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INTERNATIONAL ADMINISTRATION
AND GLOBAL GOVERNANCE

What Can EU Learn from Canada in Corporate Income Taxation?

Author: Johanna Killander

Advisor: Victor Lapuente

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List of Abbreviations

CCCTB	Common Consolidated Corporate Tax Base
CETA	Comprehensive Trade Agreement
CIA	Central Intelligence Agency
ECOFIN	Economic and Financial Affairs Council
EU	European Union
FDI	Foreign Direct Investment
GST	Goods and Services Tax
OECD	Organization for Economic Development
VAT	Value Added Tax
WDI	World Development Indicators

Abstract

This paper studies the race to the bottom in corporate income tax rates that has been argued to happen in federal or semi-federal structures and in particular in Canada and the EU, where the highest corporate tax rates have fallen from about 55 percent to approximately 35 percent since the mid 1980's. Harmonizing tax rates across all the polities forming a common market space is often promoted as a way to avoid this "race to the bottom in taxes" and prevent a possible under provision of public goods. This under provision signifies less income from taxes that is necessary for the government to receive in order to provide schools, health care and public infrastructure. On the other side a decentralized system where jurisdictions set their own rates is often supported because it should lead to increased efficiency in government spending and promote innovative forces in the economy. This empirical paper studies the decentralized system of Canada where the provinces set their own corporate tax rates. It studies if Canada's system of provincial tax rates could work as a guide for EU when considering harmonization of tax rates. Declines in corporate income tax rates are usually carried through because it is presumed that tax cuts will lead to more Foreign Direct Investment (FDI). Despite the sometimes weak relationship, this study shows that there is race to the bottom in corporate tax rates. However, the race does probably not concern all other taxes which suggests that an under provision of public good will not be a problem. A decentralized system as the one in Canada of corporate tax rates has the advantage of promoting efficiency in government spending through increased competition between jurisdictions.

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1.1. Introduction

Increased integration of markets all over the world signifies that firms are getting more and more mobile and jurisdictions will therefore compete against each other to get them to locate within its own borders. The most popular tool of competition has been to cut corporate income tax rates to receive more investment, but if jurisdictions continue to lower their tax rates there will eventually be no taxation at all because of the fierce competition. If there is no income from taxes there will be no funds to fund the public good, which includes for example health care, roads and public education that we value in society. On the other side, a lot of researchers today are supporting decentralization and more competition between jurisdictions. This side believes that it will improve efficiency in terms of public spending and encourage innovative forces. The increased efficiency combined with new ideas and solutions will promote economic growth and development.

Canada has a highly decentralized system that promotes competition in corporate income tax rates among the provinces and local jurisdictions have always had an important role in these taxes. In fact they were the ones, who introduced the taxes in the 19th century, but the responsibility of the taxes has changed throughout history and today it is a shared responsibility. When Canada experienced a major financial crisis in the mid 1990's it caused the national government to give more power to the provinces and thereby increase the degree of decentralization. After the crisis, Canada experienced one of the highest economic growths among the G7 countries and the decentralization has been seen as one of the main explanatory factors behind the growth (Clemens et al 2010, pp 67, 79). However, there has been some movement towards more cooperation on taxes in Canada as well such as an agreement of calculating the taxable income according to a common formula. A common tax base results in a consolidated way of determining the taxable income, calculating the profit and then distributes the income across the jurisdictions that the firms are present in, instead of letting each jurisdiction calculate the profits on their own (Mintz, 2004).

In the EU as well as in the OECD-countries the issue of tax competition has mainly been seen as issue of concern and the policies taken has therefore been towards further cooperation in tax policies. Looking at EU, there have been several steps since the late 1990's towards a harmonized tax system because the difference between the member states is considered as a barrier of free competition (European Commission, 2011), giving for instance France that has the highest tax rate a disadvantage in comparison to Ireland that has one of the lowest rates (OECD, 2011). This year the Commission proposed a Common Consolidated Corporate Tax Base (CCCTB) that implies a common definition of the taxable income that is very similar to the Canadian one (European Commission, 2011).

The idea of a unified Europe goes back to the Roman Empire, but one could question if it could

and should be unified in terms of corporate taxes. At a first glance a comparison of one state, Canada and a union of 27 different countries might seem peculiar. But in fact Jean-Monnet, one of the three co-founders of the European Union visited Canada in the early 20th century and was very much inspired by the country's unique form of federalism. He realized that Canada's Confederation was a practical and business-like successful relationship¹. Canada's development of fiscal decentralization could enable other countries or unions such as the European Union (EU) to determine to what extent it should allow the jurisdictions to keep their responsibility of the taxes (Grewal, 2010).

1.2 Purpose

This paper will investigate if a decentralized integrated market in terms of tax rates will lead to a race to the bottom and an under provision of public good, that is a fall in government revenue as measured by percentage of GDP. In related to this it will study if a decentralized federal or semi-federal market could promote efficiency and innovation, making harmonization of tax rates less attractive. The focus will be on Canada, since this should be quite an integrated market combined with a high level of decentralization. The provinces set their own corporate income tax rates, but most provinces have a common definition of the tax base. The tax rates differ across the provinces; the Atlantic Provinces have moved from a general tax rate of 52 to 31 percent between 1986 and 2011. The current rate makes the Atlantic Provinces a high-tax jurisdiction compared to the low-tax jurisdiction of British Columbia. British Columbia moved from a rate of 53 percent in 1986 to 27 percent in 2011. EU faces a similar situation to the one in Canada, but the question is if it should extend its cooperation further. Canada has a long historical experience of multi-jurisdiction competition and EU should have a lot of learn from Canada when considering the future efforts of harmonizing the corporate income tax.

The purpose of the thesis is to study what EU can learn from Canada in terms of harmonizing corporate income tax. This will be investigated by testing two opposing hypothesis, one coming from the policy-makers that promote harmonization of tax rates to avoid a "race to the bottom" and one that has its origin in the research of the Tiebout Model, Montionola et al (1995), Besley and Case (1995) and Oates (1999) research on the benefits of decentralization.

Hypothesis 1: Harmonizing corporate tax rates is necessary to avoid a race to the bottom and under provision of public good.

¹ Interview with Mr Noë, 2011-09-06

Hypothesis 2: Decentralization of corporate income tax promotes efficiency and innovative competition that encourage economic growth.

1.3 Relevance of the Study

The European Commission has conducted a lot of research of tax competition between the member states and moved towards further cooperation in the corporate tax field. Mintz (2004) found that EU can actually learn a lot from Canada when considering a common tax base. A common tax base has now been purposed by the Commission, but should EU limit its harmonization to only the tax base or should it harmonize the tax rates as well? Clemens et al (2010) found that the secret behind Canada's strong economic performance has been the decentralization process and the competition between the jurisdictions. Canada has a much longer history of an integrated market than the EU and therefore has a longer experience of tax competition. This study therefore contributes to the existing literature by studying if the decentralization in Canada is a case that EU can learn from or if it should be avoided to prevent a race to the bottom in tax rates

2. Methodology

2.1 Literature Study and Interview with Key Informants.

This paper will be a combined literature review and field study in form of interviews with key experts. By doing a literature review I will give an overview of the main research ideas within the field of decentralization and the issue of tax competition, using a wide range of reports that has been published in well-established journals. This literature review will be supported by interviews with some experts in the field of tax competition or political issues in Canada and EU. These interviews will enable me to draw conclusions from some primary data and hopefully give some new insight to the field of tax competition. The interviews were conducted in a period of one month during an EU-Canada Study Tour between the 4th of September and the 2nd of October. During this time I had the opportunity to visit the EU headquarters in Brussels and six of the biggest cities in Canada. I visited organizations at regional as well as governmental level to get a in-depth knowledge of Canada as a federation. I listened to over 100 presentations of political, economical and cultural issues in Brussels and Canada. After some of these presentations I was able to interview nine different experts at the following organizations:

- British Colombia Film Commission
- Canadian Conference of Social Development
- Canadian Labor Congress
- European Commission
- Government of Ontario
- Institute for Research on Public Policy
- Institute of Government Studies in Victoria
- Macdonald-Laurier Institute

2.2 Semi-Structured Interviews

I choose semi-structured interviews because of the wide range of different key informants interviewed. It enabled me to adjust the interviews depending on the key informant which enabled me to get more out of the interview compared to a structured interview. But the fact that they were somewhat structured implied that it was easier to focus on my aim for the thesis and structure the results. The key results were structured in table that can be found in Appendix 9.1. A semi-structured interview have the advantage that the respondent can give their own answer to a question rather

than having to choose between a set of pre-prepared answers. (Kvale, 1997, pp. 121-125). The main question that was used during the study was:

- How would you describe the degree of competition between jurisdictions?
- What is the effect of tax competition in terms of corporate income tax?
- How are the relationships between the jurisdictions and the relationship between different levels of governance?

2.3 Quantitative Data

In order to support my empirical data I will use some statistics to show the development of tax rates over time and to get a good view of the current tax rates. The OECD data will be used to show the relationship between corporate income tax rates and FDI I use some data to get some general information about Canada and the EU from the World Development Indicators (WDI), Centre of Intelligence Agency and data on the Ethnic Fractionalization Index from Fearon (2003). The historical data on the combined provincial and federal corporate tax rates are from Mintz and Smart (2003) which will be combined with data from the Canada Revenue Agency to receive the current tax rates. Since the Canada Revenue Agency does not collect their corporate tax revenues for all provinces, I will combine it with some of the data for Québec and Alberta that has been published by the Government of Alberta. I will also use some data from Grewal (2010) to show the development of shares of income taxation revenue in total taxation revenue. Finally, I will use the WDI by the World Bank to define the size of the public good that is provided that is the government revenue as measured by percentage of GDP. There are also other measurements to decide the level of public good, such as taxes/GDP, social expenditure/GDP or the expenditure on certain areas (i.e. health care and public education). But because of the challenge of finding aggregated data for the EU as a whole and not only on the member states, I chose the WDI.

In brief the following sources of quantitative data will be used:

- Canada Revenue Agency
- Centre of Intelligence Agency
- Fearon (2003)
- Government of Alberta
- Grewal (2010)
- Mintz and Smart (2003)

- OECD Statistics

- World Development Indicators

2.4 Validity and Reliability

This study is a qualitative study and the purpose of it is therefore not to be objective. The aim of the study is to give a broad perspective on the subject of tax competition and in this way test the hypothesis in a reliable way. One challenge in doing a qualitative study including interviews is that the issue of the result of the interviews will be influenced by the researcher's own interpretation and background knowledge of the subject. This question of validity, if the researcher actually understands the situation and information given in a correct way can be strengthened by awareness of its own influence (Flick, 2002, pp. 221-222)

The interviewed experts in this paper are considered to be reliable since they are employees with key positions in their respective organizations. Even though they have a great knowledge of the field it does not imply that they are objective because they are very much influenced by their institution or industry. The reliability has therefore been strengthened by comparing the outcome of the interviews with trustworthy research in terms of literature reviews and other experts' opinion. Some of the opinions given did contradict each other, but this is also the general situation of the subject of tax competition, it is a field of many opposing views. Due the intense schedule of the tour and the limited amount of time I was only able to capture some of the major experts of the field. A lot of other key informants could be considered, such as a wider range of different businesses' perspective or the opinions of governmental representatives in other provinces such as Alberta that is an important economic player. However, the interviews should only be seen as a complimentary material to the literature review. The literature taken into account has been considered reliable because of the use of well-known sources and the additional support given from the experts that could support the material.

3. Background

This chapter begins with outlining some basic facts about EU and Canada as a whole to get a general picture of the unions before studying the theory behind tax competition. The aim of this section is to give an overview of the decentralization process in Canada and explore the movement towards cooperation on corporate income tax in the EU.

3.1 The Characteristics of EU and Canada

In order to understand the relevance of comparing Canada and the EU it is important to understand the basic features of the unions. Canada is about twice as big as the EU, but with a population of only 34 million compared to EU's 500 million inhabitants as seen in the following table. These people are spread over 10 provinces and 3 territories respectively 27 member states, see Appendix for map of Canada and its provinces/territories. But about 90 percent of the populations in Canada live within two hours drive from the US border. In the EU there is quite a different situation, even though there are some Nordic countries that have a very low density of population as well. EU has 23 official languages which can be compared to Canada's two official languages. But the number of official languages does not tell us all about the ethnic diversity; in fact Canada is often described as a melting pot of different nationalities and has an ethnic fractionalization index of 0.59. This index measures the probability that two random selected individuals in a country do not belong to the same ethnic group and can be compared to for example the most ethnic diverse country in Western Europe, Belgium that has an index of 0.57 or a country such as Sweden that as an index of 0.19 (Fearon, 2003). Both Canada and the EU has a high GDP per capita compared to the rest of the world, but Canada has quite a lot higher GDP/capita as well as GDP growth per year which is in line with the country's last decades of good economic performance. The fact that they are both two common markets with a lot of competition between the jurisdictions and spread over a great geographic distance makes these unions good units to compare with each other.

Table 1: Basic Facts of EU and Canada

	EU	Canada
Jurisdictions:	27 Member States	10 provinces, 3 territories
Languages:	23 official languages	2 official languages
Population:	500 million inhabitants	34 million inhabitants
Area:	4.5 million square kilometers	9.9 million square kilometers
GDP/capita:	32 365 USD	46 148 USD
GDP growth/year	1,9 % (2010)	3,1 % (2010 est)
Long-term unemployment:	35 % of all women (2009) 33 % of all men (2009)	7 % of all women (2009) 8 % of all men (2009)
Life Expectancy:	82 years, women 77 years, men	83 years, women 78 years, men

Source: WDI (2011), CIA(2011)

3.2 Canadian Federalism

In 1867 Canada's constitution was established in the British North American Act with two levels of government, the federal and the provincial (Grewal, 2010). The provinces were quite independent, but this changed somewhat in 1950's with the introduction of "national adjustment grants" to equalize the opportunity to fund public good across the provinces (Bordo et al, 2011).

Canada went through a successful decentralization process in the mid 1990's after very serious debt crises. The debt crisis was a result of two decades of budget deficits and eventually, in the early 1990's the economy collapsed because they would no longer receive any more money to finance the loans taken earlier (Clemens et al, 2010, pp. 67). In 1995 the federal government undertook a series of reforms in order to reduce its budget deficit. The federal government was reduced in terms of both its spending power and its employees. The vision was a smaller and smarter government. The federal government had lost control over its own spending on social services due to cost-sharing agreements between the federal level and the provinces. In the new agreement the provinces would receive more control over its spending and the government would put certain standards on the social services that had to be upheld (Clemens et al, 2010, pp. 72-77). The fact that the greatest budget cuts were now done at provincial level implied that a lot of intergovernmental conflicts were avoided (Cameron and Simon, 2002).

The constitution in itself has not changed, but in reality the provinces have access to the most

valuable taxes, such as corporate and personal income taxation. The federal government has the responsibility of all direct taxes, in practice taxes concerning customs, pensions and unemployment insurance (Shah, 1995).

Corporate income tax started as an issue of pure provincial concern, but this has changed over the years. The first income tax was introduced in British Columbia in 1876, which was soon followed by other provinces and finally by the federal government in 1917. The federal government reached an agreement with the provinces during the Second World War that they would temporarily take over the corporate taxes in return for continuous assistance on rental payments (Bélanger, 2001). The federal government wanted to keep the control after the war, but Québec and Ontario recaptured the control shortly afterwards. In 1957 the Rental Agreements between the provinces were replaced with Tax Sharing Agreements. All provinces except Québec agreed to harmonize their tax base and to follow the federal tax rate in return for free federal collection of the taxes. The new agreement also offered abatements or reduction in federal taxes to facilitate provincial taxation of corporations. (Grewal, 2010)

The federal share of the total tax revenue has decreased continuously since the Rental Agreements, but the biggest change occurred between the early 60's and the mid 80's. The federal share decreased from 63 percent in 1961 to 51 percent in 1985. In 2007 the federal share was about 49 percent of the total tax revenue (Grewal, 2010). Fiscal equalization transfers were introduced in 1957 between richer "have provinces" to poorer "have-not provinces" due to the difference in tax revenue capacity (Grewal, 2010). According to Oates (1999) these transfers are one of the major factors that hold the country together.

In the last decades provinces have gained strength in their relationship to the government. The government today works together with provinces in forming national policies, rather than everything is decided from the federal level in Ottawa (Cameron and Simon, 2002). Many provinces are taking a more active role internationally which can be seen in the CETA-negotiations (Comprehensive Trade Agreement) between the EU and Canada. The provinces are a part of the negotiations from the beginning which is quite unique in international trade negotiations.

3.3 Cooperation on Corporate Income in the EU

In the "Tax Policy in the European Union" from 2001 the Commission states that member states are free to decide over their own taxation systems. This is the basis of the union's position on tax policy. But there are a lot of reservations in this policy, because taxation can in many ways prevent free movement of goods, services, labor and capital, the founding principles of the EU. Measures can therefore be taken at EU level if the problems cannot be solved by the member states alone, harmful

tax competition is such an area because it can prevent cross border activities and economic activity. Harmful tax competition is one of many steps in promoting good governance among the member states, other steps are cooperation in; administration and information exchange, fiscal state aids and transparency (European Commission, 2011).

The fight against harmful tax competition begun in 1997 when the Council of Economics and Finance Ministers (ECOFIN) adopted “Code of Conduct”, to prevent this kind of competition. The aim was to prevent countries to give some businesses unfair tax advantages by offering them tax incentives that were more favorable than the general tax level in the member state (European Commission, 2011). At the same time the issue of harmful tax competition was dealt with in the OECD (Organization of Economic Cooperation and Development). The organization had created a Forum on Harmful Tax Practices after publishing “Harmful Tax Competition: An Emerging Global Issue” in 1998. The report focused on harmful consequences of tax havens and certain tax systems in OECD as well outside the group (OECD, 1998).

In 2009 the Commission adopted a Communication report to the Council on good governance in terms of taxes. Good governance was defined by the ECOFIN on May 14, 2004 as “principals of transparency, exchange of information and fair competition” (European Commission, 2009; pp. 5). This Communication once again underlined the importance of transparency and information since the lack of it facilitates tax fraud and tax avoidance. Given the current wave of globalization in terms of increased integrated economic market, EU had to make sure that bilateral agreements are undertaken. The purpose of the cooperation has been to improve governance through fair competition. Good governance was covered by a few main areas in this Communication report, namely improving good governance within EU and to assist other countries with tools to achieve it. Finally, it also opted for more coordinated action with other international organizations such as OECD and the UN to extend the geographical areas (European Commission, 2009).

A major goal of the Lisbon treaty is that the member states of the EU should be more competitive and the Commission has stated that reforming the tax system is necessary to achieve it (McLure, 2008). This was the beginning of the work towards the system of CCCTB that was finally purposed in March 2011. The aim of the CCCTB is to reduce the administrative costs by offering one regulation instead of 27 different ones and in this way also reduce uncertainty of interpreting different juridical systems. The system is not only estimated to save businesses within the EU a huge amount of money, it is also seen as a way of increasing foreign investment in the region. The formula does not say anything about a common tax rate among member states since this would have perceived as too much interfering of the sovereignty of the member states (European Commission, 2011). The Commission has stated many times that this is neither in their or the business community’s interest. It states that competition to some degree is good because it constrains the government from

becoming too big and is good for the competitiveness for businesses (McLure, 2008). According to McLure (2008) improved transparency with the CCCTB formula might also increase tax competition because it makes the difference in tax rates more obvious.

4. Theory

The corporate tax rates have decreased substantially around the world the last decades. In EU as well as OECD it seems like the theory of a race to the bottom has gained a lot of credibility. There is a tendency towards harmonizing taxes to prevent countries in competing against each other in a race towards zero taxation, something that would create an inability to finance public good. On the other side there is an extensive research that are in favor for decentralization as a tool for economic growth because it leads to better governance and more efficient provision of public good because states compete against each other for investment. This section will outline two opposing hypotheses of decentralization and tax competition.

4.1 Decentralization – A Race To the Bottom

The race-to-the-bottom-argument relies on the assumption that states compete against each other for capital to promote creation of new jobs and economic growth. Jurisdiction will therefore lowering the tax rates to inefficiently low rates to attract investment. The phenomena of a race to the bottom arises from New Jersey's dominate role as a location for corporations in the end of the 19th century. New Jersey became the major location for firms in the States through lowering registration fees for companies and declining franchise fees. By 1904 New Jersey had to make some major investment in infrastructure and lowering corporate income taxes became less prioritized since the state was more concerned about raising revenues for financing its investment (Grandy, 1989). Many other states tried to copy New Jersey's strategy and in the end Delaware took over the leading position (Yablon, 2007).

The traditional view seems to be that this is the first historical evidence of a race to the bottom, but there are others who believe this in fact was a race to the top in establishing corporate laws. This relates to New Jersey's reform in the 1890's in well-functioning corporate laws which resulted in greater innovation and better structured corporate powers. These laws are today seen as important regulations to promote efficiency and can also be found in Delaware that is the current leader in location for publicly traded companies (Yablon, 2007). Just by looking at the last decades tremendous decrease in corporate tax rates of the EU and Canada suggests that the same thing is happening today.

According to Kyrciou and Roca-Sagalés (2011) study; fiscal decentralization should not be

combined with political decentralization because it increases the risk for local politicians; in power of the fiscal resources to use its power to win favorable electoral outcomes. Fiscal decentralization combined with shared decision-making also makes it difficult to hold different levels of government accountable for its decision since each level could blame the other level of government (Kyraciou and Roca-Sagalés 2011).

The theory of race to the bottom seem be something that is taken seriously at the political arena (Oates, 1999). The increased mobility of capital and the integrated market within the EU makes it relative straightforward to think that corporate income taxes have to be harmonized. If countries do not cooperate they will continue to cut the tax rates, in the end reaching zero taxation and thereby no income to finance the public good.

Considering the above literature we would expect the following hypothesis to be true:

Hypothesis 1: Harmonizing corporate tax rates is necessary to avoid a race to the bottom and under provision of public good.

4.2 Improving Governance Through Decentralization and Competition

There is a vast amount of literature on the impact on fiscal decentralization on government quality. One argument in favor for decentralization is that it constrains the government not to take advantage of its own power and a possibility to “control the leviathan”. Most literature that studies the relationship between fiscal and political decentralization and the quality of government finds that fiscal decentralization improves quality of government. This is in line with the findings of Kyraciou and Roca-Sagalés (2011) that studied the relationship using data from the World Bank’s World Governance Indicators.

There is a big dilemma between the importance of sufficiently strong central government that can enforce property rights and the fact that a strong government is strong enough to take away too much wealth from its citizens through various methods such as taxation. The difference between a sub-national and a national government is that a sub-national government is able to make credible commitments because it is induced by competition between other local governments.

Decentralization therefore seems to be a way of solving the dilemma by interjurisdictional competition that controls the government spending (Montinola et al, 1995). Montionola et al (1995) takes up a series of different conditions for this “market preserving federalism” to function, one of them being that the jurisdictions have to manage their financial problems of their own. They cannot rely on assistance from the national government, because they need the incentive to keep their

financial resources in balance. But Montinola et al (1995) also emphasize that neither complete centralization nor decentralization is good since it takes away the imbedded intuitional constraints that keeps a check on the governments.

One classic model that highlights the benefit of decentralization is the Tiebout model from 1956. The model can be used to argue in favor for decentralization because it predicts that every individual or in our case firm will move to the jurisdiction that has their preferred perfect balance of taxation and public spending. The reason why we do not see this in reality is the strong assumptions of the model and that there are costs associated with the ruling of a government in itself. Some of the assumptions are no mobility cost, full information about the other region's tax-rates and that there are no external effects from public spending, that is, what is done in one municipality does not affect another (Hindriks, and Myles, 2006, pp. 164-166).

Besley and Case (1995) developed a theory of yardstick competition between jurisdictions through an empirical investigation where they studied re-election of governors between 1960 and 1988 in the United States. Their study is build upon the assumptions that there is asymmetric information between voters' and politicians' knowledge. It is only the politicians that know the true cost of the public good and thereby the necessary taxes to finance it. In a world of multijurisdictions the voters will compare its region's taxes with other regions'. If a politician wants to be re-elected it will therefore have to take into account its own tax policy as well as its neighboring jurisdictions. It will be more difficult for politicians to overcharge its citizens for providing the public good. This result is not in line with the Tiebout-model. According to the Tiebout model; the individuals or in our case firms will move to the jurisdiction that has the preferred tax level. An increase in tax-rate should therefore only affect the movement of individuals and firms (Besley and Case, 1995).

The demand for public goods varies across the country and a local government can better meet the local preferences of the provision of public good. The welfare gains of decentralization are therefore higher with perfect information about the local conditions. But with perfect information and the possibility to provide different levels of public good in different jurisdictions, there would be no need for local governments because the national government could meet this difference on its own. However, in world with imperfect information the local governments should be closer to their citizens and decentralization would lead to gains in welfare. In addition to the lack of information there are often political barriers that prevent the government from distributing a non-uniform degree of public good across the country. Oates (1999) also emphasis that even though the Tiebout model relies on the mobility assumption, this does not imply that there is no welfare gains in the absence of mobility. It is simply enough that there is a difference of preferences across jurisdictions (Oates, 1999).

Oates (1999) and the Tiebout model show that fiscal decentralization makes it possible to satisfy

heterogeneous preferences and thereby avoiding intergovernmental conflicts. Canada has succeeded with this to a large extent through allowing a flexible solution for some jurisdictions, often including Québec, instead of forcing a unified agreement. After the Second World War the Québec government refused to enter tax collection agreement with the government for corporate and personal income taxes. Alberta started to collect its own taxes later than Québec and Ontario (Grewal, 2010).

One important factor to keep in mind about the logic behind the existence of a race to the bottom is that the hypothesis relies on very strong assumptions. First of all it is assumed that jurisdictions and not the firms are price-takers in the capital market. It is also believed that politicians truly seek to maximize the welfare of the state. In reality politicians might be more interested in maximizing their budget and to receive short-sighted benefits it might sacrifice environmental standards, which is not optimal in a welfare perspective. Finally one assumes that the politicians have the right instruments to reach the policy goals (Oates, 1999).

Baldwin and Krugman (2004) study the effects of agglomeration forces on tax competition. They set up a model where some European countries are divided into “core nations” (Germany, Benelux, France and Italy) and “periphery nations” (Spain, Portugal, Greece and Ireland). The core group had relative steady corporative income tax rates between 1965 and 2000, while the less industrialized periphery group lowered their tax rates. It suggests that something far more complex is going on.

In the model of Baldwin and Krugman, the wealthier states will have a more advanced infrastructure and agglomeration advantages which will make it more attractive for industries to locate in these countries. The government of the core countries is assumed to be aware of this advantage and can therefore tax its industries at a higher rate, but still low enough to prevent the industries from moving to the periphery countries. It also has the effect that periphery countries will set their tax rates based on purely domestic concerns; since they are aware of that they cannot compete with the core (Baldwin and Krugman, 2004). However, if this is true, this does not fully explain the decrease of the tax rates for the periphery countries and looking at the statistics from 2011 on corporate income tax rates that can be found in the next section it is clear that tax rates in all countries have decreased a lot.

This literature section suggests that there are many benefits of decentralization such as increased efficiency and the possibility to satisfy heterogeneous preferences for public good. It supports autonomy of fiscal decisions for the member states of the EU and competition between jurisdictions instead of harmonization of tax rates. We would thus expect the following hypothesis to be true:

Hypothesis 2: Decentralization of corporate income taxes promotes efficiency and innovative competition that encourage economic growth.

5. Literature Review of Corporate Tax Rates in Canada

This section described the possibilities of shifting income between different provinces in Canada to understand the incentives for competition in corporate income tax rates in the country. It also takes a closer look at what the literature says about the relationship between investment and corporate income tax rates since it often assumed that lower corporate tax rates leads to more investment. Finally it briefly explores if the race-to-the-bottom-argument could be applied to other taxes as well.

5.1 Income Shifting between Provinces in Canada

Competition between jurisdictions is crucial when the provincial governments have to consider the optimal statutory corporate income tax. Globalization of the world economy has increased competition through less transportation and communication costs. The liberalization of capital movements has also made it easier to shift income from one jurisdiction to another. If income is easily shifted between jurisdictions there will a tendency towards reporting lower incomes if taxes are higher than in other areas (Mintz and Smart, 2003).

Income shifting in Canada cannot easily be done for all types of firms, since corporations are not allowed to shift income to jurisdictions where they do not have separate affiliates. The firms that operate in multiple jurisdictions and do not have separate affiliates have to pay taxes according to a national formula that is based on the level of sales in the different jurisdictions. (Mintz and Smart, 2003). Mintz and Smart (2003) studied the elasticity of income, that is the sensitivity of a change in tax rates, at sub-governmental level in Canada and found that firms that has to report income according to a formula are less sensitive to tax rates compared to firms that operate across different jurisdictions, but with separate affiliates. These separated firms are still able to shift income from high-tax jurisdictions such as the Atlantic Provinces to a low-tax jurisdiction such as British Columbia. The tax rates differ across the province, but in general provinces calculate the taxable income in a harmonized way which implies that they also have a common way of determining the distribution of the corporate incomes between provinces (Mintz and Smart, 2003).

The Government of Canada has fiscal equalization transfers to provinces that have less income generating possibilities. These provinces receive an unconditional grant, signifying that they are free to spend them in which way they want. The Canadian Constitution Act from 1982 defines that the purpose of the transfer is to make sure that all provinces are able to provide a comparable level of public services in relationship to their levels of taxation (Department of Finance in Canada, 2011) The current recipients for the transfers are; Ontario, Prince Edward Island, Nova Scotia, New Brunswick,

Québec and Manitoba. One feature of the equalization transfers that might impact the willingness to engage in tax competition is that the amount is determined by the tax base. If tax rates are low, then provinces will reduce the amount given in equalization transfers (Mintz and Smart, 2003).

5.2 Is Foreign Direct Investment and Innovation related to Corporate Tax Rates?

When studying the race-to-the-bottom-argument one might first question if there really is a relationship between investment and corporate tax rates in Canada. The main reason for cutting corporate income tax rates is that these tax cuts will increase FDI, but in order to study FDI one has to divide it into inward and outward FDI, investment that flows into respectively out of the country. Looking first at inward investment, there are many benefits associated with inward investment, including technology transfers, spillover effects and employment in foreign owned companies. Employments in these companies are an important part of the manufacturing sector in Canada not only because they stand for one third of all the jobs in this sector. These workers also tend to have higher productivity and salary than their domestic employed counterparts (Baldwin and Gu, 2005). One fear concerning inward FDI in Canada is that the international firms will purchase domestic firms and move their head offices out of the country. In fact there is no evidence for that and it seems like firms prefer to have their decision-making closer to its foreign operations (Hajazi, 2010).

Hajazi (2010) study the effect of lowering corporate taxes to attract FDI in Canada and shows that lowering the corporate income taxes does not attract inward FDI. This shows that in terms of inward investment, jurisdictions are racing against each other in a competition that is not even worth winning, because even if you do win, you manage to keep the lowest corporate tax rates, you will not even receive more investment flows into your jurisdiction. In that sense the second hypothesis does not hold, decentralization should not promote economic growth.

The research on the effects of outward FDI is more limited than the effects of inward FDI. A widespread view is that it leads to the loss of domestic investment and jobs. This could be true if the underlying factors are poor domestic environment such as high taxes and a low-skilled labor force. However, when firms are motivated by using their competitive advantages to invest abroad it does have a positive effect on the domestic economy (Hejazi, 2010). In that case it seems like corporate income taxes can be an important tool to increase outward FDI because it makes domestic firms more willing to invest abroad and thereby making them more competitive, supporting the second hypothesis.

The productivity in Canada has been on a steady level despite heavy investment. The reason for this is according to Lynch and Sheikh (2011) too much concentration on supply-side activities. A

common Canadian firm has a stable production and is very much sheltered from global competition. The focus has been to remove factors such as taxes that constrain the firm, rather than increasing the demand for new ideas. A lot of new ideas and thoughts generated by investment in education have gone to waste as a consequence of the lack of demand of these ideas from firms. There has not been enough competition among firms to create the demand for innovation due to high regulations in some sectors, such as the telecom, cultural and financial sector. Therefore one has to question if these regulations are truly worth the costs of loss in productivity that is how efficient a good is produced (Lynch and Sheikh, 2011). This suggests that member states should concentrate more on increasing the demand on innovative ideas and remove regulation barriers to increase competition. The most effective way of increasing competition might not be to lowering corporate income taxes, because without the demand for innovation there will be no need for new investments. However, the European countries might be much more exposed to competition than their Canadian counterparts and in that case it could still be important to look at supply-side factors as well. The limitations of corporate tax cuts alone show that the decentralization of them has to be done in combination with other changes and suggests that the second hypothesis might not be that clear-cut.

Despite the somewhat negative views of Lynch and Sheikh (2011) of the development of innovation incentives and competition in Canada, there are also more positive views. The decentralization in the mid 1990's is often seen as process that increased efficiency and competition in the welfare system through better control of government spending and reductions in debt, but also increased incentives for people to work (Clemens et al, 2010, pp.67, 79, 156-157). The decentralization process in Canada therefore follows the theory of Montinola et al (1995) of the need to control government spending and making local politicians more accountable for the finances.

5.3 A Race to the Bottom in All Taxes?

Corporate Tax Rates might be falling, but one can question if the fall in taxes includes all types of taxes. In the literature we can find support for a shift in the tax burden from mobile factors to less mobile factors such as personal income. Clemens et al (2010, pp. 138) argue for a shift in tax burden because personal and corporate taxes are believed to put higher destructive effects on the economy than sales or consumption taxes because they reduce the incentives to invest, save and innovate. This contradicts the first hypothesis; EU does not have to be concerned about a race to the bottom since lowering corporate income taxes only implies a shift of the tax burden to other groups in society. But of course there could be other reasons than just pure efficiency concerns, such as equity and the willingness not to harm individuals that makes taxation of corporations more desirable than taxation of labor.

Grewal (2010) presents the shares of income taxation in relationship to the total tax revenue, as

seen in the table below. This table does show that the federal revenues from personal income have increased a lot since 1980, even though the provinces and territories' revenues have been quite stable. Despite the decline in corporate income tax rates there has not been a minor decrease in their share of total income taxation. The table indicates that taxation of less mobile factors such as labor has increased, but there are no strong indications for that the tax burden has moved away a lot from the mobile factor, corporate income tax revenues.

Table 2: Shares of Income Taxation Revenue in Total Taxation Revenue

	Percentage of Total Tax Revenue			
	Personal Income Tax Revenue		Corporate Income Tax Revenue	
	Federal	Provinces & Territories	Federal	Provinces & Territories
1980	39	27	17	8
2000	46	27	16	8
2007	48	28	16	7

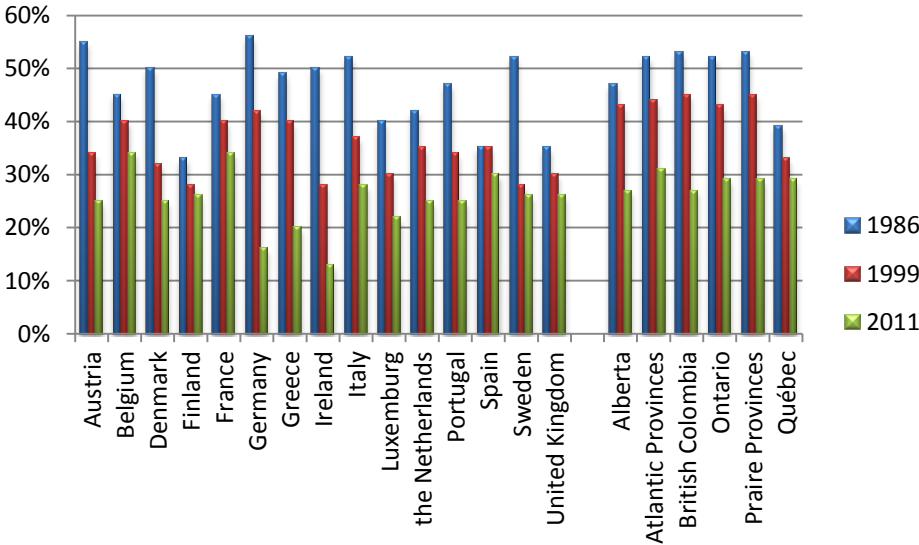
Source: Grewal (2010)

6. Result

This chapter will begin by looking further into the actual historical and current statistics of the corporate income tax rate in the member states and the provinces. But statistics and results from the interviews is also used to explore if there is a shift going on in the tax burden from more mobile factors to less mobile factors. This section also highlights the correlation between FDI and the corporate income tax rates that should affect the incentives for competition. It also studies the regional differences between provinces and the willingness to cooperate within the country.

6.1 Development of Corporate Income Rate in Canada and the EU

Diagram 1: Federal Corporate Income Rate in the Member States and the Provinces



Atlantic provinces: New Brunswick, Prince Edward Island, Nova Scotia and Newfoundland and Labrador

Praire province: Saskatchewan, Manitoba

Source: (OECD, 2011; Mintz and Smart, 2003; Canada Revenue Agency, 2011; Government of Alberta, 2011)

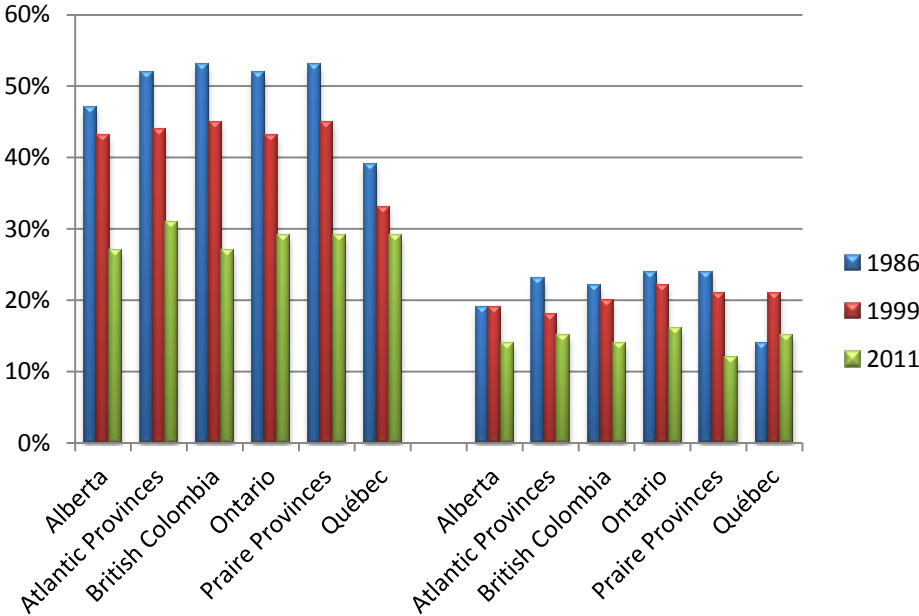
All companies in Canada pay a federal and a provincial corporate income tax, the diagram above show the combined rate in relationship to the old member states of the EU. The statistics shows a clear trend, namely that the tax rates have continued to fall since the mid 1980's and this makes it easy to think that there is race to the bottom in terms of taxes. The diagram shows that there is a wider variety within the EU, ranging from 13 percent in Ireland to 34 percent in France and Belgium. In Canada there is less of a difference between the low-tax jurisdictions and the high-tax

jurisdictions. The Atlantic Provinces have the highest rates of 31 percent and British Colombia has the lowest of 27 percent. Ontario and Québec are the provinces where most economic activity takes place and these provinces have the same rate, 29 percent, which makes income shifting between provinces not so much of an issue. British Colombia and Germany have not always been low-tax jurisdictions; in fact both had the highest rates in 1999, 45 percent respectively 42 percent. Québec used to be a low-tax jurisdiction, but are now at a similar level as the other provinces or one could also put it like that the other provinces have followed Québec. Ireland has a longer history of at least having fairly low corporate tax rates, but in 1986 it was also among the highest jurisdictions. The provincial rates may vary across the jurisdictions, but the federal rate, is the same no matter where you are.

6.2 Provincial Taxation in Canada

In Canada there is one higher and one lower rate of corporate tax rates depending on the size of the firm. The rate that was used in the previous diagram shows the general business tax rate and this is the higher rate that most firms are subject to. There is also lower rate for small businesses in all provinces.

Diagram 2: General Business and Small Business Taxation Rate in Canada



Atlantic provinces: New Brunswick, Prince Edward Island, Nova Scotia and Newfoundland and Labrador

Praire province: Saskatchewan, Manitoba

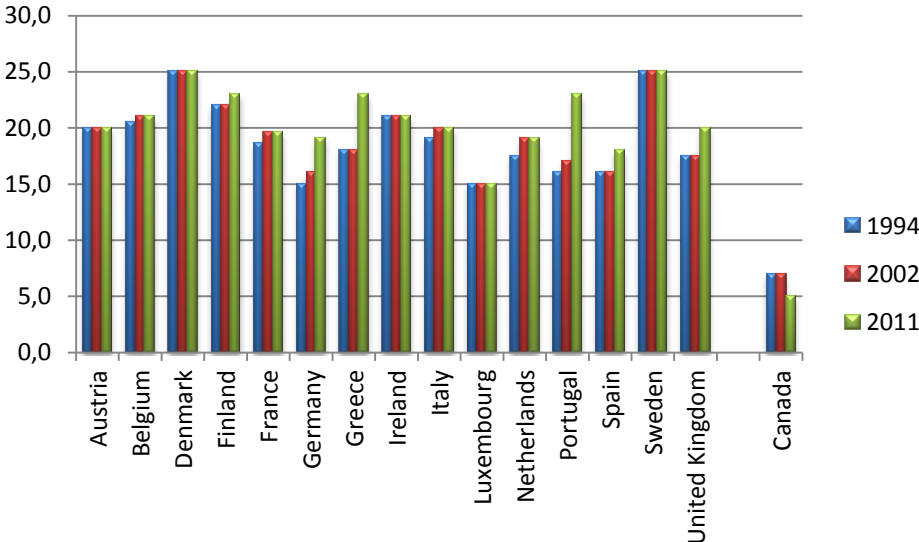
Source: (Mintz and Smart, 2003; Canada Revenue Agency, 2011; Alberta, 2011)

The diagram above shows the small business taxation rate compared to the general business taxation rate. The statistics shows the provincial rates combined with the federal rate, which is 17 percent for the higher rate and 11 percent for the lower rate. Alberta and British Columbia have the lowest Small Business Taxation Rates of 14 percent and Ontario has the highest rates of 16 percent. Something that is not showed in the diagram is that Saskatchewan currently has a 2 percent tax rate and Manitoba no provincial corporate income tax at all, suggesting that a race to the bottom is already reality in terms of provincial corporate tax in Manitoba. The average General Business Rate is 29 percent which is more than twice the average of the Small Business Taxation Rate of 14 percent. All provinces have federal collection agreements except Québec and Alberta. This implies that all provinces except these two that are not covered by the agreement also have to follow the federal government’s definition of taxable income (Canada Revenue Agency, 2011).

6.3 A Shift in the Tax Burden?

In the literature we could find some support for a shift in the tax burden from mobile factors to less mobile factors. Leonard supports this, stating that even if there is a race to the bottom going on, it is actually not so much of a problem because in the end the tax burden will be moved from the factors that are mobile such as firms to factors that are less mobile, that are for example land and labor.² There might be a race to the bottom in corporate income tax, while other taxes on less mobile factors remains and even increases in importance.

Diagram 3: Development of VAT/GST in EU and Canada

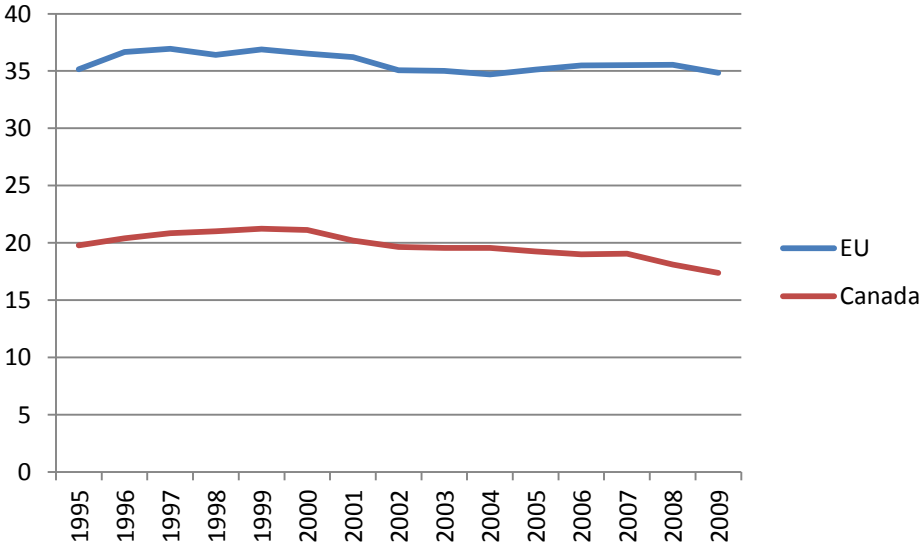


Source: OECD (2011), note that the statistics for Canada only shows the federal VAT/GST, but there is a provincial tax on top of the federal.

² Interview with Mr Leonard, 2011-09-20

As indicated by Grewal (2010), a fall in corporate tax rates does not necessary imply a fall in all tax rates. Looking at the statistics for VAT/GST there has been almost no changes since the introduction of it in the 1990's and in some countries there has even been a slight increase, as seen in Diagram 2.

Diagram 4: Development of Government Revenue (% of GDP) in EU and Canada

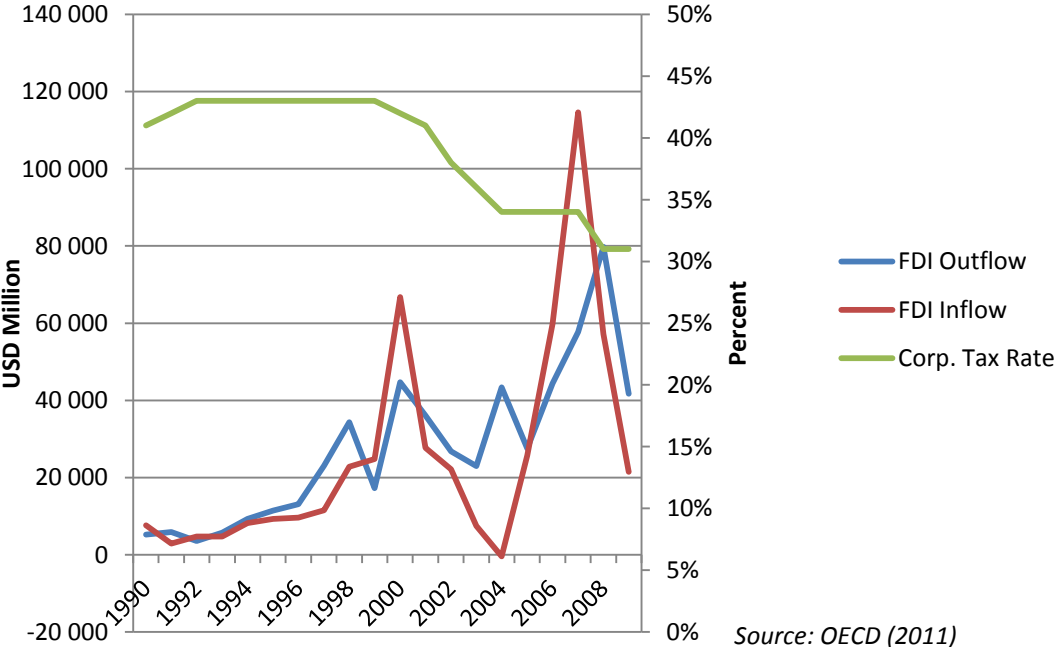


Source: WDI (2011)

If we look at the statistics on government revenue measured as in percentage of GDP in diagram 3, there is not much evidence for that the fall in corporate income tax rates has caused a under provision of public good. There has been a slight decrease in the revenues, but overall it seems like the governmental revenues have been fairly stable the last years. This suggests that the fall of corporate income tax rates have not affects its ability to provide public goods such as health care and social services to its citizens.

6.4 Foreign Direct Investment and Corporate Tax Rates in Canada

Diagram 5: Development of FDI in relationship to the Corporate Tax Rate



The diagram above shows the development of FDI in Canada the last decades in relationship to a combined measure for the corporate income tax rate of the provincial and the federal rate. It supports Hejazi (2010) study that there seem to be no relationship between the inflow of investment to Canada. There have been big fluctuations in inflow of investment while the corporate income tax rate has been decreasing constantly. Both types of FDI seems to be very much related to the financial crisis in 2001 and 2008 which is not very surprising considering Canada’s close relationship to the US. This close connection could also help to explain why the inflow of investment has experienced greater fluctuations than the outflow; most investment in Canada comes from the US while Canadian firms might have shifted their investment to other parts of the world instead. The outflow of FDI seems to be more correlated with the corporate tax rate, also supporting Hejazi (2010) study. It has clearly been affected by the financial crisis, but seems to be rising while corporate income tax rates have been falling.

One can question if this effect on outward and inward investment can be applied to EU as well. Because of the lack of a data on a combined corporate tax rate it is more difficult to study the relationship in EU as a whole, even though you can look at specific countries. If the same pattern could be observed in Canada as the EU, the union should be careful about the motive for lowering corporate income taxes. Member states should be careful in lowering their taxes if the aim is to increase foreign investment, including investment from other member states, because the

relationship seems to be very weak. However, it could still have a positive effect on the domestic investment.

6.5 Competition or Cooperation between Provinces

While Lynch and Sheikh (2011) state that innovation forces are very limited in Canada Lee Crowley is far more positive. He believes the decentralization in the mid 1990's was quite successful because it encouraged innovation and experimental forces among the provinces through increased competition. This supports the positive effects of competition such as Besley and Case (1995) idea of a "yardstick competition" between jurisdictions. This innovation among the provinces was done through lower and less damaging taxes combined with increased competition, once again assuming a strong relationship between investment and corporate taxes.³

Despite the sometimes unclear relationship between investment and corporate tax rates, these rates have decreased considerably the last decades. The question is whatever this decrease has reached the limit or if we will see an actual race towards no taxation. Mintz and Smart (2003) shows that firms with separate affiliates are more likely to shift income than other firms. They also show that tax rates have decreased a lot in Canada the last decades, but they do not go as far as saying that there is a race to the bottom going on. The key informants interviewed in this study did generally not make a difference between the firms when discussing tax competition and there seemed to be a common view that there was a race to the bottom in terms of corporate income taxes. Andrew Jackson⁴ at the Canadian Labor Congress was worried about the cut of these taxes and suggests direct public subsidies instead of taxes. Hardwick⁵ at the British Columbia Film Commission thought that there is most certainly a race to the bottom in taxes for businesses in the film industry and did not think that it think that the competition in the end increased the return of the investment. He stated that despite that everyone in the industry realizes that no one benefits from it, everyone is playing the game and industries are competing against each other. However, it is also important to keep in mind that there are also other important competitive factors such as skilled labor force and a good location that influences the location of the firm.⁶ Harwick's statement that no one benefits from the competition is in line with the first hypothesis, that cooperation should be beneficial for everyone. But as long as there is competition it could also be good for firms because they can move to the jurisdiction with the best balance of tax rates and public good such as infrastructure in line with the Tiebout model. However, sometimes firms might only shift their income to avoid taxation and not their actual location.

³ Interview with Mr Lee Crowley, 2011-09-12

⁴ Interview with Mr Jackson, 2011-09-14

⁵ Interview with Mr Harwick, 2011-09-26

⁶ *ibid*

The provision of different levels of public good is one positive outcome of competition, but there are also less positive ones such tensions between the three levels of government, something that was highlighted more in the interviews than in the literature review. Canada is very much a decentralized country, but the government has quite extensive spending power. The constitution allows the federal government to spend money in areas that belongs to the provinces without the approval from the provinces themselves, which could cause quite a lot of conflicts. This is usually done in terms of conditional transfers, transfers that historically have met a lot of resistance from the provinces, especially Québec⁷. The provinces often want more autonomy and that the funds from the federal government should come without so many obligations attached to it. The country is carved up between regions and this creates a lot of competition between the provinces. It is a vast country with great distinctions of social development and natural settings⁸. This implies that some provinces such as British Columbia are very far from Ottawa both in geographical terms and in the mind set of the people. There are also big differences within the provinces themselves. The Canadian constitution was written for a time where most people lived in rural areas which also reflected the decision making. But today about 80 percent live in urban settings and there should therefore be a shift in power from the municipalities to the cities, because the current system gives unproportionate amount of power to the more rural parts.⁹ However, it seems like most frictions are found on provincial level and transfers between regions have become more tensioned politically. Alberta is a “have province” and Ontario recently became a “have not province” due to the latest financial problems, which changes the dynamics between the provinces.¹⁰ These conflicts show that unlike the second hypothesis’s prediction, decentralization might not always lead to more efficient governance because it can cause a lot of conflicts between the different local governments.

The effect of increased integrated markets and financial crisis could push cooperation in different directions. Despite some political tension, provinces have quite recently agreed upon a harmonized VAT/GST for commodities.¹¹ The financial problems that Canada experienced in the 1990’s led to further decentralization and encouraged one of the highest economic growths among the G7 countries between 1997 and 2007. In the shadow of the current financial crisis EU is very much likely to move towards closer coordination and common regulations. This has been the outcome of most crises since the 1970’s because each crisis shows that the problems arise in the lack of coordination and enforcement of economic rules in an integrated world. The cost of moving away from integration has been considered more costly than increasing cooperation. However, cooperation often clashes

⁷ Interview with Mr Barber, 2011-09-22

⁸ Interview with Mrs Taillon, 2011-09-12

⁹ Interview with Mr Smith, 2011-09-30

¹⁰ Interview with Mrs Scott, 2011-09-12

¹¹ Interview with Mr Barber, 2011-09-22

with sovereignty and national systems of oversight and coordination.¹² According to Noë¹³ even historical evidence such as the fall of the Roman Empire shows that Europe can never be centralized and therefore cooperation can only be extended to a certain extent. Nevertheless it seems like the financial crisis in EU has caused more support for the race to the bottom theory.

7. Conclusion

This paper has studied the “race to the bottom view” in federal or semi-federal states that has caused a lot of concern at EU level. Canada’s system of decentralized corporate income tax rates seem to be fairly effective and could therefore work as a good indicator for keeping the member states autonomy in corporate income tax rates. The Canadian experience indicates that Montinola et al (1995) theory of the importance of increasing efficiency through local governance is true. A decentralized taxation system enables provinces to adjust their tax rates according to their own preferences in line with the Tiebout model and encourage positive “yardstick competition” between the jurisdictions (Besley and Case, 1995). However, the statistics for the last years fall in corporate tax rates are quite telling, tax rates are decreasing and one can question if this will cause an under provision of public good as the first hypothesis predicts.

This paper points at the importance of first looking at the relationship between investment and corporate income tax rates. The result of this study is in line with Hejazi (2010) finding; all types of investment in Canada might not be influenced by the corporate income tax rates. Lynch and Sheikh. (2011) points at an important factor in terms of increasing investment that was not mentioned in the interviews, that it might be more effective to increase the demand for innovation rather than focusing on supply-side factors such as corporate income taxes. It could also be the case that firms’ location are more influenced by agglomeration forces in line with the theory of Baldwin and Krugman (2004) and therefore we cannot see a clear relationship between investment and tax rates. But as long as the jurisdictions believe that there is a strong relationship between investment and corporate tax rates the race will continue, especially for firms that have separate affiliates according to Mintz and Smart (2003).

Looking at the dramatic decrease of corporate tax rates one cannot help but fearing that the first hypothesis is right, rates are falling and we have to cooperate to prevent them from falling to the very bottom. However, Leonard stated that the race to the bottom might only apply to the taxation of mobile factors and therefore we will not see a fall in total taxation. This argument has been supported by looking at other taxes. The development of VAT/GST rates and government revenue show that we do not need to worry about an under provision of public good. Grewal (2010) findings

¹² Interview with Mr Noë, 2011-09-06

¹³ *ibid*

support Leonard's view, but only partly. His study shows an increase in share of the revenue for personal income tax, factors that is not very mobile, but it does not reveal any big changes in the share of corporate income taxes despite the fall in these tax rates. .

Finally there is strong empirical evidence in favor for the first part of the hypothesis one, but the failure of providing sufficient public good will most likely not occur, because the fall in corporate rates will be compensated by increased taxation of other less mobile factors. The overall effect of decentralization in Canada seems to be increased efficiency, while the degree of innovation forces has to be investigated further, supporting the first half of hypothesis number two. The Canadian example of provincial autonomy of tax rates, but harmonizing the tax base seems to function as a role model for the EU. This suggests that the CCCTB formula could be quite successful, but the cooperation should stay there and not go any further and harmonize corporate tax rates.

8. References

8.1 Written Sources

Baldwin, J. and Gu, W. (2005). "Global Links: Multinationals, Foreign Ownership and Productivity Growth in Canadian Manufacturing", Statistics Canada

Baldwin, R. and Krugman, P. (2004). "Agglomeration, Integration and Tax Harmonization", *European Economic Review*, Vol. 48, No. 1

Belang r, C. (2001). Mariano Polis College. Accessed: 2011-10-13.
<<http://faculty.marianopolis.edu/c.belanger/quebechistory/federal/taxrent.htm>>

Besley, T and Case, A. (1995). "Incumbent Behavior: Vote-Seeking, Tax-Seeking and Yardstick Competition" *The American Economic Review*, Vol. 85, No. 1

Bordo, M., Jonung, L. and Markiewicz, A. (2011). "A Fiscal Union for the Euro: Some Lessons from History", National Bureau of Economic Research, Working Paper 17380

Cameron, D and Simeon, R. (2002). "Intergovernmental Relations in Canada: The Emergence of Collaborative Federalism", *Oxford Journal*, Vol 32, No.2, pp. 49-72

Canada Revenue Agency. (2011). Corporate Tax Rates. Accessed: 2011-10-05.
<<http://www.cra-arc.gc.ca/tx/bsnss/tpcs/crprtns/rts-eng.html>>,
<<http://www.cra-arc.gc.ca/tx/bsnss/tpcs/crprtns/prv/menu-eng.html>>

CIA. (2010). Center Intelligence Agency, The World Factbook. Accessed: 2010-12-11.
<<https://www.cia.gov/library/publications/the-world-factbook/index.html>>

Clemens, J., Crowley, B.L. and Veldhuis, N. (2010). *The Canadian Century: moving out of America's shadow*. Canada, The Macdonald Laurier Institute. (First Edition)

Department of Finance. (2011). Equalization Program. Accessed: 2011-05-05.
<<http://www.fin.gc.ca/fedprov/eqp-eng.asp>>

European Commission. (2009). "Communication From the Commission to the Council, the European Parliament and the European Economic and Social Committee: Promoting Good Governance in Tax Matters".

European Commission. (2011). Company Tax. Accessed: 2011-05-05
<http://ec.europa.eu/taxation_customs/taxation/company_tax/index_en.htm>

Fearon, J. (2003). "Ethnic and Cultural Diversity by Country", *Journal of Economic Growth*, Vol. 8

Flick, U. (2002). *An Introduction to Qualitative Research*. Great Britain, the Cromwell Press. (Second Edition)

Clemens, J., Crowley, B.L. and Veldhuis, N. (2010). *The Canadian Century: moving out of America's shadow*. Canada, The Macdonald Laurier Institute. (First Edition).

- Grandy. (1989). "New Jersey Corporate Chartermongering, 1875-1929", Vol. 49, No. 3
- Government of Alberta.(2011). Alberta's Economic Development Website. Accessed 2011-10-18.
<<http://albertacanada.com/about-alberta/competitive-corporate-taxes.html>>
- Grewal, B.S. (2010). "Incomplete Contracts and the Evolution of Canadian Federalism", Public Finance and Management, Vol. 10, No. 1, pp. 80-116
- Hejazi, W. (2010). "Dispelling Canadian Myths about Foreign Direct Investment", Institute for Research on Public Policy, No. 1. pp. 24
- Hindriks, J. and Myles, G. 2006. Intermediate Public Economics, The MIT Press, London, England
- Kyriacou, A. and Roca-Sagalés, O. 2011. Fiscal and Political Decentralization and Government Quality, Economic Letters, Vol. 111, No. 3.
- Lynch and Sheikh. (2011). "Innovation Dividend = Stronger Productivity Growth", Policy Options Politiques, Vol. 32, No. 8
- McLure, C. (2008). "Harmonizing Corporate Income Taxes in the European Community: Rationale and Implications", National Bureau of Economic Research, Vol: 22, pp. 151-195
- Monitola, G. (1995). "Federalism, Chinese Style: The Political Basis for Economic Success in China", World Politics, Vol. 48, No. 1
- Mintz, J. and Smart, M. (2003). "Income Shifting, Investment and Tax Competition: theory and evidence from provincial taxation in Canada", Journal of Public Economic, Vol. 88, No. 6. pp. 1149-1168
- Mintz, J. (2004). "Corporate Tax Harmonization in Europe: It's All About Compliance", International Tax and Public Finance, Vol, 11, pp. 221-234
- OECD. (2011). Organization for Economic Co-operation and Development. Accessed: 2011-10-05.
< http://www.oecd.org/searchResult/0,3400,en_2649_33715_1_1_1_1_1,00.html>
- Oates. (1999). "An Essay of Fiscal Federalism", Journal of Economic Review, Vol. 38, No. 3
- Shah, A. (1995). "Intergovernmental Fiscal Relations in Canada: An Overview", The World Bank
- Trail Canada. (2011). Accessed: 2011-10-05. <<http://www.trailcanada.com/canada/map/>>
- WDI. (2011). World Development Indicators Accessed: 2011-10-13.
<<http://data.worldbank.org/indicator>>
- Yablon, C. (2007). Journal of Corporation Law. Accessed: 2011-10-04.
<http://findarticles.com/p/articles/mi_6715/is_2_32/ai_n29336262/>

8.2 Oral Sources

	Name	Title	Organization
1	Barber, Paul	Senior Intergovernmental Specialist, Health, Social	Government of Ontario
2	Harwick, Gordon	Manager	British Columbia Film Commission
3	Jackson, Andrew	Chief Economist, Director Social and Economic Policy Department	Canadian Labour Congress
4	Leonard, Jack	Research Director	Institute for Research on Public Policy
5	Lee Crowley, Brian	CEO	Macdonald-Laurier Institute
6	Noë, Willem	Director General Enlargement	European Commission
7	Scott, Catherine	Vice-President	Canadian Conference of Social Development
8	Smith, Patrick	Director	Institute of Government Studies in Victoria
9	Taillon, Peggy	President	Canadian Conference of Social Development

9. Appendix

9.1 Results from Interviews

The table shows some of the key results from the interviews, each number in the table corresponds to the number of each expert in the table for "Oral Sources".

x - means "yes"

	1	2	3	4	5	6	7	8	9
"There is a lot of competition between jurisdictions in Canada"		x	x				x		x
"The decentralization process in Canada has increased efficiency"				x	x				
"Increased integration of markets has caused jurisdictions to cooperate more on corporate taxes"					x	x			
"There are a lot of tensions between different jurisdictions in Canada"	x						x	x	x
"A race to the bottom is not a problem"				x					
"A race in taxes have very negative effects"		x	x						
"Falling corporate income tax rates has not led to more investment"			x						

9. 2. Appendix Map of Canada



Source: (Trail Canada)