would limit the interest, royalties or other payments to the low tax jurisdiction to 50% of gross income. What is not addressed in the limitation on benefit article is the use of hybrid instruments and entities.

The case of FLSmidth LTD v. the Queen (2012) provides the opportunity to examine the use of hybrid entities. Dorr-Oliver, an Ontario corporation, is a fully owned subsidiary of Groupe Laperrière & Verrault, a Quebec corporation. Dorr-Oliver holds a 98.9% interest in GL&V and Peg Limited Partnership (LP) in the United States, which elected to be treated as a corporation in the US but is treated as a transparent entity in Canada. The limited partnership fully owns GL&V Company, a Nova Scotia unlimited liability company (ULC), which is transparent in the U.S. but taxable in Canada. In turn, the ULC owns all the shares of GL&V Finance Inc., an American limited liability company (LLC). The LLC is a disregarded entity in the U.S. but is regarded as a separate person in Canadian tax law and therefore liable to tax.

The parent company financed the purchase of other U.S. corporations in the following manner: the LP borrowed funds from a third party to inject equity in the ULC, which bought shares in the LLC. The LLC then made loans to a holding company that invested in unrelated companies using stock purchases and loans. The income from these activities is paid to LLC in the form of interest payments and the LLC distributes dividends to the ULC, which then pays dividends to the limited partnership. For clarity, these relationships are depicted in Figure 1. From a U.S. perspective, since the ULC and the LLC are disregarded entities, the LP is considered to have made the loans to the holding company directly. It therefore paid U.S. corporate tax on the difference between the interest received and the interest paid to the third party lenders. From a Canadian perspective, this convoluted arrangement, sometimes referred to as tower financing, results in no tax for the ULC since the income is considered to be active business income from a foreign affiliate due to Canada's territorial regime. Since the LP is transparent for Canadian tax purposes, Dorr-Oliver is considered to have received the dividend from the ULC directly, again with no tax since it is a dividend from a Canadian company. In addition, Dorr-Oliver included its share of the LP's net income (excluding the ULC's dividend, which was 100% of the LP's revenues) when computing its own income. In doing so, interest expenses paid by the LP to third party lenders was therefore deducted twice – once in Canada for Dorr-Oliver and once in the U.S. – and the taxes paid in the U.S. for the LP were deducted from Canadian taxes owed for Dorr-Oliver's other income.

Figure 1 – Hybrid Entity Structure of Groupe Laperrière & Verrault



At issue in this case is interestingly not the double dipping of interest expenditures but the deduction of foreign taxes paid even though no income was attributable to Dorr-Oliver. Nonetheless, this case demonstrates the need for regulation in situations where deductions are claimed twice for the same income or without any accompanying income using hybrid entities. The fifth protocol of the Canada-US tax treaty, signed in 2007, provides one possible answer. This protocol introduced new provisions under Article IV, the article dealing with the definition of residence. Paragraph 6 states that for income, profit or gain derived by a person through an entity treated as fiscally transparent to be eligible for treaty benefits, the tax treatment of those gains must be the same as if the person had earned the income directly. Paragraph 7 goes on to specify:

> An amount of income, profit or gain shall be considered not to be paid to or derived by a person who is a resident of a Contracting State where:
>
> (a) the person is considered under the taxation law of the other Contracting State to have derived the amount through an entity that is not a resident of the first-mentioned State, but by reason of the entity not being treated as fiscally transparent under the laws of that State, the treatment of the amount under the taxation law of that State is not the same as its treatment would be if that amount had been derived directly by that person; or

> (b) the person is considered under the taxation law of the other Contracting State to have received the amount from an entity that is a resident of that other State, but by reason of the entity being treated as fiscally transparent under the laws of the first-mentioned State, the treatment of the amount under the taxation law of that State is not the same as its treatment would be if that entity were not treated as fiscally transparent under the laws of that State.

In other words, treaty benefits are to be denied when the use of hybrid entities result in the entity being viewed as transparent by one state and as a taxable person in the other and the treatment of that income is different than if the income had been received from a non-transparent entity. This rule would effectively make the arrangement of Groupe Laperrière & Verrault impractical since, in the absence of treaty benefits, a 25% withholding tax would apply to cross-country dividend payments (Glicklich and Leitner, 2007). Tax treaties can therefore address hybrid entities by making such transactions unprofitable.

The United States' Internal Revenue Code includes a dual consolidated loss rule to counter hybrid instruments. This rule is intended to prevent a domestic affiliate from using an expense to deduct from domestic tax while using that same expense to deduct against foreign taxation. Canada, on the other hand, lacks such a rule in its domestic tax laws. It relies instead on its GAAR provisions.

To summarize, tax authorities' current arsenal against treaty shopping consists of measures in domestic tax laws such as the GAAR and controlled foreign corporation rules as well as safeguards included in negotiated tax treaties, namely the concept of beneficial ownership, hybrid entity rules and the limitation on benefits article. Results have been mixed, with the more general rules (GAAR and beneficial ownership) having less success in countering treaty shopping than the more specific rules which provide more outcome certainty.

Financial Structure

To counter base erosion caused by a multinational's financial structure, most countries institute rules to disallow the deductibility of interest payments under specific circumstances. The United States, for example, has adopted an ***earnings stripping*** rule, which limits the interest that a corporation can deduct to 50% percentage of earnings before interest, tax, depreciation and amortization (EBITDA) if its debt to asset ratio exceeds 1.5:1 (the safe harbour ratio) and if the interest is being paid to a related party not subject to U.S. income tax (Ruf and Schindler, 2012). In Canada, the rule intended to limit base erosion through debt is called the *thin capitalization* rule. Under this rule, Canadian corporations that have debts owing to non-resident shareholders with at least 25% equity cannot deduct the interest for loans that exceed 1.5 times the corporation's equity. Said simply, if a corporation is foreign-owned, it cannot be financed by more than 60% using intra-firm loans. The rules do not apply to loans received from third party lenders, unless the third party has any indebtedness towards the corporate group. This precision has been added to disallow back-to-back loans that could circumvent the thin capitalization rules by routing intra-firm debt through a third party financial service provider.

Introduced in Budget 2012, Canada also has a rule to curb a specific type of transaction used to transfer debt to foreign-controlled Canadian affiliates: it is called the Foreign Affiliate Dumping rule. An affiliate dumping transaction is when a foreign owned Canadian affiliate purchases shares of another foreign affiliate from the parent using borrowed funds. The interest paid on the loan would be deductible while the associated income and dividends from the shares acquired would not be subject to Canadian taxation since it is considered foreign active business income. In addition, the funds returned to the parent through the purchase escape any withholding tax. Thin capitalization rules cannot successfully counter this form of base erosion. On the advice of the Advisory Panel on International Taxation (2008), the government introduced the foreign affiliate dumping rule. This rule considers the purchase of shares from the parent or other non-arm's length entity to be a deemed dividend and therefore subject to withholding tax at a rate dictated by the applicable tax treaty.

Under another approach, some countries apply the arm's length principle to limit the amount of related party debt an affiliate can use. In the United Kingdom, for example, the corporation is denied the interest deduction for their intra-firm interest payments unless it can demonstrate it could have borrowed the same amount from third parties (Advisory Panel on International Taxation, 2008).

Empirically, Buettner et al. (2011) report that rules that limit the deduction of interest tend to significantly reduce the leverage the leverage of foreign affiliates, suggesting they are effective at curbing base erosion. They also find that the establishment of such rules increase the sensitivity of investment to local tax rates, consistent with the theory that actions taken to curb profit shifting increase tax competition.

The literature review raises doubts as to whether intra-firm loans are a major contributor to base erosion. Perhaps the current rules targeting intra-firm loans are limiting the effectiveness of this channel. In contrast, most of the profit shifting using financial structure was attributed to third-party loans. Consequently, certain countries have enacted rules that apply to both related party and third party debt. New Zealand and Australia limit interest deductions to payments on debt worth 75% of a company's assets or 110% of a multinational's worldwide debt to asset ratio, whichever is higher, regardless of whether the debt is owed to another member of the corporate group or to an independent third party. Similarly, Germany, Denmark and Italy limit interest expenses of any type to 30% of the corporation's EBITDA for members of a corporate group (Advisory Panel on International Taxation, 2008).

Thin capitalization rules have the advantage of being simple to administer and provide a clear demarcation line to taxpayers and tax enforcers as to how much intra-firm debt is acceptable and how much is abusive. Earning stripping rules are more complex for firms to manage since they rely on forecasting income statement measures rather than the balance sheet. By providing a clear cut-off line, however, lawmakers are giving the message that profit shifting using financial structure is acceptable as long as it is not excessive. In addition, these rules apply equally across all industries whereas in some industries a 1.5:1 debt to asset ratio may be considered extremely leveraged while in others, such as in utilities, it may be below the industry average. Applying these rules only to related debt ignores the reality that most base erosion results from third party debt. The rules put forth by New Zealand and Australia, on the other hand, apply to both related and third party debt. They can determine if a multinational's domestic debt is in line with its worldwide debt to asset ratio, thereby allowing more deductible debt for companies in highly leveraged industries. It is, however, more complex to administer.

Transfer pricing

Manipulation of transfer prices being the channel responsible for the majority of profit shifting (Heckemeyer and Overesch, 2013), it is not surprising that provisions to counter transfer pricing abuse are present in both domestic tax laws and tax treaties. In addition, the OECD publishes guidelines detailing the methods to be used to determine prices between related parties.

Domestic tax laws often deal with transfer pricing issues. In Canada, section 247 of the Income Tax Act serves this purpose. This section stipulates that tax authorities can adjust the taxable amounts for firms not dealing at arm's length where they engage in transactions that differ from those that would have been made between persons dealing at arm's length. Contrary to the Income Tax Act's provisions on GAAR, a penalty of 10% can be applied to arrangements judged to contravene transfer pricing rules.

The model convention, and hence nearly every tax treaty in force today, contains a provision pertaining to the taxation of associated enterprises. Article 9 states that, for firms under common control, if conditions in the commercial or financial relations between the firms differ from those that would have occurred between independent enterprises and that those conditions reduce the profit to one of the firms, then the contracting state can adjust its taxation to include that profit OECD (2010c). General language is used to include any type of arrangement between related enterprises. It can apply to the pricing of debt/loans, finished or semi-finished goods, property, services, intangibles, etc. Tax treaties do not, however, provide details for the application of this provision, nor do the commentaries on the model convention. Practical instructions and guidelines for the application of transfer pricing activities are contained in the OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations (OECD 2010a).

The simplest and usually preferred method of pricing a transaction is by looking at a *comparable uncontrolled price* (CUP), the price that was agreed upon by independent parties for a similar transaction. This is especially useful for commodity transactions. Some adjustment can be made to the CUP for valid considerations such as quality differences or volume discounts. The scope for profit shifting under this method is very limited but relies on the availability of comparables (OECD 2010a).

When one of the two related parties performs only a routine, benchmark function such as distribution or contract manufacturing, and does not provide an intangible contribution to the transaction, that party will be tested using one of test below to ensure the price chosen will produce financial results similar to other, independent firms performing a similar functions. In the event the tested party is the buyer performing marketing and distribution functions, the transfer can be valued using the *resale price method* (OECD 2010a). This method consists of starting with the price the acquiring firm could resale the product reduced by an appropriate gross margin representing operating expenses the seller would seek to recover taking into account the functions performed and risks assumed as well as an appropriate amount of profit. The resale margin may be determined by the margin earned by that firm on other, arm's length resale transactions or based on the resale margins earned by independent firms for similar transactions.

Should the tested party be the seller, the method used to estimate arm's length price is the *cost plus method* (OECD 2010a). Here the price is estimated to be the sum of expenses incurred by the seller plus a reasonable amount of profit. The profit will be deemed reasonable if it is similar to what other suppliers earn in similar transactions for which they perform similar functions.

In the event the methods above do not produce reliable results, firms can use the *net margin method* (OECD 2010a). Here, associated firms determine a price to distribute net profit relative to an appropriate base such as costs, assets or sales, using the measure most likely to be linked to profits. For example, a manufacturer using extensive capital could argue be best measure is profit / assets, find the profit / assets for independent firms and establish that the arm's length price produces a similar ratio. Profit / costs or profit / assets ratios are better suited for service providers or manufacturers while profit / sales could be used if the tested party is the buyer.

So far, the methods presented test only one of the affiliates in the transaction to determine the arm's length price. The other affiliate party to the transaction remains untested. For this reason, these tests are referred to as one-sided tests. The only two-sided test in the OECD's guidelines is the *profit split* method (OECD 2010a). The guidelines state that this method is to be used for highly integrated operations where both parties make unique and valuable contributions to the transaction such as contributions of intangibles. The presence of these unique contributions makes the task of finding reliable comparative information difficult. The guidelines discourage its use, however, when simpler methods can be used. This method seeks to determine the division of profits that independent enterprises would have been expected to realize. The division of profit can be based on data from uncontrolled transactions such as comparable joint ventures. In the absence of such data, the allocation of profit is based on keys. Where there is a strong correlation between capital employed and the creation of value, such a key could be the share of assets each party contributes to the transaction (either operating assets, intangibles, capital employed). Should value added correlate more with each party's costs, profit can be distributed on the basis of expenditures (relative spending or investment in specific areas such as R&D) (OECD 2010a). In effect, firms can use any type of key if they can demonstrate it is linked to the creation of value, whether it is payroll, headcount, number of computer servers or retail floor space.

While Canada has had some judicial success enforcing transfer pricing rules, it has not been without difficulty (Wells and Lowell, 2014). In the case of GlaxoSmithKline Inc. v. the Queen (2008), the Canadian affiliate was purchasing ranitidine, the pharmaceutical ingredient in a brand-named drug called Zantac, from a Swiss affiliate part of the same corporate group for over $1600 per kilogram while two other Canadian companies were purchasing ranitidine for generic versions of the same drug from arm's length suppliers for amounts ranging from $200-$300 per kilogram. All parties were of the view that the appropriate method for determining the arm's length price was the comparable uncontrolled price. The crown believed the price should therefore be $200 to $300 while the respondent argued adjustments had to be made for the intellectual property and branding of the Zantac name and that the relevant comparables were not in the Canadian market but in the European market. The judge ruled in favor of the crown. The matter, however, did not end there. The judgment was overturned in the Court of Appeals with GlaxoSmithKline Inc. v. Canada (2010). The appeals judge opined that to apply the arm's length test, one must ask whether it is reasonable for the Canadian subsidiary, if it had been an independent company, to have accepted the terms and prices for the transaction. The matter escalated to the Supreme Court. In GlaxoSmithKline Inc. v. the Queen (2011), the appeal was overturned and the initial judgment was upheld. The issue at hand is not whether an independent firm would have accepted the conditions but whether the transaction favourably compares to uncontrolled price, the pricing method chosen by the firm.

Evidently, the rules set out by the OECD effectively prohibit profit shifting through transfer pricing for commodity-like transactions where comparable, uncontrolled data exists. They are also efficient where there are only routine profits to distribute. When profits exceed routine profits, the guidelines cannot stop the exclusive assignment of this supplementary profit to low tax jurisdiction. In addition, firms can choose the method, the keys and the uncontrolled comparables that can provide them with a strategic transfer price.

6 – Policy Options

In principle, the issues raised in this paper can be addressed either through measures taken in domestic tax laws or through tax treaties themselves. These policy options will be evaluated based on expected effectiveness in terms of curbing profit shifting while avoiding the denial of benefits to legitimate corporate structures, complexity and administrative burden, certainty of outcome for taxpayer and tax authorities and ease of implementation based on governments' incentives.

Treaty Shopping, Conduit Entities and Hybrid Arrangements

The commentaries on the Model Convention (OECD, 2010c) recommend general anti-abuse provisions in domestic tax law as the way to combat treaty shopping. The advantage of addressing treaty shopping in domestic tax laws is that it can be accomplished with far less resources and in a shorter timeframe than would require a renegotiation of tax treaties. There are some concerns that anti-avoidance provisions in domestic tax laws could have conflicting overlap with tax treaties (McCarthy Tétrault LLP, 2014). Both the United Nations and the OECD (2010c), however, are of the opinion that tax treaties are subject to each country's domestic tax laws and therefore no such conflict will arise. In addition, anti-avoidance rules embedded in domestic tax laws are simultaneously and consistently applied to all of the countries' trading partners, even countries who benefit from profit shifting and therefore may oppose the inclusion of anti-erosion clauses in tax treaties. GAAR is based on a subjective test – a main purpose test. Such a general rule may be less complex than specific rules with objective tests but results in more uncertainty for both the taxpayers trying to legitimately optimize its operations and for authorities who will need to decide, on a case-by-case basis, what constitutes abuse. Of course, in its current form, general anti-avoidance rules in Canada have not been able to achieve the desired result. Canadian jurisprudence has established that GAAR only applies to abuses of specific clauses of treaties or the Income Tax Act but not the selection of a tax treaty for its benefits. Consequently, GAAR cannot be the only tool to combat treaty shopping.

More specific rules with quantifiable and objective tests must supplement GAAR. These rules indirectly curb treaty shopping by disallowing benefits based on ownership and residency criteria. To counter the use of conduit companies, the OECD (2010c) recommends adding a clause to tax treaties to deny benefits if a company is not owned, directly or through one or more companies, by persons who are not residents of the other treaty country. This is known as the ***look-through approach***. This approach would be most useful to counter cases of treaty shopping in low taxation countries where a company has no or very little business activity. The disadvantage of this approach is that it would almost certainly disallow benefits to firms with legitimate, non-tax avoidance reasons for structuring their affairs through many countries. Substantial exceptions to this rule would need to be defined so that benefits are not withdrawn to firms not engaged in avoidance. Subsequently, this approach would be better suited to treaties with low tax or conduit-prone countries where little economic activity takes place but would be difficult to implement and manage between large trading partners with integrated supply chains (OECD, 2010c).

The first test of the US-Canada treaty's limitation on benefits article, the ownership test, is a great example of the look-through approach. They effectively deny benefits to conduit entities using measurable metrics that enable taxpayers to predetermine their eligibility. Used in combination with foreign controlled corporation rules to ensure passive income is not shifted to lower tax jurisdiction, the addition of an article similar to the limitation on benefits would greatly diminish the use of conduit companies.

The ownership test, however, does not disallow benefits when a stepping stone strategy is used. This strategy, you will remember, is when large deductible expenditures are incurred in the higher tax country to pay interest, royalties or management services to an affiliate in a lower tax country, thereby eroding the higher tax country's tax base. The counter this, the OECD (2010c) advocates taking aim at conduits directly. The *channel approach* consists of a provision which denies treaty benefits to an intermediary company if more than 50% of the income paid to the intermediary is used to pay deductible amounts to persons not resident of the country of the intermediary company and who have substantial interest in the company through voting rights or management. As with the look-through approach, however, this would disallow benefits to taxpayers with legitimate business reasons for paying non-residents and should be supplemented by *bona fide* clauses as discussed below. In addition, the application of a conduit approach would be administratively difficult due to the general nature of the type of expenses to be covered and the link between the income and the expenses. In view of the complexities, this approach should be implemented if a contracting state believes the treaty will be used for the stepping stone strategy (OECD, 2010c).

The base erosion test of the limitation on benefits article applies the channel approach. Treaty benefits are denied when payments are made to an intermediary entity, controlled by non-residents, where more than 50% of gross income is used to settle claims to non-residents. This percentage would exclude certain types of expenses, such as payments for the purchase of raw materials. There is one difficulty with this approach. While setting a fixed value provides a measurable benchmark and hence certainty for taxpayers, it also provides a limit under which it is acceptable to shift profits. The clause limits the effectiveness of the stepping stone strategy but does not disallow its use entirely; 49% of income can still be shifted to a low tax country or to a country where the activity would not be sufficient to generate a taxable presence through the permanent establishment rules. On the other hand, there may be legitimate reasons where a company held by non-residents pays more than 50% of income outside the country. *Bona fide* clauses will also be needed to ensure benefits are not unduly denied (OECD, 2010c).

Neither the look-through approach nor the channel approach addresses the use of hybrid instruments or hybrid entities. As previously seen, paragraph 6 and 7 of Article IV of the Canada-US tax treaty offer a way to restrict the use of hybrid entities by disallowing treaty benefits where one state views the entity as transparent and tax outcomes would be different if it was a corporation. That article does not, however, offer any solutions to the use of hybrid instruments. This could be accomplished by providing benefits where non-residents exercise control over the receiving entity only if the income is subject to tax in the resident state's domestic tax laws. The OECD qualifies this as the ***subject-to-tax approach***. It reinforces the intent behind tax treaties, avoiding double taxation, while disallowing instances of double non-taxation (OECD, 2010c). It would, however, deny treaty benefits to charitable organizations or other entities exempt from tax. A clause should be included to provide the benefits to such organizations if so desired. This approach is well suited to tax treaties between trading partners with highly integrated supply chains and complex tax laws where significant gaps exist between sets of domestic tax rules (OECD, 2010c). It should be noted that a subject-to-tax test should not be sufficient to qualify for benefits on its own. Transactions should qualify under one of the other tests but could be disqualified using this test.

Some countries provide special tax privileges to certain types of companies to encourage the use of conduits. In the event these companies can be identified in legal terms, possibly by using the same language domestic tax laws use to confer the tax advantage, it would be possible to limit or deny treaty benefits using an exclusion clause inserted in the tax treaty (OECD, 2010c). In the same way, should a certain type of income benefit from reduced or non-taxation in a country, other countries should restrict treaty benefits to that type of income to that country. This *exclusion approach* could help reduce incidences of double non-taxation for hybrid mismatch arrangements as well counter harmful tax practices for countries known to encourage conduit companies. The application of exclusion provisions is simple and provides both taxpayers and enforcement agencies clear information as to what is considered abusive. Such provisions would effectively and efficiently counter the most flagrant cases of double non-taxation. When the United Kingdom, Germany and Italy introduced exclusion clauses in their treaties, those countries reported sharp decreases in the use of the abusive schemes they were meant to disallow. (OECD, 2012b)

These general anti-treaty shopping rules would certainly disallow treaty benefits in certain situations where companies should have access to treaty benefits. In that sense, general rules may be over-inclusive and require specific rules to allow benefits notwithstanding the general provisions. The OECD (2010c) therefore recommends the inclusion of a *general bona fide* provision for the general rules not apply if the company can demonstrate that its principle purpose and the conduct of its business are motivated by business reasons and not have as a primary purpose the goal of obtaining treaty benefits. “Business reasons” will likely not be defined in tax treaties nor in domestic tax laws; therefore, this provision would probably form the basis of defense of any company charged with treaty shopping. Companies can arguably always find a business reason why a specific structure was adopted. Of course, there are too many possible “good” reasons to list a comprehensive list within a tax treaty or domestic law. In the end, courts must be relied upon to strike the right balance based upon the spirit of the treaty.

An *activity* provision could invalidate the general rules in cases where the company is engaged in substantive business operations and that the income subject to the treaty benefits is connected to those operations (OECD, 2010c). This provision could be considered a subsection of the bona fide provision as it speaks to legitimate business reasons for being established in that country. The word substantive being subjective, this provision may invite firms engaged in aggressive tax avoidance to transfer part of their operations in the country in question, even if operating at a loss, to legitimize obtaining treaty benefits.

Should the tax relief sought under the treaty be no greater than the actual tax imposed by the state of residence, the general rules should not disallow treaty benefits. This is called the *amount of tax* provision. Tax treaties were initially designed to relieve double taxation. Should a company be paying more than single taxation, it is certainly not engaged in tax avoidance and therefore should not be denied the benefits the treaty was intended to provide.

The OECD (2010c) recommends that treaty benefits should not be denied when a company’s principal class of shares is registered on an approved stock exchange in the residence country. This *stock exchange* provision rightfully assumes conduit entities are not publicly listed therefore aims to avoid denying treaty benefits to public companies.

In the event the general anti-abuse clauses mentioned above refer to non-residents of the contracting states that are residents of a third country benefiting from a tax treaty with the source country that provides at least as much tax relief as the treaty in question, then the anti-abuse clauses should not apply. The OECD (2010c) refers to such a provision as the *alternative relief* provision. Another way to look at this clause is to say that if the "true" beneficial owner of the income is a resident of a state that has a treaty with the source country, then the treaty benefits should be granted despite the income being routed through another country.

Most of these exceptions are already present in limitation on benefits articles. The general bona fide provision is applied through the final subjective test. The activity provision is provided under the active trade or business test. Companies listed on recognized stock exchanges are considered qualifying persons and the alternate relief provision is applied through the derived benefits test. The only provision not currently in force in treaties with a limitation on benefits article is the amount of tax provision. The inclusion of this provision would reinstate treaty benefits for income subject to double taxation when they have been denied under the other tests. The treaty's aim is to eliminate double taxation therefore any transactions resulting in greater than single taxation are clearly within the spirit and intent of the law. In addition, this provision would eliminate the need for these companies to submit a request to tax authorities in order to apply for the subjective test therefore it would reduce the firm's compliance and authorities' administrative costs.

Countries can benefit from profit shifting through virtual tax competition. Such countries would encourage the use of conduit companies and therefore would oppose the inclusion of look-through, channel and especially exclusion provisions in their treaties. They would not be expected to oppose the subject to tax provision since they wish to tax the incoming profits, albeit at a low rate to attract mobile sources. While not recommended by the OECD, a course of action available for large, high tax countries would be to refuse to pursue treaties with these countries. The higher withholding tax rates and double taxation would make profit shifting to those countries unattractive. Of course, such a strategy would only be successful if all countries with which the high tax country has treaties agree not to put in place treaties with the worst offenders. The base erosion test only disallows benefits if more than 50% of the income is paid to a resident of the country without a treaty with the source country therefore some income could still be shifted to the low tax jurisdiction through a third country.

International cooperation is key to this issue. Instead of negotiating bilateral treaties, like-minded countries facing the same tax competition incentives and having similar tax laws should negotiate multilateral treaties as an economic block. This would hopefully provide them with enough power to be able to negotiate the insertion of the limitation on benefits clause with small countries engaged in virtual tax competition since the small country would risk losing access to a substantial market, even for its legitimate businesses. Consider, for example, the situation where the United States, the United Kingdom, Canada, Australia, South Africa and New Zealand attempt to negotiate a multilateral treaty with the Netherlands or Luxembourg. Legitimate Dutch or Luxembourgian companies deriving income from any of the countries in the multilateral treaty would face double taxation and an important competitive disadvantage in the absence of a treaty. They would therefore have a strong incentive to lobby their government to accept the economic block's conditions.

Canada does not currently include a limitation on benefits article in its tax treaties. The only treaty it has with such an article is the Canada-U.S. treaty and benefits can only be denied to Canadian residents receiving income from the United States, Canada cannot deny treaty benefits to American companies receiving income from Canada (Kallas, 2002). Canada's lack of concern with regards to treaty shopping through the United States is understandable considering the U.S.'s stringent treaties and high tax rate. For every other country, the only safeguard Canada has against treaty shopping is the GAAR. In addition, Canada lacks the negotiating power the U.S. has to unilaterally impose limitation on benefits articles on its treaty partners. As such, the multilateral approach to renegotiation of tax treaties is especially well suited to Canada's situation. It could allow Canada to simultaneously renegotiate treaties with a large number of countries and, if the United States participates, would have a partner committed to the inclusion of a limitation on benefits clause.

A cooperative strategy would also be challenging but especially fruitful for the largest economic block, the European Community (EC). The challenges lie in the fact that the EC is composed of countries with varying sizes and attitudes towards tax competition. The incentives faced by England, France and Germany contrast those faced by Cyprus, Ireland and Switzerland. Agreement on the inclusion of a limitation on benefits article would be difficult even before the block engages negotiations with the third party. If it could be achieved, however, treaty shopping in Europe would greatly diminish. At present, article 63 (paragraph 1) of the EC treaty prohibits any restrictions to the free movement of capital between member states as well as between member states and third countries. This restricts the ability of large countries such as France and Germany to counter the use of conduits though smaller European countries. For example, Germany does not have a treaty with Barbados, which taxes the income of international business companies at a very low rate. The Netherlands, however, do have a treaty with Barbados. Article 63 prohibits Germany from taking actions that would impede the transfer of the income of its companies to subsidiaries in the Netherlands even when this income is destined to be transferred to Barbados. With multilateral treaties in place, every country in the EC would have access to the same treaties with the same terms. There would exist no opportunity for treaty shopping for the whole of Europe.

In the end, a limitation on benefits article in tax treaties is the most efficient way to reduce treaty shopping by disallowing benefits to conduit companies as well as subsidiaries engaged in the stepping stone strategy. This article should be strengthened by including a subject-to-tax provision to counter the use of hybrid arrangements while allowing an amount of tax exception to ensure income is not unduly subject to double taxation. Multilateral treaties could further reduce the prevalence of treaty shopping by standardizing the clauses on a large number of countries' treaties. It would also force countries engaged in facilitating treaty shopping to accept these clauses since the cost of not participating in the treaty should outweigh the benefits of serving as a conduit nation.

Financial Structure

Countries have enacted a number of rules to disallow the deduction of interest paid to related parties. Rules based on the balance sheet, such as Canada's thin capitalization rules, are the simplest to administer and enforce (Advisory Panel of International Taxation, 2008). In this case, simplicity is also the rule's weakness since multinationals can easily forecast their year-end debt to equity ratio and maximize their intra-firm profit shifting while remaining just under the 1.5 debt to asset equity limit.

Earning stripping rules, on the other hand, are based on the more difficult to forecast income statement measures. For that reason, firms would be less able to maximize their profit shifting using intra-firm loans. Earnings stripping rules are, however, more complex to administer (Advisory Panel of International Taxation, 2008).

Both these rules consider only the interest on debt from related parties. When considering limiting leverage from third party debt, one must first pose the following question "Is a multinational maintaining a highly leveraged affiliate in a high tax country while maintaining lowly leverage for an affiliate in a low tax country engaged in profit shifting?" The tax authorities in most countries, including Canada and the United States, would say no. Firms only have higher leverage because the after tax cost of debt is lower in high tax countries, hence their focus on related-party debt. The policies of numerous other countries such Australia, New Zealand, Germany, Denmark and Italy, however, seem to tell a different story. By targeting both intra-firm and third party debt, they are conveying the message that when a multinational organizes its affiliates' capital structure, it does not equate marginal product to marginal cost in each jurisdiction as would separate enterprises. Instead, it equates marginal products across jurisdictions and allocates debt where the after tax cost is lowest to maximize the group's worldwide after tax profits, subject to their creditors' approval. In this case, extending thin capitalization or earning stripping rules to third party debt is justified.

There exist substantial leverage differences across sectors. Companies in industries with stable cash flow or in highly regulated markets tend to have higher leverage. Setting a fixed thin capitalization or earnings stripping ratio may therefore disallow legitimate interest expenses for companies in highly leveraged industries while permitting profit shifting for otherwise lowly leveraged companies.

An arm's length approach to how much interest a specific firm could reasonably incur would theoretically address this concern. This approach would be costly to administer, as foreign owned firms would need to demonstrate to tax authorities that their interest expenses meet this criteria. The rules adopted by Australia and New Zealand, which compare an affiliate's debt to equity ratio with the corporate group's ratio, accomplish the same result while being easier to administer and comply with.

A final option may greatly simplify the financial structure discussion. Should domestic tax laws treat debt in the same way as equity, any profit shifting using interest payments becomes obsolete (Boadway and Tremblay, 2014). This can be done in one of two ways. Debt can follow the same tax treatment as equity by disallowing interest deductibility or equity can be treated as debt by exempting a portion of the returns on equity (Auerbach et al., 2010).

Using a comprehensive business income tax system, corporate taxes would be levied on the firm's income before interest, effectively removing all deductibility of interest. In this case, the taxes the firm pays would not depend at all on whether the firm is financed by equity or debt. The country would be immune to profit shifting via financial structure. Corporate taxable income would be higher than under regimes due to the wider tax base therefore this change could permit a reduction of the corporate tax rate. Of course, tax treaties and personal income taxes would need to be updated to harmonize the treatment of interest and dividends therefore this change could not be quickly implemented. With the exception of the harmonization of interest and dividend treatment on tax treaties, this change does not rely on international cooperation: it can be done unilaterally since it would result in inward profit shifting by other channels due to the lower base and outward shifting of debt (Boadway and Tremblay, 2014). Other countries would then have an incentive to follow suit.

Canada does not have any safeguards against the deduction of interest already claimed in another jurisdiction (the so-called “double dipping” of interest) such as the United States’ dual consolidated loss rules. It also has no protection from the use of hybrid instruments unless a subject-to-tax test is introduced to treaties, which may take years to put in place. A comprehensive business income tax would decisively deal with both issues.

Doing the opposite, instituting a deduction for equity financing similar to what is enjoyed by interest would be difficult since it would imply reducing the corporate tax base, requiring a higher tax rate to maintain revenue levels. This would therefore require international cooperation since if done unilaterally outward profit shifting would be expected to occur (Boadway and Tremblay, 2014). Tax systems such as the capital account allowance tax or the allowance for corporate equity, while removing bias in favour of debt financing over equity financing, would therefore be very difficult if not impossible to implement in a globalized world with mobile income.

Transfer Pricing

Manipulation of prices for trades between related affiliates accounts for over 70% of profit shifting activities (Heckemeyer and Overesch, 2013). This speaks persuasively to the need to develop, strengthen and enforce transfer pricing rules relating to the arm’s length principle.

The goal of transfer pricing rules is to determine the allocation of profits between the parties using a price comparable to what would have been agreed upon by independent parties. The current formulation of the rules works well when a comparable uncontrolled price can be found. Very little profit shifting is achieved through the manipulation of transfer prices of commodities or common products and services. Opportunities for profit shifting arise, however, when the uncontrolled price method cannot be applied.

In order to facilitate its application, the guidelines state that a one-sided test[7] is preferable to a two-sided test when it is feasible based on the function performed, the availability of comparable data from independent transactions and both the lack of valuable intangible contributions and the low complexity of the tested party. The logic is that by testing one party's share of the profits by the arm's length standard, the other party's income must mathematically also meet the same standard therefore the party it is easier to test should be tested. As long as there are only routine profits to distribute, this is not controversial. However, what happens if profits are more than just routine profits? The multinational may have a recognizable and reputable brand name, employ superior manufacturing know-how or benefit from economies of scale, any of which would lead to higher margins than an independent firm lacking those attributes. Supplementary profits are defined as profits in excess of what would result from applying a one-sided test to each of the related affiliates. By the design of one-sided tests, these supplementary profits are always allocated to the untested party.

The preference for one-sided tests is believed to be at the root of the base erosion problem (Wells and Lowell, 2014). Multinationals organize their affiliate structure in order to consider the affiliates in low tax countries "complex" either through ownership structure like joint ventures or intercompany agreements, by assigning intangibles that would make a unique contribution to the trade or by assigning functions considered high risk thereby forcing the high tax affiliate to be the tested party. Being the tested party, the high tax jurisdiction receives routine profits while all supplementary profits are assigned to the low tax country. Incidentally, this is why Swenson (2001) finds that tax rates have little effect on the prices of American imports and exports. Those prices are based on the routine profits earned by independent firms performing similar functions, not on the related affiliate's tax rate. A large correlation between tax rates and import/export prices would therefore not be expected.

In contrast, a two-sided test seeks to divide the combined income of all parties. No supplementary profits automatically are allocated to a low tax affiliate without justification (Wells and Lowell, 2014). Changing the guidelines to prioritize the comparable uncontrolled price, followed by the two-sided tests (therefore removing the acceptance of the one-sided tests) would greatly reduce multinationals' opportunity to shift profits since the share of each affiliate's profit must be justified using keys. Such a change in guidelines would, admittedly, be administratively burdensome for taxpayers. In addition, the

[7] A one-sided test occurs when the arm's length test is applied to only one affiliate in determining the transfer price while the other affiliate remains untested.

choice of which key to use could still allow firms some flexibility to influence the price, leading to limited profit shifting.

This has led some authors to push the two-sided profit split method even further. Instead of applying it to each transaction, they believe it should be applied to the whole of multinational's global income. In addition, they believe the keys to be used should be predetermined to avoid any profit shifting by having the flexibility to choose the most advantageous key. Instead of trying to attribute profit to an affiliate's activities, the global income would simply be allocated to the countries in which a multinational operates using a fixed formula. This method is known as ***formula apportionment***.

Under this international taxation method, multinationals would present a combined global earnings report to each country in which it is present. Each country would then apply a formula based on the percentage of tangible assets, sales or labour the multinational has within its borders to calculate how much of the income it can subject to its tax rate.

Since the global earnings would disregard any internal transfers or payment between affiliates, the issues relating to transfer pricing become obsolete: only payments received from consumers or an independent firm would be considered revenue. Conduit companies and hybrid mismatch arrangements would have no effect on taxes, effectively negating those strategies. Profit shifting via intra-firm loans would obviously become ineffective since intra-firm payments are disregarded. Furthermore, third-party debt could no longer be used to shift profits since interest would be deductible at the same tax rate regardless of the location of debt. Formula apportionment would even ensure that there are no cases of double taxation, even in the absence of any tax treaty.

As long as they are not included in the apportionment formula, the geographical location of intangible assets would not matter. The increase in profits due to those intangibles would be allocated to every part of the supply chain. This better reflects economic reality: assigning a geographic location to intangible property makes little sense. Revisiting the case of GlaxoSmithKline, both the manufacturer and the distributors in every country would have high margins from the brand-named drug, instead of supplementary profits being exclusively registered with a holding company that owns the patents in a low tax jurisdiction and is engaged in neither production nor sale activities.

Each country would still retain the right to set the tax rate of its choosing. In that sense, real tax competition may still take place. Current virtual tax competition, however, would be extinguished. In fact, every channel and strategy described in this paper could no longer be applied and profit shifting would end.

The formula apportionment method is already employed in a national context. Income earned by a Canadian company in multiple provinces that did not incorporate a separate affiliate in each province completes a single tax return for the whole of Canada. Income is then apportioned using a formula based on sales tax collected and payroll tax remitted in each province. These measures are seen as proxies for production and consumption. This income is then subjected to the different provincial tax rates in effect (Mintz and Smart, 2004). In a similar way, the United States allocate corporate income to individual states using tangible assets, labour costs and sales. A weight of one third has historically been used but some states have moved to increase the weight of sales to one-half so that an equal weight is afforded to production and to consumption (Picciotto, 2012). A formula apportionment system has also been suggested for corporate taxation in the European Community but has not been implemented.

Applying a formula apportionment on the international level would entail many difficulties. Agreement would be needed to establish a common tax base and the variables to include in the formula as well as their respective weights (Picciotto, 2012). . These two issues are less of a concern at the national level since there exists a central authority that can impose accounting rules to standardize the tax base. In addition, the tax incentives faced by North American provinces and states are more aligned than those faced by different countries, leading to less disagreement on the choice of formula.

To standardize the tax base, countries would need to agree on which type of legal structures are subject to corporate taxation (Picciotto, 2012). For example, would a partnership deriving international income be taxed as a corporation or would the partners be taxed as individuals? What about an international company structured as a sole proprietorship? Agreement would be needed to define deductible expenses. Would meals and entertainment be fully deductible or only up to a certain limit? How would depreciation calculated? Evidently, consensus on a common tax base would require a lot of effort considering the number of countries in the world. It should also be noted that a common tax base would mean that countries could no longer encourage certain behaviors through tax expenditures. This fiscal lever, such as the encouragement of capital formation through accelerated capital cost allowances, could no longer be used unless it is applied to all countries.

Obtaining international agreement on the choice of formula would also be difficult since it requires rethinking of the source and residence taxation paradigm. Consumer economies would benefit from selecting sales as the key driver in the formula. Economies based on manufacturing would prefer assets or labour measures. Rich countries would prefer that the labour key be measured in terms of payroll while developing economies would benefit from defining labour as a headcount. Finally, small countries benefiting from virtual tax competition would simply object to any formula.

International agreement on a formula to apply consistently across countries is not an absolute requirement for the implementation of this tax regime (Picciotto, 2012). Different formulas, however, would allow multinationals opportunities to exploit the differences in order to reduce their tax burden. For example, if one country places more weight on the proportion of sales while another country places more weight on labour and assets, producing in the first country while selling in the other would result in less than single taxation (or more than single taxation in the opposite case).   As such, the application of different formulas would greatly weaken the case for formula apportionment.

Despite effectively negating all current profit shifting channels, a formula apportionment system would give rise to other, new tax planning schemes. Hines (2010) provides us with an example using mergers. Imagine a profitable corporation in Germany that, to minimize its tax burden, merges with an unprofitable Irish company. The profits that would have been subject to the high German tax rate would then partially be allocated to Ireland. On the other hand, should the Irish firm be profitable, the formula apportionment may have made the merger unattractive even if it would have made economic sense in the absence of the formula. Hines therefore believes that this regime would lead to inefficient allocation of resources and a deadweight loss. Hines also shows that the location of labour is not correlated with the location profits when comparing the tax results of formula apportionment with the current separate accounting tax regime.   However, the basis of comparison (what Hines would consider the correct location of profits) includes the effect of profit shifting and attributes a physical location to intangible assets. The more pertinent question would therefore be whether profits should be allocated based on employment instead of testing whether they currently are.

Partly in response to such criticism, two authors, Clausing and Avi-Yonah (2008) propose to use only sales as the key to allocate worldwide profits. They believe this measure to be the least likely to be manipulated and the simplest to administer. In addition to countering virtual tax competition, formula apportionment based solely on sales would also dissociate the tax rate from the decision of where to locate production facilities.   This regime would nullify any tax advantage and incentive in shifting real economic activity to lower tax jurisdictions. In effect, it would render real tax competition amongst countries, the “race to the bottom”, obsolete.

The authors argue such a system could be adopted unilaterally since there would be a strong incentive for other countries to follow suit. Should other countries not follow, they risk losing tax revenue as multinationals shift their profits into the country that has adopted the formula apportionment regime to take advantage of the fact that the taxes payable in that country are no longer a function of the profits registered in that jurisdiction.

I view unilateral implementation as problematic. This approach abandons the recognized source[8] and residence[9] principles and would confer authority to tax solely based on consumption. The theoretical grounds for this shift have not been convincingly argued. Such a regime would benefit consumer economies to the detriment of emerging economies who host a large portion of production. Developing countries, the BRIC countries in particular, would be expected to strongly oppose this regime. Unilateral adoption by one of the major western countries would cause a serious rift in international relations. From a Canadian perspective, it is not immediately clear whether formula apportionment would be beneficial since it would depend on the weight assigned to each variable in the agreed upon formula. Canada would prefer the labour variable be measured using payroll as opposed to a count of employees since Canadian salaries are much higher than the global average. It would also benefit from a larger weight to the sales variable.

While this regime would effectively counter the profits shifting strategies examined so far in this paper, new strategies could be employed to minimize taxes. Consider the case of a conglomerate engaged in the research, design, manufacture, distribution and retail of a product. The conglomerate could spin off its distribution and retail activities, placing them under separate ownership. The conglomerate could then sell its product to the new distribution and retail company only in lower tax jurisdictions, which then distributes the product around the world. The result would be that most of the value-added activities of the global supply chain would be subject to little taxation. Countries would find it very profitable to attract this kind of transaction, leading to a new kind of tax competition.

So far, the proposals for formula apportionment have mostly attempted to allocate income in a way as to replicate the taxes that would have been paid to each jurisdiction using separate accounting in the absence of profit shifting. If this is the ultimate objective, the aggregate outcome could be achieved by

[8] The source principle states that the authority to tax resides where capital originated since that state provided the infrastructure needed to permit the generation of income. It also relates to fairness since tax would be linked to ability to pay.
[9] The residence principle argues that tax is the price of public goods used to produce the profits and therefore the jurisdiction in which the economic activity took place should have the authority to tax.

using a macro-economic variable instead of each firm's specific situation. Apportioning each multinational's income according to every country's share of global GDP (scaled by some measure of openness to international trade) may replicate the desired allocation. Coordination on the tax rates would however be needed. Since business decisions relating to location would be completely dissociated from taxation, countries would benefit from setting as high a tax rate as possible.

Taxation is not only used as a revenue tool, it is also used as a redistribution tool amongst citizens of a jurisdiction. A formula based on each country's share of the world's population could reduce income disparity on a global scale. Alternatively, corporate taxation revenues could not be distributed to national governments but instead dedicated to activities whose benefits cross borders. For example, those revenues could be used to fund environmental research and actions to combat climate change, humanitarian and disaster relief or foreign aid.

Worldwide formula apportionment taxation may therefore hold promise to counter profit shifting and base erosion but more research is needed to design a system which does not give rise to new shifting methods, respects the incentives currently faced by countries while remaining mindful of the ensuing increase in real tax competition.

7 - Conclusion

This paper has examined the channels used by multinationals to shift profits to low tax jurisdictions. While controlled foreign corporation rules are effective at countering the shifting of passive income, the current rules in place to manage active business income, the general anti-avoidance rule and the concept of beneficial ownership, have not had much success. Quantifiable tests, such as those of the limitation-on-benefits article in force in certain treaties, provide more certainty to the taxpayer as to what constitutes abuse and would be easier for authorities to enforce. The article should be strengthened with a subject-to-tax test to counter the use of hybrid instruments and an amount of tax exemption as to not deny benefits in situations of double taxation. The limitation-on-benefits article should figure on the model convention and countries should be encouraged to include it in their future negotiations. Knowing some countries would resist the inclusion of such an article, large and developed countries should negotiate multilateral treaties as an economic block to increase their bargaining power.

Thin capitalization and earnings stripping rules are effective at curbing profit shifting with intra-firm loans. However, most base erosion resulting from a multinational's financial structure is due to third party loans. Adjusting the thin capitalization or earnings stripping rules to limit the amount of debt an affiliate can owe based on its corporate group's total debt is seen as an effective way to disallow deductions for excessive third party debt while respecting different industries' required leverage. In the long term, disallowing deductions for interest payments completely using a comprehensive business income tax system would make profit shifting using debt obsolete. Countries contemplating such a system could implement it unilaterally since it would result in inward profit shifting. Other countries would then have an incentive to follow suit.

The largest contributor to profit shifting is the preference for one-sided tests of the guidelines on transfer pricing. These one-sided tests assign the totality of supplementary profits to the untested party, the lower tax jurisdiction. The transfer pricing guidelines should prioritize the comparable uncontrolled price method and, if this method cannot be applied, the two-sided profit split method. Formula apportionment may yet hold promise as a remedy to all types of profit shifting. As it is currently envisioned, however, it cannot realistically be implemented without giving rise to new types of profit shifting channels or tax competition.

Bibliography

Advisory Panel on Canada's System of International Taxation (2008), Enhancing Canada's International Tax Advantage, Department of Finance Canada.

Auerbach, A. J., M.P. Devereux, and H. Simpson (2010), "Taxing Corporate Income" in Stuart Adam, Timothy Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles, and James Poterba (eds.), Dimensions of Tax Design: The Mirrlees Review (Oxford, Oxford University Press), pp. 837–93.

Avi Yonah, R. and K. A. Clausing (2008), "Reforming Corporate Taxation in a Global Economy: A Proposal to Adopt Formulary Apportionment", in J. Furman and J. E. Bordoff, eds. Path to Prosperity: Hamilton Project Ideas on Income Security, Education, and Taxes, Washington, DC: Brookings Institution Press, pp. 319-44.

Bartelsman, E. J. and R. M.W.J Beetsma (2001), "Why pay more? Corporate tax avoidance through transfer pricing in OECD countries", Journal of Public Economics 87, pp. 2225–2252.

Baum, S. and G. Watson (2012), "Beneficial Ownership as a Treaty Anti-Avoidance Tool?", Canadian Tax Journal 60:1, pp. 149-168.

Boadway, R and J.-F. Tremblay (2014), "Corporate Tax Reform: Issues and Prospects for Canada", Mowat Center

Buettner, T., M. Overesch, U. Schreiber, G. Wamser (2011), "The Impact of Thin-Capitalization Rules on Multinationals' Financing and Investment Decision", Working Paper.

Buettner, T., and G. Wamser (2007), "Intercompany Loans and Profit Shifting - Evidence from Company-Level Data", CESifo Working Paper Series No. 1959, CESifo Munich.

Bucovetsky, S. (1991), "Asymmetric Tax Competition", Journal of Urban Economics, 30(2): 167–81.

Canada–United States Tax Convention Act, 1984, SC 1984, c 20, < http://www.fin.gc.ca/treaties-conventions/usa_-eng.asp> retrieved on 2014-06-16

Copthorne Holdings Ltd. v. the Queen, 2007 TCC 481

Clausing, K. (2001), "The Impact of Transfer Pricing on Intrafirm Trade." in James R. Hines, Jr., ed. International Taxation and Multinational Activity. Chicago: U of Chicago Press. 173-94.

Clausing, K. (2006), "International Tax Avoidance and U.S. International Trade." National Tax Journal, 59(2), 269-87.

Clausing, K. (2007), "Corporate Tax Revenues in OECD Countries." International Tax and Public Finance, 14, 115-33.

Clausing, K. and R. Avi Yonah, (2008) “Reforming Corporate Taxation in a Global Economy: A Proposal to Adopt Formulary Apportionment.” in Jason Furman and Jason E. Bordoff, eds. Path to Prosperity: Hamilton Project Ideas on Income Security, Education, and Taxes. pp. 319-44.

Crown Forest Industries Ltd. v. Canada, 95 DTC 5389
Department of Finance Canada (2013), “Consultation Paper on Treaty Shopping”, <http://www.fin.gc.ca/activty/consult/ts-cf-eng.asp> retrieved on 2014-11-28

Devereux, M P (2006), “The Impact of Taxation on the Location of Capital, Firms and Profit: A Survey of Empirical Evidence”, European Tax Policy Forum.

Dharmapala, D and N. Riedel (2013), “Earnings Shocks and Tax-Motivated Income-Shifting: Evidence from European Multinationals.” 97 Journal of Public Economics 95.

Dischinger, M and Riedel, N (2013) “The Role of Headquarters in Multinational Profit Shifting Strategies”, 2013, International Tax and Public Finance, 21 (2), pp. 248-271.

Egger, P., and G.Wamser (2011), “The impact of controlled foreign company legislation on real investments abroad: A two-dimensional regression discontinuity design”. CEPR Working Paper No. 8460, London.

European Commission (2001), “Towards an Internal Market Without Tax Obstacles: A Strategy for Providing Companies with a Consolidated Corporate Tax Base for Their EU-Wide Activities”, COM, 582 final (October 23).

Flsmidth Ltd. v. The Queen, 2012 TCC 3

GlaxoSmithKline Inc. v. The Queen, 2008 TCC 324

GlaxoSmithKline Inc. v. Canada, 2010 FCA 201

GlaxoSmithKline Inc. v. The Queen, 2011 SCC 33874

Glicklich, P. and A Leitner (2007), “Selected U.S. Tax Developments — New Canada-U.S. Protocol Contains Hybrid Entity Surprises”, Canadian Tax Journal, Vol 55 No. 4, pp. 935-946.

Graetz, M and R. Doud (2013), “Technological Innovation, International Competition, and the Challenges of International Income Taxation”, 113 Columbia Law Review 347.

Gravelle, J.G. (2010), “Tax havens: International tax avoidance and evasion”, Congressional Research Service, R40623.

Haufler, A and G. Schjelderup (2000), “Corporate Tax Systems and Cross Country Profit Shifting”, Oxford Economic Papers, Vol. 52 No. 2, pp. 306-325.

Heckemeyer, J. and Overesch M (2013), “Multinationals’ Profit Response to Tax Differentials: Effect Size and Shifting Channels” (Working Paper No. 13-045), Retrieved from Centre for European Economic Research website: http://ftp.zew.de/pub/zew-docs/dp/dp13045.pdf

Hines, J.R. (2010), "Income Misattribution Under Formula Apportionment." European Economic Review 54, no. 1: 108-20.

Hines, J.R. and Rice, E.M. (1994), “Fiscal Paradise : Foreign Tax havens and American business”, Quarterly Journal of Economics 109, 149-182.

Huizinga, H and L. Laeven (2008), “International profit-shifting within multinationals: a multi-country perspective”, Journal of Public Economics 92, pp. 1164-1182.

Jog, V.M. and J. Tang (2001), “Tax Reforms, Debt Shifting and Tax Revenues: Multinational Corporations in Canada”, International Tax and Public Finance, 8(1), 5-26.

Kallas, P. (2002), “A Study of Article XXIX A of the Canada-US Tax Treaty: The Limitation-on-Benefits Article”, Canadian Tax Journal 50:6, pp. 2219-2258.

Keen, M. (2001) “Preferential Regimes Can Make Tax Competition Less Harmful”, National Tax Journal, LIV, No. 4: 757-762.

OECD (2004) “Are the Current Treaty Rules for Taxing Business Profits Appropriate for E-Commerce?”, Center for Tax Policy Administration, OECD Publishing.

OECD (2010a), “OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrators”, OECD Publishing.

OECD (2010b), “Report on Business Transfer Pricing Aspects of Business Restructurings”, OECD Publishing.

OECD (2010c), “Model Tax Convention on Income and on Capital: Condensed Version 2010”, OECD Publishing.

OECD (2012a), “Double taxation conventions and the use of conduit companies”, in Model Tax Convention on Income and on Capital 2010, OECD Publishing

OECD (2012b), “Hybrid Mismatch Arrangements: Tax Policy and Compliance Issues”, OECD Publishing

OECD (2013a), “Addressing Base Erosion and Profit Shifting”, OECD Publishing. http://dx.doi.org/10.1787/9789264192744-en

OECD (2013b), “Action Plan on Base Erosion and Profit Shifting”, OECD Publishing. http://dx.doi.org/10.1787/9789264202719-en

Madiès, T. (2003), « Prix de transfert optimaux et comportement stratégique des multinationales », Recherches Économiques de Louvain, vol. 69 No. 4 pp. 387-406.

McCarthy Tetrault LLP. "Submission on Treaty Shopping." Letter to Department of Finance. 12 Dec. 2013. MS. 140 O’Connor Street, Ottawa, On.

Mehafdi, M. (2000), “The Ethics of International Transfer Pricing”, Journal of Business Ethics 28, 365-381.

Merrill, P, et al. (2012), “Is It Time for the United States To Consider the Patent Box?”, 134 Tax Notes 1665.

MIL (Investments) S.A. v. The Queen, 2006 TCC 460

Mintz, J. and M. Smart (2004) “Income Shifting, investment, and tax competition: theory and evidence from provincial taxation in Canada”, Journal of Public Economics 88, pp. 1149-1168.

Picciotto, S. (2012), “Towards Unitary Taxation of Transnational Corporations”, *Tax Justice Network*.

Prévost Car Inc. v. The Queen, 2009 FCA 57

Rixen, Thomas (2011), “From double tax avoidance to tax competition: Explaining the institutional trajectory of international tax governance”, Review of International Political Economy 18, pp. 197–227.

Ruf, M., and A.J. Weichenrieder (2012), “The taxation of passive foreign investments: Lessons from German experience”, Canadian Journal of Economics 45, pp. 1504-1528.

Ruf, M., and D. Schindler, (2012), “Debt Shifting and Thin-Capitalization Rules – German Experience and Alternative Approaches”, NHH Discussion Paper RRR 06-2012, Bergen.

Schwarz, P. (2007) “Does Capital Mobility Reduce the Corporate-Labor Tax Ratio?”, Public Choice, 130(3–4), pp. 363–80.

Schwarz, P. (2009), "Tax-avoidance strategies of American multinationals: an empirical analysis," Managerial and Decision Economics, John Wiley & Sons, Ltd., John Wiley & Sons, Ltd., vol. 30(8), pp. 539-549.

Swenson, D.L. (2001), “Tax Reforms and Evidence of Transfer Pricing”, National Tax Journal 54, pp. 7-24.

Wells, B. and C. Lowell (2014), “Tax Base Erosion: Reformation of Section 482’s Arm’s Length Standard”, 15 Florida Tax Review 737.