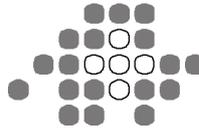


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International Tax Competition and Trends in Tax Policy: Some Implications for Switzerland

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Executive summary

Certains contribuables, qu'il s'agisse de personnes ou d'entreprises, deviennent de plus en plus mobiles internationalement. Il en résulte une compétition fiscale entre pays qui tentent d'attirer ces contribuables (nous nous centrons ici sur la compétition fiscale internationale plutôt qu'intra-nationale). Certains pays ont baissé leur fiscalité, ce qui a généré des critiques dans des pays qui craignent qu'un gain se fasse à leurs dépens. Le but du présent papier est de discuter les implications de cette compétition fiscale internationale pour la Suisse (chapitre 5). Pour cela, il nous faut d'abord discuter la nature de la compétition fiscale internationale (chapitres 2 et 3) et indiquer comment certains pays réagissent face à cette compétition (chapitre 4).

1) La compétition fiscale existe (voir §2.1)

- **Il existe des bases mobiles (notamment le capital) qui réagissent à la politique fiscale**

Pour que la compétition fiscale puisse exister, il faut d'abord que la base fiscale soit mobile (ou plus exactement qu'elle ait la possibilité de se déplacer). Ceci peut impliquer que des personnes ou des entreprises soient mobiles. Mais la base fiscale peut aussi être mobile de façon plus subtile, comme par exemple lorsque les profits d'une entreprise sont transférés d'une filiale à l'autre d'un point de vue comptable, sans que les moyens de productions ne soient déplacés. Le capital est de plus en plus mobile internationalement, sans toutefois être parfaitement mobile. La fiscalité n'est qu'un élément parmi d'autres dans le choix de localisation du capital, mais ce n'est pas un élément négligeable. Sauf certaines exceptions, la mobilité internationale du travail est moins grande. Les accords bilatéraux entre la Suisse et l'Union Européenne vont vraisemblablement augmenter la mobilité du travail entre ces deux entités. Il n'en demeure pas moins que malgré la levée d'obstacles juridiques, la mobilité du travail reste difficile

pour d'autres raisons (liens familiaux et sociaux, barrière linguistique, etc...).

- **Les pouvoirs publics tiennent compte de la compétition fiscale internationale lors de l'élaboration de leur politique fiscale**

Il existe des travaux empiriques qui montrent que les pays tiennent compte de la compétition fiscale internationale dans l'élaboration de leur politique fiscale: les taux d'imposition choisis par un pays ne sont pas indépendants de ceux choisis dans les autres pays.

<p>2) La compétition fiscale semble réduire les taux d'imposition sur les bases fiscales relativement mobiles sans toutefois nécessairement réduire le revenu fiscal tiré de ces bases (voir §2.2)</p>

- **La compétition fiscale ne conduit pour l'instant pas à une baisse des revenus fiscaux tirés de la taxation des sociétés**

La littérature empirique montre que le revenu fiscal des impôts sur les sociétés (qui est une base relativement mobile) ne baisse pas, même en proportion du PIB. Il s'agit d'un résultat moyen pour un ensemble de pays (EU et G7), qui n'est pas incompatible avec une augmentation ou une baisse dans certains pays.

- **Ce phénomène est vraisemblablement dû à un élargissement de la base fiscale qui compense une baisse de taux éventuellement causée par la compétition fiscale**

L'intuition et les modèles théoriques les plus courants indiquent que la compétition fiscale devrait conduire à une baisse des impôts tirés d'une base mobile comme le capital. Les économistes ne sont pas encore parvenus à expliquer avec certitude pourquoi le revenu fiscal tiré d'une base relativement mobile comme les profits des sociétés ne semble pas diminuer. Plusieurs types d'explications ont toutefois été évoqués.

Premièrement, il existe des raisons théoriques de penser qu'il y a des mécanismes qui limitent cette baisse. La base mobile peut recevoir quelque chose en échange des impôts payés. Elle bénéficie par exemple d'infrastructures financées par l'Etat, ou encore d'externalités positives provenant d'autres firmes (économies d'agglomération). Ceci signifie qu'un pays qui offre de bonnes infrastructures ou bénéficie d'économies d'agglomération peut taxer davantage les firmes qu'un pays moins bien doté. Par ailleurs, la croissance de la mobilité peut être corrélée avec d'autres phénomènes (par exemple un déplacement de l'électorat vers la gauche de l'échiquier politique). Deuxièmement, il est possible que des facteurs indépendants de la compétition fiscale aient conduit à une augmentation des impôts, et que les impôts auraient été encore plus élevés en l'absence de compétition fiscale. Finalement, il est possible que les travaux empiriques souffrent de certaines lacunes, en particulier concernant la définition de la base fiscale et notamment la détermination des bases fiscales mobiles (y-a-t-il eu une baisse d'impôt sur les formes de capital les plus mobiles, compensée par une augmentation d'impôts sur les formes de capital relativement immobiles ?). Globalement, une explication qui semble vraisemblable serait que la compétition fiscale internationale engendre une baisse des taux d'imposition sur les bases fiscales les plus mobiles, mais que cette baisse est compensée par un élargissement de ces mêmes bases. Une interrogation cruciale est de savoir pourquoi cette base s'élargit. Est-ce un phénomène indépendant de toute réforme fiscale, par exemple une augmentation de la part des profits dans le PIB (dans les années 90, la part des profits dans le PIB a eu tendance à augmenter dans plusieurs pays), un phénomène lié à des réformes fiscales mais indépendant de la compétition fiscale internationale (par exemple des réformes qui amélioreraient tout autant l'efficacité de la fiscalité en économie fermée), ou des réformes fiscales véritablement liées à la compétition fiscale ? Est-ce que des déductions ne sont plus autorisées, ou est-ce que des agents qui n'étaient pas soumis à l'impôt sont désormais soumis ? Ce phénomène continuera-t-il de se produire à l'avenir ? Les

évidences empiriques actuellement disponibles ne permettent pas de donner des réponses définitives à ces questions.

- **Il semble que le travail est de plus en plus taxé relativement au capital**
Le revenu fiscal des impôts sur les bases mobiles ne diminue peut-être pas (même en pourcentage du PIB), mais le poids de la fiscalité sur le travail augmente davantage. Ceci est vraisemblablement un reflet de la compétition fiscale.

3) Il est difficile de dire si la compétition fiscale internationale est une bonne ou une mauvaise chose du point de vue de l'efficacité et de la distribution (voir §3)

- **Les économistes ne parviennent pas encore à dire si la compétition fiscale est une source d'efficacité ou d'inefficacité**

Les économistes ne sont actuellement pas en mesure de dire si la compétition fiscale améliore ou nuit à l'efficacité d'un point de vue mondial (à distinguer de la question de savoir si un pays donné profite de la compétition fiscale internationale). La raison en est que pour y parvenir il faudrait comparer les impacts divergents des différentes distorsions de sorte à pouvoir quantifier l'impact global. Le tableau suivant résume les arguments qui sont évoqués pour et contre la thèse selon laquelle la compétition internationale est un facteur qui améliore l'efficacité.

Box 1: La compétition internationale améliore-t-elle l'efficacité?

Arguments pour	Arguments contre
<p>Argument de Tiebout</p> <p>La compétition fiscale entre Etats présente les mêmes avantages que la compétition entre entreprises. Grâce à cette compétition chaque Etat doit veiller à fournir ses prestations de façon la plus efficace. De plus, chaque Etat peut choisir sa spécialisation concernant les niveaux des prestations qu'il offre. Les personnes et les entreprises peuvent alors choisir de s'établir dans le pays où le rapport</p>	<p>Mise à disposition insuffisante de biens publics</p> <p>La compétition fiscale conduit à une baisse des revenus fiscaux qui ne permet plus aux Etats de fournir la quantité optimale de biens publics</p> <p>Allocation sous-optimale des facteurs de production entre pays</p> <p>Les différences d'impôts entre pays créent des</p>

<p>entre les impôts payés et les prestations reçues correspond au mieux à leurs préférences.</p>	<p>distorsions dans le choix de localisation des entreprises dans la mesure où un avantage fiscal les conduit à s'installer dans un pays qu'elles n'auraient pas choisi en se basant uniquement sur les conditions de production ou la présence de consommateurs.</p>
<p>L'exemple suisse montre que la compétition fiscale ne conduit pas à une réduction des biens publics mis à disposition par l'Etat</p> <p>L'exemple de la Suisse où règne depuis longtemps une compétition fiscale entre cantons montre que cette compétition ne conduit pas à une réduction des biens (et services) publics mis à disposition par ces cantons.</p>	<p>L'exemple suisse ne permet pas de tirer de conclusions</p> <p>Ce qu'il faut comparer c'est la quantité de biens publics mis à disposition par les cantons avec ce qu'ils auraient mis à disposition s'il n'y avait pas de compétition fiscale inter-cantonale. Par ailleurs, à partir de conclusions concernant une compétition fiscale intra-nationale on ne peut pas extrapoler au niveau international, car ces deux types de compétition ont des caractéristiques différentes (en particulier la Confédération fixe des prestations minimales que les cantons doivent fournir, et il existe des transferts entre cantons: la péréquation).</p>
<p>Vers une taxation optimale du capital</p> <p>Il est efficient de taxer moins les bases les plus élastiques. Or le capital est plus élastique que le travail, car plus mobile internationalement. Le capital devrait donc être moins taxé.</p> <p>En imposant à la fois l'épargne et le revenu du capital, il y a double imposition. Même en économie fermée il serait efficient d'éviter cette double imposition (« consumption tax view »). La compétition internationale nous pousse à nous diriger vers cette solution optimale.</p>	<p>Le travail est davantage taxé que le capital, ce qui introduit des distorsions</p> <p>La conclusion théorique qu'il est plus efficient de taxer moins les bases plus élastiques n'est pas nécessairement valable dans un monde où tous les agents ne sont pas identiques. Par ailleurs, d'un point de vue mondial le capital est peu élastique (une augmentation des impôts peut réduire l'épargne, mais cet effet est relativement faible). La compétition fiscale accroît artificiellement l'élasticité du capital, ce qui conduit à une taxation sous-optimale.</p> <p>Une baisse de l'impôt sur le revenu du capital exigerait en compensation une augmentation de l'impôt sur le travail, alors qu'il est plus efficient de répartir plus également la charge de l'impôt et les distorsions qu'elle entraîne (ce « comprehensive income tax system view » est ici argumenté en termes d'efficience, mais il est généralement surtout basé sur des considérations d'équité).</p>
<p>Leviathan</p> <p>Les politiciens et les bureaucrates ne cherchent pas toujours à maximiser le bien-être des habitants, mais se comportent parfois comme un Leviathan qui cherche plutôt à tirer un avantage personnel. En réduisant la marge de manœuvre du Leviathan, la compétition internationale améliore l'efficience de l'Etat. Malgré d'éventuelles réformes institutionnelles l'Etat sera toujours un peu Leviathan. De plus, tant que ces réformes institutionnelles ne sont</p>	<p>Réformes institutionnelles</p> <p>L'argument du Leviathan n'est pas un argument pour la compétition fiscale, mais plutôt un argument pour des réformes institutionnelles. On peut en particulier penser que la démocratie directe limite le Leviathan, en particulier quand les citoyennes et les citoyens peuvent voter sur le niveau des taux d'imposition, sur certaines dépenses et sur les règles de frein à l'endettement.</p>

pas effectuées, l'effet Leviathan joue à plein.	
<p>Les autres instruments de compétition internationale sont pires</p> <p>Si les Etats ne peuvent plus utiliser la fiscalité dans la compétition économique entre nations, ils recourront à d'autres instruments qui sont moins bons, tels que des subventions.</p>	<p>Les autres instruments ne sont pas nécessairement pires</p> <p>Les autres instruments de compétition entre nations ne sont pas nécessairement moins bons que la fiscalité.</p>
<p>Une harmonisation fiscale limiterait la souveraineté nationale et limiterait l'innovation fiscale</p> <p>Une harmonisation fiscale réduirait la souveraineté des pays en matières fiscales. Décentraliser les décisions concernant les dépenses publiques conduit à un accroissement de l'efficacité de ces dépenses. Or une harmonisation des impôts impliquerait à long terme une harmonisation des dépenses. Un pays pourrait ainsi se voir contraint d'augmenter le niveau de ses recettes, et donc vraisemblablement de ses dépenses, au-delà de ce qu'il juge souhaitable.</p> <p>Cette décentralisation présente également l'intérêt de promouvoir l'amélioration de la fiscalité: les différents pays fonctionnent comme autant de laboratoires qui innovent en matières fiscales. Ces innovations sont importantes. Rappelons que la TVA et l'impôt dual sur le revenu sont des innovations fiscales relativement récentes.</p>	<p>La compétition fiscale limite la souveraineté nationale</p> <p>La compétition réduit la souveraineté nationale en réduisant le pouvoir de taxer. Il ne s'agit pas d'harmoniser en fixant un taux d'imposition valable pour tous les pays, mais plutôt de définir un taux minimal d'imposition. L'harmonisation ne touche donc en rien la souveraineté nationale des pays qui ont déjà un taux d'imposition supérieur à ce minimum. Par ailleurs, il existe d'autres types de coopération que l'harmonisation. Ainsi, un impôt sur le revenu à la résidence plutôt qu'à la source réduit la compétition fiscale dans la mesure où les personnes ne sont pas mobiles.</p> <p>Les innovations du système fiscal que permet la compétition fiscale consistent généralement en instruments pour acquérir de la substance fiscale aux dépens d'autres pays et ne présentent donc pas d'intérêt global.</p>

- La question de savoir si la compétition fiscale internationale conduit à une plus juste redistribution est finalement une question de valeurs**

Le tableau suivant cite les arguments évoqués en faveur ou contre l'idée que la compétition fiscale conduit à une redistribution plus juste (évidemment, cela dépend de ce que l'on entend par juste).

Box 2: La compétition fiscale internationale conduit-elle à une juste redistribution?

Arguments pour	Arguments contre
<p>La redistribution est actuellement excessive</p> <p>La compétition fiscale rend effectivement la redistribution plus difficile, mais ceci est un avantage, car la redistribution est devenue excessive dans la plupart des pays.</p> <p>La compétition fiscale est un complément à la démocratie</p> <p>La démocratie peut devenir la dictature de la majorité. La compétition fiscale offre une protection à la minorité des contribuables riches qui pourraient être opprimés par la majorité.</p>	<p>Les inégalités tendent à croître</p> <p>Malgré une augmentation de la redistribution, les inégalités tendent à croître dans certains pays. La redistribution fiscale devrait donc croître encore davantage dans ces pays pour éviter une augmentation des inégalités.</p> <p>La compétition fiscale remet en cause le niveau de redistribution que la société avait démocratiquement choisi</p> <p>La compétition fiscale conduit à une baisse des impôts sur le capital et une augmentation des impôts sur le travail. Elle conduit à une baisse des prestations sociales, et une restructuration des dépenses publiques en faveur des entreprises. Ainsi, la compétition fiscale réduit la redistribution par rapport à ce que la société aurait démocratiquement choisi en l'absence de cette compétition.</p>

- **La faisabilité des alternatives à la compétition fiscale internationale est discutable**

Box 3: Les alternatives à la compétition fiscale internationale sont-elles irréalisables ?

Arguments pour	Arguments contre
<p>Une harmonisation fiscale internationale ne serait pas réalisable</p> <p>Une harmonisation fiscale ne serait pas réalisable, car elle comporterait plus d'inconvénients que d'avantages. Même si les avantages l'emportaient globalement, il y aurait toujours des pays qui auraient avantage à ne pas participer. Or, l'harmonisation fiscale ne peut fonctionner que si tous les pays participent. Même si tous les pays participaient pour un temps, il ne serait pas possible de maintenir un tel cartel fiscal.</p>	<p>Une coopération fiscale est réalisable</p> <p>Comme indiqué ci-dessus, la coopération ne doit pas nécessairement prendre la forme d'une harmonisation. Si des pays ne coopèrent pas, cela n'a d'importance que dans la mesure où il y a une mobilité de la base fiscale en direction de ces pays. Le cas échéant, il est possible de recourir à des mesures de rétorsion pour contraindre un pays récalcitrant à coopérer.</p>

4) Réaction des pays face à la compétition internationale : accords internationaux et réforme du system fiscal au niveau national (voir §4)

- **Il y a des tentatives limitées de réduire cette compétition par des accords internationaux**

L'OCDE a un projet „address harmful tax practices and promote fair tax competition“. Un consensus a été atteint au sein de l'OCDE : la compétition est « harmful » si les impôts sur les bases mobiles sont bas et qu'un second critère de l'OCDE est satisfait. Ces critères portent sur le caractère ciblé des bas impôts, sur le manque de transparence ou d'échange d'information. Certains économistes ont critiqué ces critères. Ainsi, l'interdiction de cibler les bas impôts sur les bases particulièrement mobiles peut paradoxalement conduire à un renforcement de l'impact de la compétition fiscale si les pays réagissent à cette interdiction par une baisse générale (plutôt que sélective) de leurs impôts. Le manque de transparence ou d'échange d'information est jugé positivement par certains économistes qui craignent que le pouvoir du Léviathan soit trop grand. Sur un espace géographique plus restreint, l'Union Européenne a mis au point un code de conduite. Pour l'instant, les efforts internationaux en vue de réduire la compétition fiscale sont restés limités. En particulier, ils ne visent pas à empêcher une baisse générale du niveau d'imposition dans un pays.

- **Les pays ont plutôt tendance à prendre la compétition fiscale comme une donnée, et à réformer leur système fiscal pour augmenter les chances de gagner cette compétition**

L'Irlande est connue pour attirer certaines entreprises notamment grâce à sa fiscalité. Certains nouveaux pays membres de l'Union Européenne ont un niveau de taxation bas. En réaction à la compétition fiscale internationale, les pays scandinaves ont introduit la taxation duale selon laquelle le taux d'imposition sur le revenu du capital est plus faible que sur le revenu du travail, et n'est pas progressif.

- **La réaction des pays face à la compétition fiscale dépend de différents facteurs, notamment de leur taille**

Box 4: Les petits pays doivent-ils veiller davantage que les grands à leur compétitivité dans la compétition fiscale internationale ?

Arguments pour	Arguments contre
<p>La politique fiscale doit compenser la faible taille du marché intérieur</p> <p>Le grand marché intérieur d'un grand pays lui permet de profiter des rendements croissants. Comme les petits pays ne peuvent pas le faire, ils sont contraints de proposer des impôts plus bas. Si on leur enlève cet instrument, les petits pays souffrent d'un handicap dans la compétition économique internationale.</p>	<p>La taille du marché intérieur n'est pas pertinente</p> <p>Si les barrières tarifaires et non tarifaires sont faibles, la taille du marché intérieur n'a guère d'importance car tous les pays ont accès au marché mondial. Même au cas où ces barrières seraient élevées, l'argument ne serait valable que si la taille optimale de la firme est supérieure à ce qui est nécessaire pour desservir le marché du petit pays. De plus, la perte d'un avantage comparatif ne présente un inconvénient que si cet avantage comparatif est plus lucratif que d'autres.</p>
<p>Un grand pays a intérêt à moins réagir à la compétition fiscale qu'un petit pays</p> <p>Un grand pays qui baisse ses taux attire moins de contribuables mobiles relativement à sa base fiscale qu'un petit pays.</p> <p>Un grand pays qui importe du capital peut même vouloir augmenter ses taux d'imposition de façon à faire baisser le taux d'intérêt et donc le coût de ce capital.</p> <p>Le taux d'intérêt est par contre exogène pour un petit pays si le capital est parfaitement mobile. L'imposition du capital est alors de toute façon répercutée sur les contribuables immobiles. Dans ce cas, il est plus efficient du point de vue national de taxer directement les facteurs immobiles.</p>	<p>Ce qu'un pays gagne, un autre le perd</p> <p>Une recette fiscale assez grande pour qu'un pays veuille l'acquérir, est aussi assez grande pour qu'un autre pays ne veuille pas la perdre.</p> <p>La plupart des pays sont petits comparés à l'économie mondiale.</p> <p>Le capital n'est toujours pas parfaitement mobile et une éventuelle incidence vers d'autres contribuables ne serait que partielle.</p>

5) Conclusions pour la Suisse: priorité à l'amélioration de notre système fiscal (voir §5)

Les défis de la compétition fiscale internationale impliquent de se référer davantage aux élasticités des diverses bases fiscales lors de l'élaboration de la politique fiscale, en tenant toutefois compte qu'un trade-off entre efficacité et équité peut exister.

Un engagement de la Suisse pour un renforcement de l'harmonisation ou la coordination fiscale internationale n'est pour l'instant pas opportun. De tels efforts auraient peu de chance d'être couronnés de succès, n'augmenteraient pas nécessairement le bien-être et mettraient en question un avantage fiscal de la Suisse.

1 Introduction

Referring to Adam Smith's (1776) seminal contribution, economists are usually quick to point out the efficiency-enhancing consequences of economic competition. This is often the case for economic competition in the private sector. However, governments also engage in competition to encourage economic performance by attracting new businesses, jobs, and income. In this case, things are less clear. Some observers see intergovernmental competition as wasteful and raise the question about appropriate counter-measures. Others doubt whether competition among governments will force a "race to the bottom", resulting in tax rates and levels of public services that are too low. In contrast, they argue that competing governments will improve general welfare, because the size of government would be excessive in the absence of such a constraint.

During the last 25 years, there has been extensive academic research on the effects of economic competition among governments, especially on the implications of tax competition. The literature has mainly a theoretical focus but some empirical efforts have also been made recently. This paper attempts to give an overview of the literature, along with some reflections on the reactions to increased tax competition and its implications for Switzerland. We will focus here on tax competition (and more specifically on tax competition among countries, although intra-national tax competition also exists in some countries like Switzerland), discussing public expenditures only marginally.

The paper is organized as follows. Firstly, we provide a survey on the literature concerned with tax competition. We start with the positive question whether international tax competition leads to lower tax rates and tax revenues on mobile bases. Secondly, we turn to the normative question of how to judge, from a global point of view, the effects of tax competition on efficiency and distributional grounds, after which section four explores trends in tax policy as an answer to how to cope with tax competition. Finally, the paper concludes with some implications for Switzerland.

2 The positive question: does tax competition lead to lower tax rates and tax revenues on mobile bases?

Tax competition does exist. Some tax bases, in particular on capital, are becoming more mobile and react to tax rates. Governments take this into account when designing their tax systems. But tax revenues from mobile bases do not seem to be necessarily decreasing.

2.1 Tax competition does exist

Global mobility of some tax bases and its sensitivity to tax changes are preconditions for international tax competition to take place. We will focus here on the mobility of production factors (capital and labour) and disregard the mobility of consumers which would be relevant for taxes on consumption but is less important in an international setting as long as consumers pay the tax relevant in their country (which assumes border control and abstracts from goods and services consumed in foreign countries by tourists). Overall, it seems that capital is more mobile than labour, and more mobile than in the past, although it still is not perfectly mobile. The second condition is that governments take account of this mobility and design their tax system strategically.

2.1.1 Capital is relatively mobile internationally and reacts to tax changes

Capital mobility is at the heart of the political debate. Since capital is a tax base for taxes collected on firms (corporate tax) and on individuals (capital income tax, inheritance tax), we will distinguish between these two levels.

Firms

Several measures of capital mobility have been proposed in the literature.¹ It is uncontroversial that capital mobility has increased during the last decades. There is, however, some debate about the magnitude of today's capital mobility.

¹ Note that, strictly speaking, what matters is whether a tax base can potentially move, not if it actually moves.

Feldstein and Horioka (1980) have shown that countries in which there is a high level of investment, the saving rates are also high. This suggests that capital might not be as mobile as often believed. Several authors argue, however, that the saving-investment correlation is not a good measure of capital mobility. See Coakley and al. (1998) for a review of these arguments.

For fiscal competition to exist, the tax base should not only be mobile but also react to tax incentives. Do tax differentials significantly affect investment decisions? Substantial variations across studies exist. In a review of the empirical literature, de Mooij and Ederveen (2003) find a median value of the tax rate elasticity around -3.3 (i.e. a 1 percentage point reduction in the host-country tax rate raises foreign direct investment in that country by 3.3%). By performing a meta analysis, they aim to explain this variation by the differences in characteristics of the underlying studies. Systematic differences between studies are found with respect to the type of foreign capital data used and the type of tax rates adopted. Therefore, even though the results of these studies differ remarkably and capital mobility seems not to be perfect, a cautious interpretation of the results indicates that taxes negatively affect the localization choice of firms and the inflow of capital. Conversely, public services have a positive effect on investment decisions. However, it is interesting to notice that the localization choice of capital depends more on several other factors than taxes. Important aspects are labour costs, the closeness to sales markets and other firms in the same cluster, availability of a high-skilled labour force, and not least a reliable political and social environment (Feld, 2000).

All firms are not identically mobile. Sunk costs limit the mobility of firms once investment has been made in physical capital. Furthermore, multinationals can practice profit shifting, that is attributing a larger than warranted part of their profit to low tax countries without actually moving production²

² The accounting procedure is the following: transactions between subsidiaries in two countries should be recorded in the accounts at the market price; but often there is no market and the multinationals try to set the transfer price in a way that shifts profits to minimize taxes.

Capital owners

People are generally not very mobile (as we will see below). But wealthy people might be more mobile (especially if they do not need to work and can buy a house in a country and formally live there without actually staying there all the time). These incentives may be particularly high for elderly, wealthy people who wish to reduce or avoid inheritance taxes.

2.1.2 Labour is less mobile internationally than capital

In contrast to capital, labour is less mobile. There are several obstacles which hinder individuals who may wish to live abroad. Getting a job in a foreign country usually requires a special permit. Some agreements have reduced these barriers inside the EU, and between the EU and some other countries (like Switzerland). But there are of course additional reasons why people may not want to leave their native country (family and friends, language, etc...). Feld and Kirchgäsner (2001) find empirically that on the state level, people from the high-income class are more mobile than others. It would not be surprising if this result still holds true for international mobility. Some individuals are more mobile than others. Moreover, retired people may choose to move to countries where taxes are lower³. Near the borders labour mobility is easier since people may work in one country while living in another (thus, all other things being equal, labour mobility is greater in a small country since the borders are larger in relation to the surface area of the country). Summing up, the empirical evidence on the impact of taxes on labour mobility, the following interpretation can be made: individuals react to tax differentials and to differentials in the levels of provided goods. Nevertheless, other aspects play a more prominent role in determining the localization decision of the labour force like labour market conditions, the housing market and the natural environment (for a survey see Feld, 2000).

³ We do not discuss here the mobility of unemployed people since we focus on tax revenues rather than on fiscal expenditures. This effect is more important for intra-national mobility than for international mobility since an unemployed person in one country cannot usually move to another

2.1.3 Governments set their taxes strategically

A natural way to check if governments set their taxes strategically is to look for a positive correlation between the tax rates of competing governments. There is a small amount of empirical literature which estimates fiscal reaction functions describing how a country will change its tax rate in response to a tax rate change in another country⁴. See for example Altshuler and Goodspeed (2002), and Devereux et al. (2004). They find evidence of strategic interaction. Chapter 4 will give some specific examples.

2.2 It is debatable whether tax competition leads to lower tax rates and tax revenues on mobile bases

We have argued above that tax competition in fact does exist. But even if countries react to tax rate changes in other countries, this does not imply that tax rates on mobile bases, and especially tax revenues from these bases will necessarily fall. Theoretically, the first idea would indeed be that tax rates and thus tax revenues on bases becoming more mobile would fall, while tax rates and tax revenues on immobile bases might increase to compensate the tax revenue loss. But the empirical literature does not show that tax revenues on mobile bases necessarily decrease. We will report some proposed approaches to explain why tax revenues on mobile bases may not shrink even when tax rates decrease⁵.

country to get higher unemployment benefit. We also do not discuss the impact of other social benefits on immigration.

⁴ There seems to be more empirical evidence at the intra-national level (for example Brueckner and Saveedra, 2001 or Case, Rosen and Hines, 1993), maybe because intra-national tax competition, when allowed, is likely to be stronger than international tax competition (because of stronger mobility).

⁵ Note the analogy to the Laffer curve. According to Arthur Laffer there is an n-shaped relationship between tax rates and tax revenues. It is debatable whether it is applicable to our case.

2.2.1 Are tax revenues on mobile bases decreasing?

We firstly present the theoretical foundation of the idea that tax rates and tax revenues on bases becoming more mobile would fall, then we will discuss the empirical evidence.

2.2.1.1 The theoretical argument why tax revenues would fall on bases becoming more mobile

The fundamental idea is that each country will try to have lower taxes on the mobile base than the other countries in order to attract that base. If the base is perfectly mobile then in the end it will not pay any taxes (any positive tax would be undermined by another country). If the base is not perfectly mobile, it will pay a positive tax. If the base offers some positive externalities, it will even pay a negative tax (for example subsidies to attract firms). As we will see in section 2.2.2.1, this argument can be challenged for example because it does not take into account public input from which the firms can benefit.

Another way of understanding why tax competition will lower tax rates of the mobile base is to note that this base is more mobile from the viewpoint of a country than from a global viewpoint. For example, capital may move from one country to another; therefore, from the point of view of a particular country, capital might be fairly mobile. But from a global point of view, this mobility from one country to another does not matter and capital is much less elastic to tax (some elasticity remains since higher taxes would reduce savings, but this is much less than when mobility between countries is taken into account).

This argument does not imply that all tax rates will fall. It might be the case that the fall in tax rates on a mobile base (for example capital) will be compensated by higher taxes on an immobile tax base (for example labour).

2.2.1.2 Results of the empirical literature

Baldwin and Krugman (2004) show that though tax rates for rich and poor European countries converge (at least since the end of the seventies) there is not

a general reduction in tax rates: the convergence is due to the fact that tax rates in poor countries have risen more than in rich countries (the core). These taxes however include tax on immobile taxpayers. In an additional analysis Baldwin and Krugman (2004) focus exclusively on a relatively mobile base: the average corporate tax rate. In this specific case, the rate has started to decline in the rich countries since the mid-eighties, but there has been a rise in the poor countries over the same period⁶.

Mendoza and Tesar (2005) provide results showing that no fierce race to the bottom can be observed for France, Germany, Italy and the United Kingdom. They report that “the UK lowered its capital income tax while countries in CE [Continental Europe] changed their capital taxes slightly. The UK increased its labour tax somewhat, but labour taxes increased sharply in the CE countries [...] The indirect tax harmonization agreements led to fairly similar and stable rates of indirect taxation across the UK and CE”.

Let us focus now on a relatively more mobile base like corporate tax. What is surprising is that corporate tax revenues as a fraction of GDP have not decreased in the last few decades. Krogstrup (2004a) finds that “corporate tax revenues as a percentage of GDP have been increasing in the European Union over the last 20-30 years”. Devereux et al. (2002) find that “Tax-cutting and base-broadening reforms have had the effect that, on average across the EU and the G7 countries, effective tax rates on marginal investment have remained fairly stable, but those on more profitable investments have fallen”. They find that tax revenues on corporate income have declined as a proportion of total tax revenue since 1965⁷.

⁶ The tax gap increases until the mid-eighties and decreases afterwards. Baldwin and Krugman explain this by the bell-shaped relationship between economic integration and aggregation forces: the advantage of being in the core and the agglomeration rent that can be taxed has recently eroded. See the agglomeration argument in section 2.2.2.1.

⁷ They find several interesting results: i) Statutory tax rates fell during the 1980s and 1990s. ii) Tax bases were broadened between the early 1980s and the end of the 1990s. iii) The effective marginal tax rate has remained stable during the 1980s and 1990s. iv) Effective average tax rates for projects earning positive economic profits have fallen during the 1980s and 1990s; and they have fallen more at higher levels of profitability. v) Tax revenues on corporate income have remained broadly stable as a proportion of GDP since 1965. vi) Tax revenues on corporate income have declined as a proportion of total tax revenue since 1965.

Krogstrup (2004a) finds that in the EU the implicit capital income tax rate is increasing while the effective average tax rate is decreasing (using this measure Krogstrup estimates that corporate tax burdens have fallen by about a fifth since 1980 due to tax competition pressures)⁸.

Since the base of corporate tax is relatively mobile, the possibility that the tax rate is declining is in line with what would be expected. But the fact that the corporate tax revenues are an increasing or fairly stable (depending on the studies) fraction of GDP calls for an explanation. We will discuss directions that have been tried for explaining it in §2.2.2.

The following assertion by Sørensen (2003) might be considered as a good summary: "the general picture in the OECD area is that falling statutory corporate tax rates have been roughly offset by a broadening of the corporate tax base so that tax revenues have been fairly stable as a fraction of GDP in most countries. However, in several countries there has been a tendency for the profit share of GDP to increase in the 1990s and a tendency for the corporate sector to expand at the expense of the non-corporate business sector. Seen in isolation, these trends ought to have raised corporate tax revenues relative to GDP. The fact that this has not happened may reflect the influence of tax competition. Still, there is so far no empirical basis for Doomsday predictions that corporate tax revenues are about to collapse due to fiscal competition [...] the increase in the overall tax burden experienced in most countries during this period [mid-1980s to mid-1990s] was concentrated on labour, suggesting that increasing capital mobility induced governments to raise the relative tax burden on the more immobile labour factor [...] When an attempt is made to isolate corporate taxes on mobile capital, there is some indication of a tendency for the average tax rate to fall over time".

⁸ We will define these rates in §2.2.2.2.

2.2.2 Reasons why the tax revenues on mobile bases may not decrease

There are two types of reasons why the tax revenues on mobile bases may not shrink: the theory might have neglected some important aspects, or there might be methodological problems in the empirical research.

2.2.2.1 Theoretical explanation of forces acting against the decrease of taxes on mobile base

There are three categories of arguments why tax revenues do not necessarily have to fall⁹. Firstly, the mobile base gets something in return for its money (public input or agglomeration economies). Secondly, increased mobility may have secondary effects (on the composition of the tax base or on how people vote), which could tend to increase taxes. Thirdly, the difficulties linked with reducing public expenditure or increasing taxes on immobile tax bases limit the possibility of reducing tax on mobile bases. Most of these arguments refer to forces that will mitigate the downward pressure of tax competition rather than imply that tax competition could lead to an increase of taxes.

The public input argument

The public input argument stipulates that firms will be ready to pay higher taxes in a country that delivers more or better public input useful for its activity.¹⁰

The agglomeration argument¹¹

If there are positive externalities between firms, then firms will tend to cluster together (like in Silicon Valley). This implies that there is an agglomeration rent that the state can tax away. If increased mobility leads to increased

⁹ There are several good surveys on the theory of tax competition. See for example Wilson (1999) or Krogstrup (2004b).

¹⁰ Though this argument is basically focused on public expenditure for infrastructure it can be extended to some extent to welfare spending also.

¹¹ See in particular Baldwin and Krugman (2004).

agglomerations, then taxes will rise as mobility increases¹². Contrary to public input, agglomeration economies cost nothing to the state (it is an externality provided by one firm to another), thus these tax revenues are used for other purposes (for example transfers). Moreover, a country benefiting from agglomeration economies has a head start. It will be very difficult for another country to attract firms out of the cluster since it is not in the interest of any firm to move as long as the other firms do not move. Knowing this, less developed countries will not set their taxes strategically, and thus more developed countries (as long as they do not tax inordinately) should not fear tax competition by less developed countries. One could argue that tax competition might be more effective between developed countries (firms moving from one cluster to another) than between a country with and a country without agglomeration economies. Moreover, agglomeration economies may be weak or inexistent in some sectors. Still, a country can tax more than another insofar as it benefits from greater agglomeration economies.

The tax exporting argument

If a tax base is highly mobile, the tax base will consist of many non-residents, and since the government will not take into account the losses that taxes imply for these non-residents, it will tend to tax more heavily than if all the tax base was made up of residents. This argument should, however, be qualified. While formally taxing non-residents, part of the tax incidence might ultimately fall on residents. In this case, less of the tax is exported than would appear at first. Moreover, these non-residents might have the option of choosing to belong to another tax base than the domestic one.

The move to the left argument

This argument starts from the idea that the more open an economy is, the larger

¹² According to the new economic geography, the strength of the agglomeration force initially rises with the degree of economic integration (more mobility makes it easier for firms to move in a cluster and then to sell their product worldwide from this cluster) and then falls (distance does not count anymore when it becomes very easy to move, and it is not important anymore to be localized in a cluster). Thus, the relationship between economic integration and aggregation force is bell-shaped.

the fluctuations of its economic activities are and therefore the greater the risks to the individual. Assuming that the parties to the left of the political spectrum provide more social protection than other parties, people will tend to vote more for the left, which would mitigate the downward pressures of tax competition (see Persson and Tabellini, 1992). One could object that globalization does not necessarily increase risk (risk is lower for example if individuals can move to other regions when a recession hits their region). Moreover, the private market may be able to insure this risk. One could answer that labour is less mobile than capital and that many risks are not privately insurable (for example because of adverse selection).

Alternative taxes are distortionary

A decrease in taxes on a mobile base would imply an increase in taxes on an immobile base if public expenditure and debt must remain constant. The greater distortionary taxes are on immobile bases and the more rigid public expenditures are, the more incentives governments have for not decreasing taxes on mobile bases. Mendoza and Tesar (2005) propose a model in which there is no race to the bottom if countries compete over capital taxes adjusting labour taxes to maintain fiscal solvency¹³.

2.2.2.2 Problems in the empirical methodology?

The other solution of the puzzle is that there might be problems with the empirical methodology. Two kinds of problems might be particularly relevant here¹⁴:

- **Omitted variables**

It might be the case that some other factors have led to the increase of corporate tax revenues as a percentage of GDP. Perhaps corporate profits

¹³ They find that it would lead to a race to the bottom if adjustments were made to consumption taxes rather than to labour taxes. They obtain this result (and the optimality of this race to the bottom) because they assume that consumption taxes are less distortionary than capital or labour income tax.

¹⁴ There are still other methodological issues, see Krogstrup (2004a). One question is about the magnitude of the increase of the mobility of corporations. Could it be the case that this mobility has

have increased more than GDP, or perhaps economic growth was slow, which implied more public expenditure and thus more taxes overall. It is not impossible that by taking into account such explanatory variables, it would appear that although tax revenues did increase, they did so less than they would have without tax competition¹⁵. An indication in this direction is that tax revenues on corporate income have declined as a proportion of total tax revenue.

- **Inaccurate tax base**

An increase of some tax revenues as a proportion of GDP would imply an increase of the tax rate if the growth of the tax base is proportional to the growth of the GDP. But the tax base is not necessarily proportional to the GDP. The difficulties to evaluate the tax base make it arduous to compute the actual tax rate. Several measures of the corporate tax base have been proposed, in particular the implicit tax rate and the effective average tax rate. The implicit tax rate is obtained by dividing capital tax revenues by a measure of the tax base computed on the basis of aggregate national accounts data. The effective average tax rate measures the tax burden on a hypothetical corporate investment project as the difference between the gross and net of tax cost of capital associated with the particular type of investment project, using country specific tax codes (and various underlying assumptions). Devereux and Griffith (2003) have recently computed these rates (“effective corporate average tax rates”) over rather long time horizon and large number of countries. As already mentioned, Krogstrup has shown for the EU that the implicit tax rate increases while the effective average tax rate decreases. Krogstrup prefers to measure the tax burden with the effective average tax rate rather than the implicit capital income tax rate

not increased much, and that small and medium-sized corporations did not become much more mobile while big firms (and particularly multinationals) have been mobile for a long time?

¹⁵ See for example Genschel (2001) "tax competition was not the only challenge facing welfare states during the 1980s and 1990s. There was also slow growth, rampant unemployment, and high levels of precommitted spending. These problems exerted countervailing pressures that prevented a race to the bottom in taxation."

since the latter lumps together various categories of capital. In particular it includes bases which are not mobile, such as property income. This is an important argument, because if the tax base includes immobile taxpayers it might not be that surprising that tax rates do not decrease. However, the effective average tax rate has its own shortcomings: it has been criticized for being sensitive to underlying assumptions.

Further research is needed

If tax rates on a mobile base decline but tax revenues on this base do not decline, this means that the base has broadened. The cause of this tax base broadening is important and would deserve further investigation. If we accept that a widening of the tax base has offset a declining corporate tax rate, this leaves several questions open. How was the base broadening achieved? Is the profit share of GDP increasing (and is this structural or due to the business cycle)? Or was the base broadening achieved by changes in the tax system? In the latter case, what are these changes? Why were they implemented? Were these changes in the tax system forced by tax competition (government cutting tax rates because of tax competition and widening the tax base in order to offset its impact on fiscal revenues¹⁶) or are these changes independent of tax competition (increasing efficiency by eliminating loopholes and compensating by reducing the tax rates; in this latter case the reduction of the tax rate would be independent of tax

¹⁶ Haufler and Schjelderup (2000) argue that reduction in statutory tax rates and broadening of tax bases can be an optimal response. In their model, in the absence of foreign direct investment and transfer pricing, the first best policy is to allow a full deduction of domestic investment expenditures (in order to avoid distorting the firm's investment decision) and to set the corporate tax rate high enough to satisfy the budget constraint. When foreign direct investment and transfer pricing are incorporated, however, the corporate tax rate introduces an additional and independent distortion from the perspective of each taxing country. It then becomes optimal to allow only an imperfect deduction of investment expenditures. Devereux et al. (2002) propose another explanation. While a revenue-neutral rate-cutting and base-broadening reform may leave the EATR [effective average tax rate] in the average project unchanged, it will tend to lower the EATR on projects of above-average profitability and raise the EATR of those of below average profitability. Governments have an incentive to implement this reform if they want to attract more profitable activities (for example when such activities are more mobile or have greater benefits to the domestic economy).

competition¹⁷)? What will happen in the future? If the tax base broadening is due to a reduction of exemptions, then the tax base cannot be increased without limits. Next, it is important to evaluate the efficiency properties of the tax base broadening. In theory, we would expect an efficiency gain by tax base broadening depending on the overall level of the tax rate and the elasticity of the broader base. However, empirical evidence is largely lacking in this respect.

¹⁷ It might be connected to competitiveness to the extent that simple tax is important for competitiveness.

3 The normative question: is tax competition beneficial?

We will now ask the following normative question: is tax competition desirable from an efficiency and redistribution point of view? This question is posed from the global point of view, which is relevant if we want to know if tax competition is globally good for the world rather than if it is good for a given country. Clearly the answer to this question depends on whether tax competition lowers tax rates and tax revenues on mobile bases. As we have seen in the preceding chapter, the answer to this question is not straightforward. Here we assume that tax competition has an impact on tax revenues (if not, the normative question loses a lot of its interest), leading to lower although not zero tax revenues on mobile bases.

While this chapter focuses on the posed normative question, we will also briefly discuss a related positive question: are the alternatives to international tax competition (for example tax harmonization) feasible? The link between these normative and positive questions is the following. Firstly, if the alternatives are not feasible, there is not much point in asking whether international tax competition is desirable. Secondly, the feasibility of the alternatives might depend on how desirable tax competition is. If tax competition is good, it will be difficult and undesirable to implement the alternatives. It might still be difficult to implement the alternatives if it is not clear whether tax competition is good or bad. But if it appears that tax competition becomes very bad, it might become less difficult to implement the alternatives.

We will argue that the jury is still out on scoring tax competition on efficiency grounds. The difficulty is that there is a trade-off between various distortions. This implies that the efficiency impact of each distortion must be computed, in order to see which will finally dominate (and by how much). It might be the case that the result of this trade-off depends on the intensity of tax competition (could it be the case that tax competition is beneficial if its intensity is not too high and becomes detrimental beyond a certain point?) or on the specifics of tax competition and its alternatives. The impact of tax competition on distribution is clearer: it shifts the tax

burden towards immobile labour and tends to reduce redistribution. But as long as tax competition does not lead to a downward spiral on tax revenues collected on mobile bases, the feasibility of the alternatives to tax competition is likely to be limited.

3.1 Is tax competition efficient?

We present the various arguments for and against the idea that international tax competition is good from an efficiency¹⁸ point of view.

3.1.1 Tiebout's argument on voting with one's feet

A series of models have been developed which argue that tax competition is welfare improving in analogy to the "invisible hand" of competition in private markets. Indeed, Tiebout (1956) argues that tax competition between states is quite similar to competition between firms and concludes that it is welfare enhancing. Countries in his model charge residents with a tax equal to the marginal costs for the provision of public goods. Moreover, each household moves to the country in which the level of public goods corresponds best to its preferences (thus households sort themselves efficiently across jurisdictions that tailor their taxes and expenditures to the preferences of their residents). Very much the same can be concluded from Stigler's statement (1957, p.216): "Competition among communities offers not obstacles but opportunities to various communities to choose the type and scale of government functions they wish".

3.1.2 The underprovision of public goods argument

However, the underlying assumptions for efficient outcomes by tax competition are quite demanding: for example, policy makers have access to policy instruments

¹⁸ "Efficient" (or "more efficient") usually means here going in the direction of maximizing some social welfare defined as a function of the welfare of the individuals. It is well known that in case of heterogeneity of agents there is some arbitrariness in the definition of this social welfare function. In some cases "efficient" means "Pareto efficient" and the social welfare function is not relevant.

needed for efficient fiscal and regulatory decisions (a lump sum tax is available), people are perfectly mobile internationally and the states provide public goods rather than transfers. Not surprisingly, when relaxing the conditions for welfare enhancing tax competition, the efficiency properties are less reasonable.

Zodrow and Mieskowski (1986) show theoretically that tax competition favours suboptimal low capital taxation from a global point of view and results in an under-provision of public goods (if capital is taxed at the source). One way to understand this is that the elasticity of capital with respect to tax is higher from the point of view of a country than from a global viewpoint, because a country must take into account the mobility of capital moving from one country to another, while this mobility would not be relevant from a global viewpoint (capital would, however, still have some elasticity because of the impact of taxes on saving). Since the elasticity from a global viewpoint should be used to design a tax system optimally from a global viewpoint, decentralized tax setting is not optimal. Moreover, as mentioned by Sinn (1997), goods and services provided by the state tend to be those for which competitive markets do not perform well. Therefore, reintroducing competition among governments in their provision is likely to reintroduce market failures (one example of such market failure is increasing returns to scale). Kirchgässner and Pommerehne (1996) state that tax competition does not appear to have seriously impaired the provision of public goods at the Swiss cantonal level so far. However, it is debatable whether this result pertaining to intra-national tax competition can be extrapolated to international tax competition (see box 5 for a description of differences between intra- and international tax competition).

Box 5: Differences between international and intra-national tax competition

Intra-national tax competition is stronger, more welfare enhancing, and easier to halt than international tax competition.

If intra-national tax competition is permitted, it tends to be more intense than at the international level

This is because mobility is also greater since sub-national entities are smaller than countries (the average distance between locations in two sub-national entities is smaller than between two countries, and borders are larger relative to the surface area of the entity), and legal or administrative barriers are less rigid. This is particularly true for labour mobility.

Intra-national tax competition tends to be more beneficial than at the international level

Tiebout's assumptions tend to be satisfied to a greater extent at the intra-national level than at the international level. Firstly, labour is more mobile. Secondly, it is often the case that a larger proportion of expenditure is used in sub-national entities for delivering public goods, while transfers have more weight at the national level. Since his assumptions are better satisfied at the local level, Tiebout's conclusion that tax competition is good is also more likely to apply (but some assumptions, like availability of the lump sum tax, still remain unrealistic).

A negative impact of tax competition is that it reduces the ability to make transfers. In the case of intra-national tax competition, this problem can be reduced by giving the national level the task of making transfers, or by setting some minimal social standard that sub-national entities will have to satisfy at the national level.

Because sub-national entities are smaller than countries, it is more likely at the national level than at the international level, that a public good delivered (and paid for) by a public entity will be consumed by an individual paying taxes in another public entity. This distorts tax competition, but can be dealt with at the national level through appropriate transfers.

Tax harmonization is easier to implement between sub-national entities than between countries

There is often no tax competition at the sub-national level since the centre taxes directly or sets local tax rates. Intra-national tax competition is more likely in countries with a federalist structure. Even in these cases, harmonization could often be legally enforceable even if not all sub-national entities agree.

3.1.3 The Leviathan argument

One could object that the state has a tendency to excessive taxation in the absence of tax competition (Brennan and Buchanan, 1977). According to the Leviathan argument, the policy maker is not benevolent but maximizes his own utility through increasing his power (maximizing the size of the state) or his own consumption. Thus he is most likely to impose sub-optimally high tax rates. In this case, tax competition applies downward pressure that is efficiency enhancing. However, Sørensen (2001a) objects that "fostering tax competition is an odd second-best response to rent seeking. If rent seeking is a big problem, we should concentrate on institutional reform to eliminate the relevant 'political distortions' rather than relying on tax competition which creates distortions of its own". Direct democracy might for example be a better restraint for Leviathan (Feld and Kirchgässner, 2001). The Leviathan is restrained if the approval of the people by

referendum is needed for increasing tax rates and if large public expenditures are often subject to referendum.

Proponents of the Leviathan argument can argue that institutional reforms might not be possible because of the imperfect working of the political process or that even with the best possible institutions there is still some leeway left for Leviathan.

3.1.4 The argument that other instruments of competition between countries may be worse than taxes

While the Leviathan argument is based on the idea that the government is not benevolent, Janeba (1998) proposes a reason compatible with government benevolence which could lead the government to consume (and tax) too much in the absence of tax competition. Janeba builds a model combining strategic trade policies and tax competition. In the absence of tax competition, each country has an incentive to subsidize exports. In Janeba's model, tax competition does improve welfare through the elimination of these wasteful subsidies.

This argument is a specific example of a more general argument: if tax competition is not allowed, then countries will compete more heavily with other instruments. Thus, even if it were proved that tax competition is bad, it might still not be useful to ban it since this would lead to the use of other instruments, which might be even worse. This argument must, however, be qualified by the fact that eliminating tax competition would lower the stakes of competitiveness between nations. Let us discuss this argument in more detail.

Tax policy is only one policy among many that could improve a country's competitiveness. Thus, if tax policy cannot be used anymore, other policies will be used instead. For example there is some substitutability between tax competition and subsidies (in the context of strategic trade). There is no reason to think that other instruments are better than tax competition. To avoid the use of these instruments, it would become necessary to harmonize more and more policies, reducing national sovereignty to an even greater extent. For example, after harmonizing the tax base and tax rates, it would become necessary to harmonize

public expenditures, beginning with subsidies¹⁹ and public input (or setting lower limits for public goods and transfers), then competition, by lowering environmental standards, would increase calling for even more harmonization, etc.

One could answer that countries as a whole are basically not in competition. Krugman (1994) argues that "competitiveness is a meaningless word when applied to national economies" and that thus competitiveness is in fact not a big issue (and distracts people from the real issues, such as increasing productivity, which would be important even in a closed economy). If this were true, there would be no basis for fearing that tax competition would be replaced by other instruments (except if policy-makers overestimate the stakes of competition between nations). However, Krugman's thesis must be qualified. The win-win dimension of countries specializing where they have comparative advantages (and a country cannot possibly have no comparative advantages) is often overlooked. However, some comparative advantages are better than others (because of the existence of market failures), and the theory of comparative advantages is not valid when production factors like capital are mobile, especially if unemployment exists. Moreover, in the Ricardian model of comparative advantages, there is no state and thus no tax. For all these reasons, there is indeed competition between nations, and if tax policy is no longer available as an instrument, then other devices will be used in this competition. Still, it might be true that the existence of the possibility of attracting tax bases makes the stakes in this competition higher than would otherwise be the case. Without the possibility of attracting tax bases from other countries, competition between nations would still exist, but the direct tax revenue from capital income would not be at stake if it were paid in the country of residence of the capital owner (it will however still be at stake if tax competition were abolished through tax harmonization; this is a further argument why tax coordination is a better alternative to tax competition than tax harmonization is). Without becoming negligible, the stake would be restricted to such things like

¹⁹ However, certain subsidies have already been harmonized, for example in the context of the WTO.

obtaining the best comparative advantages or attracting capital in order to increase labour productivity and decrease unemployment.

3.1.5 The capital over-taxation argument

If we assume that the tax structure in the absence of tax competition is optimal, then tax competition will introduce a distortion into this optimal tax structure. One could, however, argue that the tax structure might not be optimal in the absence of tax competition. For example capital income might be overtaxed relative to labour. In this case, by reducing taxation on capital tax, competition may push the tax rate toward its optimal value. Let us look at the argument according to which capital should be taxed less than labour even in the absence of tax competition.²⁰

A common argument is an application of a rule from the theory of optimal commodity taxation applicable in the case when one good (leisure) cannot be taxed: the rule of Corlett and Hague (1953). According to this rule, a commodity, which is more complementary to leisure should be taxed more. It follows that if present and future consumption are equally complementary to leisure, then they should be taxed at the same rate. This implies that capital income tax should be zero since if it were not it would distort intertemporal consumption choices. However, not all savings are eventually consumed: wealth can be accumulated without being consumed either because having wealth is in itself a source of pleasure, or because wealth is a buffer that would be used in case of bad times, only. Since the length of an individual life-time is finite, even this accumulated capital might be taxed at inheritance. However, inheritance tax rates are not necessarily equal to income tax rates and are not applied in every country.

²⁰ If capital is taxed, the question remains who should be taxed: the firm or the investor; this might make a difference, in particular since the firm is not necessarily located in the same country as the investor.

Another argument is that capital should not be taxed if the elasticity of saving is infinitely high²¹ since the burden of a capital tax would be shifted to labour via a welfare-reducing fall in capital accumulation. Sørensen (2001a) mentions this argument and answers that most empirical studies suggest that the interest rate elasticity of saving is quite low. However, discriminating between poor and rich households reveals that interest elasticity for the rich is not as low as for the poor (Güvener, 2003).

To sum up, there are no reasons to believe that it is efficient to tax capital income at the same rate as labour income, but it is also not clear that (independently of tax competition issues) it would be efficient to tax capital income less relative to labour than it is done now. What might be the case is that, given tax competition, a country has an incentive to tax capital less than labour, but this is an issue of the optimal reaction to given tax competition, not a reason to believe that tax competition is efficient.

3.1.6 The international factors allocation argument

If all countries were identical, they would all end up with the same taxes and no country would attract the tax base of another country. But in fact, not all countries are identical. For example in Switzerland tax increases must be submitted to the voters for approval. This tends to limit Leviathan and promotes lower tax rates than in a country, which does not enjoy direct democracy. Moreover, tax competition between cantons tends to make Switzerland internationally competitive in tax matters²². Finally, small countries facing international tax

²¹ One should be careful when arguing that it is efficient to tax the tax base less whose response is more elastic. Even if this statement is proved in a model with representative agents (that is in which all individuals have the same preferences and are in the same situation, in particular that they have the same income), this need not be the case in a model allowing for heterogeneity of agents. For example the Ramsey optimal rule for consumption tax is modified when heterogeneity is allowed: Diamond (1975) shows that in the presence of heterogeneity, it is efficient to tax necessary goods less and to tax luxury goods more than according to the Ramsey rule.

²² Conversely, one could argue that federalism leads cantons not to try hard enough in attracting foreign taxpayers since they do not take into account the increased fiscal revenue at the national level. This is known as the vertical externality. Brühlart and Jametti (2005) find that vertical externalities dominate at the level of Swiss municipalities.

competition have greater incentive to lower their tax rates than large countries. One way to see this is that a large country lowering its tax rates will lose a lot of fiscal revenue while attracting relatively few foreign taxpayers in comparison to its domestic tax base. Moreover, in a small open economy, in so far as capital is mobile, the interest rate can be considered as exogenous and capital income tax is shifted to immobile factors anyway. Thus, for a small open economy facing tax competition, when capital is perfectly mobile, it will be more efficient to tax these immobile factors directly.²³

Thus, it is likely that there are some winners in tax competition. But the differences between tax rates in various countries, and their impact on the allocation of mobile factors, are additional distortions (firms might choose to locate to a low tax area rather than to the best location in terms of the efficiency of the production process or the market of their input and output). Wilson (1999) notices, however, that "fully efficient allocation cannot be achieved if tax rates differ across regions, and identical tax rates are usually not consistent with efficient differences in public good levels across regions, unless a central authority also redistributes revenue across the government treasuries". Thus, although tax rate differences across countries create distortions, identical taxes would not necessarily fare better.

3.1.7 The innovation and national sovereignty argument

The power to tax is one of the basic rights of a country. Moreover, there are two efficiency arguments for national sovereignty.

- **Efficiency of public spending**

Oates²⁴ argues that decentralizing public spending leads to increased

²³ On the contrary, a country importing capital and large enough to be able to have an impact on the worldwide interest rate might even have an incentive to increase its taxes in order to drive down the after-tax return on capital: part of the capital tax will be shifted to those who demand capital, reducing the demand of capital and thus its after-tax retribution. This may lead to over-provision of public goods in large capital-importing countries and aggravate under-provision in capital-exporting countries.

²⁴ This is an argument developed in Oates' work on fiscal federalism. It is restated for example in Oates (2002).

efficiency because local governments can allocate resources more efficiently. In this way public goods can be tailored to the preferences and costs of the different jurisdictions, rather than having a higher level of government providing more or less uniform public goods across jurisdictions. It can be argued that harmonizing tax policy would also imply harmonization of public expenditure and the loss of the advantages of decentralization. On the other hand one could answer that tax competition may reduce the power of the decentralized entities to impose taxation.

- **Promoting innovation**

Decentralization allows experiments in fiscal policies. Each country may innovate in various policy fields, tax policy included. However, some innovations might be more useful than others from a world point of view (an innovation that only redistributes wealth from one country to another without increasing the overall welfare level is purely a "beggar thy neighbour reform"). But other innovations still yield gains if all countries adopt them and are thus globally useful (the value added tax might have been such an innovation).

The impact of reduced tax competition on national sovereignty and fiscal innovation depends on how tax competition is reduced. Several alternatives exist:

Box 6: Alternatives to tax competition

Tax harmonization

After harmonizing the tax base, there are two variants: either all countries must have the same tax rate or set a lower limit to the tax rate. The first variant is a bad way to harmonize because high tax countries would have to reduce their tax rate (which would be quite ironical for a policy aiming at counteracting competition leading to lower tax rates). Thus, if there is harmonization, it should consist in establishing a lower limit to the tax rate rather than a common tax rate.

Tax coordination

While tax harmonization aims at reducing tax competition by harmonizing tax rates, tax coordination lets each country set its own tax rates but tries to coordinate the tax systems in such a way as to reduce links between the rate set in one country and the rate set in another. If income is taxed at residence rather than at the source, and if indirect taxation is taxed at destination (taxes on exported goods are paid in the importing country), then there would be no tax competition, even if each country set its own tax rate (at least in so far as taxpayers do not move internationally)²⁵. This would require some coordination between countries: either the source country would have to transfer some information to the residence country or it would have to tax and transfer the revenue of this tax to the residence country. In fact transferring only the part of the residence tax which is in excess of the source tax (in case the residence tax is higher than the source tax) is enough to avoid capital being invested in a country only to save taxes. This kind of coordination would be an extension of the cooperation which already exists in order to avoid double taxation. Tax coordination constrains tax competition less than does tax harmonization. But it is not a watered-down version of the latter: rather it is based upon other principles.

With tax coordination (the term “coordination” is used in the literature but can be misleading since it is too broad and may wrongly suggest that tax harmonization is a special case of tax coordination, while tax coordination does not aim to harmonize taxes but rather to reduce the impact on other countries of the tax chosen in a given country). Each country has to agree on coordination, but remains free to choose its tax structure and tax rates (there is, however, an incentive problem facing source countries assisting in collecting revenues for residence countries). Thus, the adverse impact on the two efficiency channels mentioned above should be smaller than in the case of tax harmonization. Under tax harmonization the degree of freedom in choosing the tax structure is reduced for all countries because of the harmonization of the tax base. Concerning the tax level, countries which had lower levels of taxes than the harmonized minimum will have to increase their tax rates (the structure of public expenditure would however still be decentralized except possibly for some areas such as export subsidies,

²⁵ Coordination might also concern corporate taxes on multinationals. For example, in order to curb profit shifting, it has been proposed to compute the consolidated profit in the EU and to allocate it to EU countries on the basis of the activity of the multinational in each country.

which might be harmonized), increase their expenditures above what they consider appropriate and thus engage in what they consider to be wasteful public expenditures (or unnecessary purchases of assets). One could argue that this additional public expenditure need not be wasted but could be used to increase minimum social standards (and tax harmonization would thus be protecting the minority of transfer receivers against the rejection of these standards by the majority of this country). One could respond that each country has the right to set its own standards.

The sovereignty issue is tricky. One could argue that the sovereignty of one country should end where the sovereignty of another country begins. However, because of externalities among countries (tax competition is one of them), these sovereignties are in conflict. While tax harmonization leads to a decrease in national tax autonomy in favour of international agreements (or a world tax organization as proposed by Tanzi, 1999), tax competition might lead to a decrease in national state sovereignty in favour of some taxpayers by hampering the former's capacity to tax.

3.2 Is tax competition good for equity?

Tax competition tends to increase tax on labour relative to tax on capital. On the expenditure side, public expenditures will tend to be directed more towards public inputs and less toward public goods and transfers. This impact of tax competition on equity is usually considered to be problematic. However, what constitutes a fair distribution is a subjective judgment. For example Edwards and Ruggy (2002) in the annual report on economic freedom of the Cato institute declare that "Tax competition may indeed hamper income redistribution but this is a beneficial outcome because redistribution has advanced to an excessive degree in most countries" (one could answer that, in spite of fiscal redistribution, the degree of inequality after tax has increased in several countries). Taking the same line, it has been argued that tax competition offers protection to a small minority of rich taxpayers who could be oppressed by the majority. However, the fact that tax competition makes redistribution less than what democratic societies would have

chosen in its absence is an argument in favour of considering that the distributional impact of tax competition is undemocratic. Of course, the question here is, what kind of democratic decision-making procedure has been decided upon on the level of redistribution. Principal-agent problems suggest that the actual level of redistribution may not reflect the true preferences for redistribution of the electorate (redistribution might be too high or too low).

3.3 Are the alternatives to international tax competition feasible?

It is often argued that the alternatives to tax competition are not feasible. If one country does not harmonize, then it will be a tax haven that jeopardizes those efforts. Since some countries win and some others lose in tax competition, the winner has little incentive to accept harmonization. Should harmonization be achieved, it would be a tax cartel difficult to sustain.

There are three objections to this argument. Firstly, there are several alternatives to tax competition which are not all feasible or unfeasible to the same degree (see box 6). Cooperation could also be focused on the most mobile tax bases. Secondly, the existence of non-cooperating countries is important only insofar as the tax base is mobile towards these countries (firms for example might not want to move to a country without any infrastructures even if tax is low there). Third, the option of retaliation against countries that do not cooperate does exist (this could range from refusing to enter into double taxation agreements up to economic boycotts).

Overall, cooperation might not be impossible but is costly. As long as we do not know clearly if tax competition is good or bad, cooperation will remain limited. This might not be the case anymore if competition were to become clearly bad.

4 Trends in tax policy as a reaction to increased tax competition

In response to pressures created by increasing global mobility of both capital and goods and services on the tax bases, two main trends can be isolated. Firstly, countries may try to reduce or eliminate tax competition by establishing international cooperation in tax matters. Secondly, since the mid-1980s countries have engaged in fundamental reforms of their tax system to provide a more competitive fiscal policy²⁶.

4.1 Reducing tax competition

Until now, tax cooperation has been focused on limiting arrangements especially targeting particularly mobile taxpayers (that is what is often labelled as “unfair” tax competition). A low general level of taxation per se is not something that international cooperation has officially tried to limit. We will discuss here the OECD and the EU agreements.

4.1.1 OECD’s project on harmful tax practices

In 1998 the OECD issued a report entitled “Harmful Tax Competition: An Emerging Global Issue” (OECD, 1998). The report aimed at identifying factors that characterize tax havens and preferential tax regimes and recommends several measures to counter harmful tax competition.²⁷ Due to reactions from member countries and non-member countries, the title of the project was changed to “harmful tax practices” to “address harmful tax practices and promote fair tax competition” (Hammer and Owens, 2001). The goal of the OECD project was to establish a so-called “level playing field” in tax matters on a global basis. Thus, the

²⁶ There is still a third possibility: a country could try to impose unilaterally its interests on other countries (for example taxing its citizens living outside its border). This is an option that only a superpower like the US could contemplate. We do not explore this further.

²⁷ The OECD Council of Ministers released the report on April 29, 1998, with the abstention of Luxembourg and Switzerland.

project reviews tax practices in member countries to identify those that are potentially harmful and “engages” non-member countries to support the project (Weiner and Ault, 1998). Furthermore, a particular focus of the project is that of identifying characteristics of harmful tax practices. According to the OECD, four key factors help identifying harmful tax practices:

- No or low effective tax rates on geographically mobile financial and service activities,
- Ring fencing the domestic economy (no substantial presence in the domestic economy for tax havens),
- Lack of transparency, and
- Lack of effective exchange of information.

Unsurprisingly, the validity of the first criterion has generated much controversy. There are good economic reasons for low tax rates in a country other than that of engaging in harmful tax practices. Moreover, blaming no or low tax rates may be interpreted as a first attempt in building a global tax cartel. Thus, efforts in fighting harmful tax practices may result in excessively high tax burdens and violates national sovereignty in tax policy (Blankart, 2002). This is why many commentators did not accept the distinction made in the 1998 report between generally low income tax rates that are not a feature of a harmful tax practice and narrowly defined low tax rates coupled with other factors and special features that are considered as being harmful. In response to that debate, the OECD (2000, 2001) stressed that the first criterion on no or low tax rates would only serve as a necessary but not a sufficient feature in defining harmful tax practices.

Also, the other criteria to identify harmful tax practices were not unchallenged. For example, Janeba and Smart (2003) show theoretically that the effect of ring fencing is not necessarily harmful depending on the mobility of the tax base and the responsiveness of the global size of the base to reduced taxation. Next, whether an exchange of information between tax authorities is welfare enhancing or cartel enforcing is discussed in Brennan and Buchanan (1977), Feld (2002),

Blankart (2002) and others. A claim against information exchange focuses on the “big-brother is watching you” aspect. According to these authors, a system of information exchange is desirable only under the assumption of a welfare-maximizing government. However, coping with principal-agent problems between the governments and their citizens, a system of information exchange represents a measure to form a tax cartel against the citizens according to this view. Feld and Blankart both recommend a regime of withholding taxation to organize cross-border income flows efficiently rather than the exchange of information. Finally, transparency is often seen as a legitimate claim made by taxpayers relating to their tax authority but it is questionable as to whether the same holds true for tax collectors in relation to their taxpayers according to these authors.

In the further course of the project, the OECD’s focus is on removing those harmful tax practices that have been isolated within 41 so-called tax havens by the end of 2005. Attention has mainly been paid to removing non-transparent features of the tax systems as well as reaching commitments in information exchange between tax authorities. At present, only Andorra, Liechtenstein, Liberia, Monaco and the Marshall Islands are listed as uncooperative.

While there is no formal mechanism to force member countries and non-member countries into an agreement on the OECD project on harmful tax practices, countries identified as tax havens could be subject to coordinated measures by other countries (Zee, 2004). Thus, many countries were willing to co-operate with the OECD.

4.1.2 The EU efforts in tax harmonization

The OECD is the most prominent organization in establishing global tax coordination. For the member countries, the European Union is another important regulatory body. For a number of years, the European Commission has been engaged in harmonizing areas of taxation that are seen as important to fulfil the aims of the common market (economiesuisse, 2004). Not surprisingly, the

measures are similar to those employed in the OECD's project on harmful tax practices.

First proposed in 1997, the EU released a "EU Code of Conduct" for business taxation to tackle harmful tax practices. This Code of Conduct is perhaps more specific than the OECD initially was about the idea that a low general level of taxation is not in itself "unfair" and stipulates (amongst other things) the following condition for identifying potentially harmful tax competition: "an effective level of taxation which is significantly lower than the general level of taxation in the country concerned". 66 harmful tax regimes in the EU were identified in the report. These regimes cover making arrangements for financial services, company internal services, tax exempted and offshore subsidiaries and other specific measures like industry and regional subventions subsidies?

Effective as of 2005, the EU finally reached a consensus on measures to effectively tax income from cross-border savings (EU Savings Directive). Again, the adopted directive aimed at an automatic exchange of information on interest payments to non-resident individuals. Member-countries agreed on the directive on the condition that equivalent measures are reached with important third countries, namely Andorra, Liechtenstein, Monaco, San Marino, and Switzerland. The consensus now reached grants Belgium, Luxembourg and Austria a transition period of undefined length before implementing the exchange of information.²⁸ During this period, the exempted countries have to levy a withholding tax (15 percent for the first three years, 20 percent for the following three years and 35 percent thereafter). The countries agreed that 75 percent of the revenue raised by the withholding tax has to be transferred to the state of residence of the recipients of interest income (Zee, 2004).

The work on the EU savings directive took almost one and a half decades. First attempts aimed at focussing on a EU system of withholding taxation on all outflows

²⁸ The transition period ends when the exempted countries and the United States both agree on an exchange of information on interest payments upon request in accordance with the OECD model of information exchange (OECD, 2002).

of income. This aims at being solution to tax cross-border capital income flows in a world of global capital mobility, in particular, income from portfolio investments such as interest (Huizinga and Nielsen 2002 for a discussion on the pros and cons of withholding taxes and information exchange). However, the EU could not reach an agreement on the basis of a withholding tax. Reasons might be that attracting foreign savings is feared to be limited with adequate withholding tax rates as well as the risk of pushing operations of domestic credit markets offshore (Zee, 1998). Therefore, the EU switched its focus to the information exchange as an alternative to a system of withholding taxes.

However, even though information exchange is often a feature of bilateral or multilateral tax treaty agreements, there are very limited experiences with such a system on an automatic basis, which is the intention of the OECD and the EU. Double taxation treaties normally contain general provisions for information exchange in setting standards but do not specify details on how the exchange has to be carried out. Thus, the practical effectiveness of the exchange system for taxable cross-border income flows remains unknown. According to Zee (2004) an effective information exchange faces two main challenges. Firstly, there is a fundamental incentive incompatibility between the supplier and the recipient of the relevant information. The capital-exporting country, of course, benefits more from the exchanged information than the capital-importing country, which has little incentive to efficiently provide the relevant information. This may render the system unmanageable on a global basis. Secondly, considerable transaction costs in the practical administration of the information exchange are inherent to the system. These costs evolve because of technical and legal differences in the tax systems but also because of linguistic difficulties. Hence, capital-importing countries should be compensated for the costs arising in providing relevant and timely information exchange.

4.2 Living with tax competition

Another option to meet the challenges of tax competition is to take it as given and adapt the tax system in order to try to win this competition.

The usual starting point of analysis of tax policy is the Schanz-Haig-Simmons principle (Schanz, 1896) of comprehensive taxation (SHS system). According to this principle of taxation, all income should be aggregated as the proper basis on which the tax is levied regardless of the source of income. The philosophical basis of the SHS approach is based on John Stuart Mill's theory of "equal sacrifice". Each citizen should contribute a "fair share" to the revenue requirements of a state. Broadly speaking, the SHS-system has two main implications. Firstly, there is no differentiation between capital and labour income. Secondly, the corporate income tax is integrated in the personal income tax (Zee, 2004).

Even though tax policy in the real world never followed this principle without any deviation, theoretically it was seen as the relevant and ideal point of reference. Deviations from the SHS-System are normally justified because of administrative obstacles. However, the normative basis of the SHS-principle exclusively focuses on the argument of horizontal equity but does not take efficiency aspects of taxation into account. Horizontal equity requires that all sources of income contribute equally to one taxable capacity. This aspect completely ignores the conclusions that have been derived from the optimal taxation literature. This literature was pioneered by Frank Ramsey (1927), who asks how different goods and services should be taxed in order to efficiently raise a given amount of revenue. The most important result in this respect is the "inverse elasticity rule" or the "Ramsey-rule". According to this rule, the distortive impact of a tax is inversely related to the demand and supply elasticities of the taxed commodities and services.²⁹ Hence, an efficient tax system should tax different commodities and services taking into account their elasticities (other characteristics like whether a good is a luxury good or a necessity good, are also relevant from an efficiency point of view, see Diamond, 1975). Assuming that elasticities for goods and services in the market differ, which is normally the case, then, for the sake of efficiency, a uniform taxation like the SHS-system is no longer a reasonable

²⁹ To be precise, the validity of the Ramsey-rule depends on some assumptions and some technical conditions that are not subject to this paper. The standard contribution of the optimal taxation literature has been provided by Diamond and Mirrlees (1971a, 1971b).

system to follow (taking also into account other criteria like equity or administrative costs might lead to deviate less from SHS than would be optimal from an efficiency point of view).

The Ramsey-rule has an important practical relevance in a globalized world with increased factor mobility since different tax bases exhibit different elasticities. This is especially true for capital and labour income, which face different degrees of international mobility. In an attempt to cope with increased mobility of the tax bases especially with capital income, some interesting recent developments can be identified. In order to meet the challenges, a rising number of countries are reforming their tax system.

We will discuss two types of tax reform: the so-called “flat-tax revolution” in the eastern European countries and the introduction of a dual income tax as the Nordic countries have done. Finally, we will explore the case of Ireland.³⁰

4.2.1 The “flat tax revolution”

Various types of flat taxes have attracted much attention recently. It can be seen as a reaction to increased global tax competition especially for eastern European countries after 1990. These countries face low labour costs, which induces migration incentives to western European countries. A flattening of the income tax progression reduces the wage differential for the high-income earners thereby reducing their incentive to migrate. Unfortunately, the different types of Flat taxes are often confused in the public discussion. Originally, the flat-tax concept was invented by Hall and Rabushka (1981). They propose a consumption-based tax with a linear tariff of 19%. Corporate taxes are levied in the form of a real-cash-

³⁰ In the following, we concentrate on flat taxes and the Nordic system. We do not discuss the introduction of “make work pay”, tax reforms in consumption taxation and developments to approaches to tax financial services under a value-added tax (VAT) Zee (1998). Additionally, we do not report on special tax reforms of particular countries with the exception of the Irish tax reforms.

flow tax. Households are taxed by a wage tax. Even though the Hall-Rabushka flat-tax proposal became very popular in the USA³¹, it was never introduced.

Recently, several flat tax concepts were proposed that do not follow the original philosophy of a consumption-based tax but rather the philosophy of a comprehensive income tax (flat rate tax).³² In contrast to the Hall-Rabushka-Proposal, the flat rate tax consists of a broadening of the tax base combined with a uniform tariff and a tax allowance. For example, the US tax reform of 1986 (TRA86) has strong features of a tax-cut-cum-base-broadening (Auerbach and Slemrod, 1997). The proposal by the scientific board of the German Ministry of Finance in 2004 is basically a flat rate tax.

Pioneered in eastern Europe, flat rate taxes seem to work. In 1994, Estonia became the first country in Europe to introduce a flat rate tax. The new system replaced a complicated tax system with a uniform rate of 26 % (see table 1). Soon, the Baltic neighbours Latvia and Lithuania mimicked the Estonian example. In 2001, Russia too moved to a flat rate tax with a uniform rate of 19 % on personal and corporate income and the value-added tax (Ivanova, Keen and Klemm 2005). The Russian flat rate tax became famous as an attempt to fight the enormous tax evasion – one of the major problems of the Russian economy. An ambitious step was also made by Slovakia in 2004. The Slovakian comprehensive reform of its tax and welfare system consists of an introduction of a flat rate income tax of 19% as well as a 19% value-added tax. Though the reform reduced tax revenue per GDP, the tax–base-broadening allowed an overall efficiency gain by encouraging investments, lowering the administrative burden and improving work incentives (Moore, 2005). Additionally, the Slovakian fiscal competitiveness has increased compared to other countries as a result of these reforms.

³¹ For example, the Arney-Shelby flat tax proposal from 1994 was inspired by Hall and Rabushka.

³² For Switzerland, Schneider (2003) proposes a flat rate tax.

Table 1: Flat Rate Taxes on personal income (in percent)

Country	Rate	Year introduced
Estonia	26	1991
Lithuania	33	1994
Latvia	25	1995
Russia	13	2001
Serbia	14	2003
Ukraine	13	2004
Slovakia	19	2004
Georgia	12	2005
Romania	16	2005

Source: *The Economist* Vol. 375 No. 8422 form 16. April 2005, P. 64.

4.2.2 Dual income tax (the Nordic system)

Starting in the late 1980s and early 1990s, some Nordic countries (Denmark, Finland, Norway and Sweden) experienced a so-called dual income tax.³³ Why did the Nordic countries change from a comprehensive income tax? The answer is because of the problems that arise when implementing a comprehensive income tax with taxation of capital income (Sørensen, 1998; Cnossen, 2000). Firstly, capital income can take many different forms (corporate gains, interest, dividends, business income, income from real estate, capital gains). Secondly, it may be due to different organizational forms (proprietors and partnerships, corporations,

³³ The Netherlands introduced a so-called Box system in 2001, which also covers some of the features of the dual income tax. For a discussion of the Netherland's box system, see Cnossen and Sinn (2003).

pension funds, life insurance companies etc.). Thirdly, capital income can even become negative. These complexities combined with high global capital mobility have made equal treatment of all income technically as well as politically almost impossible.³⁴ Normally, countries allow for some kind of deductibility of capital income to meet the challenges with the consequence of an erosion of the tax base and with the introduction of further violations of the principle of comprehensive taxation. This was the situation in the 1970s and 1980s in the Scandinavian countries facing huge revenue losses. In response to the practical and political constraints, they introduced dual income tax. In essence, dual income tax combines progressive labour income taxation with low and proportional taxation on capital income including corporate income. Capital income includes interests, dividends, capital gains, rents, royalties from assets, and business profits. Labour income involves wages and salaries, pensions and social security benefits, perquisites, and royalties not classified as capital income.

The 1992 Norwegian tax reform and the 1993 Finnish tax reform have incorporated crucial features of the dual income tax. The reforms resulted in a considerable tax base broadening (with the exception of pension savings) with a sharply reduced tax rate of 28 percent in Norway and 29 percent in Finland for corporate income and a flat rate tax of 28 (29) percent for all forms of capital income. Thus, the reforms promoted neutrality in capital income taxation by base broadening and reduced distortions by rate reductions for those exceptions that are granted because of practical or political reasons since distortions are lower when taxes on other capital income types are low. The reform managed to eliminate the double taxation of dividends for domestic shareholders via an imputation system. In both cases, capital income is taxed close to the bottom of the labour income tax rate. However, wages and salaries are taxed progressively. Finland in contrast to Norway also has a withholding tax for interest of 29 percent. As can be seen in table 2, Sweden and Denmark adopted the dual income tax less consistently compared to Norway and Finland.

³⁴ Sørensen (2001b) discusses the technical and political problems of a comprehensive income

Table 2: comparative features of the income tax system in the Nordic countries, 2002

	Strong features of dual income tax		Weak features of dual income tax	
	Finland	Norway	Denmark	Sweden
Year of reform	1993	1992	1994	1991
Corporate income tax rate (in %)	29	28	30	28
Personal income tax rate (in %)				
Wages and salaries ¹	30-59	28-48	33-59	28-56
Interest ²	29	28	Aggregated with wages and salaries	30
Dividends	-	-	28-43	30
Capital gains on shares	29	28 ³	Aggregated with wages and salaries for short term gains (< 3 years) ⁴	30
Other capital income	29	28	Aggregated with wages and salaries	30
Withholding tax rates (in %) ⁵				
Interest	29	-	-	30
Dividends	-	-	28	30
Integration of Personal income tax and corporate income tax	Full imputation	Full imputation	No	No
Source, Zee (2002)				
1. Including local taxes but excluding social security contributions				
2. In addition to the corporate income tax				
3. On adjusted gains: the cost basis of shares is stepped up by new retained earnings (net of the corporate income tax) and down by losses and distributions from previously accumulated earnings.				
4. Long-term gains are taxed as dividends, but such gains from quoted shares are tax exempt if the total holding of such shares is below stipulated thresholds.				
5. On resident individuals; on non-residents, in general, withholding taxes on interest are nil and on dividends are governed by tax treaties.				

In addition to various advantages that are combined with the dual income tax, there were also some problems. The most important problem raised is the treatment of small enterprises where the proprietor's income takes the form of labour income as well as capital income. Firstly, if the return of non-corporate business equity applies to labour income for the self-employed, the proprietors would face higher marginal tax rates than for investments in corporate capital and

taxation in more detail.

financial savings. Secondly, obviously a controlling shareholder has an incentive to transform wage income into dividends and capital income, which is taxed at reduced rates. Separating the two elements of income for the self-employed creates some administrative difficulties. Norway and Finland solved the problem with a presumptive rate of return on capital to determine that fraction from total business profits that applies to capital tax rates whereas the rest is taxed as labour income. Sweden and Denmark only split withdrawn profits whereas retained profits fully apply to capital income taxation. Of course, the distinction between capital and labour income for the self-employed is arbitrary (Sørensen, 1998). But compared to the complex administrative rules for deductibility in the comprehensive income tax systems in the real world, the dual income tax system offers a reasonable solution.

Zee (2004) compares the performance of the Nordic dual income tax countries to the other EU countries. Table 3 shows that the Nordic countries managed to raise more revenue from the corporate income tax despite a much more pronounced standard rate reduction than the other EU countries. Thus, the dual income tax seems to offer a reasonable option to meet the challenges of global capital mobility (Cnossen, 2000).

Many critics of the dual income tax system argue that taxing capital income with lower rates violates basic requirements of the equity principle. However, the Nordic tax reforms show that a dual income tax can be beneficial to labour, too. Low and flat capital tax rates made it politically feasible to broaden the tax base resulting in a considerable revenue increase from capital income taxes.

Table 3: Corporate income tax performance in the Nordic and EU countries, 1986-2000

	Period averages					
	1986-90		1991-1995		1996-2000	
	Nordic	EU	Nordic	EU	Nordic	EU
Corporate income tax revenue ¹	2.4	2.6	2.2	2.5	3.6	3.4
Corporate income tax standard rate ²	39.2	42.1	29.1	35.5	29.4	34.6
Corporate income tax revenue productivity ³	0.051	0.055	0.062	0.059	0.099	0.085
Source: Zee (2002)						
1. Percent of GDP						
2. Percent						
3. Defined as revenue yield for each percentage point of standard corporate income tax rate.						

4.2.3 The Irish case

Today, Ireland is known for favourable corporate taxation. However, between 1930 and 1960, the country was heavily protectionist, depending on inefficient firms oriented almost exclusively towards the domestic market. Then, during the 1950s, Irish politics became aware of the limitations of this policy. This encouraged a switch to other measures to promote industrialization, in particular attempts to attract inward FDI. By the 1960s, after basically two important tax reforms, foreign investors were offered the attractions of a low corporate tax rate and grant-aid to come to Ireland. No restrictions were placed on their freedom to remit profits from the country.

As a member of the EU, it was inevitable that this tax regime came in for criticism relating to lack of compatibility with the obligations under the Treaty of Rome. Since the regime was targeted on exports, it was deemed discriminatory and was phased out over the period from 1981 to 1990. The regime was replaced by a 10% “preferential” corporate tax rate applicable to profits from the manufacturing industry and internationally traded services. In the late 1980s, the 10% preferential corporate tax was extended to activities located in the International Financial Services Centre (IFSC) in Dublin. But, in the course of the 1990s Ireland’s success in attracting FDI in the “high-tech” and financial sectors provoked claims of “unfair

tax competition” from countries such as Germany and Belgium that were not pleased to see some relocation of activity to Ireland (Walsh, 2003).

The existing Irish corporate tax system during the 1990s was dualistic. Low tax rates applicable to export sales (up to 1981) or manufacturing and internationally traded services (after 1981), on the one hand with high “standard” rates applicable to the rest of the corporate sector, on the other. In the early 1980s, the standard rate was 50% but this was reduced to 20% by 2001. Once more, the discrimination between lowest rate of profit tax among EU countries applied to one set of businesses and one of the highest rates applied to all the rest provoked major criticism. Some features of the tax system, in particular the application of the special inducements to attract activity to the IFSC, have been viewed as “unfair tax competition” in some European circles. In negotiations between the Irish government and the EU Commission, the following compromise was approved (Walsh, 2003).

- The preferential rate of tax will continue to apply to manufacturing firms until 2010.
- The preferential IFSC tax will continue to apply to qualifying firms until 2005.
- Remission of local taxes and special capital allowances in the IFSC to cease immediately.
- A uniform corporate tax rate of 12½% will apply to all firms by the year 2010 at the latest.

In 2003 the corporate tax rate was effectively reduced from 16% to 12½%. Ireland is today one of the most attractive European business locations for foreign firms, especially from the USA.

5 Implications for Switzerland

International tax competition has advantages as well as disadvantages from a global point of view. Several attempts to harmonize some areas of tax policy are on the political agenda to limit the negative effects of competition between countries in tax matters. However, multinational efforts to limit ruinous aspects of tax competition are disputed. On the one hand, agreements on tax harmonization seem not to be very stable due to an enforcement problem created by free riders. On the other hand, there is no consensus among economists that allows for a proper distinction between those aspects of tax competition that are considered as being harmful and those being beneficial. Hence, taking a strong stand in favour of a higher degree of global tax harmonization seems not to be a promising strategy for Switzerland. Moreover, it is not clear whether this would improve global welfare. In any case, a far-reaching tax harmonization on a global basis is likely to endanger important competitive advantages of Switzerland.

To cope with increasing international tax competition, an important task for Switzerland is to increase the efficiency of its tax system. A possible trade-off between efficiency and equity requirements in the tax system has to be taken into consideration.

There are three major reasons why a strong stand in favour of a far-reaching global tax harmonization seems not to be an attractive option for Switzerland:

- It can be debated whether global tax harmonization is feasible at all: Tax cartels are inherently unstable since there are always high potential gains to be derived for a single country from deviating from the cartel agreements. Tax cartels face a severe commitment and enforcement problem. Thus, far-reaching retaliations against non-complying countries are not likely as long as tax revenues on mobile bases are not actually decreasing in complying countries. Nevertheless, supranational organizations are trying to elicit commitment from member countries to agreements for some counter-measures against free rider countries. Of course, if revenue from

internationally mobile bases were to shrink noticeably in the future, then the potential welfare gains from a tax cartel would also increase, and the feasibility of a stable tax cartel would increase too.

- It is disputed whether global tax harmonization and thus a tax cartel is welfare improving.
- Internationally attractive locations are focused on their competitive advantages. Different countries enjoy different competitive advantages and their economies are specialized accordingly. Countries with a large domestic market have a competitive advantage due to increasing returns to scale (although economies of scale do play the same role in a small country at the firm and cluster levels, and also at the national level insofar as barriers to exports are low). It is thus reasonable to adopt an attractive tax policy to increase the welfare of Swiss residents. Insofar as barriers to exports are high, global tax harmonization would imply a competitive disadvantage for small countries such as Switzerland and there would be no reason for such countries to agree to accept such a disadvantage.

There are good reasons why Switzerland should concentrate on improving its tax system:

- An attractive tax system represents an important advantage for Switzerland as a location for productive activities.
- There is need for improving the Swiss tax system. In the long run, the Swiss fiscal system should become more efficient. This implies that differences in elasticities for different tax bases should be taken into account. However, a possible trade-off between efficiency and equity also has to be taken into account.
- Comprehensive tax reforms should be considered for Switzerland, too. Recently, a number of countries have discussed and enacted comprehensive tax reforms with or without success. It is important to evaluate these experiences carefully with respect to a possible application

in Switzerland. There might be some relationship (of substitution or complementarities) between tax policy and other instruments of international economic competition.

- Concerning the reaction of Switzerland to increased international tax competition, there is a delicate balance to be maintained between insufficient measures and an overreaction. On the one hand, competitive advantages of the Swiss tax system have recently been challenged by tax reforms in other countries. These reforms call for improvements in the Swiss tax system, too. On the other hand, reforms that violate equity requirements can be considered as a case of overreaction. This would also be such a case if we reacted to a tax rate decrease in foreign countries without taking into account whether these countries have totally or partially compensated this tax rate decrease by a broadening of the definition of their tax bases.

Box 7: Les caractéristiques de la Suisse

Plusieurs caractéristiques de la Suisse sont particulièrement pertinentes pour notre problématique:

Petite économie ouverte

Les petites économies ouvertes ont une incitation supplémentaire à réduire leurs impôts, car ils ont davantage à y gagner et moins à y perdre que les grands pays. Les arguments en faveur d'un impôt dual (qui doivent être mis en balance avec les arguments contre) sont donc plus importants pour un petit pays comme la Suisse que pour un grand pays. Toutes choses étant égales par ailleurs, le facteur travail est davantage mobile internationalement dans un petit pays, car le rapport entre la frontière et la surface du pays est plus grand, ce qui tend à augmenter le poids des pendulaires frontaliers.

Démocratie directe

La démocratie directe réduit le danger du Leviathan : le gouvernement ne peut pas augmenter les impôts sans consulter le peuple par un référendum. Les grandes dépenses sont aussi souvent soumises à référendum.

Fédéralisme

La compétition fiscale inter-cantonale tend à renforcer la position suisse dans la compétition fiscale internationale.

Multinationales

Compte tenu de sa taille, la Suisse héberge beaucoup de multinationales. Or les profits de ces entreprises sont particulièrement mobiles puisqu'ils peuvent être comptabilisés dans un autre pays sans déplacer le lieu de production. Ces multinationales constituent donc une base fiscale très mobile, ce qui la rend plus difficile à taxer.

Grand surplus de capital net à l'étranger

Les résidents suisses ont investi davantage dans le reste du monde que le reste du monde en Suisse. Ceci est dû au fait que le taux d'épargne suisse est resté très élevé alors que le taux d'investissement domestique a diminué pour converger vers des valeurs comparables à celles d'autres pays. Ce large surplus a plusieurs implications : i) il n'est pas dans l'intérêt de la Suisse que le capital soit mondialement fortement taxé, ii) des réformes internationales en faveur d'une taxation du capital à la résidence pourraient être favorables pour la Suisse, iii) malgré le relativement bas niveau de ses impôts, il serait faux de dire que globalement la Suisse draine le capital au détriment du reste du monde.

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