eJournal of Tax Research

Volume 5, Number 2 (Michigan Issue) December 2007

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ISSN 1448-2398

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eJournal of Tax Research

EDITOR'S NOTE

The *eJournal of Tax Research* is a refereed journal that publishes original, scholarly works on all aspects of taxation. It aims to promote timely dissemination of research and public discussion of tax-related issues, from both theoretical and practical perspectives. It provides a channel for academics, researchers, practitioners, administrators, judges and policy makers to enhance their understanding and knowledge of taxation. The journal emphasises the interdisciplinary nature of taxation. To ensure the topicality of the journal, submissions will be refereed quickly.

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eJournal of Tax Research (2007) vol. 5, no. 2 (Michigan Issue), pp. 168

Introduction

The OECD/International Network for Tax Research (INTR) held its inaugural conference *Tax and Development* on November, 3–5, 2006, at the University of Michigan Law School. The INTR is a network of about 25 academic institutions that have been asked by the OECD to cooperate in conducting research on tax topics of interest to the OECD.

The conference was attended by about 50 people, including 38 speakers (mostly faculty from 21 different universities in 10 countries), students from both the Law and Business Schools and the Economics Department, practitioners, and representatives of the OECD and the IMF. The conference brought together academics from both developed and developing countries. Developing countries represented included Argentina, China, Nigeria, South Korea and Vietnam.

The papers published in this edition of the eJTR are just a refereed sample of the diversity of topics covered, and the depth in which they were addressed. We take pleasure in presenting readers with this "Michigan" issue of the eJTR.

Reuven Avi-Yonah
(Guest Editor)

Binh Tran-Nam
(Co-editor)

Michael Walpole
(Co-editor)

eJournal of Tax Research (2007) vol. 5, no. 2 (Michigan Issue), pp. 169-198

Tax Treaty Treatment of Royalty Payments from Low-Income Countries: A Comparison of Canada and Australia's Policies

Kim Brooks*

Abstract

The proposal made in this paper is a modest one: that high-income countries should further the cause of reducing global inequality by ensuring that in their tax treaties with low-income countries they do not usurp needed revenues by reducing low-income countries' ability to collect tax on income with a source in the low-income country. This argument is made in the specific context of the taxation of royalty payments, which present one of the most extreme examples of high-income countries unfairly confiscating revenues that appropriately belong to their low-income treaty partners. The Organisation for Economic Co-operation and Development (OECD) model tax treaty, which most high-income countries in the world closely follow in negotiating their own tax treaties, provides that to avoid double taxation, source countries (invariably low-income countries) should reduce their rate of withholding tax on royalty payments to zero. Thus low-income countries that enter into tax treaties modelled on the OECD model convention are unable to levy a tax on royalty payments that have a source in their jurisdiction. In many cases, this simply results in a net transfer of revenue from the low-income country's treasury to the treasury of the high-income country. In making the general case for source taxation of royalty payments, the paper examines and compares Canadian and Australian tax treaty policies to see to what extent those countries have followed the OECD model convention in negotiating with low-income countries.

I. Tax Treaties as a Policy Instrument for the Promotion of Trade and Investment, and for Revenue Allocation

A. Giving with One Hand, Taking with the Other

One of the most urgent problems facing the world is the huge divide in material living standards, and in every other indicia of human development, between high-income and low-income countries. Of the 177 countries tracked in the United Nations Development Programme's *Human Development Report 2005*, only 57 were categorized as high human development and they had average GDP per capita in

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The author is particularly grateful to the faculty and staff at Atax, the taxation school of the Faculty of Law at the University of New South Wales, for the opportunity to spend a month in Australia as the Abe Greenbaum visiting research fellow. This paper was written in part while the author was in residence at Atax on that fellowship. The research for this article was made possible in part by a Hampton Research Grant provided by the University of British Columbia and also by a standard research grant from the Social Science and Humanities Research Council of Canada. The author is indebted to Amy Chapman, Matthew Swanson, and Morgan Troke for their excellent research assistance, and to a range of people who made helpful comments throughout the writing of this paper, including participants in the 2006 Critical Tax Theory workshop at Mercer University School of Law, faculty members at the Saint Louis University School of Law, an anonymous Australian reviewer, and Arthur Cockfield. This paper is dedicated to the memory of Abe Greenbaum, a consummate tax teacher, whose patience, clarity and insight, attention to detail, and obvious grasp of both the detail and underlying policy of tax law are missed.

(PPP) US dollars of $25,665; the 88 countries the program labelled as medium human development countries had an average GDP per capita of $4,474; and 32 low human development countries had an average GDP per capita of only $1,046.[1] These disparities in living conditions are intolerable.

At one point, orthodox economic theory was interpreted as suggesting that the level of incomes in rich and poor countries would converge. Investment would flow from rich countries, where capital is in abundant supply and thus returns are low, to poor countries, where capital is in short supply and thus returns are much higher. The brutal facts behind the on-going economic crises in Africa and the continued stagnation in much of Latin America and parts of Asia have rendered this theory unsustainable.[2]

A number of well-known development economists have recently called for urgent and drastic action to deal with the crises in world poverty and inequality. Jeffrey Sachs, known for his work as economic advisor to governments around the world and director of Columbia University's Earth Institute, has published a plan calling for roughly $150 billion in additional foreign aid a year. He contends that properly disbursed this amount could bring an end to mass destitution (such as the 1.1 billion extremely poor living on less than $1 a day) within 20 years.[3] Branco Milanovic, an economist with the Carnegie Endowment for International Peace and the World Bank, in a book in which he scrupulously documents the increasing income inequalities between countries, calls for global redistribution through taxes that would be levied on the world's rich by an international, authorized body.[4] As an indication of the immediacy with which people now view the problem of global inequality, both of these somewhat technical books have become best sellers over the past year.

By comparison to these bold schemes for reducing global inequality, the proposal made in this paper is modest, but not necessarily insignificant in the long-run. High-income countries should further the cause of reducing global inequality by ensuring that in their tax treaties with low-income countries they do not usurp needed revenues by reducing low-income countries' ability to collect tax on income with a source in the low-income country. In this paper, this argument is made in the specific context of the taxation of royalty payments, which present one of the most extreme examples of high-income countries unfairly confiscating revenues that appropriately belong to their low-income treaty partners. The Organisation for Economic Co-operation and Development (OECD) model tax treaty, which most high-income countries in the world closely follow in negotiating their own tax treaties, provides that to avoid double taxation, source countries (invariably low-income countries) should reduce

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[1] United Nations, *Human Development Report* (2005) table 14.

[2] For a collection of papers on globalization, law and development representing a range of views on the best approach to ensure globalization promotes the development of all countries see the symposium in (2004) 26 *Michigan Journal of International Law*. See also Nancy Birdsall, Dani Rodrik and Arvind Subramanian, 'How to Help Poor Countries' (2005) 84 *Foreign Affairs* 136 (arguing that wealthy countries should provide developing countries with the ability to design their own economic policies, and that developed countries can support developing countries achieve that end by offering increased aid with fewer onerous reporting restrictions, reducing trade inequities, financing new development-friendly technologies, and opening up labour markets).

[3] Jeffrey Sachs, *The End of Poverty: Economic Possibilities for Our Time* (2005).

[4] Branco Milanovic, *Worlds Apart: Measuring International and Global Inequalities* (2005).

their rate of withholding tax on royalties payments to zero.[5] Thus low-income countries that enter into tax treaties modelled on the OECD model convention are unable to levy a tax on royalty payments that have a source in their jurisdiction. In many cases, as is argued in more detail below, this simply results in a net transfer of revenue from the low-income country's treasury to the treasury of the high-income country.

Low-income countries are, of course, desperate for revenues to provide basic health care and education for their populations and to construct modern transportation and communication systems to increase the productivity of their workers. It seems incongruous, some might even say immoral, for high-income countries to, on the one hand, admit the moral case and the pragmatic need for providing aid to low-income countries, but, on the other hand, to enter into tax treaties with them that deny them the ability to collect revenue from income earned in their jurisdictions that normative principles of international tax suggest they have a right to tax. In making the general case for source taxation of royalty payments, I examine and compare the Canadian and Australian tax treaty policies to see to what extent those countries have followed the OECD model convention in negotiating with low-income countries.

The suggestion that high-income countries should use their tax systems and, in particular, tax treaties, to assist low-income countries, is not novel.[6] Almost from the emergence of tax treaty negotiations in the 1920s and 1930s, low-income countries have recognized the importance of appropriately drafted tax treaties in preserving their revenue raising capacities. The United Nations has had the problem under on-going review since the late 1960s. A number of articles have been written over the years making the case for strong source taxation generally and arguing that this jurisdiction to tax should be preserved in treaties.[7] Recently, Karen Brown, a tax professor at George Washington University Law School, has written a series of articles arguing that the United States should modify its tax treaty stance and its domestic tax rules to encourage US companies to invest in low-income countries, particularly African nations.[8] Reuven Avi-Yonah, a tax professor at The University of Michigan Law School, has written extensively on the need to curb international tax competition to

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[5] Organization for Economic Co-operation and Development, *Model Tax Convention on Income and on Capital: Condensed Version* (2005) [OECD model convention] art 14.

[6] Most fundamentally, determining whether a particular stream of income should be taxed at its source or in the country of the taxpayer's residence is simply a question about tax fairness – how should the tax revenues be fairly shared? As noted by Richard Bird and Scott Wilkie, "the source-residence question is, essentially, 'who gets how much tax?'." See Richard Bird and Scott Wilkie, 'Source- vs. Residence-based Taxation in the European Union: The Wrong Question?' in Sijbren Cnossen (ed), *Taxing Capital Income in the European Union: Issues and Options for Reform* (2000) 78, 96. On the general question of fairness and the taxation of international income, see Nancy Kaufman, 'Fairness and the Taxation of International Income' (1998) 29 *Law & Policy in International Business* 145.

[7] See below n 29.

[8] Karen B. Brown, 'Transforming the Unilateralist into the Internationalist: New Tax Treaty Policy Toward Developing Countries' in Karen B Brown and Mary Louise Fellows (eds), *Taxing America* (1996) 214; Karen B Brown, 'Missing Africa: Should U.S. International Tax Rules Accommodate Investment in Developing Countries?' (2002) 23 *University of Pennsylvania Journal of International Economics and Law* 45; Karen B Brown, 'Harmful Tax Competition: The OECD View' (1999) 32 *George Washington Journal of International Law and Economics* 311. For a reply to Brown's argument see Paul B McDaniel, 'The U.S. Tax Treatment of Foreign Source Income Earned in Developing Countries: A Policy Analysis' (2003) 35 *George Washington International Law Review* 265.

protect the tax bases of low-income countries.[9] Naturally, there are other commentators who take the view that tax system changes and tax treaties, in particular, have more than functioned ineffectively, and have failed to function at all as a means for assisting low-income countries.[10]

B. The Evolution of Double Tax Treaties

Tax treaties are generally regarded as important instruments for the promotion of trade and investment because they remove the potential for double taxation.[11] Obviously, a multinational enterprise or investor in one country is more likely to be willing to do business or invest in another country if it can be confident that it will not be subject to double tax on the income it earns in that country. The potential for double tax arises since many countries assert jurisdiction to tax on the basis of both residence and source. They tax persons who are resident in their jurisdiction (or who have similar strong economic connections) on their world-wide income and they tax non-residents on income that they earn that has a source in their jurisdiction. Consequently, whenever a person resident in one country earns income with a source in another country both countries are likely to assert their right to tax the income. Traditionally, this potential for double tax has been alleviated somewhat because most countries provide that their residents can claim a foreign tax credit for any taxes they might have had to pay on income with a source in another country. However, tax treaties – agreements between the two countries about how they will structure their taxes on flows of incomes between them – are potentially a more comprehensive, certain, and fair way of removing the potential for double taxation.

The most obvious way to remove the potential for double taxation is for the source country to agree with its treaty partner not to tax the income earned in its jurisdiction. This approach would promote foreign economic activities since corporations and investors will not have to be concerned about the details of the tax laws in the foreign countries in which they operate. If the income flows between the two countries are about equal there would be no revenue loss to either government. Each country would forgo taxes on the income earned in its country by residents of its treaty partner, but would increase the revenues collected on the income earned by its residents in treaty partner countries since the treaty partner would not impose any source tax. However, if the income flows between the countries are not reciprocal, then limiting taxation in the source country as a mechanism for removing double taxation will have a significant effect on the fair allocation of tax revenue between the two jurisdictions. Hence the conflicting positions taken by high-income countries (generally capital exporting countries) and low-income countries (generally capital importing countries) in treaty negotiations. High-income countries would prefer to negotiate tax treaties in which the residence jurisdiction is given primacy to tax; low-income countries would prefer to negotiate tax treaties in which the source jurisdiction is given primacy to tax. Although countries' positions as net capital importers or exporters may change over

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[9] Reuven Avi-Yonah, 'Globalization, Tax Competition and the Fiscal Crisis of the Welfare State' (2000) 113 *Harvard Law Review* 1573; Reuven Avi-Yonah, 'Bridging the North/South Divide: International Redistribution and Tax Competition' (2004) 26 *Michigan Journal of International Law* 371.

[10] See, eg, Allison Christians, 'Tax Treaties for Investment and Aid to Sub-Saharan Africa: A Case Study' (Research Paper No 05-15, *Northwestern Law & Economics*, 2005).

[11] Tax treaties facilitate trade and investment in a number of ways in addition to removing the potential for double taxation. For a succinct statement of the purpose of tax treaties see US, American Law Institute, *Federal Income Tax Project: Tentative Draft No. 16*, *United States Income Tax Treaties* (1991) 1, 1–14.

time and by type of income, at a general level this conflict is evident throughout the evolution of double tax treaties.

The story of the development of modern double tax treaties has been often and well told and only the highlights will be noted here to provide some context for the proposals suggested in this paper. By the 1920s, rates of income taxation in industrialized countries and the volume of international business had increased to the point where double taxation had become a matter of worldwide significance. In 1920, the League of Nations directed its Financial Committee to examine the issue. The Committee, in turn, commissioned a report from a group of four prominent economists, one each from the United States, the United Kingdom, the Netherlands, and Italy. Their 1923 report was comprehensive and anticipated most of the debates and issues relating to international double taxation.[12] On the question of the right to tax, they concluded that countries should have the jurisdiction to tax those persons who owed them economic allegiance.[13] They reviewed the implications of this principle for various categories of wealth and income and concluded that for land and business property, the country in which the taxpayer had a fixed location had the strongest claim to the taxpayer's economic allegiance;[14] in contrast, for both tangible and intangible personal property, the predominant claim of economic allegiance was held to rest with the country in which the owner resided.[15] Thus they thought that for royalty payments, for example, the source country should cede the right to tax. They recognized that this would create an imbalance between "creditor" and "debtor" countries, but thought this might be resolved by some form of revenue sharing between countries.[16]

Following the four economists' report, the League continued working on the problems of double taxation. In 1925, it published a report of a Committee of Technical Experts[17] and in the late 1920s it drafted a series of model treaties. Although the legacy of the League's preliminary work on double taxation treaties can be seen in many aspects of modern tax treaty making, perhaps most significantly, its interpretation of the economic allegiance principle - that the right to tax income connected with a fixed business location should be accorded to the country in which it is located, but that various forms of investment income should be taxed in the country in which the owner is resident - continues to dominate international tax practice and policy.

In the late 1920s the League appointed a permanent Fiscal Committee to monitor the development of tax treaties.[18] As part of its on-going work, in 1943, a regional

[12] League of Nations, Economics and Financial Commission, *Report on Double Taxation Submitted to the Financial Committee by Professors Bruins, Einaudi, Seligman and Sir Josiah Stamp*, League of Nations document no E.F.S.73.F.19 (1923).

[13] Concepts of economic allegiance as a basis of taxation preceded the four economists' report. See Georg von Schanz' argument in 1892 that economic allegiance should act as the only principle to ensure the fair and equitable distribution of tax revenues between countries. "Zur Frage der Steuerpflicht" (1982) 9 II Finanzarchiv 1.

[14] Ibid 24.

[15] League of Nations, above n 12, 34.

[16] Ibid 48.

[17] *Report and Resolutions submitted by the Technical Experts on Double Taxation and Tax Evasion to the Financial Committee of the League of Nations*, League of Nations Doc C.115. M.55. 1925 II (1925).

[18] One of the most significant products of this Committee's early work was the approval in 1934 of a model treaty that adopted the "arm's length" standard for allocating profits among related corporations

conference was held in Mexico. The conference was attended by the United States, Canada, Mexico, Argentina, Chile and a number of other Latin American countries. The immediate objective of the conference was to settle tax problems between countries in the Western Hemisphere; however, an important issue for discussion was the continuing conflict over residence versus source principles. A majority of the participants, who represented low-income countries, approved a draft model treaty that gave taxation rights almost exclusively to source countries, with the burden of tax relief, in order to prevent double taxation, assigned to the residence country. Not surprisingly, the draft provided that royalties should be taxable only in the country where the patent or similar right is exploited, but provided an exception for payments for the right to use a musical, artistic, literary, scientific or other cultural work or publication, which were to be taxed only by the residence state.[19] This Mexico model has been viewed as "the first attempt by the developing countries to write a model treaty reflecting their particular problems."[20] High-income countries naturally regarded the Mexico model as too biased towards the source-country principle and hence another series of meetings was held in London under the Fiscal Committee's auspices in 1946. The London model that emerged from this conference was considerably more biased in favour of residence countries. For example, with respect to royalties, it called for the exclusive taxation by the country in which the grantor of the patent resided.[21] However, the source state was provided with some scope for taxing royalties where the royalties were paid by an enterprise to another enterprise that had a dominant participation in its management or capital, although the source state was required to permit a deduction for all expenses, including depreciation.[22] Negotiations between high-income and low-income countries continued, but eventually stalled in the early 1950s.

In the late 1950s, concerned about the effect of tax uncertainty on the increasing amount of international trade and investment, the international business community persuaded the Organization for European Economic Co-operation (OEEC) to form a Fiscal Committee and charged it with the task of exploring the possibility of achieving a uniform multi-lateral treaty for the avoidance of double taxation. In 1961, the OEEC was re-constituted as the OECD, with the addition of the United States and Canada as members. In 1963, the work of the Fiscal Committee culminated in the publication of the OECD model bilateral income tax treaty. Although the committee had reviewed both the Mexico and London models, its model treaty was closer to the London model and reflected a strong residence bias. The 1963 OECD model convention has been revised a number of times since and has become, without question, the most important influence on tax treaty policy. Almost all tax treaties are based not only upon its structure and outline but closely reflect its substantive policy judgements about the most appropriate means of avoiding the potential of double taxation.

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carrying on businesses in different countries. League of Nations Fiscal Committee, *Report of the Fourth Session of the Committee*, League of Nations Doc No C.339 M.204.1933.IIA (26 June 1933).

[19] League of Nations, *Fiscal Committee Model Tax Conventions: Commentary and Text* (1946) 64. See in particular Article X of the Mexico Model, paragraphs 2 and 3.

[20] *Manual for the Negotiation of Bilateral Tax Treaties Between Developed and Developing Countries*, UN Doc ST/ESA/94 (1979) 16. See also K C Wang, 'International Double Taxation of Income: Relief Through International Agreement' (1945) 59 *Harvard Law Review* 73, 95.

[21] League of Nations, *Fiscal Committee Model Tax Conventions: Commentary and Text* (1946) 65. See, in particular, Article X, paragraph 2 of the London Model.

[22] See Article X, paragraph 3 of the London Model.

Not surprisingly, low-income countries felt that the OECD model convention was inappropriate as a model agreement for concluding tax treaties between low-income and high-income countries and recognized it would deprive them of badly needed revenue from income flowing from their territories. Therefore, shortly after the completion of the 1963 OECD model convention, the Economic and Social Council of the United Nations began a study of the principles that should underlie tax treaties between high-income and low-income countries. In 1967 it established the Ad Hoc Group of Experts on Tax Treaties Between Developed and Developing Countries. The group consisted of representatives from ten high-income and ten low-income countries.[23] Over the course of the next decade, the group issued eight reports on its work,[24] which provide a comprehensive discussion of many of the problems raised by developed-developing country treaties; guidelines,[25] and later a manual,[26] for the negotiation of such treaties; and finally, in 1980, a model treaty.[27]

Although the UN model convention was drafted with representatives from low-income countries, it has been widely noted that it did not depart radically from the OECD model convention, and indeed it amounts, by and large, to a commentary on the OECD model.[28] Nevertheless, the UN model convention reflects a much stronger source-country bias than the OECD model. For example, for royalty payments, in contrast to the OECD model convention, which extends the exclusive right to tax royalties to the country in which the owner resides, the UN model convention does not allocate the exclusive right to tax royalties to the country of residence of the recipient of the royalty payment and instead stipulates that the country of source may levy a

[23] Argentina, Brazil, Chile, France, Federal Republic of Germany, Ghana, India, Israel, Japan, the Netherlands, Norway, Pakistan, the Philippines, Sri Lanka, the Sudan, Switzerland, Tunisia, Turkey, the United Kingdom of Great Britain and Northern Ireland, and the United States of American comprised the group of twenty countries. There were also several observing countries including Austria, Belgium, Finland, the Republic of Korea, Mexico, Nigeria, Spain, Swaziland and Venezuela and several observing organizations including the International Monetary Fund, the International Fiscal Association, the Organisation for Economic Cooperation and Development, the Organization of American States, and the International Chamber of Commerce.

[24] UN Department of Economic and Social Affairs, Tax Treaties between Developed and Developing Countries, *First Report*, UN Doc E/4614 ST/ECA/110 (1969); *Second Report*, UN Doc E/4939 ST/ECA/137 (1970); *Third Report*, UN Doc ST/ECA/166 (1972); *Fourth Report*, UN Doc ST/ECA/188 (1973); *Fifth Report*, UN Doc ST/ESA/18 (1975); *Sixth Report*, UN Doc ST/ESA/42 (1976); *Seventh Report*, UN Doc ST/ESA/79 (1978); *Eighth Report*, UN Doc ST/ESA/101 (1980).

[25] *Guidelines for Tax Treaties Between Developed and Developing Countries*, UN Doc ST/ESA/14 (1974). See also Stanley S Surrey, 'United Nations Group of Experts and the Guidelines for Tax Treaties Between Developed and Developing Countries' (1978) 19 *Harvard International Law Journal* 1.

[26] Manual for the Negotiation of Bilateral Tax Treaties Between Developed and Developing Countries, above n 19.

[27] *Model Double Taxation Convention Between Developed and Developing Countries*, UN Doc ST/ESA/102 (1980). See S Surrey, 'United Nations Model Convention for Tax Treaties Between Developed and Developing Countries: A Description and Analysis' in *International Bureau of Fiscal Documentation, Selected Monographs on Taxation* (1980) vol 5. The UN model convention was updated most recently in 2001, see *Model Double Taxation Convention Between Developed and Developing Countries*, UN publication no ST/ESA/PAD/SER.E21 (2001) [UN model convention].

[28] See, eg, Sol Picciotto, *International Business Taxation: A Study in the Internationalization of Business Regulation* (1992) 56. ("The UN Guidelines did not make any new departures in the approach to tax treaties. They took as their starting point the 1963 OECD draft, and merely noted the differing views expressed by experts….Neither the Guidelines, the Manual nor the Model Treaty could be said to challenge the basic principles of the OECD model. Although the report of the UN experts stressed the primacy of taxation at source, this was not expressed in any general principle.")

withholding tax on royalties. The UN model leaves the rate of withholding tax at source on royalties to bilateral negotiations.

The fact that the OECD model convention reflects a strong residence country bias, and hence can have adverse effects on the revenue of low-income countries, has been noted by countless commentators.[29] Given wide recognition of this obvious flaw, the somewhat puzzling question is why it has remained the model for so many high-income countries even when negotiating with low-income countries. The presence of the bias might be the product of some historically contingent set of facts; or, reflect a careful and prudent weighing of all the tax, economic, and social factors relevant in attempting to achieve a compromise beneficial to all affected parties; or, it might conceivably simply reflect the self-interest of the most powerful participant in tax treaty negotiations, the United States. This last possible explanation, that the United States' position in its treaty negotiations influences other countries' negotiations (even in the absence of the United States as a party to the particular treaty), was suggested by Charles Irish in a leading article on the problems of tax treaties:

> There appear to be several reasons for the emphasis on residence in tax agreements between developed countries. Probably the fundamental reason is that the emphasis on residence represents the more favorable alternative for the country with the stronger bargaining position. Frequently countries have an interest in capital, technology and services possessed by the taxpayers of other countries. In such instances, the 'interested' country is the potential source country and the other is the potential residence country. As between the two countries, the potential residence country thus has the stronger economic position and the evidence indicates that it has used its superior position to 'persuade' the source country to forgo tax revenues so as to insure availability of the desired capital, technology and services. This apparently is what happened immediately after World War II between the countries of Western Europe and the United States. At that time, the Western European countries were very interested in attracting United States capital and technology to rebuild and modernise their war-ravaged economies. In order to ensure the unfettered flow of such capital and

[29] Recently, this point has been made perhaps most strongly by Lee Sheppard who comments that: "the international system has been set up to preserve residence-based taxation by rich capital-exporting countries at the expense of everyone else. Under the OECD model treaty, which rich countries impose on others, whenever there is a conflict or a possibility of double taxation, the source country is required to cede its primary right to tax. Originally intended to relieve double taxation, these treaties have become instruments of double nontaxation all over the world, and everyone knows it." 'Revenge of the Source Countries, Part IV: Who Gets the Bill?' (2005) 40 *Tax Notes International* 411, 416. See also Hope Ashiabor, 'The Taxation of Foreign Investments in Developing Countries Under the Treaty Regime: The African Experience' (1996) 22(4) *International Tax Journal* 69; Avi-Yonah, "Bridging the North/South Divide", above n 9; Brown and Fellows, above n 8; Brown, above n 8; Tsilly Dagan, 'The Tax Treaties Myth' (2000) 32 *International Law and Politics* 939; H L Goldberg, 'Conventions for the Elimination of International Double Taxation: Toward a Developing Country Model' (1983) 15 *Law & Policy in International Business* 833; Charles Irish, 'International Double Taxation Agreements and Income Taxation at Source' (1974) 23(2) *International and Comparative Law Quarterly* 292; Chang Hee Lee, 'Impact of E-Commerce on Allocation of Tax Revenue Between Developed and Developing Countries' (1999) 18 *Tax Notes International* 2569; Lee Sheppard, 'Revenge of the Source Countries, Part 2: Royalties' (2005) 40 *Tax Notes International* 7; Stanley S Surrey, 'United Nations Group of Experts and the Guidelines for Tax Treaties Between Developed and Developing Countries' (1978) 19 *Harvard International Law Journal* 1.

> technology into their economies, these countries accepted tax agreements with the United States with a heavy emphasis on the residence principle.[30]

Once low-income countries have conceded to the United States' demands for a primarily residence basis of taxation in their tax treaties with the United States, it then becomes difficult not to provide those same terms in their negotiations with other high-income countries. However, now that low-income countries are so desperate for new technology from high-income countries, and for an increased revenue base for social and economic development, in negotiating treaties with them high-income countries should ensure that the agreement they reach on the withholding on royalty payments is in fact in the best interest of the low-income country.

C. The Significance of Royalty Payments

When one country transfers technology to another, the payments that are made in return for the transfer to the exporting country might be characterized in a variety of ways – as business profits, fees for services, rents, salaries, dividends, capital returns, or royalties. Domestic tax rules and tax treaties treat each of these types of payments differently. When a creator or inventor of property (normally intangible property) transfers that property to a third party for use or reproduction of that property in some fashion, the third party payment is generally characterized as a royalty. Royalty payments might helpfully be classified into four broad types. First, there are payments for the use of cultural property, including royalties for the use of a copyright of literary or artistic work. Second, there are payments for the use of intangible industrial property; for example, payments for the use or reproduction of industrial, commercial, or scientific experience ("know how"), or patents, designs, secret processes and formulas, trademarks, and similar property. Third, there are payments for the use of tangible property; for example, payments for the use of natural resource properties or for industrial, commercial, or scientific equipment. Finally, in at least some circumstances, royalties include payments for technical assistance associated with any of the above types of royalties ("show how").[31]

Residents of high-income countries naturally are much more likely to produce property giving rise to royalty income than residents of low-income countries.[32] The Human Development Report supplies statistics on the number of patents granted to residents and of the receipts of royalties and license fees for the 177 countries it tracks. In 2002, residents of countries with high human development were granted an average of 250 patents per million people, in contrast with the average of seven patents per million people granted in medium human development countries, and no patents in low human development countries. Naturally, similar disparities are observed in the receipt of royalties and license fees. In 2003, in high human development countries on

[30] Irish, ibid 294.

[31] The OECD model convention defines royalties as "…payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work, including cinematograph films, any patent, trade mark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience." OECD model convention, above n 5, art 12.2. For a detailed history of the evolution of the definition of "royalty" in the Canadian tax context see Duncan Osborne, 'Revisiting Royalties in the Age of Electronic Commerce' (1999) 47(2) *Canadian Tax Journal* 410, 410–455.

[32] The five leading research economies are the United States, Japan, Germany, France, and the United Kingdom. Jonathan Eaton and Samuel Kortum, 'Trade in Ideas: Patenting and Productivity in the OECD' (1996) 40 *Journal of International Economics* 251, 252.

average approximately $80 per person was received from royalties and license fees, while in medium human development countries only 30 cents was received per person, and no royalties were received by persons in low human development countries.[33]

Although the privileging of residence-based taxation of royalty payments has always been unfair to source countries, that unfairness has been exacerbated by two trends over the last forty years. First, due to a number of factors the value of royalty payments has grown significantly: the upsurge in reliance on outsourcing (and the related transfer of technical knowledge); the dramatic increase in the use of computers, computer processes and software, which are transferred to almost every jurisdiction where an enterprise carries on operations; and, the increased ease with which intangible property giving rise to royalty payments may be relocated anywhere in the world. Second, the increasing ease of characterizing the consideration for the transfer of property and services as a royalty payment exacerbates the ability of source countries to collect their fair share of tax revenue. The income from sales of books, to take an obvious example, has traditionally been characterized as income from business; however, if the book is transferred digitally, the income could conceivably be characterized as a royalty. The characterization of income payments has plagued the drafters of the OECD model treaty and commentators who have struggled with drawing clear lines between business income and royalty payments, but there is little doubt that an increasing number of payments take, or can be modified to take, the form of royalties in order to gain a tax advantage.

Despite both an increasing number of cross-border royalty payments from low-income countries and a growing consensus in development economics that low-income countries urgently require mechanisms for self-directed development, and an increased number of cross-border royalty payments, the OECD has not amended its tax treaty position against the imposition of a royalty withholding tax. Although in 1963 the failure to grant source jurisdictions the right to tax royalty payments may not have resulted in a large loss of revenue to low-income countries, and may thus have been a sensible concession to administrative considerations, given the changing nature of world trade and investment the attachment of the OECD to the residence-only taxation of royalty payments has become increasingly unacceptable.

II. ALLOCATING REVENUES THROUGH THE ROYALTY ARTICLE IN TAX TREATIES

Both Canada and Australia have entered into a substantial number of treaties with low-income countries, as shown in Appendix A. Canada has entered into 88 tax treaties and Australia has entered into 42. Of Canada's 88 tax treaties, 53 (or just over 60%) have been negotiated with low-income countries (countries where the GDP per capita is below $12,500 (US) per person).[34] Australia has negotiated fewer tax treaties

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[33] UNDR, above n 1, table 13.

[34] Although a number of organizations, including the United Nations, the World Bank, and the International Monetary Fund, have classified countries as developing or developed using a variety of criteria, for the purposes of this paper, I used a relatively simple approach. If the country had GDP per capital in excess of $12,500 per year (US, PPP), it was classified as high-income; if the GDP per capita was below $12,500 it was classified as low-income. This is an admittedly rough method of classifying jurisdictions; however, gross domestic product per capita seemed like a sensible measure of economic impoverishment since my argument is that Canada (and other high-income countries) should provide for a more just allocation of tax revenues by permitting low-income countries to take a larger portion of those revenues.

with low income countries – only 17 of its tax treaties (or just over 40%) have been negotiated with low-income countries.

This part reviews the role and effect of the royalties article in tax treaties, and compares Canada and Australia's tax treaties. Four aspects of the royalties article are examined in particular. Section A discusses the importance of taxing royalties at source. Contrary to the OECD model convention, both Canada and Australia allow for the imposition of a withholding tax on royalties at source in their tax treaties. This section argues they should continue to do so. Section B argues that a higher rate of withholding is appropriate where a party to the tax treaty is a low-income country. Both Canada and Australia have granted higher withholding tax rates to some of their low-income treaty partners. In a few instances Canada has granted non-reciprocal treatment to low-income countries and allowed them to impose a higher withholding tax rate than Canada agrees to impose. Section C reviews the characterization difficulties that arise when royalty payments are taxed differently from business profits and services. Despite the difficulties inherent in distinguishing income from business and services income from income from property (here, royalties), that distinction should be maintained, and, indeed, the scope of the royalties provision broadened. Section D examines the exclusion of, or reduction in, the withholding tax rate for particular types of royalty payments. This section argues that there should be no exemptions from, or reduced rates for, royalty taxation at source. Canada has negotiated a large number of exemptions or reductions for royalty payments in its tax treaties with low-income countries. In stark contrast, Australia has not negotiated any exemptions from withholding for royalty payments from low-income countries, and has negotiated only a small number of reductions in the standard withholding rate.

A. Low-Income Countries Should be Permitted by Treaty to Tax Royalty Payments at Source

One of the most significant differences between the OECD and UN model conventions is the position each convention takes on the right of source jurisdictions to tax royalties. As noted above, although the OECD model convention provides for both residence and source taxation when property income in the form of interest or dividends is paid, for royalty payments only the residence country is granted jurisdiction to tax royalties.[35] The UN model convention, in contrast, permits both residence and source-based taxation of royalty payments.[36] The OECD and those who support its position have marshalled four arguments in favour of exclusive residence-based taxation of royalty payments, which mirror the arguments in favour of exclusive residence-based taxation more generally. However, they are insufficient to justify depriving low-income countries of a share of the tax revenues associated with the use of property giving rise to royalty income in the low-income country.

First, it is argued that the residence country has a principled claim to tax income from royalties because of the economic nexus between the owners of the property giving rise to the royalties and their country of residence and other the normative values underlying an income tax. This argument is based largely on three considerations: first, since the owners of the property giving rise to the royalty have invested the time and expense of developing the intangibles in the residence state, that state has an economic connection to the income; second, because the residence state can require

[35] OECD model convention, above n 5, art 12.1.
[36] UN model convention, above n 27, art 12.1.

individuals (this argument does not apply equally to corporations) to total their income from all sources, the residence state alone can impose tax based on taxpayer's ability to pay; and finally, the taxation of worldwide income in the state of residence preserves capital export neutrality, which means that taxpayers will be tax-indifferent between exploiting their property for the purpose of earning royalty income in their home jurisdiction or in another jurisdiction.[37] However, at best these are arguments for preserving some ability of the residence country to tax royalties, and not a justification for exclusive jurisdiction.[38] Indeed, based on economic nexus, the source country has an arguably stronger claim to tax the revenues produced by the use of the royalty-producing property. The income arose from the property's use in that jurisdiction, so there is an obvious economic connection to the source state. The benefits provided by the source state are significant. On a general level, the source country provides the benefit of infrastructure, including communications (e-commerce) infrastructure, and the right to incorporate separate legal entities.[39] In addition, the source state may provide a well-educated, highly-skilled workforce that can be employed in the technology sector. It will, as well, provide an orderly market place for the taxpayer to exploit.[40] More specifically in the context of royalty payments, where the property that gives rise to the income is an intangible, the intellectual property protections provided by the source country dwarf in significance those provided by the residence state.[41] Moreover, where the source state is a low-income country, the ability to tax the royalty income at source might be seen as one way of compensating low-income countries for complying with the intellectual

[37] The argument that residence-based taxation is necessary to support capital export neutrality is less strong in the context of non-rivalrous intangible property in particular since its owner does not need to make a choice between using the technology at home or abroad as the same technology can be used in both places. See Eric Laity, 'The Competence of Nations and International Tax Law' (draft on file with the author) 28.

[38] Some commentators, eg, Klaus Vogel, have argued that ideally royalties should be taxed in both the source and residence state as a way of preserving neutrality and equity. Vogel argues that to be perfectly neutral the "interest" component of a royalty payment should be taxed at the place of residence of the lessee/user, while the "sales price" (the amortization of the underlying right) and the risk (services) portions of the royalty payment should be taxable in the state of residence. Accepting the practical limits of unbundling a royalty payment into its three component parts, Vogel proposes that a fixed share of the payment should be taxable by both the residence and source states (¼ to the state of residence, and ¾ to the state of source); a solution that is similar to that proposed in this paper. Vogel, 'Worldwide vs. source taxation of income – A review and re-evaluation of arguments' (Pt 2) (1988) 10 *Intertax* 310, 317–318; and 'Worldwide vs. source taxation of income – A review and re-evaluation of arguments' (Pt 3) (1988) 11 *Intertax* 393, 402.

[39] One of the fundamental justifications for the formation of multinational enterprises is the benefit of sharing intangibles. Businesses may have concerns that they are unable to secure adequate protections for their intangible property through the use of contracts between unrelated parties, and therefore, they choose instead to establish a foreign enterprise over which they exercise a significant degree of control. Therefore, the source state's protection of that separate entity has significant value to the intangible's owner. See generally Oliver E Williamson and Sidney G Winter (eds), *The Nature of the Firm: Origins, Evolution, and Development* (1991), and Bengt Holstrom and Jean Tirole, 'Transfer Pricing and Organizational Form' (1991) *Journal of Law, Economics and Organization* 201.

[40] See, Stephen Shay, J Clifton Fleming Jr and Robert Peroni, '"What's Source Got to Do With It?" Source Rules and U.S. International Taxation' (2002) 56 *Tax Law Review* 81, 93–95.

[41] Lawrence Lokken, 'The Sources of Income from International Uses and Dispositions of Intellectual Property' (1981) 36 *Tax Law Review* 235, 240–241. ("The laws and legal system at the place of use constitute, in sum, the governmental services and protections of greatest consequence for royalty income.")

property regimes imposed by high-income countries.[42] Finally, since many intangibles are unique, it might also be assumed that their owners are earning economic rents in source jurisdictions and that as a consequence the source country has a legitimate claim to recoup at least part of these economic rents.[43]

Second, it is argued by those who support the OECD position that the country of residence is better able to design a tax regime that accurately reflects the expenses associated with the production of intangibles and other property that gives rise to royalties and therefore is better able to tax the real income associated with the use of those intangibles. Since royalty payments are necessarily taxed at source through the imposition of a withholding tax on the gross payment, no account is taken of the expenses associated with the production of the royalty property. However, this argument is insufficient to justify failing to impose a withholding tax at source. In many cases where royalty property is transferred to a low-income country there will be few expenses associated with its use. Often, intangible property like patents and processes are licensed in low-income countries only after their value has been fully recouped in high-income countries.[44] If their costs are not yet fully recouped in the residence country, because intangibles are generally non-rivalrous, it is likely that few, if any, additional costs are incurred when they are transferred for use in another jurisdiction. Finally, even if there are expenses associated with the production of property giving rise to royalty income in low-income jurisdictions, the need to recognize those expenses is not sufficient to justify non-taxation of royalty income at source. The rate of withholding will be set lower than otherwise would be the case since it is being levied on a gross payment and not net revenue. Interest and dividend payments are subject to withholding tax under the OECD model convention, generally at rates of 10 percent and 15 percent respectively. It is not clear why the need to recognize expenses would support a position of no source-based taxation of royalty payments, and yet the difficulty of setting a withholding tax rate that recognizes expenses associated with the production of interest and dividend payments would not be seen to be similarly intractable.

As an alternative to setting a low withholding tax rate on gross royalty income that would act as a proxy for a higher rate on net royalty income, source countries could permit investors to make a net basis election that would allow them to pay tax in the source country on the basis of their net royalty profits.[45] As another admittedly unlikely alternative, if high-income countries were committed to supporting the

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[42] See Frederick Abbott, 'Toward a New Era of Objective Assessment in the Field of Trips and Variable Geometry for the Preservation of Multilateralism' (2005) 8 *Journal of International Economic Law* 77; Ruth Mayne, 'Regionalism, Bilateralism, and "TRIP Plus" Agreements: The Treat to Developing Countries' (2005) UNDP Occasional Paper. I am indebted to Donatella Alessandrini at Kent University Law School for this point.

[43] These arguments in their generic form are frequently discussed as arguments based on economic allegiance, benefit, and entitlement. See Charles E McLure Jr, 'Source-Based Taxation and Alternatives to the Concept of Permanent Establishment' in *Report of Proceedings of the First World Tax Conference: Taxes Without Borders* (2000).

[44] See paragraph 6 of the commentary to the UN model convention. In paragraph 7 of the UN model convention, developed countries reply that it is not true that valuable intangibles are transferred to developing countries only after they have been fully exploited by developed ones. See UN model convention, above n 27, commentary paragraphs 6 and 7.

[45] Some countries permit a net basis election for rent payments made to non-residents; see, eg, s 216 of the Canadian *Income Tax Act*, RSC 1985 (5th Supp), c 1, s 216. See also Richard Doernberg, 'Electronic Commerce and International Tax Sharing' (1998) 16 *Tax Notes International* 1013.

revenue-raising goals of low-income countries, and were also committed to ensuring the correct taxation of income, high-income countries could undertake to refund any overpayment of tax in the source country to residence taxpayers. This refund would amount to a tax expenditure by high-income countries, designed to support investment in low-income countries.

Third, exclusive residence-based taxation is sometimes justified on the ground of administrative ease. Administrative justifications for residence-only taxation fall into four categories: first, the difficulty of determining the geographical location of the property that gives rise to the royalty; second, the risk of tax avoidance that arises because of the ease with which intangibles are (re)located; third, the inability of source countries to administer a withholding tax on royalty payments; and fourth, the additional tax compliance costs that withholding taxes impose on inventors and creators of royalty property.

An obvious administrative difficulty of imposing a withholding tax on royalties is determining their geographical source.[46] Historically, the geographic source of a royalty payment has been the location where the royalty is used.[47] This test makes sense because presumably the role of a test for determining the geographic location of a royalty is to operationalize the purpose of permitting the source country to tax the income – namely, to reflect the economic connection of the source state to the income, to compensate the source state for the benefits it provides that relate to the income produced, and to allow the source state to capture some of the economic rent.[48] Given that intellectual property can be used at the place where, for example, the goods that rely on the patent are manufactured, where those goods are sold, or where those goods are consumed, the subsidiary question is always where is the place of use of intangible property? The place of use should be the place where the protections offered by the government are the most important to the income-earning process, generally the place of sale.[49]

Despite the alignment of a place of use rule with the objectives of allocating at least some tax revenue to the state that provides the protections critical to the income production, the explosion of e-commerce, and other forms of electronic communications, have made it much easier to move intangible assets and much more difficult to pinpoint the geographical use.[50] Therefore, while the place of use rule

[46] For a review of the Canadian judicial decisions on the geographic source of royalty payments see Neal Armstrong, 'Exploiting the Unique Features of Intellectual Property' in *R&D Credits Today, Innovation Tomorrow*, 1999 Corporate Management Tax Conference (1999) 9:1.

[47] For a comparison of the domestic and treaty geographic source rules for royalties (and other types of payments) in Canada, the United States, and Mexico see Michael Schadewald and Tracy Kaye, 'A Look at the Source of Income Rules and Treaty Relief from Double Taxation with the NAFTA Trading Bloc' (2000) 21 *Tax Notes International* 1063.

[48] See Shay et al, above n 42, 139. Although Shay et al justify source taxation on the basis that it provides a means of imposing a market access charge, they make the important point that there is no normative content to a geographic source rule – instead, the rule should simply support the purpose of imposing the source rule in the first place ("…we submit that U.S. source taxation should be justified under the market access charge rationale explained [above], that its scope should be determined under the principles articulated [above], and that the income source rules should be articulated for the limited purpose of implementing those principles.").

[49] See Lokken, above n 39, 277–282.

[50] There is a large literature on the difficulty of determining the geographic source of a payment for the use of intangible property. For a recent contribution to this literature, see Erin Guruli, 'International

seems sensibly aligned with the purpose of permitting the source jurisdiction to tax the royalty income (because presumably the place where the royalty is used is the place where the intellectual property protections matter and so on), enforceability concerns suggest that a secondary test may also be necessary. For example, the UN model convention provides that the geographic source of a royalty is the residence of its payer, unless the person paying the royalties has a fixed base or permanent establishment that bears the cost of the royalties, in which case the royalties are deemed to arise in the state where the fixed base or permanent establishment is located.[51] While the place of the payer does not line up with the purpose of imposing the source tax as closely as the place of use test does, as a secondary test it supports the enforceability of a withholding tax.

A workable test for the source of a royalty payment would appear to require tax treaties to include a three-prong geographic source rule. First, royalties should have their geographic source in the place of use of the underlying property. Second, in the event that the place of use cannot be determined, the residence of the payer should determine the geographic source of the royalty. Finally, where neither the place of use nor residence of the payer can be determined, competent authorities should provide a decision on the royalty's geographic source. This default to competent authority is increasingly necessary given that residency, as the alternative to source rules, does not provide a simple manipulation-free means of determining geographic source – the residence of corporations, for example, is in many cases easier to manipulate than the source of income.[52] However, in the context of low-income countries, the place of use should generally be sufficient because the problem of determining the geographic source of royalties is likely not as difficult as locating the place of use in high-income countries given that intangible property transferred to low-income countries is much more likely to be manufacturing and other intangibles that are related to use in specific physical places than intangibles that are completely disconnected from any physical source. Neither Canada nor Australia have included a "place of use" test for geographic source in their tax treaties, relying instead on a residence of the payer test. The only exception to this practice for both countries is in their tax treaties with the United States, which includes a residence of the payer test as a primary test, but with a place of use test as a secondary test.[53]

A second administrative difficulty with the imposition of a withholding tax on royalty payments is the creation of avoidance and evasion opportunities. The location of intangible property in many cases is easily manipulated; however, as argued above, an enforceable source rule for royalties is possible. Moreover, source-based taxation may

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Taxation: Application of Source Rules to Income from Intangible Property' (2005) 5 *Houston Business and Tax Law Journal* 204.

[51] UN model convention, above n 27, 12.5.

[52] See the discussion in Reuven Avi-Yonah, 'International Taxation of Electronic Commerce' (1997) 52 *Tax Law Review* 507, 520, 527; McLure, above n 42, 6:7–6:8; Angel Schindel and Adolfo Atchabahian, 'General Report' in *Source and Residence: New Configuration of Their Principles* (2005) vol. 90a, 30–31; John Sweet, 'Formulating International Tax Laws in the Age of Electronic Commerce: The Possible Ascendancy of Residence-Based Taxation in an Era of Eroding Traditional Income Tax Principles' (1998) 146 *University of Pennsylvania Law Review* 1949, 1993.

[53] The 1995 protocol to the Canada-United States Tax Convention altered the geographic source of a royalty payment from its place of use to the location of the payer. For a discussion of the 1995 protocol amendments to the royalty article of the Canada-United States Tax Convention see Catherine Brown, 'The 1995 Canada-US Protocol: The Scope of the New Royalty Provisions' (1995) 43(3) *Canadian Tax Journal* 592.

assist in combating abusive schemes. The non-taxation of royalty payments at source creates additional incentives for taxpayers to avoid taxation by inflating the royalty payments received from a particular jurisdiction. Where royalty payments are not subject to tax, but payments characterized as from another source (for example, business profits) are subject to tax, taxpayers will seek either to recharacterize their cross-border payments as royalty payments to access the tax exemption or increase the value assigned to the royalty property so that larger royalty payments can be made tax-free.[54] Unduly large royalty payments may particularly be a problem for low-income countries that lack transfer pricing rules, or the ability to enforce those rules.[55] Unjustifiably increasing royalty payments may be particularly appealing if the royalty payment were not subject to tax in the residence country either, say, because the residence-country parent company was non-taxable or had losses.[56] In addition, source-based taxation combined with residence-based taxation means that two jurisdictions' taxing authorities have an incentive to attempt to track and tax the transfer of property giving rise to royalty payments. Permitting the taxation of royalties at source also increases the value to low-income (or source countries) of entering into robust exchange of information agreements with high-income countries.

Third, the non-taxation of royalty payments at source has been justified on the administrative ground that low-income countries do not have sufficiently sophisticated tax administration to appropriately enforce and collect the withholding tax. The short answer to this objection is, of course, that high-income countries should assist low-income countries in enforcing their tax rules. But at the every least, one incidental benefit of joint taxation by source and residence countries might be increased communication between taxing authorities, which may assist with the transfer of tax administration knowledge and experience from high-income to low-income countries and facilitate stronger tax administrations in low-income countries.[57]

The last administrative argument sometimes used to justify the non-taxation of royalty payments at source is that withholding taxes increase the compliance costs of making transnational investments and therefore discourage international trade and investment. But, this argument applies to all taxes levied by source countries; if source countries levy taxes, in addition to complying with the tax rules in its residence country an

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[54] One could reply that the transfer pricing rules would operate to reduce the payment to one that arm's length parties would agree to; however, the transfer pricing rules are notoriously hard to apply to intangible transfers. See the discussion of this issue in United Nations, *Taxation of Technology Transfer: Key Issues* (2005) 23.

[55] Jeff Ngoy, 'International Taxation in Sub-Saharan Africa' (2001) 24 *Tax Notes International* 275.

[56] This reason for imposing a withholding tax on royalties is commonly acknowledged by commentators. In her report on the September 2005 International Fiscal Association meetings in Buenos Aires, Lee Sheppard, in noting that the OECD model convention imposes no withholding tax on royalties, quips, "With the prevalence of intangibles exported from developed countries, royalties are becoming a sore point for market countries. Eight percent of royalty payments worldwide are made between related companies, according to the United Nations Conference on Trade and Development. Income stripping, anyone? That is the chief concern of host countries, for obvious reasons." Sheppard (Pt 2), above n 29, 8.

[57] Tax administrators and tax reformers have been critiqued for failing to take the differences in social and economic context between developed and developing countries seriously when tax administration strategies that work well in developed countries are exported. These critiques suggest that location-specific tax administration approaches ought to be developed. See Miranda Stewart, 'Global Trajectories of Tax Reform: Mapping Tax Reform in Developing and Transition Countries' (2003) 44 *Harvard International Law Journal* 140.

investor making a transnational investment must also comply with the tax rules of the source country. In most cases the costs of complying with source country taxes will be a small percentage of the additional costs of exporting or doing business abroad. In any event, flat-rate withholding taxes on gross receipts that are withheld by the payer in the source country are the simplest taxes to calculate and pay.

The final argument raised by high-income countries in support of residence-only taxation of royalty payments is that it is important to exempt royalty payments from source taxation to facilitate the transfer of technology from suppliers in high-tax countries to users in low-tax countries. The argument rests upon a premise that is similar to the premise of the argument frequently made for the non-taxation of interest payments that flow from persons in source countries to investors resident in another country, namely, that if withholding taxes are imposed on royalties, the licensor will demand that they be paid by the licensee in the source country. Either the licensor will insist that the royalty be paid net of the taxes or the royalty payment will simply be required to be grossed-up to account for the withholding taxes. In either case, the withholding tax will be effectively paid by the licensee in the source country. Hence, the effect of the withholding tax will be to act as a duty on imported technology, raising the price of technology to source country licensees.

However, for two reasons the incidence of the withholding tax is unlikely to fall on the licensee. First, in most cases the licensor will be able to completely offset the withholding tax against its income tax liability in its residence jurisdiction through the use of the foreign tax credit.[58] Indeed, where this is the case, if the source country does not impose a withholding tax on the royalty payment it will simply amount to a transfer from the low-income country's treasury to the high-income country's treasury.

Second, there might be some cases where the licensor will not be able to offset the withholding tax against its residence jurisdiction's income tax, either because it is diverting the royalty payment to a tax haven jurisdiction where it will not bear tax liability (or it is evading paying tax on this income) or the withholding tax exceeds the tax credit available in the resident country. However, even in these cases the licensee might not bear the withholding tax. Rates of interest are generally set in international markets and because so many countries do not impose withholding taxes on them, and because international flows of interest are often not subject to income tax in the hands of the investor, it is generally accepted to be the case that a withholding tax on interest must be born by the borrower.[59] However, much of the property that gives rise to royalty payments is unique, and it must be transferred to specific markets to be exploited. Therefore, for the transfer of the types of property on which royalties are generally paid, one might reasonably assume that the payer of the royalty has

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[58] Of course, even if the withholding tax is creditable in the resident country there may be a cost to the imposition of a withholding tax because the withholding tax is likely to be due at the time payment is made and the income tax payable in the resident country might not be due until some later date. Therefore, given the time value of money, withholding taxes may impose some small additional cost on non-resident investors. See Irish, above n 29, 304.

[59] It might be noted, however, that within the EU member states, EU Council Directive 2003/49/EC as modified by 2004/76/EC requires that interest and royalty payments between European Union members not be subject to withholding tax at source. This may put increased pressure on non-EU member states to follow suit and to reduce or remove withholding taxes on royalty payments. The latest states to join the EU have been granted a transition period in which to remove their current withholding taxes.

increased bargaining power, and, where the foreign tax credit is incomplete, may be able to negotiate to pay less or none of the withholding tax.

Indeed, the effect of the position of high-income countries that low-income countries should sacrifice source taxation in the name of greater ease of trade has perhaps ironically led to the reverse result. High-income countries ostensibly seek to enter into tax treaty negotiations to facilitate international trade and investment. Yet, if high-income countries insist on terms, including that royalty payments be exempt from source taxation, that are unacceptable to many low-income countries the number of treaties entered into between high- and low-income countries will remain low and hence international trade and investment diminished.

B. Withholding Tax Rates Should be Sufficiently High that Low-Income Countries Receive their Fair Share of Tax Revenue

If it is accepted that source countries should be able to retain the right to impose a withholding tax on royalty income, the appropriate rate of withholding must be determined.[60] In setting that rate a number of factors must be considered. First, the rate is being applied to the gross royalty payment; therefore, since the withholding tax is meant to be a tax on the taxpayer's net income, the rate should be lower than the rate that the source country would apply directly to the taxpayer's net income. But, as suggested above, in fact in many cases there are likely to be few expenses associated with earning the royalty payment in the source country thus the rate might not have to be reduced too greatly on this account. Second, the rate should not be set so high that it will discourage technology transfers into the source country. Third, the rate should be set at a percentage that ensures there is little incentive for taxpayers to attempt to characterize other sources of income as royalty payments in order to avoid taxes. Finally, the source country should consider the strength of its normative claim for imposing taxes on royalty payments earned within its jurisdiction. These criteria might suggest different rates for different types of royalty payments. For example, they might suggest that withholding tax rates should be the highest for royalty payments derived from the use of natural resources located in a source jurisdiction. In fact, both the OECD and UN model conventions treat income from immovable property in a separate Article (Article 6) and both conventions permit taxation of that property at source.

The UN model convention does not prescribe an appropriate withholding tax rate for royalty payments (nor for other types of income from property such as interest and dividend income). Instead the Group of Experts suggested that the applicable rate of withholding should be left to the negotiators of particular tax treaties and that considerations such as those mentioned above should be taken into account, in addition to the source country's need for revenue and the fiscal inequity of the two negotiating parties.[61]

The withholding tax rates on royalties permitted by each of Canada and Australia's tax treaties are set out in Appendix A. In Canada's tax treaties, the usual rate of

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[60] For a discussion of a range of considerations that might be taken into account in setting a withholding tax rate in the e-commerce context, including some illustrations of the effects of particular rates on profits see Richard Doernberg et al, *Electronic Commerce and Multijurisdictional Taxation* (2001) 359, 359–363.

[61] See paragraphs 8 and 9 of the commentary to the UN model convention.

withholding on royalty payments is 10 percent, occasionally it is 15 percent, and in a small number of cases it is greater than 15 percent. It is slightly more likely that a rate higher than 10 percent will be negotiated with a low-income country than with a high-income country. In Canada's 35 treaties with high-income countries the rate is 10 percent in 31 treaties, in the remaining four treaties (Israel, Korea, New Zealand, and Singapore) it is 15 percent. In Canada's 53 treaties with low-income countries, the rate is 10 percent in 32 treaties, 12.5 percent in one (Nigeria), 15 percent in 15, 18 percent in one (Dominican Republic), 20 percent in one (Tanzania), and non-reciprocal in three (Cameroon, Pakistan, and Philippines). Thus in approximately 11 percent of its tax treaties with high-income countries Canada negotiated a rate higher than 10 percent while in almost 40 percent of its treaties with low-income countries it negotiated a rate higher than 10 percent.

In Australia's tax treaties, as well, the usual rate of withholding on royalty payments is 10 percent. In 21 of its 25 treaties with high-income countries the rate of withholding is 10. In two of its treaties with high-income countries the rate is only 5 percent (the United Kingdom and the United States), and in one it is 12.5 percent (Taiwan). In its 17 treaties with low-income countries, the rate is 10 percent in nine treaties, 15 percent in seven treaties, and 25 percent in one treaty (Philippines). Thus Australia has negotiated a rate in excess of 10 percent in eight percent of its treaties with high-income countries, while in approximately 47 percent of its treaties with low-income countries the rate is above 10 percent. By this measure, it would appear that Australia and Canada have been roughly equally likely to enter into treaties with low-income countries that have withholding tax rates in excess of 10 percent.

On its face, one of the most progressive steps a country can take in allocating tax revenues to low-income countries is to allow the low-income country to impose a higher withholding tax on payments with a source in its jurisdiction than the high-income country imposes on payments with a source in its jurisdiction. Australia has not negotiated any non-reciprocal withholding tax rates for royalty income. Canada, however, has entered into three tax treaties with low-income countries that permit those countries to impose a higher withholding tax on royalties than Canada does. Cameroon (15 percent Canada / 20 percent Cameroon), Pakistan (15 percent Canada / 20 percent Pakistan), and the Philippines (15 percent Canada / 25 percent Philippines). It is not entirely clear why Canada agreed to these non-reciptrocal rates and it is interesting that they have not done so in any recent treaties with low-income countries.[62] These three treaties were signed in 1982 (Cameroon), and 1976 (Pakistan and Philippines). Although agreeing to non-reciptrocal rates might appear to be generous on the part of the high-income country, since there are likely to be so few, if any, flows of royalty payments from high-income countries to low-income countries, the rate imposed by the high-income country is likely in most cases to be irrelevant. Certainly the revenue implications of the high-income country reducing the rate would be utterly trivial to it and would not likely result in much, if any, additional revenue to the low-income country.

C. Tax Treaties Should Give Broad Scope to the Meaning of Royalty

When a business simply sells ordinary goods in a source country, goods that have been perhaps ordered through the mail, traditionally it has been held that the source

[62] Although in its treaty with Senegal, signed in 2001, Canada agreed to non-reciprocal rates of withholding for dividend and interest payments.

country does not have a sufficient basis for taxing the business on the profits that it might earn in the source country. All tax treaties provide that businesses are exempt from tax in the source country unless they have a permanent establishment in the country. Permanent establishment is defined differently in treaties, but basically it includes any fixed (and physical) presence in a country; for example, an enterprise is generally held to have a permanent establishment in a jurisdiction where it has a place of management, branch, office, factory, or workshop, or a place of extraction of natural resources, or a construction or installation project that lasts for an extended period of time. Most treaties remove from the definition of permanent establishment casual or temporary business activities.

If the taxpayer is earning a royalty in the source country, as argued above, the source country should be entitled to impose a withholding tax on the gross royalty payment (in lieu of imposing an income tax on the net royalty profits earned in the source country). But, if the income earned in the source country can be characterized as income from a business (and not a royalty) then it will not be subject to source taxation unless the taxpayer has a permanent establishment in the source country. Accepting, in principle, (as all tax treaties do) that the source country does not have a legitimate claim for taxing businesses that are simply selling ordinary products in the country (unless the business has a permanent establishment in the country), but does have a legitimate claim for taxing royalty payments received by a non-resident taxpayer that has a source in the country (whether or not the taxpayer has a permanent establishment in the country), the question remains as to whether it is possible to conceptually and practically distinguish between royalties and business income.

Some commentators have argued that one justification for not allowing source countries to impose a withholding tax on royalty payments is that the distinction between royalties and business income is simply too tenuous in principle and impossible to make in practice. Above I have argued that the owner of royalty payments derives a sufficient benefit from or owes a sufficient economic allegiance to the source country that it can justifiably tax the payment. Here I will briefly deal with the question of whether it is practicable to distinguish between royalty payments, business profits, and services income.

There is no question that with the advent of electronic commerce the distinction between royalties, business profits, and payments for related services has become more difficult to make.[63] Various roundtable discussions where commentators have discussed how they would characterize payments reveals that tax experts are

[63] For a discussion of the issues that arise in characterizing income in the e-commerce context as business income or royalty income, see Catherine Brown, 'The Canadian Income Tax Treatment of Computer Software Payments' (1994) 42 *Canadian Tax Journal* 593; Arthur Cockfield, 'Balancing National Interests in the Taxation of Electronic Commerce' (1999) 74 *Tulane Law Review* 133; Richard Doernberg, 'Electronic Commerce: Changing Income Tax Treaty Principles A Bit?' (2000) 21 *Tax Notes International* 2417; Aldo Forgione, 'Clicks and Mortar: Taxing Multinational Business Profits in the Digital Age' (2003) 26 *Seattle University Law Review* 719; Jinyan Li, *International Taxation in the Age of Electronic Commerce: A Comparative Study* (2003) 420, 420–444; Niv Tadmore, 'Further Discussion on Income Characterization' (2004) 52(1) *Canadian Tax Journal* 124, 124–140. For a discussion of the difficulties of line drawing between business and investment income more generally see, eg, John F Avery Jones et al, 'Treaty Conflicts in Categorizing Income as Business Profits: Differences in Approach Between Common Law and Civil Law Countries' in Brian Arnold et al (eds), *The Taxation of Business Profits Under Tax Treaties* (2003).

frequently split on the appropriate approach to characterization issues.[64] This has been widely recognized and several studies have been undertaken in an attempt to develop guidelines to assist in distinguishing between the two types of payments. Indeed, where there is any uncertainty in the appropriate characterization of payments, perhaps not surprisingly, high-income countries tend to be biased in favour of characterizing the payments as business profits. For example, in a recent examination of the characterization of 28 e-commerce transactions, an OECD working group determined that only three of the transactions were royalties, while the rest of the transactions gave rise to business profits.[65] In contrast, an Indian Ministry of Finance report concluded that in 14 of the 28 transaction examples provided, the transaction described gave rise to a royalty.[66]

Several commentators have proposed solutions to the difficulty of distinguishing between types of income, particularly focused on the e-commerce context. For example, Reuven Avi-Yonah proposes eradicating the differential treatment of services, royalties, rents, and business profits, and considering all electronic commerce payments as active business income subject to a withholding tax regime based on gross sales into a jurisdiction.[67] Arthur Cockfield similarly proposes that servers and other minor physical e-commerce related hardware not be considered a permanent establishment in the source state, but that all cross-border transfers of e-commerce goods, services, and capital that pass a threshold value of, for example, $1 million, be subject to a low withholding tax rate of, say, 5 percent, thereby leaving at least some revenue in the hands of source countries.[68]

A solution in the tax treaty context might simply be to draft a decision-rule that provides a preference for royalty treatment where a withholding tax on royalty

[64] For example, at the 2005 International Fiscal Association Congress in Buenos Aires several panel members discussed whether particular payments in four different cases would appropriately be considered to be "royalties" given the definition of royalties in the OECD model convention. In each of those cases the panel members differed about whether particular payments were properly royalties, business profits, capital gains, or payments for services. See Catherine Bobbett and John Avery Jones, 'The Treaty Definition of Royalties' 60(1) *Bulletin for International Taxation* 23. See also Sheppard, (Pt 2), above n 29, 8–11; and Brian Arnold, Jacques Sasseville and Eric Zolt, 'Summary of the Proceedings of an Invitational Seminar on Tax Treaties in the 21st Century' (2002) 50(1) *Canadian Tax Journal* 65, 81. ("One real-life example…was the use of a non-resident-owned satellite by the domestic television network of a developing country. Because the non-resident did not have a PE in the developing country, that country could not tax the non-resident's business profits. However, by characterizing the payment for the use of the satellite as rent or royalty, the developing country levied a gross basis withholding tax, which was excessive having regard to the amount of net income derived by the non-resident.").

[65] OECD, *Tax Treaty Characterisation Issues Arising from E-Commerce: Report to Working Party No. 1 of the OECD Committee on Fiscal Affairs* (1 February 2001), Annex II. For a discussion of the report, see Wright Schickli, 'Characterization of E-Commerce Revenue – The Final OECD Report Revealed' (2001) 22 *Tax Notes International* 1671.

[66] India, *Report of the High Powered Committee on Electronic Commerce and Taxation* (2001), Annex 2.

[67] Avi Yonah, "Electronic Commerce", above n 54, 541–545.

[68] See Arthur Cockfield, 'Balancing National Interests in the Taxation of Electronic Commerce Business Profits' (1999) 74 *Tulane Law Review* 133. For a similar proposal, see Richard Doernberg, above n 45 (suggesting that a permanent establishment concept be maintained, but that e-commerce importing countries be permitted to levy a 10 percent withholding tax in the absence of a permanent establishment). See also Chang Lee, above n 29, 2569 ("The right solution, from the perspective a developing country, will be to impose taxes even without a permanent establishment and adopt formulary apportionment."). But see Brian Arnold, 'Threshold Requirements for Taxing Business Profits under Tax Treaties' (2003) *Bulletin for International Fiscal Documentation* 476, 492.

payments is imposed. This rule in tax treaties would characterize any payment based on production or use as a royalty; any payment arising from activities that are highly substitutable with those kinds of payments as royalties; and any payments that are difficult to unbundle, but that include a royalty payment, to be royalties for the purpose of treaty withholding. In other words, any payment for the production from or use of property – whether in the form of the transfer of a tangible asset, an intangible asset, or specialised knowledge or skills – should be characterized as a royalty payment under tax treaties between high and low-income countries, and should be subject to withholding tax.

As a step in this direction, in a number of treaties, countries have defined both "know how" and "show how" or other fees associated with services provided with the transfer of an intangible to be royalty payments, and have included payments for the use of scientific equipment in the royalties article.[69] Although these kinds of payments might arguably be considered to be business profits, or profits from the provision of services, they are payments that are difficult to unbundle, and defining those payments as royalties ensures that investors from high-income countries are not able to strip tax revenues from low-income countries simply by attempting to characterize income at the margins of the business income/services income/royalties income distinctions as non-source-taxed income. Canada has only rarely included fees for included services within the scope of the royalties provision,[70] while all of Australia's tax treaties (except Singapore) have some version of the fees for included services provision. Both Canada and Australia generally include payments for scientific equipment within the definition of royalties in their tax treaties.[71]

Once the business activities of an investor become significant in a low-tax jurisdiction, the provisions of most tax treaties would ensure that the royalty payments are taxed as business profits (because of the provision that characterizes royalties attributable to or effectively connected with permanent establishments to be business profits), so at that point, the decision-rule would no longer apply.

The primary drawback to this decision-rule is its possible effects on those who use or reproduce property in small amounts. For example, a student who downloads a videogame may be subject under this definition to withholding obligations. For administrative reasons, then, it may make sense to provide a *de minimis* threshold like those often provided in the dependent and independent personal services articles, where users of property giving rise to royalties are only required to withhold and remit tax once a low (cumulative by the user) threshold of value is passed, for example, $5,000 per year. This would remove from the scope of taxation relatively low-value transactions to low-use taxpayers in the source country, while still ensuring that the purposes of imposing a withholding tax on royalty payments are met.

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[69] See Richard Doernberg's discussion of the U.S. – India tax treaty and its inclusion of "included services" in the royalties article 'The U.S.-India Income Tax Treaty: Breaking New Group in Taxing Services Income from Licensing Technology' (1991) 44 *Tax Lawyer* 735.

[70] See, eg, Canada's treaties with Argentina, Australia, Cameroon, India, Kazakhstan, Kyrgyzstan, New Zealand, and Papua New Guinea.

[71] But see Canada's tax treaties with Jamaica, Norway, and the United States, and Australia's tax treaties with the United Kingdom and the United States. It might also be noted that Canada imposes a withholding tax of 15 percent on every person paying to a non-resident person a fee, commission or other amount in respect of services rendered in Canada under Regulation 105.

D. No Exemptions from or Reductions to the Withholding Tax Rate Should be Granted for Particular Types of Royalty Payments

As explained above, royalties might be divided broadly into cultural royalties, such as royalties in respect of copyrights, rights to produce artistic works, motion picture films, and tapes or films used for radio or television broadcast, and industrial royalties, such as royalties for the use of patents, trademarks, designs, secret formula, knowhow, and software. In some tax treaties, an exemption or lower rate of withholding is granted to cultural or industrial royalties. These exemptions erode the revenue raising capacity of the source country and are unjustified.

The exemption or lower rate of tax for cultural property commonly includes royalties for the production or reproduction of literary, dramatic, musical or artistic work but in every case excludes royalties for motion picture films and broadcasting films and tapes including those to be used for television broadcasting. One reason that royalties derived from the use of films are commonly excluded from the exemption (and thus subject to the full withholding rate for royalties) is that the withholding tax is considered a proxy for taxing the salaries of the actors and other participants in the film, which otherwise would only be taxed in the country of residence.[72] The exemption is generally justified on the grounds that cultural property developed in a residence country has a much stronger economic nexus to that country than other types of property that yield royalties in the source country.[73] It is frankly difficult to see why cultural property should be regarded as having a closer economic nexus to the residence country than any other form of property that yields royalty income in the source country. Like all forms of royalty-yielding property, it is the source country that provides the market for the property and the rules of contract and property law that protect its value.

Canada, in particular, has frequently also negotiated exemptions and lower rates of withholding tax for three types of industrial royalties: payments for the use of, or the right to use, (1) patents, (2) information concerning industrial, commercial or scientific experience, and (3) computer software. The justification for these exemptions is that a zero or reduced withholding tax will encourage the investment of these properties in the source country. Slightly more than a decade ago, Canada announced its intention to attempt to negotiate these exemptions in all of its treaties (to exempt from the withholding tax royalties on computer software, patents, and information concerning industrial, commercial, and scientific experience) in order to "reduce the cost to Canadian firms of accessing technology developed by foreign firms" and to "make it more attractive for Canadian firms to export technology they have developed."[74] Of course, to the extent that Canada taxes these royalty payments, all these exemptions do is transfer tax revenue from low-income countries to the Canadian government. Assuming the tax credit mechanism operates effectively, the only real costs to Canadian investors are the transaction costs associated with paying taxes in two jurisdictions. However, as argued above, these costs seem reasonable in

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[72] UN model convention, above n 24, commentary para 10.

[73] Although occasionally this exemption is justified on the grounds that the dissemination of cultural materials should be encouraged, and that the underpayment of authors should be recognized by alleviating the potential for over-taxation of royalties on cultural material at source. See Alejandro Heredia, 'Copyright and Software and Spanish Tax Treaties: An Issue of Balance between Technology-Importing and Technology-Exporting Countries' (2006) 45(1) *European Taxation* 36, 42.

[74] Canada, Department of Finance, *Special Report: The Federal Budget* (1993) 20.

light of the benefits of source taxation, which include increased opportunities to detect evasion, and in light of the benefits provided to investors in the form of government services and protections for intellectual property in the source country.

Even if there were a principled case for providing an exemption for certain types of royalty payments, inevitably the conceptual and administrative costs of doing so outweigh the gains. For example, exempting payments for the use of, or the right to use, information concerning industrial, commercial or scientific experience requires unbundling mixed contracts that contain those payments as well as otherwise taxable payments into their component parts.[75] Similarly, in treaties that exempt cultural royalties for the use of, or right to use, any copyright of a literary work, but that do not explicitly exempt software, determining whether payments for the use of software are a literary copyright and therefore exempt have swamped tax administrators.[76] In addition, where one country exempts particular types of royalty payments from withholding but another country does not, or where a country exempts some kinds of royalty payments from withholding tax but does not exempt those payments in all of its tax treaties, treaty shopping is encouraged.

Canada has negotiated exemptions from the royalties withholding tax in 26 of its 35 tax treaties with high-income countries (approximately 75 percent of such treaties) and in 13 of its 53 tax treaties with low-income countries (approximately 25 percent of such treaties), as shown in Appendix A. Thus although Canada is less likely to negotiate exemptions with low-income countries, still in about one-quarter of those treaties there are unjustified exemptions. In the great majority of the treaties with low-income countries in which there are exemptions from the royalty withholding tax it is an exemption for cultural property. In only four treaties is are there exemptions for industrial property (Algeria, Kyrgyzstan, Russia, and Ukraine). Canada has negotiated reduced rates of withholding in 14 of its 53 tax treaties with low-income countries (approximately 26 percent). In most of these cases, Canada has granted a reduced rate of withholding for both cultural and industrial royalties.

In stark contrast to Canada's policy of negotiating exemptions and reduced rates for royalty payments, Australia has negotiated an exemption from withholding tax in only two cases (both with high-income countries – Canada and Singapore) and in only three treaties (with low-income countries) has it negotiated a reduced rate of withholding (Argentina, India, and Indonesia). In the case of Argentina the reduced rates of withholding apply to both cultural and industrial royalties, while in the case of India and Indonesia the reduced rates apply largely to industrial royalties.

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[75] The concern about the difficulty of unbundling was raised by the U.S. Senate Foreign Relations Committee when Canada and the United States negotiated the 1995 Canada – United States Tax Convention protocol. United States, *Report of the Senate Foreign Relations Committee on the Revised Protocol Amending the Tax Convention with Canada*, Executive Report 104-9, 104th Cong, 1st Sess, (10 August 1995) 23–25.

[76] In many, but certainly not all, of Canada's tax treaties an exemption is set out for both cultural royalties and payments for the use of software. For a discussion of the difficulties jurisdictions have in distinguishing between those payments, see Heredia, 'Copyright and Software and Spanish Tax Treaties', above n 72.

IV. THE IMPORTANCE OF ALLOCATING TAXING RIGHTS OVER ROYALTY PAYMENTS TO LOW-INCOME COUNTRIES

Low-income countries ought not negotiate away their right to impose a withholding tax on royalty payments earned in their jurisdiction. Source states have a strong economic connection with royalty payments derived from property used in their jurisdictions; source states provide benefits of significant value to investors who earn royalties in their jurisdictions; a withholding tax is relatively easy to administer and comply with; source taxation provides the potential for residence and source countries to work together to combat tax avoidance and evasion; and, taxation at source diminishes the incentives for taxpayers to attempt to convert non-royalty income into royalty income to avoid source-based taxation. None of the arguments in favour of the non-taxation of royalties at source justify depriving low-income countries of the revenue associated with the taxation of royalty income. While the property that yields royalties has an economic nexus to the residence state where it was developed this connection is no stronger than the connection of the royalty payment to the source state; when a tax credit mechanism is used the taxpayer can still be taxed based on ability to pay in the resident state; a withholding tax can be set that adequately reflects the expenses (if there are any) associated with the production of royalty income in the source country; workable rules for geographic source can be designed; and, the evidence that a withholding tax on royalty payments increases the cost of the technology transfer to licensees is weak. Thus, high-income countries ought to permit tax withholding at source for royalty payments; they should ensure that withholding tax rates negotiated with low-income countries are appropriate; they ought to resist calls to tax income like royalties only when a sufficient threshold connection (like a permanent establishment) has been reached; and, they ought to reduce or eliminate the number of exemptions from and reductions to the withholding tax rate for royalty payments.

The OECD model convention provides that source countries should not provide a withholding tax on royalty payments. This aspect of the model treaty has been followed in many of the US treaties with low-income countries and has been implemented among states of the European Union. However, both Canada and Australia have allowed source countries to collect withholding taxes in their treaties with low-tax countries. Although each of these countries has made some effort to provide low-income countries with a greater share of the tax revenue from the taxation of royalties, each has room to better assist low-income countries. Canada has entered into over twice the number of tax treaties as Australia, and has entered into over three times the number of treaties with low-income countries as Australia. These treaties facilitate trade and (at least in principle) can ensure that low-income countries receive their fair share of tax revenue. Australia might consider expanding its tax treaty network with low-income countries with which it has significant trade relations. Canada and Australia have been roughly equally likely (controlling for the number of treaties) to grant withholding tax rates on royalties in excess of 10 percent, but both countries have granted only the standard 10 percent rate in over 50 percent of their treaties with low-income countries. Tax administrators in both countries might be urged to consider raising withholding tax rates when negotiating future tax treaties with low-income countries, and might revisit the rationale for keeping withholding tax rates on royalties low in the over 50 percent of the treaties with low-income countries that maintain the 10 percent rate. Australia has been more generous than Canada both in ensuring that included services are part of the royalties definition (therefore

exacting some of the tax revenue associated with the provision of included services) and in avoiding unjustified exemptions from the scope of the royalty provision. Canada should follow Australia's lead on these issues.

Low-income countries' need for increased revenue to assist in the development of transportation and communication infrastructure, for the alleviation of extraordinary depths of poverty, and for the improvement of education and health cannot be questioned. Tax treaties provide at least one instrument that can assist low-income countries in developing their own revenue sources to improve the living conditions of their citizens without needing to rely on transfers of conditional aid from high-income countries and without exposing low-income countries to the uncompensated exploitation of their markets from enterprises resident in high-income countries.

If the argument in this paper - namely, that low-income countries should be able to impose a withholding tax of significance on royalty payments at source - is not accepted, but the general proposition that source countries have a greater claim to the tax revenues derived from the use of intangible properties in their countries than currently reflected in tax treaties, is accepted, then a range of alternatives might be considered. For example, high-income countries could collect the share of the source tax on behalf of the low-income country. This may be done by exempting royalties from withholding tax at source, but by setting a revenue-split percentage rate on the profits collected by high-income countries on royalty income earned by their residents in another jurisdiction.[77] If the concern were that withholding taxes exacted excessive taxes from businesses engaged in the source country, as a more generous solution, the residence country could consider designing a tax expenditure to support the source-taxation of the royalty payment. This expenditure would permit a refund of tax in the residence state where the source-country tax exceeded the residence taxation of the particular income stream. Lastly, to the extent that it is difficult to draw a bright line between business income and royalty income, all non-resident enterprises that transfer property into a source jurisdiction for use, whether the income from the property is characterized as business or property income, could be subject to withholding tax on the payments derived from the use of that property.

Tax treaties can be used to improve the living conditions of citizens of low-income countries to the extent that they are fashioned to allocate revenues to source countries, and to facilitate trade between low-income and high-income countries – two of the means frequently identified as critical pillars in the international struggle to reduce economic inequality. The revenue-raising aims of low-income countries ought to be taken seriously in designing an international tax system for the taxation of royalty payments, thereby ensuring a fairer allocation of tax revenues on income associated with the use in low-income countries of property owned by residents of high-income countries.

[77] As a model, this might be designed in the same way that the federal government in Canada collects the provincial tax of some provinces. The downside is that the source country would not get to define what constitutes taxable income from property giving rise to a royalty payment and would simply need to accept the domestic rules that applied in the residence country. However, this approach to revenue sharing would alleviate the administrative burden on underdeveloped tax administrations, while still ensuring an equitable share of the tax revenue from royalties was allocated to developing countries. But see the suggestions of Reuven Avi-Yonah to impose a source withholding tax as a backstop to residence

APPENDIX A A COMPARISON OF CANADA AND AUSTRALIA'S TAX TREATY POSITIONS ON WITHHOLDING TAX RATES AND EXEMPTIONS/REDUCTIONS FROM WITHHOLDING

taxation in 'The Structure of International Taxation: A Proposal for Simplification' (1996) 74 *Texas Law Review* 1301, 1337.

COUNTRY	GDP (PPP)	TREATY PARTNER		RATE WITHHELD		EXEMPTION FROM WITHHOLDING										REDUCTION FROM WITHHOLDING RATE									
						Canada					Australia					Canada					Australia				
		Can	Aus	Can	Aus	Cultural	Patent	Software	Scientific	Other	Cultural	Patent	Software	Scientific	Other	Cultural	Patent	Software	Scientific	Other	Cultural	Patent	Software	Scientific	Other
Algeria	6,107	•		15			•	•																	
Argentina	12,106	•	•	15	15											•	•		•	•	•			•	
Armenia	3,671	•		10																					
Australia	29,632	•		10				•																	
Austria	30,094	•	•	10	10	•	•	•	•																
Azerbaijan	3,617	•		10													•	•	•						
Bangladesh	1,770	•		10																					
Barbados	15,720	•		10		•																			
Belgium	28,335	•	•	10	10	•	•	•	•																
Brazil	7,790	•		15																					
Bulgaria	7,731	•		10		•																			
Cameroon	2,118	•		15/20*																•					
Canada	30,677		•		10								•												
Chile	10,274	•		15																					
China	5,003	•	•	10	10																				
Croatia	11,080	•		10																					
Cyprus	18,776	•		10		•																			
Czech Republic	16,357	•	•	10	10																				
Denmark	31,465	•	•	10	10	•	•	•	•																
Dominican Republic	6,823	•		18		•																			
Ecuador	3,641	•		15															•						
Egypt	3,950	•		15																					
Estonia	13,539	•		10																					
Fiji	5,880		•		15																				
Finland	27,619	•	•	10	10	•				•															
France	27,677	•	•	10	10	•	•	•	•	•															
Gabon	6,397	•		10																					
Germany	27,756	•	•	10	10	•	•	•	•																
Guyana	4,230	•		10																					
Hungary	14,584	•	•	10	10	•																			
Iceland	31,243	•		10		•	•	•	•																
India	2,892	•	•	15	15														•					•	
Indonesia	3,361	•	•	10	15																			•	
Ireland	37,738	•	•	10	10	•	•	•	•																
Israel	20,033	•		15		•																			
Italy	27,119	•	•	10	10	•											•	•	•						
Ivory Coast	1,476	•		10																					
Jamaica	4,104	•		10																					
Japan	27,967	•	•	10	10										•										
Jordan	4,320	•		10																					
Kazakhstan	6,671	•		10																					
Kiribati	800		•		15																				
Kenya	1,037	•		15																					

COUNTRY	GDP (PPP)	TREATY PARTNER		RATE WITHHELD		EXEMPTION FROM WITHHOLDING										REDUCTION FROM WITHHOLDING RATE									
						Canada					Australia					Canada					Australia				
		Can	Aus	Can	Aus	Cultural	Patent	Software	Scientific	Other	Cultural	Patent	Software	Scientific	Other	Cultural	Patent	Software	Scientific	Other	Cultural	Patent	Software	Scientific	Other
Kuwait	18,047	•		10																					
Kyrgyzstan	1,751	•		10		•	•	•	•																
Latvia	10,270	•		10																					
Lebanon	5,074	•		10												•	•	•	•						
Lithuania	11,702	•		10																					
Luxembourg	62,298	•		10		•	•	•	•																
Malaysia	9,512	•	•	15	15	•				•															
Malta	17,633	•	•	10	10	•																			
Mexico	9,168	•	•	15	10	•																			
Moldova	1,510	•		10																					
Mongolia	1,850	•		10												•	•	•	•						
Morocco	4,004	•		10												•									
Netherlands	29,371	•	•	10	10	•	•	•	•																
New Zealand	22,582	•	•	15	10																				
Nigeria	1,050	•		12.5																					
Norway	37,670	•	•	10	10	•	•	•	•																
Oman	13,584	•		10		•	•	•	•																
Pakistan	2,097	•		15/20*		•										•									
Papua New Guinea	2,619	•	•	10	10																				
Peru	5,260	•		15																					
Philippines	4,321	•	•	10/25*	25																				•
Poland	11,379	•	•	10	10	•																			
Portugal	18,126	•		10																					
Republic of Korea	17,971	•	•	15	15																				
Romania	7,277	•	•	10	10											•	•	•	•						
Russia	9,230	•	•	10	10	•	•	•	•																
Senegal	1,648	•		15																					
Singapore	24,481	•	•	15	10						•				•										
Slovak Republic	13,494	•	•	10	10	•																			
Slovenia	19,150	•		10																					
South Africa	10,346	•	•	10	10											•	•	•	•						
Spain	22,391	•	•	10	10	•																			
Sri Lanka	3,778	•	•	10	10	•																			
Sweden	26,750	•	•	10	10	•	•	•	•																
Switzerland	30,552	•	•	10	10	•	•	•	•																
Tanzania	621	•		20																					
Taiwan	27,600		•		12.5																				
Thailand	7,595	•	•	15	15											•									
Trinidad and Tobago	10,766	•		10		•																			
Tunisia	7,161	•		15		•																			
UAE	22,420	•		10		•	•	•	•																

COUNTRY	GDP (PPP)	TREATY PARTNER		RATE WITHHELD		EXEMPTION FROM WITHHOLDING										REDUCTION FROM WITHHOLDING RATE									
						Canada					Australia					Canada					Australia				
		Can	Aus	Can	Aus	Cultural	Patent	Software	Scientific	Other	Cultural	Patent	Software	Scientific	Other	Cultural	Patent	Software	Scientific	Other	Cultural	Patent	Software	Scientific	Other
UK	27,147	•	•	10	5	•	•	•	•																
Ukraine	5,491	•		10				•																	
US	37,562	•	•	10	5	•	•	•	•	•															
Uzbekistan	1,744	•		10												•	•	•	•						
Venezuela	4,919	•		10												•	•	•	•						
Vietnam	2,490	•	•	10	10																				
Zambia	877	•		15																					
Zimbabwe	2,443	•		10																					

* Canada's withholding rate / other party's withholding rate

eJournal of Tax Research (2007) vol. 5, no. 2 (Michigan Issue), pp. 199-224

Purism and Contextualism within International Tax Law Analysis: How Traditional Analysis Fails Developing Countries

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Abstract

There are two broad approaches to the study of international tax law. Purists adopt a traditional approach, emphasizing conceptually pure tax solutions based on efficiency interests. Contextualists combine economic analysis with political, historical, social, institutional and other perspectives. It is argued that the Purist approach is overly-reliant on international tax economics which, in turn, is challenged by significant theoretical, empirical, and behavioral uncertainty. The Purist analysis nevertheless can be effective in respect of situations in which there are relatively balanced capital flows between countries with developed economies. Developing countries, however, are generally capital importing nations and their interests tend to be downplayed under the Purist approach. In an increasingly integrated global economy, the Contextualist perspective is more effective at taking account of the interests and needs of developing countries and, in so doing, promotes the long-term economic and security interests of developed countries.

I. INTRODUCTION

The roots of the modern international tax regime are often traced back to the work of the famed group of four economists who helped to design it.[1] Since that time, economic thought has played a significant, possibly dominant, role in international tax law analysis. Under the traditional approach, legal analysts look to guiding principles that are typically broken down into efficiency and equity categories.[2] Efficiency concerns include the need to promote capital export and/or import neutrality, low compliance costs for multinational companies and ease of enforcement for tax authorities. Equity concerns typically surround the need to promote 'fairness' in the division of tax revenues from international transactions and the preservation of

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[1] See Professors Bruins, Enaudi, Seligman and Sir Josiah Stamp, *Report on Double Taxation Submitted to the Financial Committee* (League of Nations, 1923) [Group of Experts].

[2] For a discussion, see, e.g., Nancy H. Kaufman*,* 'Fairness and the Taxation of International Income' (1998) 29 *Law and Policy in International Business* 145.

vertical and horizontal equity between taxpayers with domestic sources of income and taxpayers with international sources of income.

Under traditional legal analysis, the efficiency concerns tend to dominate in part because there is very little agreement on the normative foundations for the equity issues.[3] As a result, this analysis often circumvents what is arguably the central policy concern of international tax law—how can countries share in a fair manner the international income tax base?[4] Legal scholars who emphasize conceptually pure solutions based on efficiency premises can be characterized as Purists.[5]

As many observers have noted, a lack of attention to equity concerns poses few problems when inflows and outflows of capital are relatively balanced as the two countries will collect roughly equal amounts from the source-based and residence-based components of their international tax rules. The main losers under the traditional approach may be developing countries which tend to be capital importers. Moreover, the emphasis on efficiency concerns downplays the historical/institutional/political/social and/or other context that determines the path of international tax law.[6]

An alternative approach—deployed by analysts who could be characterized as Contextualists—takes into account the interplay between efficiency interests and these other factors to promote a better understanding of the ways that tax reform can promote optimal policy solutions. In particular, Contextualists generally view a fair sharing of the international income tax base as complementary with efficiency concerns because countries that feel that they are not sharing in their entitlement to

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[3] See, e.g., Klaus Vogel, 'World vs. Source Taxation of Income – A Review and Re-evaluation of Arguments (Part III)' (1988) 11 *Intertax* 393, 393(noting that equity is an interpretive concept that can only be explained, not defined); Michael J. Graetz, 'Taxing International Income: Inadequate Principles, Outdated concepts and Unsatisfactory Policies' (2001) 26 *Brooklyn Journal of International Law* 1357, 1362 (arguing that traditional international tax principles may inhibit sound policy analysis); Stephen E. Shay, J. Clifton Fleming, Jr. & Robert J. Peroni, 'The David R. Tillinghast Lecture "What's Source Got to Do With It?" Source Rules and U.S. International Taxation' (2002) 56 *Tax Law Review* 81, 83-84 (noting the lack of normative foundation and arbitrariness of the design of existing rules).

[4] See Jinyan Li, Arthur Cockfield and Scott Wilkie, *International Taxation in Canada: Practices and Principles* (2006) 375-377.

[5] For a few works that emphasize the Purist approach see Paul R. McDaniel, 'Formulary Taxation in the North American Free Trade Zone' (1994) 49 *Tax Law Review* 691; Daniel Shaviro, 'Some Observations Concerning Multijurisdictional Tax Competition' in Daniel Esty and Damien Geradin (eds.) *Regulatory Competition and Economic Integration: Comparative Perspectives* (2001) 49; Jinyan Li, *International Taxation in the Age of Electronic Commerce: A Comparative Study* (2003)(advocating, in part, global formulary apportionment); Ewen McCann and Tim Edgar, 'The International Income Taxation of Portfolio Debt in the Presence of Bi-Directional Capital Flows' (2006) 4(1) *eJournal of Tax Research* 5. I have also at times analyzed efficiency interests without examining broader interests. See, e.g., Arthur J. Cockfield, 'The Law and Economics of Digital Taxation: Challenging Traditional Tax Law and Principles' (2002) 56 *Bulletin for International Fiscal Documentation* 606. Under one view, economics can reveal insights not available to other social sciences. See, e.g., Edward Lazear, 'Economic Imperialism' (2000) 115(1) *The Quarterly Journal of Economics* 99. This paper can be seen as part of the literature that criticizes an over-emphasis on efficiency concerns within certain legal analysis. See, e.g., Arthur Allen Leff, 'Economic Analysis of Law: Some Realism about Nominalism,' (1974) 60 *Virginia Law Review* 451; James Boyd White, 'Economics and Law: Two Cultures in Tension' (1987) 54 *Tennessee Law Review* 161.

[6] See Richard L. Doernberg, 'Electronic Commerce and International Tax Sharing' (1998) 16 *Tax Notes Int'l* 1013 (claiming that the desire for conceptual purity may frustrate progress towards more effective sharing of revenues among nations).

revenues will be less cooperative, potentially leading to international tax disputes, international double taxation and the inhibition of international trade and investment.[7] In other words, in an increasingly integrated global economy, the emphasis on efficiency concerns at the expense of a fuller exploration of equity concerns may be also harming the long-term economic interests (and possibly security interests) of developed countries.

At the outset, it is important to recognize that the division of international tax law analysts into Purist/Contextualist categories is, at least to a certain extent, an artificially concocted dichotomy.[8] While there is an overarching emphasis on efficiency or integration in these different approaches, there is often an attempt to recognize the potential and pitfalls associated with either approach.[9] Accordingly, the slotting of analysts into Purist/Contextualist camps is an admittedly reductionist interpretation of complex schools of thought. Nevertheless, the division will be helpful to illustrate the limitations associated with an emphasis on Purism as well as the potential for more non-traditional analysis employed by Contextualists.

Part II discusses some of the limitations with the traditional legal analytical approach that emphasizes efficiency concerns. The potential utility of international tax economics with respect to international tax law analysis is reduced by at least three sources of uncertainties: (a) a lack of clear benchmarks and theoretical uncertainty concerning optimal international tax policy, at least when compared to other areas such as domestic tax economics and international trade; (b) a lack of empirical work to confirm theoretical perspectives; and (c) a behavioral disconnect between efficiency prescriptions and international tax reform efforts pursued by government officials. These limitations are generally apparent to economists, but may be less well understood by international tax law scholars. As a result of the limitations associated with the Purist approach, the Part concludes by claiming that international tax law analysis needs to make greater resort of other analytical tools to complement the economic analysis. In particular, the approach deployed by Purists has tended to downplay the interests of developing countries by promoting tax reform efforts that favor the interests of capital exporting nations.

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[7] For discussion, see Arthur J. Cockfield, 'Balancing National Interests in the Taxation of Electronic Commerce Business Profits' (1999) 74 *Tulane Law Review* 133, 164-167; Joseph H. Guttentag, 'Key Issues and Options in International Taxation: Taxation in an Interdependent World' (2001) *Bulletin for International Fiscal Documentation* 546.

[8] I touched on these different analytical approaches in an earlier Commentary. See Arthur Cockfield, 'Commentary, Formulary Taxation versus the Arm's Length Principle: The Battle among Doubting Thomases, Purists and Pragmatists' (2004) 52(1) *Canadian Tax Journal* 114. I have changed the word 'Pragmatists' to 'Contextualists' as the former term was considered somewhat misleading by certain commentators.

[9] Economists also try to recognize the limitations surrounding an exclusive focus on efficiency concerns. See, e.g., Robin Boadway, 'Income Tax Reform for a Globalized World: The Case for a Dual Income Tax' (2005) 16 *Journal of Asian Economics* 910, 913 (2005)(noting that theoretical considerations must be tempered by the feasibility of applying the principles in practice); Charles E. McLure, Jr., 'Taxation of Electronic Commerce: Economic Objectives, Technological Constraints, and Tax Law' (1997) 52 *Tax Law Review* 269 (discussing historical developments that drove efficiency and equity concerns); Richard M. Bird and Pierre-Pascal Gendron, *The VAT in Developing and Transitional Countries* (2007)(using case studies to examine the effectiveness of VAT regimes in certain developing countries); Richard A. Musgrave, *Fiscal Systems* (1969) 243-252 (discussing the compatibility of efficiency and equity concerns).

Part III discusses how the Contextualists' use of broader contextual analysis that emphasizes historical, political, institutional, social or other developments could provide a deeper understanding of potential reform efforts and focus attention back on one of the central issues of international tax law—how to share the international tax base in a fair manner. The approach in particular would seek to understand how international tax reform actually takes place by examining the pragmatic concerns of governments and their constituents who collectively determine the path of international tax law. Pragmatic tax solutions that encourage cooperation will benefit developed countries by ensuring that tax barriers to foreign investment in developing countries are reduced while encouraging more revenue flows to the latter countries as they become wealthier and require a larger role for governments.[10] Moreover, the Contextualist approach avoids the 'one size fits all' perspective evident in much Purism analysis so that tax policy prescriptions can address the specific cultural, political, and economic needs and realities of developing countries.

The Part also provides a case study to show how the Contextualist approach could shed insight into global tax reform efforts. The case study involves a review of the OECD's e-commerce taxation reform process, which shows the potential for 'soft law' and loyalty to this reform process to encourage the adoption of uniform cross-border tax rules and practices. In particular, the reform process showed that enhanced formal outreach mechanisms (with a particular focus on building up local expertise in tax administration) promote cooperation with and 'buy in' by developing countries with respect to international tax rules and practices. Moreover, the institutions deployed by the OECD can be portrayed as 'adaptively efficient' as these institutions were perceived to be productive, stable, fair, and broadly accepted by OECD countries and, to a certain extent, non-OECD countries. An OECD outreach program that provides permanent 'Tier II' membership within the Committee on Fiscal Affairs is proposed to provide more opportunities for developing countries to deliberate and participate in reform efforts.

II. THE LIMITATIONS ON TRADITIONAL EMPHASIS ON EFFICIENCY CONCERNS

A. The Roots of Purism

As mentioned at the outset, views by economists have played an important role in shaping the modern international tax regime. The desire by many of these economists for conceptually pure solutions based on efficiency concerns can be seen in the well-known report authored by Professors Bruin, Einaudi, Seligman and Sir Josiah Stamp (the "Group of Experts").[11] In 1921, the Financial Committee of the League of Nations was concerned with discovering ways to "remove the evil consequences" of international double taxation that was thought to be inhibiting international trade and

[10] The analysis is primarily directed at showing how different analytical approaches can generate different ways about thinking about international tax rules and principles. The paper avoids discussion of the most efficient or equitable tax regimes for developed or developing countries. Some observers maintain, for example, that a dual income tax regime is preferable over a comprehensive income tax from an international policy perspective for all countries, and that the case for such a system, mainly on efficiency and administrative grounds, is even stronger for developing countries. See Boadway, above n 9; Eric M. Zolt and Richard M. Bird, 'Redistribution via Taxation: The Limited Role of the Personal Income Tax in Developing Countries' (UCLA Law and Economics Research Paper no. 05-22, 2005) 65-69.

[11] Group of Experts Report, above n 1.

investment.[12] The Financial Committee provided the Group of Experts with a number of terms of reference to assist in the framing of their work, including "What are the economic consequences of double taxation from the point of view: (a) of the equitable distribution of burdens; [and] (b) of the interference with economic intercourse and with the free flow of capital?"[13]

In 1923, the Group of Experts presented their masterful report, which ultimately played an important role in laying the foundation for the subsequent debate surrounding the design of optimal international tax rules and bilateral agreements. In particular, the report played a great influence on the now-accepted differential cross-border tax treatment of different categories of income: income streams generated by land or commercial establishments ("corporeal wealth") should be taxed at their source while primary taxing jurisdiction for interest, dividends, and professional services ("intangible wealth") would be assigned to the residence jurisdiction.[14]

The Group of Experts acknowledged that governments historically emphasized that they have the primary right to tax income generated within their borders, which was considered to be the "*main* instinctive principle."[15][their emphasis] They noted that the residence or source country may both claim tax jurisdiction over different income streams under entitlement theories (such as the theory of economic allegiance developed by the Group of Experts where "a part of the total sum paid according to the ability of a person ought to reach the competing authorities according to his economic interest under each authority") and hence they accepted that any geographic divisions in the tax base will be somewhat arbitrary.[16] For this reason, they did not dwell extensively on the first part of the question posed by the Financial Committee concerning the 'equitable division' of tax revenues.

The economists emphasized the need to promote taxation on a residence-basis in part because of the desire to ensure that progressive individual income taxes could be applied to world-wide income streams on the basis of a taxpayer's ability to pay taxes. They considered a number of options to relieve international double taxation and ultimately recommended the 'method of exemption for income going abroad' whereby source countries would exempt all non-residents from taxation on income from sources within their borders.[17] The method of exemption was primarily justified on efficiency grounds in that it was considered to be the most straight-forward solution to prevent international double taxation.

The Group of Experts noted that where capital flows are fairly equal between countries, the solution would promote "rough justice" as both countries would enjoy the benefit of collecting similar revenue streams. They recognized that this solution may not appeal to capital importing countries because "it does violence to what are at

[12] Ibid at 3.
[13] Ibid.
[14] Ibid at 39. This classification system already existed in certain tax treaties of the era, but the Group of Experts provided an economic justification for the regime.
[15] Ibid at 40.
[16] Vogel discusses how the late 19th Century scholarship of Georg von Schanz similarly agreed that both source and residence state had legitimate tax claims over cross-border transactions on the grounds of services provided. In Schanz' view, the source state, however, typically provides more services and hence should be entitled to share in a greater amount of the income tax base. See Vogel, above n 3, 395.
[17] See Group of Experts, above n 1, 48, 51.

present their instinctive ideas as to their rights to origin [i.e., source] taxation."[18] Nevertheless, they thought that capital importing and developing countries might be amenable to this approach because: (a) it would encourage more investment in these countries; (b) mechanisms could be created to give them a residual right to tax certain streams of income at the source; (c) government fiscs could negotiate end-of-year transfers to make up for revenue losses; and (d) as developing nations became more industrialized the capital flows would become more balanced.[19]

In 1925, a group of technical experts reviewed the Group of Experts' report to determine how the League of Nations should proceed with respect to the development of international tax agreements.[20] These experts noted that the most common mechanism already employed by countries (including the first multilateral tax treaty—the Rome Convention—signed in 1921) was the 'method of classification and assignment of sources.'[21] Moreover, the technical experts asserted that certain types of source taxation such as that of interest might in fact be the most efficient and administratively feasible because the tax is imposed on the payor of the interest.[22] Rejecting the Group of Experts's main recommendation, the experts proposed a system based more in line with existing mechanisms whereby real property and commercial establishments would be subjected only to source-based taxation through 'impersonal taxes' (or *impot réels*) while individual non-residents should be exclusively taxed by the resident country through their 'personal taxes' which may have progressive rates.[23]

In 1928, the League of Nations published its first model tax convention that was based in part on the views of the Group of Experts as well as the more recent work by the technical experts. In 1933, the Fiscal Committee of the League of Nations proposed another model tax treaty on the allocation of business income that enshrined many of the principles apparent in today's model treaties:[24] source countries were provided with primary jurisdiction to tax business profits attributable to permanent establishments and dependent agents (an interesting side note is that this model treaty proposed the separate accounting arm's length rule to divide profits among related permanent establishments, but also envisioned formulary taxation—and not transactional profit split methods—as a back-stop rule in the event that the arm's length method was inapplicable.). In other words, the Group of Experts' main recommendation was rejected in favor of tweaking the *status quo* that had been previously found to be acceptable by governments.

As discussed in Part III, the path of international tax law is likely determined by an integration of efficiency concerns with other factors such as historical, institutional, political and/or social interests. This may be the case because policymakers recognize the limitations associated with prescriptions based primarily or exclusively on efficiency concerns. The following discussion overviews these limitations.

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[18] Ibid 49.

[19] Ibid 42, 49, 51.

[20] See Technical Experts to the Financial Committee of the League of Nations, *Double Taxation and Tax Evasion: Report and Resolutions* (League of Nations, Geneva, 1925).[Technical Experts]

[21] Ibid 14.

[22] Ibid 17.

[23] Ibid 31-33.

[24] See League of Nations Fiscal Committee, *Report to the Council on the Fourth Session of the Committee* (League of Nations, June 26, 1933).

B. Theoretical Uncertainty

i. Lack of Benchmarks

Unlike certain areas such as international trade, international tax economics struggles with the fact that there is little agreement on the appropriate benchmarks to gauge the efficacy of policy prescriptions. For example, under neoclassical trade theory a country that unilaterally reduces its tariffs will be better off as its importers will be able to access international services and products at a reduced price, which should enhance their own efficiencies.[25] In the long term, countries should unilaterally or collectively move toward free trade, which will enhance national and international efficiency, lead to a better allocation of cross-border resources and increase standards of living. For these reasons, the consensus view among economists supports a reduction of tariffs along with free trade. While there remain a number of challenges to assumptions underlying trade theory such as perfect information, perfect competition, and so on, the basic insight that reduced barriers to trade enhances welfare is generally accepted.

In contrast, there is less theoretical agreement on optimal international tax solutions.[26] Taxes imposed on cross-border transactions will almost always carry efficiency costs at the national and international level.[27] A country that offers tax rate and/or base incentives for international investments may improve its domestic welfare potentially at the expense of international efficiency concerns. For example, a country could offer a generous research and development tax credit to both domestic and foreign firms that conduct these activities within its borders. This move could lead to a misallocation of resources as multinational firms start-up or relocate their research and development departments because the after-tax cost of engaging in these activities has now been reduced (hence increasing the returns on engaging in these activities). From an international efficiency perspective, the misallocation of mobile factors of production is thought to be undesired because it reduces capital productivity, which is ultimately thought to lower world-wide standards of living (i.e., the misallocation may lead to an overall diminishment of global per capita income). Moreover, these sorts of misallocation of resources for tax reasons may be inhibiting the efficiency of regionally integrated free trade areas or customs unions and reduce their competitiveness vis à vis other competitor trade blocs or nations.

From a national interest perspective, however, it may make economic sense to promote these sorts of tax incentives for both domestic and foreign businesses: to the extent that the incentives actually work they arguably generate new economic activities that in turn may raise additional revenues (to offset the losses resulting from the credit) or perform some other function deemed necessary for national economic success such as attracting or retaining a highly-skilled workforce.

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[25] A classic work in this area is P.A. Samuelson, *The Foundations of Economic Analysis* (1947). For a discussion of trade and tax issues, see, e.g., Joel Slemrod, 'Tax Cacophony and the Benefits of Free Trade' in Jandish Bhagwhati and Robert E. Hudec (eds.) *Fair Trade and harmonization: Prerequisites for Free Trade?* (1996) 283.

[26] But see Michael Keen and David Wildasin (2004) 'Pareto-Efficient International Taxation' 94:1 The American Economic Review 259 (attempting to derive the conditions for efficient international tax rules).

[27] For a more comprehensive discussion of these issues, see Arthur J. Cockfield, *NAFTA Tax Law and Policy: Resolving the Conflict between Sovereignty and Economic Interests* (Toronto: University of Toronto Press, 2005) [NAFTA Tax Law and Policy] 15-21, 145-150.

As long as national interest and international interests differ and compete, it is difficult to foresee how the problems associated with a lack of benchmarks can be resolved.

This lack of benchmarks also presents challenges to theoretical perspectives concerning whether tax competition promotes positive or negative results. Literature in this area initially focused on local (i.e., municipal) and subnational (i.e., provincial or state) competition with more recent efforts directed at the issue of international tax competition.[28] Despite these efforts, there remain a number of areas of uncertainty. To date, theoretical perspectives, depending on the assumptions made and the methodologies employed, appear to confirm both 'race to the bottom' (e.g., revenue losses and an increased focus on less mobile factors such as labor leading to a more regressive tax system) and 'race to the top' (e.g, the taming of Leviathan governments as well as efficiency gains associated with maintaining the flexibility to develop innovative tax rules) scenarios.[29] As such, the literature provides limited guidance upon which to base the design of international tax rules.

In addition, the literature on local/subnational taxation is far more extensive when compared to international tax economics.[30] Certain observers have questioned the extension of earlier models to the international arena as international tax competition differs from local/subnational tax competition in that:[31] (a) the benefit principle (i.e., tax payments match the benefits taxpayers receive) that is thought to promote optimal outcomes is less apparent in the international tax sphere; (b) there are more non-tax obstacles to international trade and investment; (c) information concerning tax and other investment costs is less available to taxpayers at the international level; and (d) federal and subnational governments have more sticks (e.g., threat of federal pre-emption of state taxing powers in the United States) and carrots (e.g., redistribution of income tax revenues among provinces in Canada) that can encourage cooperation to reach at least potentially efficient outcomes.

Economists recognize the need for more empirical work in this area as well as a better accounting of non-efficiency interests such as political needs to "incorporate reasonable political processes into tax competition models, leading to sharper distinctions between good and bad tax competition."[32] Consider, for example,

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[28] See Charles Tiebout, 'A Pure Theory of Local Expenditures' (1956) 64 *Journal of Political Economy* 416 (concluding that tax competition for labor by municipal governments may promote an efficient provision of public goods); Wallace E. Oates, *Fiscal Federalism* (1972)(asserting that tax competition may lead to reduced revenues and an inability to fund needed government services).

[29] For a recent literature review, see Kenneth J. McKenzie, 'A Race to the Bottom in Provincial Business Taxation in Canada?' in Kathryn Harrison (ed.) *Racing to the Bottom? Provincial Interdependence in the Canadian Federation* (2006) 25, 36 ("[F]rom a theoretical perspective, it is impossible to conclude whether tax competition results in taxes that are too high, too low, or just right."); Wilson and Wildasin, below n 32 (discussing how models predict both welfare-improving and welfare-reducing effects associated with tax competition).

[30] See NAFTA Tax Law and Policy, above n 27, 160-163.

[31] See, e.g., Peggy B. Musgrave & Richard A. Musgrave, 'Fiscal Coordination and Competition in an International Setting, in Influence of Tax Differentials on International Competitiveness' in Klaus Vogel (ed.) *Proceedings of the VIIIth Munich Symposium on International Taxation* (1990) 61, 63-70 (arguing that the forces of competition cannot secure an efficient or equitable allocation of resources in the international arena).

[32] See John D. Wilson and David E. Wildasin, 'Capital Tax Competition: Bane or Boon' (2003) 88(6) *Journal of Public Economics* 1063, 1078.

potential tax competition between two countries: Smaller Economy receives the bulk of its foreign direct investment (FDI) from Larger Economy, which receives a small portion of its FDI from the other country. A game theory model can be developed whereby each country enjoys utility gains through the preservation of tax sovereignty as both governments wish to maintain their ability to design their own international tax rules to promote perceived self-interested goals.[33] Moreover, each country enjoys utility gains through the attraction of FDI.

Smaller Economy may be willing to engage in tax competition as the utility gains associated with attracting FDI outweigh its political concerns. In contrast, Larger Economy may be indifferent to the moves by Smaller Economy because the utility gains associated with attracting FDI from Smaller Economy are outweighed by the utility gained through the preservation of tax sovereignty. Because tax sovereignty concerns act as a constraint on Larger Economy's willingness to engage in tax competition, Smaller Economy is presented with an opportunity to undercut tax burdens on capital without facing the risk of retaliation from Larger Economy that could trigger a race to the bottom. Consistent with the Contextualist approach discussed below, by introducing realistic political concerns into the models, researchers may be able to derive a more accurate assessment of the possible outcomes associated with international tax competition.

ii. Lack of Agreement on Guiding Principles

Moreover, there are ongoing debates within the literature concerning more narrow efficiency concerns and their impact on national and international welfare. Consider the debate about whether international tax policy should promote capital export or import neutrality. Under capital export neutrality, tax policy should be designed so that domestic firms will not have a tax incentive to invest in foreign countries—the decision to invest at home or abroad should be neutral from a tax perspective. On the other hand, capital import neutrality maintains that firms should be able to compete on a level tax playing field with their competitors in foreign countries: under this view, tax rules should be structured so that taxpayers investing in foreign countries will be subject to roughly the same tax burdens as taxpayers from source countries.

The pursuit of either goal can lead to different and opposing policy proposals. To promote capital export neutrality, countries should adopt residence-based tax systems and provide foreign tax credits for foreign taxes paid (as well as tax refunds when the foreign tax exceeds the local tax, which no country has chosen to adopt). To promote capital import neutrality, countries should adopt source-based tax rules and a territorial tax system that does not strive to tax foreign earnings by resident taxpayers. Proponents of capital export neutrality and capital import neutrality both claim that their approaches would maximize global and/or national welfare: the former approach may enhance international welfare by encouraging firms to place their investments with the highest pre-tax returns while the latter approach would provide the same tax burden for investors on a given investment irrespective of where they reside and would also enable firms to compete on an even tax playing field. As noted by the Group of Experts in their 1923 report, because cross-border income is derived from multiple sources, it is a somewhat arbitrary exercise to assign income to a single

[33] See NAFTA Tax Law and Policy, above n 27, 166-174.

source.[34] Theoretical perspectives tend to support both sides of the capital import/capital export neutrality debate.[35]

The theoretical uncertainty surrounding guiding principles can be traced to the different national and international efficiency concerns noted previously. At the national level, institutional factors such as courts, tax authorities, and legislative bodies encourage consensus surrounding guiding principles that drive the formulation of tax laws. If necessary, the highest court in the land can pronounce on a particular issue that affects national and subnational tax concerns. Consider the ongoing dilemma surrounding the imposition of U.S. state and local sales and use taxes on out-of-state purchases: state governments want to extend their sales tax jurisdiction over out-of-state companies that sell goods (and in limited cases services) into their states while the federal government is concerned that burdensome compliance costs could inhibit inter-state commerce. In a series of cases, the U.S. Supreme Court developed a 'bright line' test where a state can only extend its tax jurisdiction over an out-of-state company if this company maintains a physical presence within the state (similar to the permanent establishment requirement in bilateral tax treaties for cross-border income tax purposes).[36]

Similarly, national legislators or, in certain cases, supranational institutions can encourage consensus. With respect to the former institution, for instance, the United States Congress passed the *Tax Reform Act of 1986* that broadened the income tax base and reduced tax rates in a manner that was generally compatible with many theoretical perspectives. With respect to the latter institution, for example, the European Union's Commission can promulgate Directives that bind the EU member states who must pass complimentary tax laws. For instance, in 2002, the Commission issued a VAT Directive that requires all non-EU companies to assess, withhold and remit VAT on cross-border sales of e-commerce goods and services to EU residents.[37] These EU efforts were based on the EU consensus view that the location of consumption for cross-border business-to-consumer VAT supplies is the jurisdiction in which the recipient has his or her usual residence.[38] Tax reform efforts will likely never escape controversy, but centralized institutions can nevertheless encourage consensus on guiding principles. At the international level, there are no formal mechanisms—no world tax authority or world tax court—to generate this consensus or act as the final arbiter.[39]

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[34] See also Hugh J. Ault and David Bradford, 'Taxing International Income: An Analysis of the U.S. System and its Economic Premises' in Assaf Razin and Joel Slemrod (eds.) *Taxation in the Global Economy* (1990) 11, 30-31.

[35] For arguments in favor of promoting capital export neutrality, see Sijbren Cnossen, 'Reform and Harmonization of Company Tax Systems in the European Union' (Erasmus University Rotterdam: Research Centre for Economic Policy Research Memorandum 9604, 1996)(noting that the consensus view among economists is that capital export neutrality maximizes global welfare). For arguments that capital import neutrality leads to the most efficient outcome from a national welfare perspective, see Vogel, above n 3.

[36] See National Bellas Hess, Inc. v. Department of Revenue, 386 U.S. 753 (1967)(U.S. Supreme Court); Quill Corp. v. North Dakota, 504 U.S. 298 (1992)(U.S. Supreme Court).

[37] Council Directive 2002/38/EC of 9 May 2002, 2002 O.J. (L 128) 41.

[38] Importantly, the OECD member states came to the same consensus view as part of e-commerce reform efforts in 1998. See Ottawa Taxation Framework, below n 67.

[39] Certain taxes on goods and services are governed by the World Trade Organization and can be subjected to tribunal review. Similarly, NAFTA tribunals and bodies under other regional trade

In summary, theoretical uncertainty surrounding optimal international tax rules as well as the guiding principles that could guide the formulation of these rules reduces the utility of international tax economics with respect to international tax legal/policy analysis. Because national and international tax interests differ and there are not any international institutional bodies that can reconcile these differing interests, it is difficult to foresee a near-term resolution of the problems associated with this theoretical uncertainty. As noted by two economists, "Over time, less through the systemic or normative application of international tax principles than by the incremental evolution of rules deemed to be both roughly fair and roughly feasible, a regime that acknowledges and accommodates competing claims developed, for the most part with substantial international agreement as to both the underlying objectives and the means to achieve them."[40]

C. Empirical Uncertainty

Another area that bedevils international tax economics is a lack of empirical research that confirms theoretical perspectives. This can be attributed in part to the difficulties in conducting comparative analysis among different national tax regimes.

Consider, for example, some of the challenges facing attempts to estimate the impact of taxes on cross-border investment decision-making through the use of comparative marginal effective tax rate (METR) studies.[41] METR studies try to measure the impact of taxes on the marginal or last unit of investment activity.[42] A marginal investment is a project that is expected to earn a rate of return that is just sufficient to persuade investors that the project is worth investing in. Economists attempt to calculate how taxes reduce the pre-corporate rate of return and the post-personal rate of return for this investment.

For example, Joe knows that he can earn a 4% after-tax return by investing in a risk-free asset such as a government bond. Joe will only invest his money with a company if he believes he will be provided a return of at least 4% after-tax. Accordingly, a company will need to pay Joe dividends and/or capital gains of at least say 7% to give him his needed 4% return. The difference in these last two figures represents the amount Joe pays in individual income taxes. In addition, the company must earn a pre-corporate income tax return of say 11% to pay out the dividend of 7%: the difference between the two returns represents the amounts paid in corporate income taxes. In the example, the tax burden creates a difference of 7% between the original return on the investment to Joe of 4% and the return earned by the company before taxes of 11%. Economists attempt to calculate how taxes imposed on individuals and businesses reduce the return from 11 to 4% to generate the effective tax rate. Once the impact of these taxes can be identified, comparative analysis is conducted to show how the taxes of a particular country offer incentives or disincentives for local investment vis à vis competitor nations.

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agreements can rule on certain taxes on goods and services. The technical experts to the League of Nations similarly recognized in their 1925 report that a truly global tax system would only be workable if an international body could settle disputes surrounding the interpretation and application of a tax treaty. See Technical Experts, above n 20, 29.

[40] See Richard Bird and Jack Mintz, 'Sharing the International Tax Base in a Changing World' in Sijbren Cnossen and Hans-Werner Sinn (eds.) *Public Finance and Public Policy in the New Century* (2003) 405, 406.

[41] For more discussion, see NAFTA Tax Law and Policy, above n 27, 73-80.

[42] For discussion, see Robin Boadway, 'The Theory and Measurement of Effective Tax Rates', in Jack M. Mintz and Douglas D. Purvis (eds.) *The Impact Of Taxation on Business Activity* (1985).

While these studies are considered to be the most sophisticated way of estimating the influence of taxes on investment decision-making, economists recognize a number of drawbacks that reduce their utility with respect to policy analysis. First, economists deploy different methodologies (typically based on the King and Fullerton method[43] or some variation) to calculate METRs, which can generate very different results.[44] Second, the studies involve the use of assumptions that can lead to greatly varying results. For example, most of the models incorporate an assumption of full loss offsetting for losses suffered by taxpayers over the course of the year. If this unrealistic assumption is varied to include the fact that most tax laws only permit partial loss offsetting with time limits for loss carry-forwards and carry-backwards then the METRs may change in a significant manner.[45]

In fact, each model necessarily incorporates a number of assumptions, each one potentially controversial, along with a corresponding chance to skew the results obtained. These assumptions include: whether to lump all economic activity into certain broad industry categories such as manufacturing, construction or retail trade; whether to choose average individual income tax rates, the highest marginal individual/corporate tax rate or some other rate; the need to assume a certain portion of investment activity will be tax-free or tax-deferred as a result of preferential tax treatment for say pension income; the need to divide asset investments into certain categories such as industrial buildings, machines and inventories; the ways that companies raise fund through debt, new equity or retained earnings (while generally ignoring more complex financial instruments); whether to ignore the reality that multinational firms deploy tax planning through, for example, related-party loans or hybrid financial instruments to lower their global tax liabilities; whether to use current inflation rates or expected inflation rates; the need to ignore certain taxes such as wealth taxes, tax incentives, taxes on foreign exchange gains or losses, and payroll taxes; whether tax compliance levels, which ultimately affects the amount of tax paid by firms and individuals, should be taken into account; and whether the investment takes place in a risk-free environment or whether capital risk and income risk should be taken into account.

Many of the assumptions are driven by the need to maintain the manageability of the study and the results will reflect this incompleteness. In short, the assumptions made to simplify the comparative analysis may ultimately have a material impact on the METR. According to one view, "One comes away from this recipe book with the

[43] See Mervyn A. King and Don Fullerton, *The Taxation of Income from Capital: A Comparative Study of the United States, the United Kingdom, Sweden and West Germany* (1984).

[44] See Kenneth J. McKenzie & Aileen J. Thompson, 'Taxes, the Cost of Capital, and Investment: A Comparison of Canada and the United States' (Technical Committee on Business Taxation Working Paper 97-3, 1997); John Shoven and Michael Topper (1992) 'The Cost of Capital in Canada, the United States, and Japan', in John B. Shoven and John Whalley (eds.) *Canada-U.S. Tax Comparisons* 217(modifying the traditional approach to take into greater consideration risk premia demanded by investors); K. J. McKenzie, J. M. Mintz and K.A. Scharf (1997) "Measuring Effective Tax Rates in the Presence of Multiple Inputs: A Production Based Approach", International Tax and Public Finance 4(3): 337-359 (generating an effective tax rate on marginal costs that is a function of the METR on both labour and capital inputs).

[45] See Kenneth J. McKenzie and Jack M. Mintz, 'Tax Effects of the Cost of Capital', in John B. Shoven and John Whalley (eds.) *Canada-U.S. Tax Comparisons* (1992) 199. For efforts to quantify the impact of imperfect loss offsetting into METR calculations, see Jack M. Mintz, 'An Empirical Estimate of Corporate Tax Refundability and Effective Tax Rates' (1988) *The Quarterly Journal of Economics* 225.

distinct feeling that effective tax rates, like sausage, are best enjoyed in their final form, and that one can quickly lose one's appetite by looking too carefully at the details of preparation."[46] Economists are aware of the limitations involving METR studies although these limitations are rarely voiced within the actual study that a legal analyst may draw from. A more sophisticated critique, beyond the scope of this paper, might assert that METRs should be downplayed in favor of some other approach such as the use of cash-flow studies that simulate the amount of taxes (including income tax, capital tax, payroll tax and property tax) paid to tax authorities.[47] This approach, which generates average tax rates, is theoretically offensive to most economists because average rates include marginal and infra-marginal decisions of the firm.[48]

As touched on in the next section, METR studies are often used as the basis for policy prescriptions. Taking into consideration the problems noted above, METRs can be viewed as a rough measure of the potential influence of taxation on cross-border investment decisions. Yet the studies do not attempt to estimate the actual welfare losses associated with maintaining different national tax regimes. Such an attempt would be problematic in any event, in part because different empirical studies continue to question whether tax plays a significant influence on foreign direct investment flows.[49] Moreover, as touched on previously, empirical work has thus far failed to confirm theoretical perspectives regarding tax competition: "The study of tax competition is characterized by a marked imbalance between theory and evidence, with the former dominating."[50]

D. Behavioral Uncertainty

The over-emphasis on economic analysis also suffers from the fact that efficiency concerns are only one of a number of factors that drive the actual design of international tax rules. In other words, there is often a disconnect between policy prescriptions based on efficiency concerns and the actual policies implemented by policymakers within national governments or supranational institutions. This occurs because the premise of much Purist analysis—that government officials act like rational economic agents who seek to maximize wealth-creation for their constituents—is false. Consider the example of European Union (EU) reform efforts with respect to cross-border income taxation. The Treaty of Rome generally requires

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[46] See Laurence J. Kotlikoff, 'Comment' in Jack M. Mintz & Douglas D. Purvis (eds.) *The Impact of Taxation on Business Activity* (1985) 102.

[47] For studies that deploy the cash-flow approach or generate average tax rates by reviewing financial statements, see Mahmood Iqbal, *A Tax Comparison of Large Manufacturing Industries in Canada, the United States and Mexico* (Conference Board of Canada, 1994); Julie H. Collins and Douglas A. Shackelford, 'Using Financial Statement Information to Compare the Corporate Income Tax Systems of Canada, Japan, the United Kingdom and the United States' (1994) 94 *TNI* 63-22.

[48] But see David G. Hartman, 'Comment' in Assaf Razin and Joel Slemrod (eds.) *Taxation in a Global Economy* (1990) 118 (claiming that average tax rates are more relevant when an investor buys an existing company or asset).

[49] See, e.g., Alan J. Auerbach & Kevin Hassett, 'Taxation and Foreign Direct Investment in the United States: A Reconsideration of the Evidence', in Alberto Giovannini, R. Glenn Hubbard & Joel Slemrod (eds.) *Studies in International Taxation* (1993) 119 (indicating that attributing most of the increase in FDI in the United States after the mid-1980s to the *Tax Reform Act* (TRA86) is likely incorrect); Joel Slemrod, 'The Impact of the Tax Reform Act of 1986 on Foreign Direct Investment to and from the United States', in Joel Slemrod (ed.) *Do Taxes Matter?* (1990) 169, 192 (concluding that FDI flows were significantly affected by TRA86 tax incentives).

[50] See McKenzie, above n 29, 27.

unanimous approval for direct tax issues (unlike cross-border consumption taxes where the Treaty of Rome permits a majority of EU member states to dictate policy). As a result, the Commission is unable to mandate a particular reform path in this area and must seek approval from the EU member states (although the European Court of Justice plays an important and arguably increasing role in the design of EU international income tax rules).

Since the adoption of the Treaty of Rome in 1957, the Commission has struck a number of expert groups to advise it on tax policy reforms options.[51] A review of these efforts shows how efficiency concerns may not be persuasive to many government officials.[52] In 1962, a committee of tax experts—the so-called Neumark committee—recommended a number of centralized tax solutions for cross-border business income taxes, but these solutions were never implemented. In 1967, 1975, and 1980, the Commission proposed similar recommendations to harmonize corporate income tax rates and/or bases. Again, none of the proposals were ratified or implemented by the governments of the EU member states. In part based on METR studies that indicated 'harmful' tax competition may be taking place, in 1992 another committee of tax experts, chaired by former Dutch finance minister Onno Ruding, also recommended the partial harmonization of corporate income tax rates as well as other ambitious centralized linkages, but the recommendations were never implemented.

Nevertheless, incremental progress has been made on EU direct taxation issues—the arbitration Convention, the Directives on mergers and acquisitions, parent/subsidiary dividends, royalties and interest—but these deals represented political compromises. In 2001, the Commission announced yet another round of discussion concerning cross-border business income tax reform. To assist with the reform, METR studies were conducted to try to measure the potential distortions promoted by EU member state business tax regimes. The studies generally showed that corporate income tax rates were the main cause of locational distortions, and that the adoption of a common tax base could result in an even greater dispersion of METRs among the different countries, potentially leading to even greater resource misallocation.[53]

In spite of this finding, the Commission continues to support movement towards a consolidated corporate income tax base. Unlike full-blown harmonization, most of the proposals in this direction would permit some base consolidation such as a common base for firms with EU-wide activities while permitting each state to maintain its corporate tax regime for firms that do not have cross-border activities. This approach may prove to be problematic as it permits in many instances differential tax treatment for substantively similar economic activities (e.g., a firm that sells widgets within the UK only will be taxed one way but a firm based in France that sells widgets to UK consumers may be taxed in a different manner). As a shorter term solution, the Commission has begun to emphasize the more politically-feasible option of improving

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[51] See Alex Easson, 'Harmonization of Direct Taxation in the European Community: From Neumark to Ruding' (1992) 40 *Canadian Tax Journal* 600, 615.

[52] See NAFTA Tax Law and Policy, above n 27, 108-114.

[53] See European Commission, 'Towards an Internal Market without Tax Obstacles' COM (2001) 582, 35-36.

the coordination among the different European Union tax systems in areas such as exit taxes and cross-border loss relief.[54]

There are a number of reasons that could explain the gap between prescriptions based on efficiency considerations and the actual policies implemented by government officials. For instance, the fact that policy analysis often ignores or downplays political concerns over a potential loss of tax sovereignty may be inhibiting sound policy analysis.[55] Moreover, there may be a disconnect between the tax reform discourse and recommendations offered by policy experts and the needs perceived by policymakers in other countries, particularly developing or transitional governments.[56]

E. Summary

Three sources of uncertainty—theoretical, empirical, and behavioural—reduce the utility of international tax economics with respect to international tax law policy analysis. Developing countries in particular may suffer from an over-emphasis on efficiency concerns largely because of their imbalance in capital flows with developed countries. Because the interests between developing and developed countries diverge with respect to international tax rules, they often find themselves on the short end of the stick. The next section claims that greater resort to other analytical tools is needed to complement the economic analysis to promote reform efforts that take more fully into account the interests of developing countries, which in turn will benefit the interests of developed countries.

III. Contextualism and International Tax Law Analysis

A. What Is Contextualism?

As explored in the previous Part, international tax law analysis often draws to a significant extent from international tax economics. The emphasis on efficiency concerns leads to a corresponding emphasis on the efficient division of the international tax base along with downplaying equity considerations. To a certain extent, the approach of these Purists avoids one of the central issues of international tax law: what is a fair division of the international tax base? In fact, as noted by the Financial Committee of the League of Nations who in 1921 commissioned the work of the Group of Experts, the efficiency and fairness concerns should be seen as closely related: the Financial Committee asked how the 'equitable' division of tax revenues impacts on the issue of international double taxation. For example, if a country feels that it is not enjoying its entitlement to a 'fair' share of the international income tax base then it is more likely to try to assert its jurisdiction over cross-border transactions, potentially leading to international tax disputes, international double taxation and a reduction in global trade and investment.

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[54] European Commission Communication, Direct Taxation: The European Commission proposes an EU co-ordinated approach of national direct tax systems, IP/06/1827 (Dec. 19, 2006).

[55] See Julie Roin, 'Taxation Without Coordination', 31 *Journal of Legal Studies* 61 (2002) (discussing how political realities are often ignored); Luc Hinnekens, 'Territoriality-Based Taxation in an Increasingly Common Market and Globalization Economy: Nightmare and Challenge of International Taxation in the New Age' (1992) 1 *EC Tax Review* 70, 71 (noting it is unhelpful to ignore political constraints on tax reform). To address this concern, researchers sometimes conduct interviews with government tax policymakers to discern what drives international tax reform efforts. See, e.g., Geoffrey Hale, *The Politics of Taxation in Canada* (2002).

[56] See Miranda Stewart (2003), 'Global Trajectories of Tax Reform: The Discourse of Tax Reform in Developing and Transition Countries', 44 *Harvard International Law Journal* 139.

To overcome these problems, certain legal analysts deploy other analytical tools often in integration with economic analysis. These tools sometimes draw from different academic disciplines apart from economics or in integration with economic theories that take into account broader interests (e.g., institutional economics or political economy). These analysts can be characterized as Contextualists as their works emphasize the need to study international tax law reform within its political, social, historical, institutional or other context.[57]

Underlying this argument is the view that a fuller understanding of the political/historical/institutional or other factors that drive the adoption of international tax rules could promote insights into ways to promote the adoption of optimal tax laws and cooperative cross-border tax agreements. Interestingly, both the Contextualist and the Purist approaches are widely deployed in domestic tax law policy analysis while Contextualism is arguably downplayed by international tax law analysts. Yet, as discussed in Part II, international tax economics likely suffers from more sources of uncertainty when compared to domestic tax economics. If this view is accurate then the Contextualt approach is called for to an even greater extent in international tax law analysis when compared to its domestic counterpart.

As discussed, as long as countries share roughly balanced capital flows, the emphasis on efficiency concerns may not create undue problems. But, as many observers have noted, to the extent that these flows differ as occurs with developing and developed countries then more contentious issues appear.[58] The Indian government, for instance, has complained in the past that traditional international tax principles and practices, based to a large extent on the OECD model tax treaty, do not result in a fair sharing on

[57] A literature review of works that arguably fall within the Pragmatist school is outside the scope of this paper. A sample of a few works could include Reuven S. Avi-Yonah, 'The Rise and Fall of Arm's Length: a Study in the Evolution of U.S. International Taxation' (1995) 15 *Virginia Tax Review* 89; H. David Rosenbloom, 'Sovereignty and the Regulation of International Business in the Tax Area' (1994) 20 *Canada-United States Law Journal* 267; Robert A. Green, 'Antilegalistic Approaches to Resolving Disputes Between Governments: A Comparison of the International Tax and Trade Regimes' (1998) 23 *Yale International Law Journal* 79 (employing international relations theory to promote understanding of international tax cooperation mechanisms); Alex Easson, 'Harmful Tax Competition: An Evaluation of the OECD Initiative', (2004) 34 *Tax Notes International* 1037 (discussing some of the political problems associated with OECD reform efforts); Arthur J. Cockfield, 'Tax Integration under NAFTA: Resolving the Conflict between Economic and Sovereignty Interests' (1998) 34 *Stanford Journal of International Law* 39 (integrating international relations literature into international tax law analysis); Diane M. Ring, *International Tax Relations: Theory and Implications* (Boston College Law School Legal Studies Research Paper 97, 2006)(noting that relatively little attention has been devoted to understanding how a variety of different forces, including political needs and multinational lobbying, shape international tax policy); Michael J. Graetz and Michael M. O'Hear, 'The "Original Intent" of U.S. International Taxation', (1997) 46 *Duke Law Journal* 1021 (discussing the historical forces that shaped U.S. international tax policy); Walter Hellerstein, 'Jurisdiction to Tax Income and Consumption in the New Economy: A Theoretical and Comparative Perspective' (2003) 38 *Georgia Law Review* 1 (discussing the need to ensure that a government's enforcement jurisdiction is aligned with its powers to impose tax on transactions that have a relationship to economic actors within the state).

[58] Importantly, there is evidence that capital flows from certain developing countries, especially international portfolio investments, to developed countries has increased in recent years. See, e.g., E. Prasa, R. Rajan and A. Subraminian (2006) 'Patterns of International Capital Flows and their Implications for Economic Development' (IMF Research Paper, Sept. 2006); J.B. DeLong (2004) 'Should We Still Support Untrammelled International Capital Mobility? Or are Capital Controls Less Evil than We Once Believed?' 1(1) *The Economist's Voice* 1.

the international income tax base.[59] There is at least anecdotal evidence that India may be becoming more aggressive in assessing non-resident investors to increase revenues from India-based operations.[60]

The Contextualist approach would seem to be particularly helpful to ensure that the interests of developing countries are taken into account which, as mentioned, is in the long term interests of developed countries where the bulk of multinational firms are based. In particular, Contextualism avoids the 'one size fits all' prescriptions sometimes offered by Purists who seek comprehensive tax solutions in an effort to maximize global economic welfare.

For example, in recent decades international organizations such as the International Monetary Fund encouraged many developing countries to eliminate their customs tariffs in favor of the introduction of VATs, which are thought to promote domestic and international efficiencies in part by focusing taxation on consumption: revenues from the new VATs, it was thought, would replace or exceed revenue losses associated with eliminating tariffs. In fact, recent research shows that, for certain developing countries, VAT revenues did not make up for the tariff losses, in part because of significant grey or black market economic activity within these countries where businesses and consumers did not comply with the new VAT rules.[61] In another example, the OECD has often promoted a reduction or elimination in tax treaty withholding taxes for its member states, which include developing countries such as Turkey and Mexico, under the view that this move would encourage more efficient international capital flows (e.g., withholding taxes can sometimes lead to double taxation if they are not fully creditable).[62] Yet this perspective does not take into account that withholding taxes may be the only administratively feasible taxes for many developing countries that lack human, legal and administrative resources to enforce source-based net income taxes: multinational firms, on the other hand, typically have the necessary resources to comply with their legal obligation to assess, withhold and remit the appropriate withholding tax on cross-border payments.

Instead of looking at the developing world as an amorphous indistinct blob, Contextualists address the specific cultural (e.g., levels of government corruption and taxpayer views on compliance), political (e.g., totalitarian states versus quasi-democracies), and economic (e.g., failed states versus transitional economies) needs and realities of developing countries. If the interests of these developing countries are

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[59] *See, e.g.,* Ministry of Finance (India), *Report of the High Powered Committee on E-Commerce and Taxation* (2001) 20-21 ("The Committee … supports the view that the concept of PE [permanent establishment] should be abandoned and a serious attempt should be made within the OECD or the UN to find an alternative to the concept of PE.").

[60] In a recent work, I conducted a survey of national government responses to e-commerce challenges, which revealed a number of areas of contention involving Indian tax authorities. See OECD as Informal World Tax Organization, below n 65, 153-155, and accompanying notes.

[61] For a view that trade liberalization may actually harm the interests of developing countries by reducing revenue collection opportunities, see Thomas Baunsgaard and Michael Keen, 'Tax Revenue and (or?) Trade Liberalization' (June 2005) *IMF Working Paper No.* 05/112. For a view that replacing tariffs with VATs is not helpful for developing countries due to the prevalence of an informal economy, see M. Shahe Emran and Joseph E. Stigliz, (2005) 'On Selective Indirect Tax Reform in Developing Countries' 89 *Journal of Public Economics* 599**.**

[62] For example, the OECD model tax treaty has eliminated withholding taxes for cross-border royalty payments under the principle of exclusive taxation of royalties by the country where the beneficial owner of the royalty resides. See OECD model tax treaty, Commentary on Article 12, par. 3.

more fully taken into account, the countries may become more vested in ensuring the international tax regime remains stable and tenable in the long run. This view brings us full-circle to efficiency interests as global tax consistency and uniformity in terms of rules and practices is thought to promote international welfare by reducing the risk that tax will act as a barrier to international trade and investment.

Finally, it is important to note that heightened international law cooperative efforts with developing countries, including an extension of true free trade in agricultural and textile products, should be seen as a critical component in the war on international terrorism. Under one view, enhanced free trade, increased tax revenues and concomitant higher levels of per capita income for developing countries will reduce the risk that these countries will serve as a base to foment ideological hatred of individuals within developed countries.[63] Moreover, heightened information sharing with tax authorities from developing nations may inhibit terrorist financing schemes. In other words, increased tax cooperation and sharing of revenues with developing countries can be portrayed as a part of broader international law efforts to promote global security, including security for residents living in OECD member states.

As explored below, the Contextualist approach tends to (with many exceptions) call for policy prescriptions that seek incremental and politically-feasible solutions.[64]

B. Case Study: OECD E-commerce Reform Efforts

The Contextualist approach may help to promote a greater understanding of the legal and institutional framework and process that should govern international tax reform efforts. In fact, there are several central (and arguably under-explored) legal/institutional questions that this approach could assist in answering:

- should traditional international law mechanisms (e.g., binding international tax agreements) or non-traditional law mechanisms (e.g., soft law via model treaties) serve as the starting point for negotiating cross-border tax rules?
- what are the costs associated with changing international tax rules on an incremental or radical basis?
- on what basis should membership be granted to promote optimal international tax policy: regional (e.g., European Union or NAFTA), international (e.g., United Nations), broad common interests (such as shared-values concerning capitalism and democratic values within OECD countries), narrower common interests such as economic interests only (e.g., the G-8) or values only (e.g., Commonwealth countries)?

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[63] For discussion, see Aaron Schwabach and Arthur J. Cockfield, 'The Role of International Law and Institutions', in *Knowledge for Sustainable Development: An Insight into the Encyclopedia of Life Support Systems* (vol. 3, Oxford: UNESCO, 2002) 611 (discussing international law mechanisms in light of international terrorism developments along with the need for a stricter adherence to the values of liberalism within international law); Arthur J. Cockfield, 'Who Watches the Watchers? A Law and Technology Perspective on Government and Private Sector Surveillance' (2003) *Queen's Law Journal*. 364 (discussing privacy concerns with respect to cross-border information sharing practices to combat terrorism).

[64] Of course, the Contextualist approach, to the extent that it makes a fuller accounting of developing country interests, could also lead to more radical reform suggestions to address these interests. See, e.g., Reuven S. Avi-Yonah, 'Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State', 113 *Harvard Law Review* 1573 (2000)(proposing to re-introduce withholding taxes on portfolio interest and advocating cross-border income taxation on the basis of consumption) .

- how should outreach program with developing countries be structured to encourage buy-in and adoption of uniform rules and practices by these countries?

i. Overview OECD E-commerce Tax Reform Process

In another work, I examined OECD reform processes directed at cross-border e-commerce tax issues and surveyed government responses to these efforts.[65] The goal of the paper in part was to generate insights into the efficacy of existing reform paths to see whether they are effective at encouraging the adoption of uniform rules by governments and their national tax authorities.[66] The following discussion draws from this earlier work.

In 1997, the OECD began a reform process to try to address perceived challenges to the international tax regime presented by global e-commerce. After its initial meeting in Turku, Finland, the OECD held a Ministerial Meeting in Ottawa, Canada in October 1998. The OECD invited representatives from both OECD and non-OECD member states to attend the meeting and, after a few days of discussion and deliberation, the OECD members signed onto two important documents. The so-called Ottawa Taxation Framework Conditions set out the consensus view on the guidelines that would drive any subsequent reform efforts (e.g., traditional international tax policies and principles should be applied to cross-border e-commerce).[67] The Joint Declaration of Business and Government Representatives similarly included guidelines to assist with policy reform efforts in the area of international e-commerce.[68]

A survey of national responses revealed that governments were generally content to follow the OECD lead and its adoption of certain changes to the Commentary to the OECD model tax treaty.[69] In fact, the OECD's e-commerce reform process arguably represented unprecedented international tax cooperation by generating a series of 'firsts':[70]

> (a) it was the first time that countries engaged in multilateral discussions that led to agreement on principles-the Ottawa Taxation Framework-that would guide the subsequent formulation of international tax rules;
>
> (b) it was the first time that the OECD joined with members of industry to agree to a framework—the Joint Declaration of Business and Government Representatives—to guide the development of new rules;

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[65] See Arthur J. Cockfield, 'The Rise of the OECD as Informal 'world tax authority' through National Responses to E-commerce Taxation', (2006) 8 *Yale Journal of Law and Technology* 136 [OECD as Informal World Tax Authority].

[66] The approach is related to efforts by researchers in New Institutional Economics who seek to understand how economic performance is determined by the kind and quality of institutions that support markets. See, e.g., Douglas C. North, *Understanding the Process of Economic Change* (2005).

[67] *See* OECD Committee on Fiscal Affairs, *Electronic Commerce: Taxation Framework Conditions* (1998)[Ottawa Taxation Framework Conditions].

[68] See OECD, *Joint Declaration of Business and Government Representatives: Government/Business Dialogue on Taxation and Electronic Commerce* (Oct. 7, 1998), available at http://www.oecd.org/dataoecd/62/60/1932547.pdf.

[69] More specifically, the survey uncovered seventeen administrative pronouncements by national tax authorities; five cases and two tax laws passed to address international e-commerce matters. The only area of clear disagreement surrounded the new server/permanent establishment rule in the Commentary to the OECD model tax treaty. See OECD as Informal World Tax Authority, above n 62, 149-161.

[70] Ibid 168-169. See also Duncan Bentley, 'International Constraints on National Tax Policy' (2003) 30 *Tax Notes International* 1127, 1140.

> (c) it was the first time that the OECD analyzed policy options in an extensive way through the publication of multiple discussion drafts of reports (that sometimes included both majority and minority viewpoints) from Technical Advisory Groups and Working Parties consisting of tax experts drawn from national tax authorities, industry and academics;
>
> (d) it was the first time that non-OECD countries were permitted to be part of ongoing deliberations along with the development of policy options through the appointment of representatives from non-OECD governments to Technical Advisory Groups; and
>
> (e) it was the first time that OECD member states engaged in extensive discussions with respect to cross-border Value-Added Tax (VAT) issues, and attempted to promote consensus-driven reform efforts in this area.

Analysis of the lessons learned through this reform process could assist in answering the questions outlined at the outset of this section.

ii. What Processes Encourage Cooperative Efforts?

The OECD's e-commerce tax reform process did not involve any institutions that can bind the tax policy of its member countries in any way. The Working Parties and other expert groups served as fora to explore different policy alternatives, but cannot enact any changes without broad support and consensus by OECD members. The OECD model tax treaty or its Commentary are not binding, and members are permitted to insert reservations and observations that set out dissenting views, which they did in several instances (e.g., Spain and Portugal inserted reservations concerning the new server/permanent establishment rule).

A more detailed discussion concerning one aspect of the non-binding negotiating processes, first put in place during the e-commerce reform efforts, may help to illustrate how the OECD negotiation process attracted support from its member states. In the late 1990s, different OECD Working Parties decided to delegate certain tasks to Technical Advisory Groups (TAGs) that were co-chaired by a government delegate and an industry representative.[71] The co-chairs subsequently advised and reported on their work to the relevant Working Party. The TAGs were composed of roughly equal numbers of members drawn from industry and government (and, as noted previously, additionally included academics and representatives from non-OECD member countries). In 2001, certain TAGs also developed smaller Task Teams, typically comprised of roughly a half dozen individuals (again, generally split equally between government and business representatives) to draft in a collaborative manner any reports so that concerns could be addressed in a non-confrontational manner. The drafting of reports and guidelines by the Task Teams proved to be effective at generating consensus views as any drafts would eventually need to be approved by the TAGs as well the Working Parties: the process hence promoted progress while ensuring that there would be a number of different opportunities to discuss and evaluate any potential reforms.

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[71] With respect to e-commerce tax reform efforts, the OECD set up the following Technical Advisory Groups: (1) Technology TAG (to monitor and evaluate Internet technology developments); (2) Consumption Tax TAG (to examine collection systems for digital transactions); (3) Professional Data Assessment TAG (to examine how tax professionals and tax administrations are using information technologies); (4) Business Profits TAG (to examine how current treaty rules should apply for cross-border e-commerce profits); and (5) Treaty Characterization TAG (to examine cross-border characterization issues).

Moreover, this process appears to have gathered support with respect to subsequent reform efforts. For example, in June 2007 Working Party No. 9 on Consumption Taxes met in Paris to discuss the drafting of VAT/GST Guidelines with respect to customer location and place of performance for supplies of services and intangibles. Building on the guiding principles set out in the Ottawa Taxation Framework Conditions put in place at the OECD Ministerial Conference on Global E-commerce in 1998, the government delegates had previously accepted certain general principles such as the place of supply should be the jurisdiction where consumption takes place. To overcome remaining hurdles, the Working Party agreed at the June meeting to create a new TAG and Task Team developed along similar lines to the ones in the OECD earlier e-commerce reform process.[72] The Task Team was then charged with the drafting of the specific sections of the VAT/GST Guidelines.

The OECD approach of encouraging discussion, study, and non-binding reform efforts resembles the phenomenon of 'soft law' or 'soft institutions.' Soft institutions are said to be more informal processes employed to achieve consensus by providing a forum for actors to negotiate non-binding rules and principles, instead of binding conventions.[73] The OECD approach is also consistent with emerging views in international relations theory that "government networks" (e.g., relatively informal arrangements among government officials in the same agencies) may be best at addressing global challenges.[74] Informally coordinated and networked action by governments, it is thought, may lead to a new form of international law- and policy-making that addresses these challenges without imposing undue restrictions on national sovereignty.

Similarly, the use of non-binding institutions promotes the interests of the OECD members by reducing tax obstacles to international trade and investment (thus encouraging national economic growth) while protecting tax sovereignty to the greatest extent possible. The OECD process more closely resembles customary international law, which is perhaps best understood as a set of normative expectations developed through observation of the actions of states. As is the case in other areas of customary international law, peer pressure and the need to promote business certainty (again to promote national economic welfare) encourages the OECD member states to follow the consensus views once they have been adopted into the OECD model tax treaty. In contrast, conventional international law typically involves the use of treaties that, once entered into, create continuing obligations, unlike the OECD model tax treaty.

Through the use of informal mechanisms, the OECD mediates and manages the expectations of its member states in an attempt to generate politically acceptable (and hopefully effective) international tax policy. Under one view within New Institutional Economics, economic developments depend largely on "adaptive efficiency," which is

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[72] The only significant difference is that, for purposes of the earlier e-commerce reform efforts, the OECD had initially set up a Sub-Group on E-commerce constituted only by government representatives that in turn set up TAGs: the more recent efforts do not include a Sub-Group so the TAG now directly reports to Working Party No. 9.

[73] For a discussion on the potential for soft law within international tax reform efforts, see Charles McLure Jr., *Legislative, Judicial, and Soft Law Approaches to Harmonizing Corporate Income Taxes in the US and the EU* (draft, forthcoming, 2007).

[74] *See, e.g.,* Anne-Marie Slaughter, *A New World Order* (2004); Daniel C. Esty, 'Good Governance at the Supranational Scale: Globalizing Administrative Law', (2006) 115 *Yale Law Journal* 1490.

a society's or group of societies effectiveness in creating institutions that are productive, stable, fair, and broadly accepted and flexible enough to be changed or replaced in response to political and economic feedback.[75] The OECD's e-commerce reform process along with subsequent developments generally appears to have deployed institutions that meet the requirements for adaptive efficiency.

iii. What Are Transition Costs Associated with Different Reform Alternatives?

The OECD's apparent success with e-commerce can also be attributed to the loyalty to its reform process that has been underway since 1960. Moreover, the OECD member states have accepted the OECD model treaty as the basis for negotiating their own bilateral tax treaties since its formation in 1963. The OECD model was based on models developed by its predecessor entity, the Organization for European Economic Cooperation, which in turn were based on the League of Nations model treaties dating back to the post-World War I era (see the discussion in Part I). Moreover, the OECD is active in non-tax areas such as cross-border privacy and consumer protection, which has encouraged decades of cooperative government actions.

Loyalty to the OECD process is arguably deserved. It has been noted, for instance, that the vast majority of the over 1,500 tax treaties throughout the world exhibit significant uniformity with the provisions set out in the OECD model tax treaty.[76] The courts of many countries such as the United States and Canada have accepted the OECD model tax treaty and its Commentary as secondary sources of authority by acting as helpful guides in the interpretation of tax treaty provisions.[77] The uniformity in terms of rules and their interpretation has encouraged tax certainty and likely ensured that tax has not acted as a significant inhibitor of international trade and investment since the widespread deployment of treaties based on the OECD model treaty.

An under-examined issue is the (legal) costs associated with moving to another reform process or radical reform of the model treaty approach. Consider some of the implications that radical change might have on international tax jurisprudence in common law countries. The common law evolves by integrating past judicial

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[75] See North, supra note 66.

[76] *See* Victor Thuronyi, 'Tax Cooperation and a Multilateral Tax Treaty', (2001) 26 *Brooklyn Journal of International Law* 1641, 1641.

[77] *See, e.g.*, *Nat'l Westminster Bank, P.L.C. v. United States*, 58 Fed. Cl. 491, 498 (U.S. Ct. Fed. Claims, 2003) ("[b]oth this court and others have recognized that the [OECD tax treaty and its Commentary] serve as a meaningful guide in interpreting treaties that are based on its provisions."); *Att'y Gen. of Can. v. R.J. Reynolds Tobacco Holdings, Inc.,* 268 F.3d 103, 119 n.15 (2d Cir., 2001) *cert. denied*: 2002 U.S.LEXIS 8081 (Nov. 4, 2002) ("[i]n the realm of international taxation, the OECD's model convention 'has almost acquired the status of a multilateral instrument' because of the reliance placed on it by many countries in negotiating bilateral tax conventions. . . .") *citing* American Law Institute, International Aspects of United states Income Taxation II: United States Income tax Treaties (1992) 3; *The Queen v. Crown Forest Industries*, 2 S.C.R. 802, at 827 (Supreme Ct. of Can., 1995) (indicating that the OECD model tax treaty is of "high persuasive value" in defining the parameters of the U.S.-Canada tax treaty). Moreover, OECD views within the Commentary may be increasingly influenced by European Court of Justice jurisprudence, especially with respect to the non-discrimination clause, potentially promoting more consistency with the interpretation of model treaties with the European Union countries. For discussion, see Michael J. Graetz and Alvin Warren Jr., 'Income Tax Discrimination and the Political and Economic Integration of Europe' (2006) 115 *Yale Law Journal* 1186 (describing how the ECJ interpretation may also conflict with provisions in certain U.S. tax treaties).

perspectives and adopting them to new fact patterns: "The life of the law has not been logic: it has been experience… In order to know what [the law] is, we must know what is has been, and what it tends to become."[78] If the OECD model treaty was jettisoned in favor of some other approach it might undermine the common law principle of *stare decisis* as old decisions would now be less helpful as precedents for present or future cases. It would make it harder for tax lawyers to provide certainty with respect to their legal advice concerning cross-border transactions.

In short, radical change would encourage potentially significant costs that, at least in the short term, could result in adverse outcomes such as a reduction in international trade and investment. Instead, loyalty to the OECD reform process may signal readiness on the part of the OECD member states (and potentially non-OECD member states) to continue to work towards cooperative tax solutions, including in (arguably modest) areas such as enhanced information sharing as well as uniform transfer pricing documentation requirements and advanced pricing agreement procedures.

iv. Who Should Participate in Reform Efforts?

The OECD is constituted by thirty member countries, which generally possess similar technology- and service-oriented economies (with exceptions such as Mexico and Turkey). Moreover, the OECD countries control the bulk of the world's capital and serve as the base for most of world's large multinational firms. Many of the OECD member states are also net capital exporters. For these reasons, the OECD countries often have similar economic interests to promote. Importantly, OECD countries are also, in the OECD's own words, 'like-minded' in the sense that they possess shared values concerning the need to maintain market-base economies, democratic principles and a commitment to human rights.[79] The attainment of consensus on international tax reform efforts is likely facilitated by the fact that the economic and non-economic interests of the OECD countries are aligned in many circumstances.

A reform process involving more countries with a greater divergence of interests could act as a barrier to the development of any reforms. A historical example may help to illustrate this point. During the World War II era, a League of Nations subcommittee mainly constituted by developing countries tried to reform the model treaty to promote heightened source taxation of business profits (e.g., the proposed model would entitle a source country to tax business profits that were not derived from "isolated or occasional transactions" even if there was not a permanent establishment located within the source country).[80] The so-called Mexico model treaty was subsequently proven to be unacceptable to capital exporting nations and was never adopted.

In 1980, the United Nations model treaty was formed in part to provide an alternative to OECD model tax treaty, which is thought to favor the interests of capital exporting nations (e.g., in contrast to the OECD model tax treaty, the United Nations model expands source-based taxation by, *inter alia*, promoting a restricted force of attraction rule for cross-border business profits, ensuring that independent contractors constitute permanent establishments in certain circumstances, and applying a withholding tax to

[78] See Oliver Wendell Holmes, Jr., *The Common Law* (1881, Dover Publications ed. 1991) 1.
[79] See OECD, Chair of the Heads of Delegation, *A Strategy for Enlargement and Outreach* (2004) 16-17.
[80] See Fiscal Committee to the League of Nations, *London and Mexico Model Tax Conventions: Commentary and Text* (C.88.M.88.1946.II.A., Geneva, Nov. 1946) 60.

cross-border royalty payments).[81] The United Nations model treaty is frequently used by developing countries as the starting point of their treaty negotiation process, which has enabled like-minded OECD countries to reach consensus through their own reform process that focuses on their own interests. As such, this two-track process likely encouraged progress to be made as evidenced by the fact that developed and developing countries have significantly expanded their tax treaty networks since the 1960s. As explored in the next section, the fact that international tax reform is driven in large by a group of mainly elite countries—a "rich countries' club"—is increasingly seen as a drawback for attempts to generate effective international tax reform.[82]

v. What Structural Changes Can Encourage Developing Country 'Buy-in'?

The fact that the OECD engaged in its most significant outreach effort with developing countries within its e-commerce reform process likely contributed to the overall success of the project. The consulted developing countries had a chance to deliberate reform efforts, and voice their concerns as members of Technical Advisory Groups and Working Parties. Providing enhanced voice to developing countries may have encouraged them to 'buy in' to the rule changes adopted into the Commentary of the OECD model tax treaty. The cross-country survey revealed that many non-OECD member countries agreed to adopt the OECD's proposed solutions or, in certain cases, produced reports that set out modest departures from the OECD's proposals. The general success of these efforts should encourage more outreach by the OECD's Committee on Fiscal Affairs.[83]

In addition to the e-commerce reform efforts, the OECD has initiated a series of programs to improve its relationship with non-OECD members and developing countries including: (i) in 1997, the OECD began including the positions of certain non-member countries in the OECD model tax treaty; (ii) in 2002, the OECD, the International Monetary Fund, and the World Bank formed the International Tax Dialogue to, inter alia, provide a forum for input from developing countries; (iii) the OECD has sponsored multilateral tax centers in certain countries to hold meetings with representatives from non-member tax authorities; and (iv) the OECD provides a Global Tax Forum that seeks input from representatives from non-member countries. Importantly and consistent with the Contextualist view that specific national political and social concerns often drive tax reform, the OECD efforts are increasingly focusing on helping build local expertise among foreign tax authorities and administrators; the local experts may be most effective at promoting tax policy changes that will address the differing needs of developing countries.

These outreach efforts have likely assisted in promoting uniformity in terms of the provisions and practices of non-OECD national tax authorities vis à vis the OECD model treaty. Enhanced outreach efforts could promote even more beneficent outcomes. It may not be politically feasible in the near term to permit non-OECD

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[81] See *United Nations Model Double Taxation Convention between Developed and Developing Countries*, Jan. 1, 1980.

[82] See, e.g., Reuven S. Avi-Yonah, 'Bridging the North/South Divide: International Redistribution and Tax Competition' (2004) 26 *Michigan Journal of International Law* 371, 383-385 (discussing the advantages and disadvantages regarding the OECD's role in international tax reform efforts and noting that the World Trade Organization may make a more suitable candidate for a world tax organization).

[83] Enhanced outreach to developing countries is also part of the mandate of Group of Experts on International Cooperation in Tax Matters, which became a permanent United Nations Committee under the Economic and Social Council in 2004.

member states to vote on policy changes or to enlarge OECD membership to any significant degree. Under the Contextualist approach, a feasible and incremental solution could involve extending permanent membership to the OECD's Committee on Fiscal Affairs (CFA) to developing countries who wish to participate in the deliberation of potential reform efforts through a simplified and expanded outreach program.[84] This initial step might go a long way toward encouraging further buy-in by developing countries as it would give them a formal platform to provide ongoing input into the design of international tax rules. The OECD already permits certain governments—China, Chile, India, South Africa, Argentina and Russia—to act as Observers in the CFA: representative from these countries are permitted to sit it on and provide input during, for example, Working Party meetings that discuss specific areas targeted for reform. As such, the reform effort may be acceptable to OECD members as it effectively only amounts to creating a host of new permanent Observers to the CFA, which should not unduly upset the *status quo*. A draw-back of the current approach is that it does not extend Observership status to more than a handful of countries, potentially creating the perception that the OECD only 'cares' about the bigger players and transitional economies while ignoring the plights of countries with smaller or failing economies.

To improve the situation, under this proposal only OECD member states (i.e., Tier I members) acting through the CFA will continue to have a vote on the ultimate direction of this reform. Non-voting membership (i.e., Tier II membership) will be extended to any non-OECD member who wishes to participate in CFA processes. A lack of true representation will be obviously problematic for many developing countries, but it may be the only politically feasible way of expanding outreach in the tax area, at least in the short term. In the longer term, extension of a 'vote' or even full membership within the CFA may become feasible. As discussed in Part I, enhanced global economic interdependence likely requires increased cooperation among national tax authorities to reduce the risk that tax will inhibit cross-border trade and investment. If the OECD continues to evolve into a kind of informal (lower-case) world tax organization, it will ultimately be better suited to attract global consensus to deal with emerging and vexing challenges such as profit attribution to permanent establishments, cross-border hybrid securities and hybrid business entities, enhanced remote sales, double non-taxation via tax planning, and entity isolation strategies for intellectual property assets.

IV. CONCLUSION

International tax law analysts who emphasize efficiency concerns can be characterized as Purists as they often seek conceptually pure tax solutions to promote national or international welfare. Yet international tax economics analysis suffers from several

[84] The OECD's outreach program has already been formalized to a certain extent through the Board for Co-operation with Non-OECD Economies (a subsidiary body of the Committee on Fiscal Affairs) and the Advisory Group on Co-operation with Non-OECD Economies, which administers the outreach programs and advises the Board. *See* Centre for Tax Policy and Administration, *Handbook: Developing Partnerships with Non-OECD Economies* (2004) 4, 10. By 2007, the structure appears to have been changed slightly so that a Unit for Co-operation with Non-OECD Economies within the OECD's Centre for Tax Policy and Administration (CETPA), headed up by Richard Parry, has been provided with the day-to-day management of the outreach program. Moreover, the CEPTA's Tax Treaty, Transfer Pricing and Financial Transactions Division now includes two permanent outreach officials in the areas of tax treaties (David Partington) and transfer pricing (Wolgang Büttner).

sources of uncertainty—theoretical, empirical and behavioral—that may limit the utility of the Purist perspective. In contrast to the Purist approach, Contextualists deploy other analytical tools to complement the economic analysis by examining international tax law reform processes within their political, historical, social and/or institutional context.

The Contextualist approach may permit a fuller exploration of the relevant policy issues to guide the adoption of effective international tax rules and practices. Moreover, the Contextualist approach could do a better job of taking into account the unique interests of different developing countries as the efficiency analysis is less helpful when there exists an imbalance in capital flows (and possibly other flows like technology transfers) between developing and developed countries. As the world becomes increasingly economically integrated, the needs and interests of developing countries should be addressed to ensure that tax does not unduly inhibit global trade and investment.

For these reasons, the Contextualist approach better serves the interest of developed countries who seek tax solutions that promote opportunities for enhanced global trade and investment with developing countries and other non-OECD countries. In addition, enhanced global tax cooperation can be portrayed as a component of broader international law efforts to combat international terrorism. The extension of formal 'Tier II' membership within the Committee on Fiscal Affairs to any desiring non-OECD country, along with opportunities to participate and deliberate reform options, would provide a modest and incremental Contextual solution to promote more cooperative efforts.

eJournal of Tax Research (2007) vol. 5, no. 2 (Michigan Issue), pp. 225-243

Tax Enforcement for SMEs: Lessons from the Italian Experience?[†]

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Abstract

The paper aims to provide a detailed description and evaluation of the Italian experience in tax auditing and enforcement for SMEs which we believe may have some lessons for developing countries with similar sized shadow economies and large numbers of micro-enterprises. We focus on an audit strategy known as "*Studi di settore*", which roughly translates as "business sector analyses", which relies on statistical methods to select the taxpayers to be audited. We show how *Studi di settore* can be used as an audit rule or as a presumptive tax and we compare it with optimal audit rules and with alternative presumptive taxes on the basis of the available evidence for Italy. We discuss whether *Studi di settore* may be a useful policy tool for establishing presumptive taxation for SMEs in developing countries when resources for tax auditing are scarce. A presumptive regime may naturally evolve in a full-fledged audit selection mechanism following the development of the private and public sectors.

I. INTRODUCTION

Taxation of small and medium enterprises (SMEs) has always played a prominent role in the Italian fiscal system because, first, the enterprise size distribution is heavily biased towards small and micro-enterprises, and second, the estimated size of the shadow economy is very large compared to other OECD countries and not dissimilar to those of some developing countries (Schneider, 2006). Obviously these two phenomena are intertwined. On the one hand tax evasion is usually very attractive for micro-enterprises as the expected cost of a tax audit may be very low while compliance costs are usually very high. On the other hand, many tax avoidance strategies or even tax frauds make use of non operating firms in order to record fictitious transactions.

During the 1990s taxation of Italian SMEs was the subject of several reforms aimed at reducing compliance costs, increasing compliance and reducing tax avoidance and tax distortions. In this paper we focus on a major innovation in the field of tax auditing of self-employed workers and small firms: "*Studi di settore*" or "business sector analyses".

[†]An earlier draft of this paper was presented at the First INTR Conference held in Ann Arbor in November 3rd, 2006. The authors would like to thank J. Hines and conference participants for their helpful comments and suggestions. The authors alone are responsible for errors and views.

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The Italian *Studi di settore* (*Sds* hereafter) are based on a highly sophisticated statistical procedure which aims at estimating a reasonable turnover value for self-employed workers and firms with turnovers of less than 5m euros a year. *Sds* provides an estimated turnover for each taxpayer, based on a weighted average of a number of variables (costs and structural variables). The weights depend on the business sector and geographical location. If recorded turnover is below the estimated value the taxpayer has the option of reporting the higher value in his tax return. If this option is not exercised the taxpayer is likely to be audited by the tax administration.

Despite the fact that *Sds* is applied to more than 4 million firms (about 70% of the total) it has been ignored in the international literature (see for example Alm et. al. 2004) which has shown some interest for two methods of presumptive taxation such as the Israelian *Tachsivim* and the French *forfait*. This paper aims to provide a detailed description and evaluation of *Sds* based on the economic theory and other international experience. It will be shown that, depending on the choice of parameters, *Sds* can work as an audit rule or as a presumptive tax. We compare *Sds* with the optimal audit rules proposed by the theoretical literature, and with other forms of presumptive taxation with the objective of verifying whether *Sds* can become a useful model for tax enforcement on SMEs in developing countries with a large shadow economy and by a high percentage of micro-enterprises.

The paper is structured as follows: Section II reviews the literature on the link between tax evasion and firm size. Section III discusses the two main strategies that can be used for coping with tax evasion by SMEs: optimal audit policies and presumptive taxes. Section IV illustrates the relevance of tax evasion by SMEs in Italy and the main features of *Sds*. Section V compares the theoretical properties of *Sds* with those of optimal audit strategies and some popular methods of presumptive taxation; and discusses some of the issues raised by the implementation of *Sds* in Italy. Section VI provides some concluding remarks.

II. Firm size, tax evasion and the informal economy

The distribution of firm size affects the optimal tax enforcement policy in two ways. First, there can be a relationship between firm size and the propensity to evade or to avoid taxes. Second, the costs and returns of tax auditing may depend on firm size: there are obvious economies of scale in concentrating tax audits on very large firms which usually account for a large share of the potential tax base. This section provides a brief review of the theoretical and empirical literature which investigates the link between firm size and the extent of tax evasion. Issues related to the costs and benefits of different auditing strategies are discussed in Section III.

Firms may pursue several different strategies to escape taxation: they may under-report the tax base, exploit loopholes in the tax system, choose on organizational form with preferential tax treatment or operate outside the formal economy.

Several studies provide theoretical analyses of the choice to underreport income within the classical framework first developed for personal tax evasion (Andreoni et al. 1998), where the trade off is between the immediate gains from tax evasion and the expected value of the penalty. Cowell (2003)[1] proposes a model in which the firm chooses the optimal amount of tax evasion by maximizing expected profits which

[1] For a comprehensive review of the literature see in particular footnotes 22 and 23 in Cowell (2003).

depend on (convex)[2] concealment costs. Among the determinants of these costs, Cowell (2003) includes "the size and organisational structure of the firm" since "firms with a more complex organisation are likely to have higher concealment costs: the more people you bring into the plot the greater the security problem that you face and the greater the risk of discovery". This suggests that a smaller firm with a simpler organisational structure will evade more than a larger firm in relative terms (i.e. that there is a negative relationship between firm size and the propensity to evade).

However, Slemrod (2004) challenged the assumption that the degree of complexity may be viewed on a continuum. He draws a line between tax evasion choices of individuals and "closely-held small businesses whose owners' wealth is generally not well-diversified", where the tax reporting decision is not delegated, and those of "large publicly-held corporations". This distinction leads to two different theoretical approaches. For individuals and small businesses the standard model of utility maximization by risk-averse individuals can be maintained, although it should be enriched by considering "intrinsic motivation (civic virtue, or duty to comply). For large publicly-held corporations one may discard the risk-aversion attitude and should focus on the Principal-Agent relationship between shareholders and managers (this line of research is explored in Crocker and Slemrod, 2005). This may mean that large publicly-held corporations are more or less compliant than small and closely-held businesses, depending on how the incentives within these large companies interact with the penalty structure. Overall, the theoretical analyses developed in Cowell (2003) and Slemrod (2004) suggest that, because of concealment costs, there should be a negative correlation between size and tax evasion only within closely-held corporations.

The empirical literature does not provide any clear-cut conclusions. A number of papers found a negative relationship between firm size and tax evasion: Giles (2000) for New Zealand, Sogei (1999), Di Nicola and Santoro (2001) for Italy, and Batra et al. (2003) and Tedds (2005) for a cross-country sample of firms in developed and developing countries. However, there are some studies that provide evidence of a positive correlation between size and tax evasion, such as Rice (1992) which uses a sample of US firms. It is not clear how to weight this contrasting evidence since these studies are directed towards different countries and time periods, and use different estimation techniques and proxies for the relevant variables (e.g. firm size).

The literature also provides contrasting insights on the relationship between firm size and the extent of aggressive tax planning. Harris and Feeny (2003), for example, argue that the relationship between effective tax rates and firm size is "positive under the political cost hypothesis, where the greater visibility of larger firms exposes them to greater regulatory actions" and "negative if larger firms have greater scope for tax planning". For a group of Australian firms, Harris and Feeny (2003) obtain (although not for all the models they test) a negative relationship between effective tax rate and firm size, which seems to suggest that tax planning is more effective in large firms. However, they also acknowledge (Harris and Feeny, 2003, p. 953, and see the literature quoted there) that "previous results have generally been inconclusive". Further, there is evidence that public corporations often do not exploit available

[2] Convexity is the key assumption to find a positive relationship between output evasion and the level of the proportional tax rate.

avoidance opportunities in order to report higher incomes in their financial statements (Shackelford and Shevlin, 2001).

More solid conclusions can be reached by considering the strategies for reducing the tax burden through the choice of the organizational form. If self employed individuals are considered to be firms, following the EU definition[3], and if standard measures of firm dimensions are used (assets, sales proceeds, number of employees) many self-employed individuals would be included in the category of small firms. A negative relationship between size and propensity to evade would then emerge as the result of the fact that many self-employed people deliberately choose this organizational form over working as dependent employers, in order that they can evade taxes. The reasons for this have been extensively analysed in the literature and were recently summarized by Parker (2003, p. 380, and see there for the relevant literature) as: "when workers can switch freely between two occupations" their preference for self-employment would depend on "the discretion that self-employed workers have in declaring their incomes" as opposed to "the relative lack of discretion by employees who are subject to withdrawal taxes and third party reporting". There is a large empirical literature which documents the high propensity of the self-employed to evade taxes (for a summary of UK, Sweden and Canada see Tedds, 2005; for Italy see Bernardi and Bernasconi, 1996; Bordignon and Zanardi, 1997) even though some scholars have questioned the link between occupational choice and opportunities for evasion (Engstrom and Holmlund, 2006, for Sweden; Parker, 2003, for UK). Cultural and historical factors have been suggested as some of the reasons explaining high levels of tax evasion among the self-employed in transitional countries (see Engelschalk, 2004).

The behaviour of microenterprises and the self-employed is crucial for understanding the link between firm size and tax enforcement in developing countries. According to Burgess and Stern (1993, p. 798-799), "information on incomes, production, transactions, property records and inheritances is notoriously difficult to obtain in developing countries .... For some, evasion may be relatively passive in that there is little attempt by the government to impose the tax. This is especially the case for the self-employed ... as the gathering of information on the incomes of such individuals is difficult and costly. For similar reasons many small enterprises remain invisible to the tax authorities". More recently, Auriol and Warlters (2005, p. 626) argued that the presence of many small-scale enterprises is one of the features that can be "grouped together by the observation that developing countries have large informal sectors that are difficult to tax".

Empirical analysis in this field is difficult; it is arduous to collect comparable data on the size of the shadow economy and the share of small firms in the economy. Ayyagari et al. (2005) recently provided data on the share of employment in SMEs in 76 countries for the period 1990-1999. By merging this dataset with the estimates on the shadow economy labour force in Schneider (2000) the authors found a strong negative correlation between the size of the informal economy and GDP, and a strong positive correlation between income level and the importance of SMEs leading to their conclusion that “while a greater share of the micro enterprises are in the formal sector

[3] According to the European Union, a firm ”is considered to be any entity engaged in an economic activity, irrespective of its legal form. This includes, in particular, self-employed persons and family businesses engaged in craft or other activities, and partnerships or associations regularly engaged in an economic activity”.

in developed countries, the aggregate contribution of small enterprises (both in the formal and informal sectors) to GDP and manufacturing varies little if at all with the level of economic development".[4] This suggests that SMEs in the informal sector are the main contributors to the shadow economy in developing countries.

III. AUDIT POLICIES AND PRESUMPTIVE TAXES IN DEVELOPED AND DEVELOPING COUNTRIES

The literature distinguishes between two main approaches to coping with tax evasion: optimal audit rules and presumptive taxes. There are two main models of optimal audits (Andreoni et al., 1998): the Principal-Agent model for the commitment case (i.e. when the Tax Agency can commit to the audit rule) and the Game-Theoretic model for the non-commitment case. In both, the basic problem for the Tax Agency is that audits are (to some extent) useful, since they are necessary to generate compliance, but they are also costly. Therefore, the Tax Agency is assumed to maximize net tax revenues by taking into account the choices made by the rational (and usually risk-neutral) taxpayer. The way that the Tax Agency and taxpayers interact depends on whether the Tax Agency can commit to its audit rule before the taxpayers make their reports. If it can (and this is both a legal and political matter), then the optimal rule typically involves a threshold: all taxpayers reporting an income lower than a given level will be audited, while those reporting a higher level will not. If there are no concealment costs (or if they are unknown to the Tax Agency), the best that the Tax Agency can do is to conduct a number of audits sufficient to generate truthful reporting by all taxpayers below the threshold. Taxpayers above the threshold, however, can all report at the threshold and evade the difference between their true income and the threshold. This system is efficient, since it maximizes expected revenue, but clearly generates a *regressive bias*.

If the Agency cannot commit, then the optimal rule emerges as the equilibrium of a full-information sequential game. If the equilibrium is the fully separating one, in which each observed report is associated with a single true income level, all taxpayers evade taxes by the same amount and the audit rule is the solution of a linear first-order differential equation. Many other (pooling) equilibria are possible. The main problem here is that these models seem to provide a rather poor description of real-world audit policies.

We do not know very much about the audit policies actually followed by Tax Administrations and Tax Agencies since, in general, national administrations do not disclose this information.

An exception is the US, whose audit policy is based on the so-called DIF (discriminant index function) score method (Stadler and Castrillo, 2002, footnote 5; Andreoni et al., 1998, p. 820). The initial information is provided by the Taxpayer Compliance Measurement Program (TCMP) which is a program of intensive audits conducted on a stratified random sample of returns by individual taxpayers. The DIF is a computer-generated score to predict returns most likely to result in additional taxes owed if audited. The percentage of audits which are based at least in part on the DIF score, ranges, according to different sources, from one-half to two-thirds of the total. It is important to note that US taxpayers are aware of the use of this statistical

[4] Ayyagari et. al. (2005) p. 9.

method in selecting taxpayers to audit, but the exact equation of DIF is not known to them.

An alternative approach to coping with tax evasion is presumptive taxation, which is based on the use of indirect means to ascertain the tax liability which differ from the usual rules based on the taxpayer's accounts (Thuronyi 1998). Following Bulutoglu (1995) these methods can be classified into four categories: 1) methods that estimate the taxpayer's income based on the nature of the business and information on sales, employees, assets, location, etc.; 2) methods that impute a return on business assets; 3) methods that apply a gross receipts or turnover tax; 4) methods that estimate the taxpayer's income on the basis of external indicators such as personal expenditure, wealth, etc..

Presumptive methods are often advocated in the taxation of SMEs with the aim of reducing the cost of compliance and to educate taxpayers to deal with the tax system, in the hope that this may reduce the incentive to operate in the underground economy. In this case they are usually enforced as "simplified tax systems", i.e. they replace a number of taxes normally levied on business. Bird and Wallace (2004) and Araujo-Bonjean and Chambas (2004) show that simplified systems are widely used for SMEs in developing countries in Central and Latin America (Mexico, Bolivia and Uruguay) and Africa.

In addition to very simple methods, such as fixed payments based on profession and trade ("*patente*" in francophone countries) or on turnover, there are two rather more sophisticated methods that have received attention in the literature and have been implemented in developing countries: the Israelian *tachshiv* and the French *forfait* (Araujo-Bonjean and Chambas, 2004, Bird and Wallace, 2004 and Thuronyi, 2005).

The *tachshiv* (Fausto, 1990) is based on two steps. First, firm turnover (sales proceeds) is estimated on the basis of some pre-defined indicators, such as average sales per worker, or average ratio between the inventory and sales. These indicators are then applied to various firm variables (e.g., number of workers, inventory amounts) to obtain an estimation of a *range* of values for the firm's turnover. Second, a range of plausible pre-tax gross income is estimated by subtracting a presumptive amount of expenses from the estimated turnover. Different expenses receive differential treatment depending on the difficulty involved in auditing them, such that presumptive coefficients tend to be applied more extensively to expenses that would be more difficult for the tax auditors to verify. The *tachshiv* is differentiated across economic sectors and, to some extent, it is negotiated between the Tax Agency and each industry's representatives. It is designed to be an instrument for the tax auditors and, thus, an audit strategy. However, to the extent that taxpayers tend to converge within the *range* of presumed income, the *tachshiv* could also be interpreted as a method of presumptive taxation (Thuronyi, 2004).

The French *forfait* (Thuronyi, 2004; Longobardi, 1990) is a method of presumptive taxation applicable only to SMEs with an annual turnover below a specified amount. Its most important feature is that it is a contractual method, i.e. it is used to help the Tax Agency and the taxpayer to reach a consensus on the amount of taxes. The first step in the procedure is the furnishing by the taxpayer of a number of pieces of information concerning amounts of sales, purchases, inventories, number of employees in previous years, etc.. The Tax Agency uses this information and some statistical information concerning general business expenses (based on special

monographies par profession), to formulate a proposal or *forfait* based on "income that a firm would normally produce" under the same economic conditions. Finally,the forfait is implemented. This implementation involves a large degree of discretion on the part of the tax auditors, since they can modify the *forfait* to take account of the individual features of the tax payers. If no agreement is reached, the taxpayer can appeal against the *forfait* - first to the Tax Commission, whose members include business representatives – and then to the Administrative Court.

As pointed out by Bird and Wallace (2004) the critical issue is whether these presumptive methods of taxation are really effective first in bringing firms into the formal economy and then, after few years, forcing them to move into the normal tax system, while minimizing the number of firms that move from the normal tax regime into the simplified one. The main problem is that these objectives are to some extent inconsistent. To be attractive for informal firms the methods need not only to be simple and based on readily available information to reduce compliance costs (as stressed by Araujo-Bonjean and Chambas, 2004), they should also provide for an effective taxation that will be lower than that based on the normal tax rules. However, this would discourage firms from ever moving into the normal tax regime and attract firms that were in the formal sector to move to the presumptive regime, resulting in loss of revenue to the Tax Authority. One solution to this conundrum might be a periodical revision of the threshold for eligibility for the simplified regime. Alternatively, a time limit could be applied for eligibility for the simplified system for individual taxpayers, or the presumptive tax system could be gradually phased out. However, as highlighted by Bird and Wallace (2004), only few countries set a limit on the number of years that a firm can qualify for the simplified regime. It seems, therefore, that the transition from the simplified to the normal tax regime is one of the main limitations of presumptive taxation.

IV. TAX EVASION AND AUDIT POLICIES IN ITALY

The estimated size of Italy's shadow economy is very large and not very different from estimates reported for some developing countries (Schneider, 2006). Recent figures provided by the Italian Tax Agency (Agenzia delle Entrate, 2006) confirm the magnitude and relative stability of cumulative tax evasion in Italy. Tax evasion, as a percentage of GDP, ranged between 20% and 25% during the 1980s and the mid 1990s. Since then it has been declining, although the absolute value estimated for 2002 (17.49%) is still very high.

It would be difficult to summarize here all the attempts that have been made to fight tax evasion in Italy. However, we can distinguish at least two periods. In the eighties penalties became harsher and even imprisonment could result from tax evasion. Special laws (the so-called handcuffs for evaders - "manette agli evasori") were passed and the emphasis was put almost exclusively on traditional instruments, i.e. random audits and sanctions. However, the results of this approach have been judged unanimously to be deceptive. Few people were caught out evading tax, and a number of legal suits were brought and won by taxpayers. It became clear that the peculiar structure of Italian businesses where the enterprise size distribution is heavily biased towards small and micro-enterprises was a crucial factor. The number of small and medium sized firms continued to increase and this progressively reduced the deterrence of random audits. As a result, tax evasion continued to increase. The second period began in the nineties when a new approach was endorsed based on

heavier reliance on statistical methods to select taxpayers to be audited. It was within this perspective that *Sds* was conceived.

Before providing a detailed description of this audit method is it useful to provide some data on the incidence of SMEs in the Italian economy and on their alleged contribution to tax evasion.

SMEs and tax evasion in Italy

It is well known that one of the peculiar features of the Italian economy is the large share of SMEs. In Ayyagari et al.'s (2005) database, Italy is ranked 8th among 53 countries by share of employment in firms with less than 250 employees. What is perhaps less widely acknowledged is the relevance of micro-enterprises and self-employment, which is the most striking feature of the Italian non-financial business economy. Table 1 reports data provided by a recent Eurostat study (Schmiemann, 2006) for the EU-25 in 2003, on the relative shares of SMEs[5] in employment, turnover and value added in non-financial business activities.

[5] According to the European Union "the category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million". Within the SME category, a small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million. Also, within the SME category, a microenterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million.

TABLE 1: RELATIVE SHARES OF SMES IN EMPLOYMENT, TURNOVER AND VALUE ADDED IN NON-FINANCIAL BUSINESS ACTIVITIES

	EU-25	AT	BE	CZ	DE	DK	ES	FI	FR	HU	IT	LT	LV	NL	PL	PT	SE	SI	SK	UK
Number of persons employed																				
Micro (1-9)	29.8	25.1	29.0	32.6	19.6	19.6	38.6	21.5	23.3	35.9	47.1	17.7	20.6	28.9	40.5	39.7	24.3	27.3	12.5	21.1
Small (10-49)	20.8	:	:	18.6	21.9	24.9	25.8	19.2	20.7	18.6	22.0	26.1	27.1	:	11.5	23.6	:	17.3	14.6	17.9
Medium (50-249)	16.5	:	15.9	17.8	18.7	:	14.7	18.5	16.9	16.3	12.4	27.1	26.2	18.6	18.3	17.6	17.0	:	22.2	14.8
Large (250+)	32.9	:	:	31.0	39.8	:	20.9	40.9	39.2	29.2	18.5	29.1	26.1	:	29.6	19.1	:	:	50.7	46.2
Turnover																				
Micro (1-9)	19.4	:	22.8	19.4	12.3	21.4	25.3	15.6	20.0	21.1	29.0	11.9	17.6	16.4	25.3	:	:	:	12.7	15.4
Small (10-49)	19.3	:	21.4	19.9	16.0	22.9	24.2	15.6	19.4	19.0	22.4	25.7	30.5	22.2	14.5	:	:	:	15.9	16.3
Medium (50-249)	19.2	:	20.6	21.6	19.1	21.6	19.2	19.8	17.2	18.6	18.6	25.0	29.6	24.5	22.1	:	:	:	19.8	18.0
Large (250+)	41.9	:	35.3	39.1	52.6	34.1	31.3	48.9	43.4	41.2	30.0	37.4	22.4	36.9	38.1	:	:	:	51.5	50.3
Value added																				
Micro (1-9)	20.5	18.9	19.3	20.4	15.6	23.4	26.8	18.1	19.6	17.2	31.7	9.2	:	:	16.0	22.5	17.6	19.2	11.7	17.9
Small (10-49)	19.1	:	:	17.1	18.3	21.2	24.5	16.0	18.2	16.2	22.4	21.8	25.6	:	11.0	21.0	:	17.6	12.3	16.1
Medium (50-249)	17.8	:	19.0	19.3	18.6	:	17.1	19.0	16.0	18.4	16.3	25.3	27.6	:	21.4	21.9	19.1	:	17.6	16.5
Large (250+)	42.7	:	:	43.2	47.6	:	31.6	46.8	46.2	48.2	29.6	43.6	:	:	51.7	34.6	:	:	58.3	49.4

Source: Schmiemann (2006). See source for data description and limitations

It can be seen that Italy is the European country with the largest share of employment in firms with less than 250 employees with a value equal to 81.5% against a European average of 67.1%. Spain and Portugal display a similar pattern, with shares of 79.1% and 80.9% respectively. But the difference with the rest of Europe is even more clear when we consider the bottom of the distribution, Italian firms with less than 10 employees. Micro-enterprises and self-employed account for 47.1% of total employment in the non-financial business economy in Italy, a value which is significantly higher than both the European average (29.8%) and the share of employment in micro-enterprises in Spain and Portugal. The same study highlights:

> the role of micro enterprises in distributive trades, real estate, renting and business activities …, construction and hotels and restaurants in Italy. In all four of these activities, micro enterprises in Italy provided an absolute majority of sectoral value added and up to two thirds of the workforce (with their share of total employment ranging between 58% and 67%)(Schmiemann, 2006, p. 3)

Tax evasion is not monitored on a regular basis. However, the available evidence shows that Italian SMEs evade extensively. The most comprehensive and up-to-date source is the study by Sogei (1999), the company managing the tax database on behalf of the Italian Ministry of Finance, which was published in 1999 and refers to the period 1990-1994. This study estimates the unreported taxbase for both VAT and (personal or corporate) Income Tax by comparing national accounts with fiscal data. With reference to Income Tax the results are disaggregated on the basis of firm size. According to Sogei (1999), estimated total income unreported by firms with less than 20 employees, and by self-employed for the period 1990-94, is in the range ITL 250 to 280 billions at current prices. These figures correspond to a fraction between two-thirds and three-quarters of the (estimated) true income of the selected subset.

Other studies obtained similar results. For the fiscal year 1991, Bernardi and Bernasconi (1996) estimate that 58.7% of tax is evaded (or legally avoided) by individual entrepreneurs, self-employed and other unincorporated companies. Aggregate results appear to be of a similar magnitude, even adopting an approach based on random samples. For the fiscal years 1987 and 1989 Bordignon and Zanardi (1997) use a sample of approximately 120,000 audits of the self-employed of which 84.3% are found to have evaded income taxes. Average unreported income amounts to approx. 55% of the (supposedly) true income, varying across economic sectors and other variables. Di Nicola and Santoro (2001), using a sample of approximately 500 audits of income reported for fiscal year 1999, found that corporate taxes were evaded by two-thirds of the sample, and that this proportion increased among small corporations.

Indirect evidence on the high propensity for SMEs to evade taxes is also given by the significant variability of tax evasion estimates across economic sectors. The Italian Tax Agency (Agenzia delle Entrate) has evaluated both the diffusion and the intensity of tax evasion in fiscal year 1998 (Agenzia delle Entrate, 2006). Diffusion is measured as the tax gap, i.e. the difference between the tax paid and that estimated on the basis of national accounts. Intensity is taken simply as the ratio between the tax gap and the value added, calculated on the basis of national accounts. Both diffusion and intensity are very high in sectors with a large share of micro-enterprises. Evasion is estimated to be highly diffused in services to companies, wholesale traders, services to families (social and educational services), transport, restaurants and hotels. The 'top five'

sectors for intensity of tax evasion are similar: agriculture and fisheries, restaurants and hotels, services to companies and services to families.

The Italian Studi di settore: a description

The Italian *Sds* is a mechanism of audit selection based on a (quite sophisticated) statistical procedure which signals firms reporting an "implausibly low" level of turnover with respect to that reported by firms with similar economic features. The *Sds* was introduced in 1988, after lengthy debate. Since then, its importance has grown progressively, and in fiscal year 2004 70%, i.e. about 4 million, of Italian firms were eligible to be audited on the basis of *Sds*.

We now describe the main elements of a typical *Sds*. Its basic element is the cluster, i.e. a subset of economically homogeneous firms. Initially, data are collected from all firms (corporated and unincorporated companies, single entrepreneurs, self-employed) that report similar activity codes (these are listed by Istat, the national institute of statistics) and annual turnover under 5,164,569 euros. Data include structural variables (surface area of offices and warehouses, number of employees, type of customers) and accounting variables (mainly costs).

Principal components analysis (PCA) is applied in order to select structural variables that are statistically the most significant from all those collected. These variables are then used to form the clusters. More precisely, this means that all firms belonging to the same cluster are homogeneous with respect to the structural variables selected by PCA. However, a single firm may belong to more than one cluster, for each given probability, and in this case the firm is said to have a mixed profile.

Having defined the concept of a cluster we now briefly illustrate how *Sds* actually works. The *Sds* may generate two kinds of audits. First, the firm may be audited if it reports a level of sales proceeds (turnover) which is lower than an imputed level, less a confidence value, but not audited on the basis of the *Sds*[6] if it reports a level of sales proceeds which is at least equal to the imputed level less a confidence value. If recorded turnover is below the estimated value the taxpayer has the option of reporting the higher value in his tax return. The imputed level of sales proceeds is calculated as the product of a vector of values reported by the firm, and of their corresponding parameters. The values refer to a set of independent variables, which are statistically associated with sales proceeds, i.e the relevant independent variables. The parameters reflect the average relationship between the relevant independent variables and turnover, for a subset of firms belonging to the same cluster and satisfying a given 'consistency criterion'. This criterion is based on the cumulative distribution of indicators such as the value added per worker, the inventory turnover and the ratio between sales and the book value of capital assets[7].

In the second kind of audit, the firm may be audited if it reports values of the relevant independent variables that are too far removed from those reported by the other firms in the cluster. Or, the firm may be audited if it does not satisfy the consistency criterion for its cluster.

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[6] It might be audited on the basis of a criminal investigation or of a random audit which is not based on the study of sector.

[7] More precisely, firms having values of these indicators which belong to the tails of distributions are considered inconsistent. The cut-off values are defined for every cluster.

V. POLICY EVALUATION

In this section we try to evaluate *Sds* as a feasible policy for developing countries, aimed at comparing tax evasion by small and medium sized firms. We first compare the *Sds* scheme with optimal audit schemes and presumptive taxes. Then we consider the implementation problems experienced in Italy.

Comparison with optimal audit procedures and presumptive taxes

We now compare *Sds* with the alternatives illustrated in Section III by abstracting away from some of the problems that arose in the implementation of *Sds* in Italy. We make three assumptions, that will be discussed in the succeeding sub-section.

First, we have seen that *Sds* is based on reported sales proceeds (turnover) rather than on reported income. This is clearly inefficient and it violates the Revelation Principle: since taxes are paid on income, there is an incentive-compatible direct mechanism which allows the Tax Agency to induce the firm to reveal its true income. To overcome this, here we assume that *Sds* is applied to reported income rather than to reported turnover.

Second, in this section we consider only the first kind of audit described in previous sections i.e. we implicitly assume that the second kind of audit is efficiently administered, so that the vector of independent variables is correctly reported.

Third, although we can see that the parameters are endogenous, we treat them here as exogenous, since the Tax Agency has some degrees of freedom in the formulation of the consistency criterion.

In the modified version of *Sds* that we consider in this section, the firm knows that it will be audited with a given positive probability if it reports an income $\hat{y}_i$ lower than an imputed level $\beta \hat{x}_i$ where β is (treated here as) a vector of exogenous parameter, while $\hat{x}_i$ is a vector of the (independent) variables reported by the firm. The firm that reports an income $\hat{y}_i \geq \beta \hat{x}_i$ knows that it will not be audited on the basis of the *Sds* (although it might be audited on an another basis). As the optimal audit procedure with commitment described in Section III, the audit selection is thus based on a threshold. However, there are three main differences between the two kinds of threshold.

First, the *Sds* threshold is a relative rather than an absolute value, If $\hat{x}_i$ is considered as a vector of variables measuring the potential profitability of the firm, such as the square metres of office space or the total value of assets, and β is taken as a kind of profitability parameter, it could be said that the *Sds* threshold distinguishes between more profitable and less profitable firms while the absolute threshold of the optimal audit distinguishes between rich and poor firms.

Second, the variable $\hat{x}_i$ depends upon the economic features of the firm, namely its economic activity (sector or, more precisely, cluster). This is a sort of application to firm taxation of the idea of audit classes, which usually refers to personal taxpayers rather than firms (Scotchmer, 1987) and makes the Italian *Sds* similar to Israel's tachshivim described above.

Third, the variable $\hat{x}_i$ is a vector of the variables selected via a political process, where the Tax Agency deals with the different business sector representatives. Thus, we can say that the *Sds* are audit selection criteria based on an endogenous and politically-generated threshold.

Let us now focus on the firm's behaviour and, consequently, on the expected (gross) revenue for the Tax Agency. The expected tax (ET) for the single firm *i* is given by

$$ET_i = t(\hat{y}_i) + (1+f)q(\hat{y}_i)[t(y_i - \hat{y}_i)] \tag{1}$$

where *f* is the fine if caught evading tax, *q* is the probability of an audit and y_i is the "true" income. If $t' \geq 0$ and there is no tax rebate for overreporting, it is clear that the firm will never overreport income, i.e. $\hat{y}_i \in (0, y_i)$ and that it will report no income if the penalty or the probability of audit are too low, i.e.

$$q < \frac{1}{(1+f)} \Leftrightarrow \hat{y}_i = 0 \tag{2}$$

independent of the value of βx_j. This corner-solution is highly unrealistic, but note that, for our purposes, things would not change dramatically if there were a cost for concealment (Cowell, 2003), which would possibly generate a positive solution.

So, in order to achieve positive expected (gross) tax revenue the Tax Agency must choose the following audit rule:

$$\begin{aligned} q(\hat{y}_i) &= \frac{1}{(1+f)}, \hat{y}_i < \beta\hat{x}_i; \\ q(\hat{y}_i) &= 0, \hat{y}_i \geq \beta\hat{x}_i \end{aligned} \tag{3}$$

If this audit rule is publicly disclosed, and provided that the Tax Agency makes a credible commitment to ex-post implementation of this rule, a firm with an income lower than the imputed level, i.e. $y_i < \beta\hat{x}_i$, will find it rational to report the true income, i.e. it will report $\hat{y}_i = y_i$ and pay a tax equal to $t(y_i)$. Under the audit rule (3) underreporting would generate the same expected tax, and we can assume that the firm will not evade if there is no positive gain for lying.

On the other hand, a firm with an actual income higher than the imputed value, i.e. $y_i \geq \beta\hat{x}_i$, will find it rational to report $\hat{y}_i = \beta\hat{x}_i$ and to evade $y_i - \beta\hat{x}_i$. with $ET_i = t(\beta\hat{x}_i)$. To see why, just consider that reporting any value $\hat{y}_i < \beta\hat{x}_i$ the firm would have $ET_i = t(y_i)$.

As a consequence the Tax Agency will collect tax on the actual income for all firms with an income higher than imputed, i.e. with $y_i \leq \beta\hat{x}_i$ and a tax on imputed income for all firms whose true income is lower than imputed, i.e. with $y_i > \beta\hat{x}_i$.

This result is very similar to that predicted by optimal audit theory. The main difference is that optimal audit theory suggests a threshold defined by income: firms with an income below the threshold $\bar{y}$ are audited and report their true income while

firms above the threshold are not audited and report an income equal to $\bar{y}$. As a consequence expected revenues depend on the distribution of actual income. In *Sds* the threshold is set at the difference between actual income and imputed income $d_i = y_i - \beta \hat{x}_i$, which can be taken as a measure of profitability: unprofitable firms, i.e. with a negative d_i, will report their true income and will be audited while profitable firms, i.e. with a positive d_i, will report the imputed income and will be not audited. This implies that revenues will depend on the distribution of profitability, which, in turn, depends on the vector β.

Given that the audit rule implemented through *Sds* is different from the optimal audit rule, expected revenues are not maximized. It will be the case that some poor firms, which should be audited under the optimal rule, will not be audited on the basis of *Sds* since they are highly profitable, and that some rich firms which should not be audited under the optimal rule will be audited on the basis of *Sds*, since they are not very profitable. However, the efficiency loss may be justified on equity grounds as the auditing rule based on profitability may avoid the regressive bias usually associated with any exogenous threshold (see Section III). This gain of equity does not require more information, since any optimal threshold would require estimation of the cumulative distribution of the variable y which is not observable directly through the tax reports.

In sum, an audit strategy based on *Sds* is potentially more equitable but also less efficient compared to an optimal audit strategy. The loss in efficiency varies directly with the degree of correlation between profitability and the absolute amount of profits.

At a first sight *Sds* may seem inappropriate for developing countries, which usually lack the resources needed to implement sophisticated audit schemes. As we saw in Section III, they rely heavily on presumptive taxation. However, it is evident that the lower the values of β, the lower will be the threshold for each firm and the higher will be the percentage of taxpayers paying taxes on imputed rather than actual income, making *Sds* appear very much like a presumptive tax. Furthermore, *Sds* is more flexible than standard presumptive systems and this may be very advantageous. As we saw in Section III a critical issue with presumptive systems is the transition from a simplified regime to a normal one. In theory this transition can be managed within *Sds* simply by gradually revising the parameter β. A country with a weak tax administration may start to apply *Sds* with low β to minimize the cost of auditing. As the tax administration becomes stronger and firms become more accustomed to regular book keeping the β can be gradually raised, transforming *Sds* from a presumptive regime into an auditing strategy.

Next we briefly compare the Italian *Sds* with the French forfait and the Israeli tachshivim. With respect to the French forfait, the advantage that *Sds* seems to offer is that the tax officers' discretion is limited, since the audit rule is committing and no taxpayer can be audited if he is above the threshold. This would seem to be interesting for developing countries where corruption among tax officers is widespread.

The main difference between the Italian *Sds* and the Israeli tachshivim is that the latter is not used to determine a presumptive amount of tax to be paid by an individual taxpayer. In a given tachshiv it is the *range* of gross income for a given economic sector rather than a presumptive income that is estimated. This makes the Israeli

tachshiv less similar to a presumptive method of taxation and thus, perhaps, less attractive for developing countries.

Implementation Issues

In terms of the implementation of *Sds*, the estimation of the relevant distribution function is necessary, in principle, for both optimal audit procedures and for *Sds*. However, in both cases it is expected that rational taxpayers that find themselves above the threshold will converge toward the threshold. Therefore, the lower the threshold the more *Sds* or other committing audit strategies will resemble a presumptive tax and the importance of determining the exact shape of the distribution function becomes less dramatic. In an optimal committing audit strategy, reducing the threshold does not violate optimality if the budget allocated for audits is reduced accordingly. In general, this is true for *Sds*. However, *Sds* relies on an endogenous rather than an exogenous threshold definition. The Italian experience shows that several difficulties can arise from this choice.

There are three main problems. First, the threshold refers only to turnover not to income. Second, the threshold depends on β, which in turn depends on the way the consistency criterion is designed. Third, the threshold depends on $\hat{x}_i$ which, if the second type of audit is not efficiently run, can be manipulated by the taxpayer.

Data about firms actually audited on the basis of the studies of sector are not publicly available. However, it is known that the percentage of firms with a recorded level of turnover lower than the threshold – and that will be subject to a tax audit if they do not exercise the option to report a turnover equal to the threshold –decreased over the entire period 1998-2003, and then increased in 2004 (Agenzia delle Entrate, 2007, see Table 2).

TABLE 2: PERCENTAGE OF ITALIAN FIRMS AUDITABLE ON THE BASIS OF *SDS* (FIRST TYPE OF AUDIT)

Year	Percentage of auditable firms^
1998	51% (51%)
1999	47% (47%)
2000	40% (42%)
2001	37% (40%)
2002	33% (36%)
2003	29% (33%)
2004	31% (35%)

^ in parentheses the % of firms auditable among those for which the *Sds* was enacted since 1998 (approx. 40% of total)

At a first sight this trend would seem to confirm the effectiveness of *Sds* in inducing tax compliance as over time firms have increased their average levels of recorded turnover. However, there is some evidence that the decrease in auditable firms is also driven by other factors.

First, evading firms may have reacted to *Sds* by reducing their underreporting of sales while at the same time increasing their overreporting of costs. This phenomenon has been documented by Agenzia delle Entrate (2007) for the restaurant sector where average turnover increased by about 8% in the period 1998-2003 while income

decreased by about 22%. Indirect evidence of the problem is provided by the effects of a revision of *Sds* for a number of sectors in 2004. This revision introduced an evaluation of the level of reported value added in order to link turnover to income. As Table 2 shows, the revision coincided with a break in the downward trend in 2004. Further, Agenzia delle Entrate (2007) reports that between 2003 and 2004 the turnover reported by a sample of taxpayers subject to the revised *Sds* increased by 3.5% and reported income increased by 4.3% while for taxpayers subject to the old *Sds* turnover increased by 3.3% and income by 1.9%.

The second explanation for the observed decrease in the percentage of auditable firms is related to the method used to estimates parameters. In Section IV we showed that these parameters measure *average* relationship between turnover and the vector of relevant independent variables for a subset of firms belonging to the same cluster and satisfying a given 'consistency criterion'. More precisely, they are estimated by running a regression of turnover on independent variables limited to ‘consistent firms’ on data reported by the firms themselves. To the extent that firms manipulated the reported data to pass the consistency test, increasing the subset of firms used for the regression, the estimated average relationship (regression coefficient for the subset of consistent firms) had converged to the average relationship reported in the whole set of firms belonging to the same cluster. As a result it became easier for all firms in a given sector to meet the threshold for turnover. Evidence of this problem is provide in Table 3 which shows how the percentage of inconsistent firms steadily decreased in the period 1998-2001.

TABLE 3: PERCENTAGE OF ITALIAN FIRMS NOT SATISFYING THE ‘CONSISTENCY CRITERION’

Year	Percentage of inconsistent firms
1998	44.1%
1999	42.5%
2000	42.9%
2001	36.8%

Finally, although there are no publicly available data, it is commonly believed that the number of audits on the values of the relevant independent variables was disproportionately low until the 2004 revision (Santoro, 2006). Therefore, there is a possibility that many firm had manipulated the threshold by reporting false values on the $\hat{x}_i$ (especially for variables different from costs).

In sum, three lessons can be drawn from the Italian experience. The first is that, as predicted by the theory, the choice to set a threshold on turnover instead of income is inefficient as this acts as an incentive to manipulate costs. The second is that the exogenous variables used to calculate the threshold should be easily verifiable by the tax authorities to prevent untruthful reporting by the firms. The third is that the endogenous determination of the parameters will work only if the first two problems have been solved. In any case it seems advisable to rely (at least partially) on exogenous information on firms’ profitability.

VI. CONCLUSION

Tax enforcement for SMEs is always problematic, especially because they usually operate on the border between the formal and the shadow economy. Many countries

rely on special tax regimes that try to balance several (partly conflicting) objectives: the reduction of compliance costs, the provision of incentives to operate in the formal economy, the reduction of tax evasion, the growth in tax revenues. Besides very simple methods, based on lump-sum payments or turnover taxes, the literature has discussed two alternative approaches: a sophisticated audit rule, the Israeli *tachshiv* and a contractual presumptive method, the French *forfait*. This paper has described a third alternative, the Italian *Studi di settore*, which was implemented in Italy in 1998 and covers 70% of Italian firms. We argue that the *Sds* may be a valuable policy tool for developing countries, which, in common with Italy, have a large shadow economy and a high share of microenterprises. The *Sds* may be introduced as presumptive tax, when the resources available for audits are scarce; later it can be gradually be transformed into an auditing rule.

An obvious objection that could be raised against *Sds* is that it is a rather complex mechanism - both for the tax administration and for small firms. However, this potential drawback can be minimized to a reasonable level. Compliance costs will be greatly reduced if presumptive turnover (or income) is estimated on the basis of readily available information (such as geographic location, business sector, amounts of some inputs used in production). Tax administration becomes extremely simplified when *Sds* is used mainly as a presumptive tax. In this case the problem would be to set up the procedure for estimating the relevant parameters. To this end the suggestion made by Thuronyi (2004) for exporting the *tachshiv* in developing countries would perhaps be valuable: a consortium of countries could get together with international donors to set up *Sds* in a representative country and use the methodology and results (with minor adjustments) to implement *Sds* in other economies.

REFERENCES

Agenzia delle Entrate (2006), "Analisi dell'evasione fondata sui dati IRAP. Anni 1998-2002", available at http://www1.agenziaentrate.it/ufficiostudi/pdf/2006/Sintesi-evasione-Irap-06.pdf.

Agenzia delle Entrate (2007), "Gli effetti dell'applicazione degli studi di settore in termini di ampliamento delle basi imponibili", available at http://www1.agenziaentrate.it/ufficiostudi/pdf/2007/applicazione_studidisettore.pdf.

Alm, James, Jorge Martinez-Vazquez and Sally Wallace (2004), (eds.) *Taxing the Hard-to-Tax: Lessons from Theory and Practice*, Amsterdam, Elsevier

Andreoni, James, Erard, Brian and Jonathan Feinstein (1998), "Tax Compliance", *Journal of Economic Literature*, 36(2): 818-860.

Araujo-Bonjean Catherine and Gérard Chambas (2004), "Taxing the Urban Unrecorded Economy in Sub-Saharan Africa", in Alm, J., J. Martinez-Vazquez and S. Wallace, (eds.) *Taxing the Hard-to-Tax: Lessons from Theory and Practice*, Amsterdam, Elsevier.

Auriol, Emmanuelle and Michael Warlters (2005), "Taxation base in developing countries", *Journal of Public Economics*, 89: 625-646.

Ayyagari, Meghana, Thorsten Beck, and Asli Demirgüç-Kunt. (2005). "Small and Medium Enterprises across the Globe: A New Database," World Bank mimeo,

available at http://siteresources.worldbank.org/DEC/Resources/84797-1114437274304/SME_globe.pdf.

Batra, Geeta, Daniel Kaufmann and Andrew H.W. Stone, 2003, Investment Climate Around the World: Voices of the Firms from the World Business Environment Survey. Washington, D.C.: The World Bank.

Bernardi, Luigi and Michele Bernasconi (1996), "L'evasione fiscale in Italia: evidenze empiriche", *il fisco*, 38: 19-36.

Bird, Richard M. and Sally Wallace (2004), "Is it Really so Hard to Tax the Hard-to-Tax? The Context and Role of Presumptive Taxes" in Alm, J., J. Martinez-Vazquez and S. Wallace, (eds.) *Taxing the Hard-to-Tax: Lessons from Theory and Practice*, Amsterdam, Elsevier.

Bordignon, Massimo and Alberto Zanardi (1997), "Tax Evasion in Italy", *Giornale degli Economisti e Annali di Economia*, 56(3-4): 169-210.

Bulutoglu, Kenan (1995), "Presumptive Taxation" in P. Shome (ed.), *Tax Policy Handbook*, Washington DC, IMF.

Burgess, Robin and Nicholas Stern (1993), "Taxation and Development", *Journal of Economic Literature*, 31(2): 762-830.

Cowell, Frank A. (2003), "Sticks and Carrots", *DARP Discussion Paper N. 68*, Distributional Analysis and Research Programme, London School of Economics and Political Science.

Crocker, Keith and Joel Slemrod (2004), "Corporate tax evasion with agency costs", *NBER Working Paper 10690*, National Bureau of Economic Research.

Di Nicola, Fernando and Alessandro Santoro (2001), "Determinanti dell'evasione dell'IRPEG, Politica fiscale, flessibilità dei mercati e crescita", paper presented at the *Italian Society of Public Economics annual meeting*, Pavia, Italy.

Engelshalk, Michael (2004), "Creating a Favorable Tax Environment for Small Business", in Alm, J., J. Martinez-Vazquez and S. Wallace, (eds.) *Taxing the Hard-to-Tax: Lessons from Theory and Practice*, Amsterdam, Elsevier.

Engstrom, Per and Holmlund, Bertil (2006), "Tax-Evasion and Self-Employment in a High-Tax Country: Evidence From Sweden", *Working Paper Series of the Department of Economics,* Working Paper N.12, University of Uppsala, Sweden.

Fausto, Domenicantonio (1990), "L'esperienza israeliana di stima del reddito imponibile", in M. Leccisotti (ed), *Per un'imposta sul reddito normale*, il Mulino, Bologna, Italy, pp. 141-164.

Giles, David E.A.(1998), "Modelling the Tax Compliance Profiles of New Zealand Firms: Evidence From Audit Records", *Working Paper, Department of Economics*, University of Victoria, Victoria.

Harris, M.N. and Simon Feeny (2003), "Habit persistence in effective tax rates", *Applied Economics*, 35: 951-958.

Longobardi, Ernesto (1990), "L'esperienza francese del *forfait*", in M. Leccisotti (ed), *Per un'imposta sul reddito normale*, il Mulino, Bologna, Italy, pp. 165-188.

Macho-Stadler, Ines and David Perez-Castrillo (2002), "Auditing with Signals", *Economica*, 69: 1-20.

Parker, Simon C. (2003), "Does Tax Evasion Affect Occupational Choice?", *Oxford Bulletin of Economics and Statistics*, 65 (3): 379-394.

Rice, Eric M. (1992), "The Corporate Tax Gap: Evidence on Tax Compliance by Small Corporations" in Slemrod, Joel (ed). *Why People Pay Taxes*, Ann Arbor: University of Michigan Press: Ann Arbor, pp. 125-166.

Santoro, Alessandro (2006), "Evasione e studi di settore: quali risultati? quali prospettive?" in M. C. Guerra e A. Zanardi (eds.), *La finanza pubblica italiana. Rapporto 2006,* il Mulino, Bologna, Italy, pp. 297-320.

Schneider, Friedrich (2006), "Shadow Economies and Corruption all over the World: What do we really know?", available at http://www.econ.jku.at/Schneider/ShadEconomyCorruption_2006_Pickhardt.pdf

Schmiemann, Manfred, (2006), “SMEs and entrepreneurship in the EU”, *Statistics in focus*, 24/2006, Eurostat

Scotchmer, Suzanne (1987), "Audit Classes and Tax Enforcement Policy", *The American Economic Review*, 77(2): 229-233.

Slemrod, Joel (2004), " The economics of corporate tax selfishness", *NBER Working Paper 10858*, National Bureau of Economic Research.

Sogei (1999) Confronto tra dati fiscali e dati di contabilità nazionale, volume 1, Roma.

Tedds, Lindsay M. (2005), "Keeping it off the books: an empirical investigation into the characteristics of firms that engage in tax non-compliance", *Working Paper Series of the Department of Economics,* Working Paper N.1, Mc Master University, Ontario, Canada.

Thuronyi, Victor (1998), “Presumptive taxation” in V. Thuronyi, (ed.) *Tax Law Design and Drafting*, Vol. 1, Washington DC, IMF.

Thuronyi, Victor (2004), “Presumptive Taxation and the Hard-to-Tax” in Alm, J., J. Martinez-Vazquez and S. Wallace, (eds.) *Taxing the Hard-to-Tax: Lessons from Theory and Practice*, Amsterdam, Elsevier.

eJournal of Tax Research (2007) vol. 5, no. 2 (Michigan Issue), pp. 244-265

Tax Policy for Investment

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Abstract

The Policy Framework for Investment (OECD, 2006) proposes guidance in ten policy fields, including tax policy, to encourage policy makers to ask appropriate questions about their country's economy, its institutions, and policy settings in order to identify priorities, develop an effective set of policies, and monitor progress. A central challenge for tax policy makers endeavouring to encourage domestic and foreign investment, but with limited financial resources to commit, is a careful weighing of advantages and disadvantages of alternative tax policy choices and design options in meeting the twin goals of offering an attractive tax system, while at the same time raising revenues to support infrastructure development and other pillars of an enabling environment for investment. This paper reviews some of the main issues and proposes a set of questions for policy makers to address in formulating an appropriate tax strategy supportive of investment.

I. INTRODUCTION

A country's tax regime is a key policy instrument that may negatively or positively influence investment. Imposing a tax burden on business that is high relative to host country advantages, including access to markets and cost savings derived from public programmes in support of business, and high relative to tax burdens met in competing locations, may discourage investment, particularly where location-specific profit opportunities are limited and profit margins are thin. In such comparisons, a host country tax burden is influenced not only by statutory tax provisions but also compliance costs. A poorly designed tax system (covering laws, regulations and administration) may discourage capital investment where the rules and their application are non-transparent, or overly-complex, or unpredictable, adding to project costs and uncertainty over net profitability. Systems that leave excessive administrative discretion in the hands of officials in assigning tax relief tend to invite corruption and undermine good governance objectives fundamental to securing an attractive investment environment. Policy makers are therefore encouraged to ensure that their tax system is one that imposes an acceptable tax burden on business that can be readily determined, keeps tax compliance and tax administration costs in check, and addresses rather than contributes to project risk.

A modern, competitive, stable and transparent tax system, one that links host and home country tax systems through a wide tax treaty network aimed at providing certainty of tax treatment including the avoidance of double taxation, can send a strong positive signal to investors, both domestic and foreign. Investors generally prefer a low host country tax rate applied to a broadly defined profit base, rather than a high rate, narrow base approach to levying corporate tax. At the same time, special

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incentives may play an important role in certain cases. Where tax incentives for investment are used, care must be taken to ensure that incentive types and design features are chosen that are less likely than others to result in unintended and excessive revenue losses to non-targeted activities.

Balancing revenue losses from tax relief against the possible investment response is an important consideration in the majority of cases where companies can manage a modest host country tax burden. This recognises that tax relief may be too generous, in excess of that necessary to provide a tax environment that is supportive of investment. A central challenge for policy makers endeavouring to encourage domestic and foreign direct investment, but with limited financial resources to commit, is a careful weighing of advantages and disadvantages of alternative tax policy choices and design options in meeting the twin goals of offering an attractive tax system, while at the same time raising revenues to support infrastructure development (e.g. roads, airports, telecommunications networks, and legal frameworks) and other pillars of an enabling environment for direct investment.

This paper explores these issues with the objective of providing background information and a summary "checklist" to guide policy makers when formulating a tax policy strategy that is supportive of investment, taking a "holistic" view of the role of the tax system.

Section II begins by sketching out various economic decisions influenced by taxation, decisions that impact the path of a country's economic development. Section III takes focus on the impact of taxation on investment, and highlights not only direct effects on after-tax rates of return (and thus possible effects on investment location and scale decisions), but also "budget effects" linking taxation to non-tax government programs in support of investment financed out of tax revenues. Section IV elaborates tax considerations for policy makers to consider when assessing the possible need for reform towards a tax system better able to support investment.

II. TAX POLICY AND DEVELOPMENT

Tax policy influences economic development through its influence over a number of economic decisions, including employment decisions, decisions over how much to invest in skills (human capital), as well as scale and location decisions involving investment in plant, property and equipment. Taxation also influences the relative attractiveness of purchasing or leasing tangible business property. The tax treatment of research and development (R&D) in different countries, and of payments under licensing agreements, impacts decisions over whether to produce intangibles (and if so, where) or purchase them or license them from others, with special tax-planning considerations arising in the case of intra-group transactions.

Some of the key linkages between tax policy and development may be highlighted as follows:

- *Employment.* Tax policy affects labour supply and labour demand decisions. Labour supply is influenced by the personal income tax (PIT) system (marginal PIT rates, thresholds, non-wastable earned income tax credits), and the social security contribution (SSC) system (employee SSC rates, thresholds) bearing on wages and salaries. Labour demand is influenced as well by the SSC system (employer SSC rates, thresholds) impacting labour costs, and by tax effects on investment.

- *Investment in education & training (e.g. post-secondary education, skills upgrading).* Tax factors in by influencing the benefits of (returns on) investment (with PIT and SSC contributions reducing, or augmenting with employment tax credits, wage income), and influencing the costs of investment incurred by firms (e.g. where firms are provided with special tax breaks to help defray the cost of training) and/or individuals (e.g. tax relief for education expenses).
- *Investment by firms in tangible and intangible assets.* Taxation alters the after-tax rate of return on investment by influencing after-tax revenues, net acquisition costs of assets and costs of equity and debt finance, leading to direct effects on investment.
- *Access to intangible assets through purchase or license agreements*. Rather than investing in R&D to develop intangible assets, influenced by the availability (or not) of special tax deductions and/or tax credits for R&D, a firm may purchase intangibles from others, or acquire the rights to use such assets. Taxation influences the optimal amount of intangible capital to hold, as well as the relative attraction and reliance on alternative means to acquire such capital (with possible implications for the scale of "spillover" effects on the domestic economy).

Tax policy also plays a role in influencing whether economic development is sustainable:

- *Income distribution effects*: Tax policy influences income distribution (e.g. progressive versus flat PIT rate structure, basic allowances, non-wastable tax credits). As sustainable economic development places constraints on inequality in income distribution, tax policy may hinder or help underpin support for a growth agenda.
- *Environmental effects*: Tax policy may be used as a market-based instrument to address environmental degradation (e.g. so-called "green" taxes). The use of market based instruments (environmental taxes, tradable permits) is now widely recognized as a more efficient means to address certain environmental concerns (e.g. global warming), than regulatory approaches.
- *Budget effects*: Tax policy, covering the tax treatment of investment, employment, as well as other activities, transactions and assets, also has budget consequences, by influencing the amount of tax revenue available to fund public expenditures including infrastructure and other programmes identified by investors as of critical importance in shaping the investment environment.

III. TAXATION AND INVESTMENT – WHAT ARE THE LINKAGES?

In examining tax effects on investment, one can distinguish effects on direct investment representing a significant active equity interest, from effects on portfolio investment by those holding a passive equity interest. This paper focuses on effects on direct investment, including business expansions, investment in subsidiaries and branches, and mergers and acquisitions.

One can also distinguish tax effects in the "pure" domestic case (resident shareholders investing in domestic assets) versus cross-border investment, both inbound foreign direct investment (FDI) in domestic assets by non-resident shareholders, and outbound direct investment abroad (DIA) in foreign assets by resident investors. This paper

does not address special considerations relevant to the influence of home country taxation on outbound direct investment.[1]

A further distinction is between tax effects on direct investment of various types: in physical capital (e.g. plant, property and equipment (PP&E)); investment in intangible assets (e.g. patents) through R&D; and investment in human capital (e.g. education, training). This paper concentrates on tax effects on physical capital, and in particular PP&E scale and location decisions. Special tax considerations relating to the development and use of intangibles are not covered.

In examining the linkages between taxation and direct investment in physical capital, one is confronted with a range of taxes that form part of the tax system of developed (e.g. OECD) countries, as well as developing countries on an established transition path. The taxes include profit or income taxes, non-resident withholding taxes, property taxes, capital taxes, customs duties, social security contributions affecting labour costs, excise taxes, single-stage sales tax and multi-stage value added tax influencing product demand in the host country, and other (generally less relevant) taxes. Home as well as host country taxes may factor in.

Focusing on domestic and inbound direct investment in physical capital, this paper concentrates on primarily host country considerations, and highlights two main linkages between taxation and investment.[2] The first is the direct effect of taxation on the after-tax hurdle rate of return on investment. The second is the budget effect which recognizes the basic role of tax in funding government programs, and the importance placed by business on adequately funding infra-structure development and skills development programs and public governance initiatives central to creating an enabling environment for investment.

A. Direct effects of taxation on investment

The taxation of profit derived from investment in a given host country either in the pure domestic case, or in the case of foreign direct investment (FDI), may directly affect the amount of investment undertaken by influencing after-tax rates of return on investment.[3] In theory, a high (low) effective tax rate on domestic source income could be expected to discourage (encourage) domestic investment by resident investors, as well as inbound foreign direct investment.[4]

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[1] The tax treatment of foreign source income generally would be an important tax consideration when deciding where to locate a corporate base from which to hold foreign assets. However, a discussion of the special tax considerations arising in this context are beyond the scope of this article, which concentrates on investment for production purposes rather than management/co-ordination purposes.

[2] The term "host country" is commonly used in the context of cross-border (inbound or outbound) investment to refer to the country in which a productive asset is located (e.g. where a company is located and income is sourced), with the term "home country" used to refer to the country in which the investor (owner of the productive asset) resides. In this article, we also use the term "host country" to refer to the country in which a company is located, and apply this term both in the context of inbound foreign direct investment (non-resident investor in a domestic enterprise) and pure domestic investment (resident investor in a domestic business). Thus use of the term "host country" need not imply FDI.

[3] Both the level of the effective tax rate on profit and the method (types of tax, and their design features) by which that effective tax rate is set may be relevant.

[4] Similarly, home country taxation of foreign source income may directly impact investment – the higher (lower) the net home country tax rate on foreign profit, generally the lower (higher) the level of direct investment abroad (DIA) by domestic firms in instances where tax impacts investment decisions. Effects on domestic investment of home country taxation of foreign source income are less than clear –

However, as in other areas, theory must be resolved with practice. It is clear that in general host country taxation adds to investment costs, particularly in the pure domestic case.[5] However, the predicted direct effect – that investment would increase if host country taxes are reduced – is often not observed.

Most would agree that a host country tax burden that is very high relative to other countries – influenced by statutory/legal provisions as well as tax compliance costs associated with completing and filing tax returns – generally is discouraging to investment and could, in certain cases, be a deciding factor in not investing or reinvesting in a host country.[6]

The more difficult issue is when – that is, under what circumstances and by which means – can a relatively low host country tax burden discourage capital flight, encourage additional investment, and swing location decisions in a country's favour? When, for example, can reduced statutory tax rates or special tax incentives be expected to attract additional investment? As elaborated in Section IV, by identifying the factors that condition whether host country tax relief or subsidies can be expected to deliver additional investment, policy makers can assess how best to design an overall policy approach, one with mutually reinforcing elements, to provide an environment encouraging to direct investment.

While statutory tax provisions are clearly important, policy makers are also encouraged to consider difficult to measure (yet potentially impeding) business compliance costs associated with the level of transparency, complexity and stability of the tax system.

B. Budget effects of taxation on investment

Host country taxation also impacts investment indirectly by supporting or constraining the financing of the expenditure side of the budget equation. This point recognizes that investment may be encouraged or discouraged by the state of infrastructure in a country (e.g. roads, airports, seaports), the skills profile and strength of the workforce, the state of public governance, and other aspects of the investment environment that are supported by tax revenues.

It is often rightly pointed out that non-tax factors are of central importance to investment decisions. However, equally important to emphasize is the fact that public infrastructure, education, expenditures in support of public governance and other key aspects of an enabling environment for investment require financing. And in many if

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whether an effective tax burden on foreign source income that is low relative to that on domestic income discourages or encourages domestic investment depend, in part, on whether DIA is a substitute for or complement of domestic investment.

[5] In the cross-border situation, this need not be the case. In particular, private investment costs generally would not be affected where increased (decreased) host country taxation is offset by an increased (decreased) foreign tax credit being allowed by the home country tax system of the investor.

[6] A high host country tax burden may also encourage tax evasion, particularly for small firms that face relatively high compliance costs (relative to turnover or income). Non-compliance inhibits economic development by: constraining the amount of tax revenue to fund infrastructure projects, education and other programmes central to building attractive host country conditions; requiring increased tax rates on income, property and transactions of taxpayers in the formal economy (leading to higher efficiency losses than would be observed under a broader tax base through increased compliance); and limiting the growth prospects of 'underground' firms (e.g. by restricting output (export) markets and the range of potential sources of finance). Tax policy and administration practices geared at encouraging taxpayer compliance are not specifically addressed in this paper.

not most countries, tax revenues are an important if not main source of funding for government expenditure (recognizing that printing money to finance government programmes is inflationary, while borrowing funds is also subject to constraint).

Corporate tax and other taxes derived from business activities contribute to general tax revenues used to finance government expenditure. While these taxes may form a relatively small percentage of total tax revenues, the absolute amounts may be large and should be seen as a potential source of revenue that may be used to help address non-tax investment deterrents identified as seriously impeding investment activity.

As noted, a central question facing policy makers when formulating a target tax burden on business is: under what circumstances and conditions can a relatively low host country tax burden operate to attract additional investment, and swing location decisions in a country's favour? Behind this question rests a central trade-off – by reducing taxes on existing (infra-marginal) capital, or reducing the effective tax rate on new investment that would proceed regardless of whether special tax relief is provided, revenues are foregone that could instead be used to build up infrastructure, improve labour skills, strengthen governance, and address what in many country contexts are the real impediments to investment.

Thus a focus in most country contexts should be on the twin goals of designing tax systems and investor packages that are attractive to investment, while at the same time not foregoing funds that could be more usefully applied to fund government expenditures identified by investors as of critical importance to encouraging host country business activity.

IV. TAXATION AND INVESTMENT – A REVIEW OF MAIN CONSIDERATIONS

The following provides a list of issues that policy makers are encouraged to consider when assessing whether a given host country tax system, and in particular corporate tax system, is supportive of direct investment in real productive capital, while also adequately addressing other tax policy objectives.

A. Comparative assessment of the tax burden on business income

Has the government established a target tax burden on business income consistent with its economic development strategy, and with its ability to collect tax on business? How does the target tax burden compare with the actual tax burden?

How much tax revenue policy makers aim to collect from business depends on the government's overall spending plans, including planned spending under its economic development and investment attraction strategy, and the availability of alternative sources of finance. Under a 'top-down' approach to budget preparations, an overall spending ceiling is set by the aggregate amount of funding that the government aims to raise from various sources, including estimated tax revenues from a number of tax bases. Allocations to public expenditure programmes, ranked in terms of their importance in meeting priority government objectives (e.g. including strengthening the pillars of an enabling environment for investment) may then be considered alongside a spending cap. Where public expenditures in support of priority areas (e.g. infrastructure, education, health) are severely constrained, policy makers may be encouraged to reconsider potential financing sources, and possibly revise its target tax burden on business income.

In deciding the tax burden to impose on business income (domestic profits), and the reliance on this tax relative to other sources of revenue, governments would normally

be expected to balance various considerations, including not only revenue concerns, but also equity concerns, competitiveness and efficiency considerations, as well as tax administration and tax compliance costs. In balancing these, policymakers would normally rely on a mix of taxes – such as taxes on income (or a proxy), social security contributions, payroll taxes, property taxes, general consumption taxes, excise taxes, customs duties, non-resident withholding taxes, and possibly other taxes.

Equity considerations would normally call for a mix of taxes, with the economic incidence or burden of certain taxes falling disproportionately on taxpayers with relatively low (or high) income. Taxpayer demands for fairness in the sharing of the tax burden would normally call for business-level income tax, particularly where its incidence falls on shareholders. In the absence of corporate-level tax on profits of incorporated closely-held firms, for example, tax on business profit could be deferred indefinitely by retaining rather than distributing profit to shareholders (given practical difficulties with taxing unrealized accrued capital gains on shares). Moreover, where the net income of shareholders tends to be relatively high, vertical equity may call for combined corporate and personal taxation at top marginal tax rates of corporate profits accruing to domestic shareholders.

On the other hand, 'competitiveness' arguments and efficiency considerations emphasising the mobility of business activities may caution against such an approach and call for preferential treatment of capital income.[7] Under certain assumptions including mobile capital and immobile labour, a simple efficiency analysis suggests that small capital-importing countries should waive tax on capital income, as this tax would be fully borne by labour, in terms of reduced wages and employment. However, under a broader set of considerations that recognize the implications of trade costs to the mobility of capital, host country taxation of capital income may be efficient, with scope for taxation being greater the larger are 'business concentration' economies in a host country.[8] A key insight from this literature is that certain host

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[7] Economic efficiency losses imposed by the tax system arise where taxes (depending on their base) alter decisions over savings, investment, consumption, or work/employment, and in so doing, generate reductions in individual welfare in excess of the amount of tax revenue collected ('dead-weight' efficiency losses). With efficiency losses of a given tax tending to rise non-linearly with the effective tax rate, policy-makers are encouraged to rely on a mix of taxes, with moderate tax rates applied to tax bases broadly defined.

[8] The literature exploring efficiency considerations in the taxation of domestic investment continues to evolve (see Wilson (1999)). Under a basic tax competition model that ignores labour taxation, the geographic mobility of capital is predicted to result in tax rates on capital income that are inefficiently low from a public perspective. Extending the analysis to include the taxation of immobile labour finds that for a small capital-importing country facing a perfectly elastic supply of foreign capital (implying that the cost of capital is fixed, set in international capital markets) it is optimal to waive host country income tax on investment, with this tax being fully shifted onto labour. In this case, it is optimal for the host country to instead tax labour income directly, and avoid production efficiency losses that result from taxing capital income. Subsequent work finds that if economic profit cannot be fully taxed, then some host country taxation of inbound FDI by small capital importing countries is efficient. When introducing trade costs and business concentration economies, emphasized in the 'new economic geography' literature, certain results from neo-classical models carry over, while other predicted effects are qualified (see Baldwin et al. (2003)). Where capital is more mobile (with reduced trade costs), or more generally when business concentration forces decrease, the optimal tax rate for a host country declines (consistent with the basic tax competition model.) Furthermore, the impact on location choice of tax rate differences between two countries is predicted to differ across industries that differ in terms of the importance of business concentration benefits. A further insight is that tax competition effects may differ depending on whether foreign capital benefits or not from the provision of local public goods.

country characteristics (e.g. market size, transportation and communication networks) determine the scope for imposing tax on businesses, without encouraging capital migration.

Indeed, a central consideration for policy-makers in establishing a target tax burden on business is a careful assessment of the ability of the country to impose and collect tax on this base. In this context, a central issue in setting a tax burden on business is whether the host country offers attractive risk/return opportunities, taking into account framework conditions, market characteristics and location-specific profits (see below), independent of tax considerations. Governments are encouraged to give recognition to the reasonable expectations of taxpayers when designing or reforming the tax system, with businesses generally willing to accept a higher tax burden the more attractive are the risk/return opportunities in the host country.

Framework conditions
Important to potential investors are questions over costs and non-diversifiable risks associated with securing access to capital and profits, adjusting to macro-economic conditions, and complying with laws, regulations and administrative practices, including the following:

- How stable is the political system? How stable and accessible is the legal system protecting property rights including, in the foreign investor case, the right to withdraw capital and repatriate profits? Do capital controls exist?
- How stable is the monetary system and fiscal framework and what is the accumulated public debt? What are expectations over future inflation, interest and exchange rates?
- In what areas is public governance weak and where is corruption a problem?
- How significant are the costs and risks to business associated with the preceding considerations?

Market characteristics
Also centrally important to investors are considerations of output demand and factor supply:

- What is the domestic market size? How large is the domestic consumer market (number of households, average level and distribution of per capita income)? How large is the domestic producer market (number of firms, asset size, input requirements)? How large and accessible are markets in other (e.g. neighbouring) countries?
- What labour force skills are available in the host country and what employee benefits (e.g. social security) are provided by the state? What energy sources and raw materials are available in the host country? Are labour costs (wages plus mandatory employer social security contributions), energy costs, raw material costs high/low relative to competing jurisdictions?
- What is the state of the host country's infra-structure covering transportation services (airports, seaports, rail systems, roads), telecommunications (phone/fax/internet services), other services important to business? Are private costs of using/purchasing infra-structure services high/low relative to competing jurisdictions?

Prevalence of location-specific profits

Assessments by investors of the risk/return on investment in a host country would normally factor in framework conditions and market characteristics of the country (or a region of the country where market characteristics vary by region). In setting the tax burden on inbound investment, policy makers are encouraged to assess whether their host country offers attractive risk/return opportunities, taking into account framework conditions (e.g. political/monetary/fiscal stability; legal protection; public governance), market characteristics (market size, availability/cost of labour, energy, state of infrastructure), and the prevalence of location-specific profits.

In considering location choice, a central question is, how location-specific are potential profits for a given level of risk? For certain investments, profit from meeting market demand for a final product or undertaking production part of a value-added chain may vary significantly across alternative locations, and in certain cases may be location-specific – that is, may require investment (i.e. a physical presence) in a specific location. With location-specific profit, costs in accessing required factor inputs (e.g. labour, raw materials, energy) and/or costs in delivering outputs are generally significantly higher from other locations. In the case of privatizations, profits are generally time as well as location-specific. Other examples include the extraction of natural resources, and the provision of restaurant, hotel and certain other services. In such cases, if the anticipated risk-adjusted return on capital meets or surpasses a required 'hurdle' rate of return, investment can be expected.

Where profit is specific to a particular host country, tax comparisons across competing locations (states/countries) may not factor in, and the tax burden may be largely irrelevant to an investment decision. In principle, the tax burden on location-specific profit may be increased up to the point where economic profit is exhausted without discouraging investment. Thus, where an economy offers an abundant set of location-specific profits, policy makers may understandably resist pressures to adjust to a relatively low tax burden, to avoid tax revenue losses and windfall gains to investors and/or foreign treasuries. Reducing the effective host country tax rate to levels observed in certain competing countries, while possibly attracting geographically mobile capital, would give up tax revenues on business activities less sensitive to the setting of the host country tax rate.

In contrast are examples where costs in accessing factor inputs and delivering outputs are roughly the same across a large number of geographically disperse candidate host countries, implying that profit is not location-specific. Examples include investment in intra-group financial services and certain head-office functions. Attracting these generally non-capital intensive activities requires satisfactory framework conditions, but local market characteristics (e.g. market size) tend to be relatively unimportant. Other examples are the manufacturing of pharmaceuticals and computer chips, where input costs may be similar across many alternative host countries, and delivery costs to global markets are low relative to profit. In such cases, candidate host countries may be unable to impose a relatively high host country tax burden where competing jurisdictions offer a no/low tax environment.

In between these extremes are investments where profit is location-dependent, but not specific to one country (e.g. required rates of return may be realized in a number of neighbouring locations), and trade costs are important. A location offering relatively attractive host country advantages, in terms of relatively low input costs, or delivery costs, or taxes on profit, could be expected to be more successful in attracting FDI.

Relatively low input costs could be in relation to a large pool of suitably skilled labour. Relatively low delivery costs could be realized with a large domestic market, and/or well-developed road, airport or seaport system, giving relatively low cost reach to neighbouring countries with large markets. Where relative advantages are significant, they could give rise to location-dependent profits that could be taxed without discouraging investment.

The relative attractiveness of a given host country as a location for investment depends on the host country framework conditions and market characteristics, which in turn depend on past and current levels of public expenditures on programs in areas of critical importance to investors (e.g. education, infra-structure development). This link establishes the critical importance, in particular for developing countries, of collecting tax where possible on economic rents in order to finance public expenditures that eventually strengthen host country fundamentals, and attract FDI.

These generalisations, while possibly helpful in shaping views over appropriate host country tax policies, gloss-over practical assessment difficulties, and must be qualified on several counts. Under the simplified predictions remain questions over how to asses the influence on business profits of varying market characteristics in competing locations. Where on balance investment conditions in a particular location are more attractive than those elsewhere, how much higher may the host country tax burden be set relative to other countries without significantly impacting investment? And if a competing country lowers its tax rate, how much capital relocation can be expected, and at what rate and in which sectors? There also remains the question of whether the now common use by MNEs of tax haven finance/holding companies effectively eliminates the influence of home country tax rules (in dividend credit countries) on the overall tax burden on outbound FDI, so that only host country taxation matters.

What is the 'all-in' tax burden on business income that factors in not only statutory tax provisions, but also corporate tax-planning and compliance costs? How are these considerations being addressed by tax policy and tax administration?

Having established a target tax burden on business income, measurement of the actual tax burden is required in order to assess what possible adjustments to tax policy and/or expenditure programmes may be required. The statutory tax burden on domestic profits ought to be assessed using quantitative measures and qualitative information, taking into account main statutory provisions and the effects of commonly-employed corporate tax-planning strategies. Compliance costs from excessive complexity, non-transparency and unpredictability should also be factored in.

Assessment of host country tax burden

On the quantitative side, corporate marginal effective tax rates (METRs) and corporate average effective tax rates (AETRs) are commonly used to assess the net effect of (certain) main statutory provisions in determining effective tax rates by type of capital asset (machinery and equipment, buildings, inventories, intangibles), financing (debt, retained earnings, new equity) and by investor type (taxable resident, non-resident). Such measures may be finessed by factoring in effects of tax-planning strategies employed in the host country to strip out taxable profits (e.g. thin capitalisation, non-arm's length transfer prices) to tax havens.

An attraction of measuring corporate marginal and average effective tax rates is that they can be modelled with reference to statutory tax provisions alone, found in tax legislation and regulations (i.e. they do not require information on actual tax revenues

collected). However, as such summary measures cannot readily incorporate the effects of all relevant tax provisions bearing on the average host country tax burden, they need to be qualified with regard to such effects (e.g. the impact of rules governing the carry-forward of business losses).

Furthermore, where taxpayer-level information is available (i.e. taxpayer financial statements, tax returns), a stratified sample of corporations should be chosen and relevant micro-data examined in order to obtain measures of the tax burden on domestic firms, on an aggregate and disaggregate basis (profitable and taxable, profitable and non-taxable, non-profitable; small, medium and large with reference to total assets; main industry sector; region). As examined elsewhere, results based on micro-data provide a much stronger basis to analyze tax burdens across sectors and over time.[9]

Compliance costs should also be factored in, at least on a qualitative basis. Too often, policy makers assess a host country tax burden with reference to only the direct effects of statutory provisions. A more appropriate measure takes into account tax compliance costs, which in some cases may be quite significant, depending on the degree and sources of complexity, transparency and predictability.[10]

Tax burden linked to an excessively complex business tax system

In addressing today's complex business structures and transactions, a certain degree of complexity in the tax system is to be expected. However, where investors view a tax system (laws, regulations and/or administration) to be excessively complex relative to other tax systems, or relative to an alternative approach, the added expense to project costs incurred in understanding and complying with the tax system would tend to discourage investor interest.

Such a review would begin by identifying the various sources of complexity – including those linked directly to tax policy, those relating to mechanisms by which policy is implemented, and those linked to tax administration – and examining whether the degree of complexity is avoidable with consideration given to approaches adopted by other countries.

One area to consider is whether the structure of the depreciation system for tax purposes (number of classes of depreciable capital cost, assignment of depreciation methods) is consistent with international norms. If the depreciation system has been characterized frequently by business as overly complex, then serious consideration should be given to possible simplification.[11]

As an illustration of possible trade-offs when addressing complexity, consider integration of corporate and personal income taxation of equity income to reduce or

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[9] See for example OECD 2003, Using Micro-data to Assess Average Tax Rates, OECD Tax Policy Studies No. 8.

[10] In addressing this issue, one can measure for SMEs and MNEs, the average amount of professional time (of tax accountants, tax lawyers, tax administrators) per year required to comply with the tax code. This can be converted to an average annual compliance cost to business, with reference to the average hourly wage of a tax professional, and included in the calculation of total tax liability of a representative sample of firms.

[11] A related tax policy issue is whether depreciation rates adequately reflect true economic rates of depreciation of broad classes of depreciable property (serving as benchmark rates) and account for inflation.

eliminate double taxation of domestic profits. Where double taxation relief is desirable (e.g. creates investment (host country benefits) that more than outweighs tax revenues foregone), it is important for policy makers to recognize the advantages that a simple approach could bring. In this example a relevant trade-off could be between efficiency, calling for a variable imputation tax credit at the personal level that depends on the amount of corporate tax actually paid on distributed income, and simplicity, which may call for partial inclusion of dividend income, or a fixed dividend tax credit based on a notional or assumed level of corporate tax.

Tax burden linked to a non-transparent business tax system

Another important aspect of tax compliance costs concerns transparency. In considering this issue, it must first be recognized that even a relatively simple system may lack transparency, as for example where tax laws and terms are unclear, tax returns and information materials are difficult to obtain, and taxpayer compliance support is weak. As with complexity, a lack of transparency contributes to project costs. It also raises concerns of fairness, and may lead to suspicion that the tax system is tailored to the interests of a subset of taxpayers, including those earning higher incomes, able to afford professional tax advice and possibly benefiting from special tax treatment. Perceptions of unfairness challenge tax systems based on voluntary compliance, as they tend to encourage non-compliance and transition of business activity to the "underground economy", raising revenue concerns and concerns of the weakening of government performance more generally.

Policy makers are therefore encouraged to satisfy themselves that tax laws and regulations are drafted clearly and preferably by those trained in legal drafting of tax provisions. Tax returns, explanatory notes and information circulars should be readily available to taxpayers (e.g. electronically), and services should be available to provide advance rulings on the tax treatment of transactions where tax outcomes are unclear.

Another important "transparency" issue is whether business tax liability in certain cases is established at the discretion of tax authorities (e.g. through individual rulings, or informal dealings), rather than through uniform application of tax laws and regulations. Where administrative discretion is provided, the policy reason for providing this discretion should be questioned, as a key concern is whether administrative discretion contributes to or invites corrupt practices on the part of tax officials (e.g. the taking of bribes). Where it does, administrative discretion may contribute to investor uncertainty over final tax liability and the tax liability of other firms. Where corruption is a problem and administrative discretion contributes to project risk due to uncertainties over tax treatment, the potential benefits of such discretion (e.g. tighter control over tax relief) should be weighed against the various costs including those linked to reduced transparency.

Tax burden linked to an unpredictable business tax system

Non-transparency in the tax area contributes to investor difficulty in gauging with some degree of certainty the tax burden on returns to investment in a given host country. So too can frequent reforms of tax systems, even where they are relatively simple and transparent. While a certain degree of unpredictability may be associated with all tax systems, a system may be judged to be relatively or excessively unpredictable if the host country has a history of frequent and dramatic changes to important elements of the tax system, that is, elements bearing significantly on investment returns.

Relevant questions on this issue include: what elements of the tax system have contributed to unpredictability and how can these be best avoided? Is responsibility for tax legislation governing the taxation of business income assigned to a single ministry of the central government (e.g. Ministry of Finance), recognizing difficulties that arise where this is not the case? Are (all) income tax laws/regulations contained in a single body or act of legislation, recognizing difficulties that arise where this is not the case? Is a single ministry, department, or agency of central government responsible for the administration of corporate income tax and personal income tax (e.g. with local/regional offices)? If income tax legislation and administration are not centralised, what problems of co-ordination have arisen, what has been the impact on taxpayer tax compliance costs (in relation to complexity, predictability, transparency), and what reforms are desirable?

B. Prudent use of targeted tax incentives

Where the tax burden on business income differs by firm size, age of the business entity (new versus existing capital), ownership structure, industrial sector or location, can these differences be justified? Is the tax system neutral in its treatment of foreign and domestic investors?

Tax systems may purposefully impose a non-uniform effective tax rate on businesses, based on criteria such as the size of an enterprise (large versus small), whether the invested capital is 'new' or existing, its ownership structure (e.g. domestic versus foreign-owned), the type of business activity or its location. In some systems, certain firms may be specifically targeted to receive preferential tax treatment. Where tax relief is targeted, policy makers should examine the arguments in favour and against such preferential treatment, weigh up these arguments and be in a position to justify differential tax treatment. Where justifications are weak, first consideration should be given to a non-targeted approach, so as not to induce a misallocation of resources.

In addressing this issue, the analysis could include an assessment of the average effective tax rate (AETR) on profits of i) small and medium-sized enterprises (SMEs), ii) large enterprises majority-owned by residents, iii) large multinational enterprises (MNEs) controlled by foreign parent companies for different business activities, locations and ownership structures, taking into account main statutory tax provisions?[12] Such an approach could be used to inform an assessment of whether tax-driven variations in AETRs across businesses of different size, ownership structure, and industrial sector can be justified, taking into account unintended distortions and other costs that they create.[13]

[12] In modelling effective tax rates on SMEs, consideration should be given to enterprises structured in corporate and unincorporated form (information on the relative (asset) size of the incorporated versus unincorporated sector would indicate the relative importance of alternative measures). For incorporated firms (SMEs and possibly large resident-owned firms) with limited access to international capital markets, consideration should be given to average effective corporate tax income rates inclusive of corporate and personal income taxation to incorporate possible personal tax effects on the cost of funds. In modelling FDI, consideration should be given to inbound investment from several different countries. This could include a non-treaty case where a statutory (non-treaty) dividend withholding tax rate would apply, and where one could assume no home country taxation. In considering treaty cases, the sample should include a major capital exporting country operating a source-based system (dividend exemption), as well as one or more operating a residence-based tax system (dividend gross-up and credit).

[13] This concerns differences in effective tax rates that arise from the application of different tax rates and rules to similar transactions (i.e. it does not concern differences that arise from the application of similar rules to different transactions). For example, rates of capital depreciation, for tax purposes, typically

Have targeted tax incentives for investment created unintended tax-planning opportunities and distortions? Are these opportunities, distortions and other problems associated with targeted tax incentives evaluated and taken into account in assessing their cost-effectiveness?

Unfortunately, tax incentives are all too often viewed as a relatively easy "fix" by those working outside the tax area, and those with limited experience working in it. A tax incentive may be quickly incorporated into a budget announcement, and holds out the apparent advantage of not requiring a cash-equivalent outlay, in contrast with an infrastructure development, manpower training, or other programme introduced to foster investment. The reasoning goes as follows: by providing tax relief to new investment, a tax incentive will only reduce the amount of tax revenue raised on additional investment – revenue that would not have been raised anyway in the absence of the incentive.

However, this perception misses the fact that tax incentive relief, even when targeted at new investment, will always be sought by businesses outside the target group. Existing firms will attempt to characterize themselves as "new", and other similar tax-planning strategies can be expected that will deplete tax revenues from activities unrelated to any new investment attributable to the tax relief, with lost revenues often many multiples in excess of original projections. In contrast, direct cash grants, while raising possibly greater concerns over inviting corruption (unless significant administrative discretion is also involved in the granting of targeted tax incentives), may offer greater control over various types of abuse.

Tax holidays and partial profit exemptions, typically targeted at "new" companies, offer significant scope for tax relief unintended by the tax authorities. Other forms of targeted tax relief may also create unintended scope for tax planning, and result in revenue losses well in excess of levels originally anticipated (e.g. where the relief spills over to benefit non-targeted taxpayer groups). While notoriously difficult to predict, policy makers are encouraged to consult widely to sharpen estimates of the revenue losses from a given incentive.

Tax holidays and partial profit exemptions are typically targeted at "new" companies. However, it is hard for tax administrators to determine if a newly-established company is actually financed by new capital, or instead by capital already invested in the host country. In other words, much of the "new" capital may in fact be previously existing capital that has been re-characterised as new (e.g. through liquidation of an existing company, with the capital invested temporarily in an offshore holding company, then re-invested in the host country with the appearance of new investment by that offshore company).

Provisions providing for a partial or full profit exemption also open up transfer pricing opportunities to artificially shift taxable income of business entities in the host country that do not qualify for special tax relief to entities that do. Aggressive transfer pricing techniques essentially involve the use of non-arm's length prices on intra-group transactions, and non-arm's length interest rates on intra-group loans, to shift taxable

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differ by type of capital asset. This means that effective tax rates will differ across sectors to the extent that capital stocks of firms in one sector differ in composition from stocks of firms in another. Such differences may be viewed as structural, rather than tax driven. An example of the latter would be where the same type of asset is depreciated at a different rate depending on the sector. This concerns tax-driven differences of this sort.

income to low or no-taxed entities. The shifting of tax base in such cases is artificial in the sense that it takes underlying business activities as given, and simply manipulates prices to shift taxable income associated with these activities to obtain the most tax efficient outcome. As guarding against such abuse of the tax system is becoming increasingly difficult with increased trade in intangibles (for which an arm's length price is often difficult to fairly establish by tax authorities, due to limited or non-existent second markets to look to), so too is it becoming increasingly difficult to guard against excessive revenue losses stemming from incentives providing for a full or partial profit exemption.

It should also be pointed out that where a tax incentive is in place and previously unforeseen tax-planning opportunities become all too apparent, it is not without cost for the government to withdraw the incentive to protect the domestic tax base from further erosion. While cancelling incentive relief for future investment may be accepted by investors, cancelling relief tied to prior investment decisions – that may have been based on the expectation of tax incentives previously on offer – can carry a significant cost. In particular, policy credibility is seriously undermined, weakening the ability of government to influence investment behaviour in the future through policy adjustment. Given this, where tax incentive relief linked to investment expenditure (e.g. enhanced or accelerated depreciation) is cancelled, tax relief tied to prior investment generally should be respected (not withdrawn) – unless the costs are so exorbitant that respecting past commitments would be devastating to public finances.

To varying degrees depending partly on the instrument used, reduced host country taxation will provide tax relief in respect of investment that would have been undertaken in the absence of such relief – so-called *"windfall gains"* to investors and, in the case of FDI, foreign treasuries. Windfall gains arise even where tax relief is targeted at "incremental" investment in excess of some average of past investment. Avoiding windfall gains, however, generally comes at the cost of increased complexity.[14]

Within the context of a general policy goal to avoid windfall gains (and losses), *transitional considerations* related to the introduction and removal of tax incentives should be addressed. Where tax relief is provided, a general aim is to target tax relief to incremental investment, that is, investment that would not have occurred in the absence of the incentive. Conversely, where tax relief is withdrawn, it is important to attempt to ensure that past investments are not penalised.

Targeted tax incentives may create *unintended distortions* to the allocation of productive capital, and to corporate financing and repatriation decisions, implying welfare losses.[15] Accelerated depreciation rates, for example, may create welfare

[14] For example, avoiding windfall gains on accelerated depreciation requires that the balance of undepreciated capital cost, at the time of introduction of this incentive, be depreciated at pre-reform as opposed to accelerated rates to avoid tax relief in respect of pre-reform capital stocks. Windfall gains are inevitable in certain cases, depending on the mechanism used to deliver tax relief. For example, in general it is not practically possible to target a new reduced corporate tax rate to profits from new investment alone (i.e. not practically possible to ring-fence such profits, to the exclusion of profits from prior investment).

[15] This paragraph concerns unintended distortions, recognising that tax incentives generally are intended to influence or distort the allocation of capital away from patterns that would be observed in the absence

losses where they do not adequately reflect variations in true economic rates of depreciation across capital asset classes (serving as benchmark rates). Similarly, reinvestment allowances providing a tax deduction equal to some percentage of reinvested (pre-tax) profit would tend to discourage investment financed by new equity, and may raise the overall cost of funds, implying welfare losses.[16]

Unintended distortions may also be created where inter-actions between tax incentives and other provisions of the tax code (e.g. depreciation treatment, loss treatment) are not adequately addressed. Furthermore, policy-making, if not properly co-ordinated, may result in the "stacking" of multiple tax (and non-tax) incentives on offer by different Ministries, at the same level or by different levels of government (i.e. targeted at the same or similar business activities, assets, or regions), creating unintended distortions such as negative effective tax rates (overall tax subsidies) to investment.

Tax incentives, even those held out as simplifying measures, may also create *additional complexity* and add to compliance and tax administration costs. For example, some argue that tax holidays are a simple incentive to administer, as there is no need for corporations (or government) to worry about maintaining financial records to support tax returns over the holiday period. However, in order for firms to claim tax deductions (e.g. business loss carryovers) following the holiday period, a full record of revenues and costs over the holiday period would normally be required. Assembling and verifying this data post-holiday may be more difficult and time consuming than would be the case had the required financial records been maintained all along.

Tax incentives may also *encourage corruption* and aggravate concerns raised by poor public governance. When used, targeted tax incentives should be designed to be as automatic as possible in their application, to avoid the involvement of tax officials in the determination of the application or not of provisions to individual taxpayers. Also to be avoided are situations where tax officials undertaking audits have the power to withdraw tax incentive relief, without special safeguards against corrupt practices. Frameworks should be in place to discourage bribery of tax and customs officials in such cases.

Lastly, targeted tax incentives may be *inconsistent with international obligations* (e.g. national treatment obligations, State Aid Rules applicable for member countries of the European Union).

Where strong political pressure is felt for introducing tax incentive relief, despite analysis indicating limited investment response relative to the revenue losses (to existing qualifying and non-qualifying investors) and administrative costs entailed – implying failure to meet a cost-benefit test – policy makers should argue the case for exploring options to address the impediments to investment directly.

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of the incentive. Whether intended distortions created by tax incentive use are welfare improving depends on whether the incentive corrects a true market failure.

[16] In contrast, an enhanced investment allowance providing a deduction equal to some percentage of qualifying investment, providing relief regardless of the source of finance, would not raise the same problem.

If framework conditions and/or market characteristics of a host country are discouraging to investors, has the government evaluated the limitations of using tax policy alone to influence favourably investment decisions?

Policy-makers are encouraged to reflect on the often disappointing experience of economies that have attempted to rely on a low tax burden - typically targeted at foreign investment - to boost investment.[17] Where framework conditions or market characteristics are weak, first consideration should be given to addressing the sources of a weak investment environment. Realistic expectations should be made of how much additional investment a reduced tax burden would bring forth and the scale of tax-planning opportunities created. Where a low tax burden is to be achieved through the use of special tax incentives, evaluations of their potential to attract investment ought to take into consideration the unlikelihood of special tax relief offsetting non-tax impediments to investment, as well as the possibility that tax incentives themselves may discourage investment by contributing to project cost and risk and induce a misallocation of resources.

A corollary to this is that a host country with generally weak framework conditions and following a special tax incentive strategy may be giving up significant tax revenue collection on returns on investment projects in the host country undertaken for reasons unrelated to tax – revenues that could be used to help strengthen the enabling environment for investment.

A further issue concerns the method by which a low tax burden is achieved, and in particular, whether tax relief applies to returns on marginal or infra-marginal investment. To varying degrees, tax relief will result in windfall gains – that is, tax relief to investors (or increased revenues to foreign treasuries) that does not result in additional investment, but supports investment that would have gone ahead in the absence of that relief – even where such relief is specifically targeted at additional investment.

Consider for example incremental tax credits, where tax relief is tied to some percentage of current investment in excess of average annual investment in prior years. Even in such cases, some fraction of qualifying investment would be expected to occur in the absence of the credit. Windfall gains are more likely where flat credits are used (that provide tax relief equal to some percentage of current investment), chosen for simplicity or to avoid certain distortions with the incremental model. Windfall gains are even more likely for incentives that provide tax relief equal to some percentage of profit derived from new and existing capital. A tax exemption for a certain fraction of profit, or a reduced statutory corporate income tax rate, would be examples of relief in respect of returns on new and existing capital. As existing capital is already in place, relief granted in respect of such capital provides a pure windfall gain.[18]

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[17] Interviews with policy-makers in a number of countries in South East Europe, for example, carried out in 2000-2001 as part of an OECD study of tax effects on investment in the region, highlighted the disappointing response to tax incentives that resulted mainly in the erosion of host country tax bases.

[18] Where additional investment is constrained by cash flow, tax relief on profit derived from previous investment may encourage current investment by supplying a source of funds. However, where such financing constraints do not exit, tax relief on returns to installed capital (e.g. through a reduction in the statutory corporate tax rate) will provide a pure windfall gain.

Addressing main impediments to investment
When considering the use of targeted tax incentives to support investment, due attention should be paid to scope for addressing investment impediments directly. Attention to tackling real impediments unrelated to tax should be addressed prior to, or at a minimum parallel with, attempting a tax solution.

Where weak framework conditions (poor budget management, poor public governance, corrupt practices on the part of tax and customs officials) and/or high project costs (linked to poor infrastructure, high labour costs or other factor costs) are impeding to investment, certain public officials may be attracted to the option of recourse to tax incentives. In such cases, policy makers should be encouraged to consider what policy and administrative changes may be implemented to address investment impediments directly, beginning with areas where progress can be achieved quickly. Where policy adjustments require additional tax revenues, priority areas should be identified and revenues bases examined.

Broad-based tax relief and non-tax relief
When considering possible tax strategies to attract investment, consideration should be given to non-targeted relief measures to avoid the problems encountered with targeting. Such approaches could include a reduced statutory corporate tax rate applied to a broadly-defined corporate tax base (in order to avoid unintended consequences and revenue losses) as an alternative to a strategy of narrowing the tax base through a reliance on targeted tax incentives. Consideration should also be given to addressing possible impediments in the tax system owing to restrictive provisions (e.g. limited loss carry-forward rules), or provisions contributing to compliance costs.

Finally, it is important for tax officials to recall that financial assistance to business may be delivered outside the tax system. This more transparent mechanism may be more desirable, particularly where the tax administration system is relatively inexperienced or weak and open to corruption.

C. Determination of taxable business income

Are rules for the determination of taxable business income formulated with reference to a benchmark income tax structure? Are main tax base provisions generally consistent with international norms?
Where a host country's tax system includes an income or profit tax, investors generally expect rules governing the calculation of taxable business income that adequately reflect business costs, with main provisions (e.g. over loss carry-forward) that are not more onerous than those commonly found elsewhere. Investors also view negatively the double taxation of income within the corporate sector (and generally expect tax relief on inter-corporate dividends, particularly dividends within a related corporate group), and may have other expectations.

Tax officials of Governments wishing to retain and attract investment should be encouraged to consider the concerns of investors with respect to tax base rules, and to assess how best to address these, guided by the country's tax policy goals and objectives (e.g. equity, efficiency, simplicity, revenue). Where, for example, a general aim is to adhere to a broadly defined income tax tax-base, enabling a lower tax rate, requests for amendments would normally be assessed against this standard, with deviations from a benchmark requiring careful assessment and a balancing of considerations.

An illustrative list of possible investor concerns is raised by the following set of questions:

- Do tax depreciation methods and rates adequately reflect true economic rates of depreciation of broad classes of depreciable property (serving as benchmark rates) and account for inflation?
- Are possible time limits on the carrying forward (and possibly back) of business losses, to offset taxable income in future (prior) years, sufficiently generous/consistent with international norms? [The case for generous carry-forward is particularly strong where depreciation claims are mandatory, rather than discretionary. Also important to consider is the interaction between depreciation and loss carry-forward rules.]
- Are inter-corporate dividends (paid from one resident company to another) excluded from corporate taxable income to avoid double/multiple taxation? Are domestic dividends paid to resident individuals subject to classical treatment, or is integration relief provided in respect of corporate tax on distributed income (e.g. partial inclusion of dividend income, or provision of an imputation or dividend tax credit)? Is there evidence that such relief lowers the cost of funds for small and medium-sized companies, alleviates a possible tax impediment to profit distributions, and/or encourages total domestic savings? Where integration relief is given in respect of distributed profit (dividends), is similar relief provided in respect of retained profit (e.g. partial inclusion of capital gains)?
- Where capital gains are subject to tax on a realisation basis, are taxpayers allowed a deduction for capital losses (e.g. against corresponding taxable capital gains and possibly other investment income)? Do "recapture" rules apply to draw into taxable income excess tax depreciation claims on depreciable property?
- Is the tax treatment of wage income, as well as interest income, dividends and capital gains (realised at the personal or corporate level) designed to minimize incentives to i) characterize one form of income as another, and ii) choose one organizational form over another (incorporated versus unincorporated) for purely tax reasons? In other words, are efforts made to minimize tax arbitrage possibilities?

At the same time as addressing investors' concerns, policy makers should be encouraged to:

- Limit windfall gains (i.e. the provision of tax relief that does not achieve desired goals) to investors and, in the case of inbound direct investment, foreign treasuries.
- Minimize scope for the exploitation by business of the tax system (e.g. through tax arbitrage).
- Ensure single taxation of income sourced in the host country (e.g. through enforcement of domestic tax rules, and negotiation of tax treaties).
- Keep tax administration costs in check.

D. Tax expenditure reporting, management and evaluation

Are tax expenditure accounts prepared and reported? Is the framework for authorizing and managing tax expenditures clear and are sunset clauses used to ensure tax incentive evaluation?

The maintenance of annual tax expenditure accounts, indicating the rationale for tax expenditures and providing estimates of total revenues foregone by targeted tax incentives and other departures from a benchmark tax system should be a feature of fiscal policy in countries where attracting investors and addressing public governance issues are high on the policy agenda. Such accounts should be subject to public scrutiny and be considered alongside direct expenditure accounts, so that policy-makers, government and the public are able to fully and properly assess budget allocations.

The framework for authorizing and managing tax expenditures should be clear. This requires the formulation of rules setting out which ministries and departments have authority to provide special tax relief, and clearly defined limits to administrative discretion in deciding such relief. Preferably, legal authority for setting tax liabilities and providing tax relief provisions should rest with tax authorities (that is, the main ministries/departments responsible for tax policy and administration).

Tax expenditure assessment generally involves the Ministry of Finance or Tax Administration Department maintaining a micro-simulation model to estimate tax revenue and income distribution effects of proposed and actual tax reforms, drawing on a representative sample of personal and corporate income tax returns and other data sources. Assessing foregone revenues should take into account, to the extent predicted, likely tax planning responses. Such analyses should be based on a variety of inputs, including consultations with business and findings of other countries that have tested similar tax incentives (taking into account different host country conditions in shaping outcomes).

For proper management of public finances, tax incentives targeted to boost investment should be assessed in advance and, if introduced, evaluated on a periodic basis to gauge whether such measures continue to pass a cost-benefit test. To enable a proper evaluation and assessment, the specific goals of a given tax incentive need to be made explicit at the outset. Further, if tax incentive legislation is introduced, "sunset clauses" calling for the expiry of the incentive (e.g. 3 years after implementation) should be included to provide an opportunity to assess whether the availability of the incentive should be extended or not.

E. International co-operation

Are tax policy and administration officials working with counterparts in other countries to provide a wide tax treaty network to avoid double taxation, secure treaty-reduced non-resident withholding tax rates, provide investors with greater certainty over tax treatment, and enable exchange information on tax matters to counter tax avoidance and evasion?

A wide (broad-based) tax treaty network is helpful in several ways to countries seeking to raise and attract investment. First and foremost, tax treaties operate to avoid double taxation of cross border returns – with the prospect of double and possibly multiple taxation of returns being a major concern in the cross-border investment context. In the absence of a tax treaty between a host and home country, double taxation of returns will normally arise where the two countries treat a given return differently. For example, countries may take different views on the source or origin of income, and/or the type of income paid (e.g. interest versus dividends), with different characterizations triggering different tax treatment. Tax treaties operate to avoid these different characterizations and thereby minimize the scope for double taxation, thereby reducing project costs (with tax viewed as a business cost).

Tax treaties also stipulate lower non-resident withholding tax rates on dividends, interest and royalties. Indeed, treaty negotiated rates are often significantly lower than statutory withholding tax rates that would otherwise apply. This aspect of tax treaties also serves to lower project costs.

Tax treaties, by providing greater transparency over the tax treatment of cross-border investment, by enabling a framework for dispute resolution, and by securing reduced non-resident withholding tax rates also help reduce investor uncertainty over tax treatment. Indeed, certain articles of tax treaties are specifically aimed at establishing procedures (e.g. mutual agreement procedures (MAPs)) to help resolve disputes over the allocation of taxing rights between host and home countries. As tax treaties tend to be renegotiated infrequently, they also provide investors with greater certainty over applicable non-resident withholding tax rates on future returns on investment, with treaty rates overriding host country statutory withholding tax rates which may be changed at the host country's discretion. By providing greater certainty over tax treatment, a wide tax treaty network therefore tends to make countries more attractive as locations for business operations, as well as places from which to conduct global business operations, by lowering project risks, in addition to lowering projects costs.

At the same time, tax treaties provide a framework to enable exchange of information amongst tax authorities to address aggressive forms of tax-planning (e.g. involving the artificial shifting of taxable profits to tax haven finance affiliates through the use of special corporate structures and financing and repatriation strategies) and curb tax avoidance and evasion.[19]

REFERENCES

Baldwin, R. et al. (2003), Economic Geography and Public Policy, Princeton: Princeton University Press.

Clark, W.S. (2000), Tax Incentives for Foreign Direct Investment: Empirical Evidence on Effects and Alternative Policy Options. *Canadian Tax Journal* 48, 1139-1180.

Daniel, J. et al (2006), Fiscal Adjustment for Stability and Growth, *IMF Pamphlet Series* No.55, Washington: International Monetary Fund.

Devereux, M.P. and R. Griffith (2003), Evaluating Tax Policy for Location Decisions. *International Tax and Public Finance* 10, 107-126.

OECD (2000), Tax Burdens: Alternative Measures. *OECD Tax Policy Studies*, No.2.

OECD (2001a), Corporate Tax Incentives for Foreign Direct Investment. *OECD Tax Policy Studies*, No.4.

OECD (2001b), Recommendation of the Council on the Use of the OECD Model Memorandum of Understanding on Automatic Exchange of Information for Tax Purposes.

[19] The term 'tax avoidance' is used here to mean tax-planning that while possibly within the letter of the law (unlike tax evasion, including the non-reporting of taxable income) is contrary to the spirit or intent of the law. Thus 'tax avoidance' would not include tax-planning aimed at mitigating tax paid, anticipated by tax authorities drafting tax law.

OECD (2001c), Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations.

OECD (2002), Agreement on Exchange of Information on Tax Matters.

OECD (2003a), Tax Policy Assessment and Design in Support of Direct Investment – A Study of Countries in South East Europe.

OECD (2003b), A Survey on the Role of Taxation in Foreign Direct Investment in South East Europe.

OECD (2003c), Using Micro-data to Assess Average Tax Rates, *OECD Tax Policy Studies* No. 8.

OECD (2005), Model Tax Convention on Income and on Capital.

OECD (2006), Policy Framework for Investment – A Review of Good Practices.

Wilson, J. (1999), Theories of Tax Competition. *National Tax Journal* Vol. 2, 269-304.