

FOREIGN DIRECT INVESTMENT AND TAX STRUCTURE IN COLOMBIA

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I. INTRODUCTION

As the globalization of the world economy proceeds apace, Colombia — like all developing and developed countries — must cope with an increasingly competitive international economic environment. This environment is characterized by increasing international mobility of tangible and intangible capital and, to a lesser extent, labor (especially skilled labor), as well as more vigorous competition in international markets for tradable goods and services. Increasing globalization implies that competitive interactions with the other economies of the world will play an ever more important role in determining the prospects for future economic growth in Colombia and the resulting changes in the real incomes of its citizens. Although there are many forms such international competition may take, this report stresses the effects of competition for mobile capital, especially in the form of tax provisions designed to attract internationally mobile capital to Colombia — and thus away from other neighboring or distant countries. The need to compete for highly mobile international capital is an essential component of the fiscal landscape in all countries in today's global economy, especially those which, like Colombia, depend on foreign direct investment (FDI) by the world's multinational corporations to help stimulate economic growth and promote technological progress. Colombia is likely to succeed in this competitive environment only if all of its policies — including its tax system¹ — are conducive to attracting and retaining capital investments by foreign multinationals.

This paper focuses on the effects of the tax system in Colombia on FDI. However, tax policy is far from the only factor affecting the foreign direct investment decisions of multinational corporations. Accordingly, before proceeding to a detailed analysis of tax structure and FDI, it will be useful to discuss several of these alternative factors.

Many other potential determinants of FDI have been examined in the literature and taxes are in fact typically not viewed as being among the most important of these factors. For example, Wheeler and Mody (1992) construct an empirical model of the FDI decision and conclude that the most important determinants of decisions regarding the location and level of FDI are labor costs, market size, quality of infrastructure, and the potential for agglomeration economies (modeled as the degree of industrialization and the existing level of FDI, which also capture potential supplies of specialized inputs). By comparison, their results suggest that taxes are of significantly less importance. Also falling in the latter category are a wide variety of other factors, such as political stability, extent of corruption, quality of the legal system, extent of bureaucracy, expatriate living conditions, attitudes toward FDI, expropriation risk, price controls, limits on repatriations, local content requirements, and ease of currency convertibility. (Of course, some of these factors may be particularly important in a given country, even if they are relatively unimportant on average; for example, the issues of political stability and the risk of terrorism (and the general expatriate climate) are likely to have relatively important effects on FDI in Colombia.) Wheeler and Mody suggest that tax factors have a relatively small impact on FDI decisions because multinational corporations can reduce the impact of high taxes through transfer pricing and because high host country taxes can be credited against home country tax

¹ See Echavarría and Zodrow (2002, Annex A) for a description of the current tax system which focuses on the taxation of businesses in Colombia.

liability in many cases.² Similarly, Markusen (1995, p.171) concludes that “most firms first choose their production locations, and then instruct their tax departments to minimize taxes.”

Similar results have been obtained in analyses of the determinants of FDI in Colombia and in the rest of Latin America. Shatz and Venables (2000) find that the most important determinants of FDI are distance from primary international markets and the size of the domestic market. In an analysis of FDI in the Andean countries, Shatz (2001) finds that: infrastructure, international trade agreements, port facilities, and flexible and simple import/export regulations are also important factors.³ In a case study, Esquivel and Larrain (2001) find that the critical factors in Intel’s decision to invest in Costa Rica were the education of the population, good government, the effectiveness of the legal system, and the fiscal advantages of the tax-free processing zones. Intel did not receive any special subsidies, other than those available to any foreign firm deciding to invest in Costa Rica. Esquivel and Larrain (2001) also note that in general the factors that affect FDI include size, access to the ocean, education, an open economy, regulations and law and order, but do not include fiscal variables.⁴ Vial (2001) also argues that tax policies do not seem to play a decisive role in decisions regarding FDI, although he notes that they are often cited as an important factor.

Table 1 presents the results of a survey, conducted by Fedesarrollo in September 1999, of 101 manufacturing firms with FDI in Colombia.⁵ The survey asked business managers to rank the three most important factors influencing their decisions to maintain or expand their businesses in Colombia. The most important factors are clearly law and order and macroeconomic stability. Tax stability appears as the most important second choice, and in particular is more important than tax incentives for FDI.⁶

Table 1. Main Factors in Determining the Decision to Stay or Expand FDI in Colombia (Ranked 1 to 3)

² These issues will be discussed at length below.

³ See also Steiner & Salazar (2001).

⁴ The survey also found that the main factors deterring investment were the relatively small size of the economy, the lack of a good energy generation and distribution system, and poor public infrastructure.

⁵ These 101 firms account for roughly 40% of the output of all firms with some FDI.

⁶ See Esquivel and Larrain (2001) for a description of the tax incentives for FDI given by countries in Latin America and in other regions.

	1°	2°	3°
Law and order	39.1	15.1	12.0
Macroeconomic Stability	34.8	17.4	16.9
Other	6.5	1.2	2.4
Better "microeconomic" conditions (labor cost, cheap raw materials etc)	5.4	8.1	14.5
Tax incentives to FDI	4.3	4.7	8.4
Andean integration	4.3	7.0	12.0
Clear and simple domestic legislation	2.2	7.0	9.6
Tax stability	1.1	19.8	6.0
Commercial integration with USA	1.1	3.5	2.4
Integration with Europe	1.1	1.2	1.2
Hemispheric FTAA	0.0	2.3	2.4
Export incentives	0.0	3.5	7.2
Domestic infrastructure	0.0	9.3	4.8
TOTAL	100.0	100.0	100.0

Source: Fedesarrollo, 1999; survey of 101 manufactured firms

Additional details on the survey results are provided in Table 2. The most important elements of macroeconomic stability are high and sustained economic growth, low interest rates and a low fiscal deficit. The most important component of tax stability is stability of income tax rates.⁷ On the general topic of taxes, lower income taxes and lower VAT rates are desirable, although lower income and consumption taxes are also less important than more stable taxes.

Table 2. Main Factors (Details) in Determining the Decision to Stay or Expand FDI in Colombia (Ranked 1 to 3)

⁷ Labor costs and domestic transport costs are the crucial "microeconomic variables", and high *parafiscales* and the availability of qualified labor are the crucial variables related to "labor". Multinationals are also attracted by more flexible exchange conversion norms and stronger intellectual property rights.

	1°	2°	3°
a. Macroeconomics			
High and sustained economic growth	53.8	17.4	15.3
Monetary policies aiming to reduce interest rates	18.3	26.1	20.0
Fiscal deficit close to zero	14.0	20.7	21.2
Exchange rate policies inducing real devaluation	7.5	8.7	10.6
Exchange rate policies inducing real revaluation	4.3	4.3	3.5
Low (one digit) inflation rates	2.2	20.7	27.1
Other	0.0	2.2	2.4
TOTAL	100.0	100.0	100.0
b. Microeconomics			
Labor costs	52.9	21.4	25.0
Domestic transport cost	28.7	35.7	32.9
Low price of public services	14.9	41.7	40.8
Other	3.4	1.2	1.3
TOTAL	100.0	100.0	100.0
c. Labor			
Lower "para-fiscales" (SENA, ICBF, cajas)	36.7	19.5	19.3
Availability of qualified labor	32.2	8.0	8.4
Flexible temporal labor contracts	16.7	28.7	30.1
Lower firing costs	11.1	18.4	14.5
Lower costs for extra time and work on sundays	2.2	25.3	27.7
Other	1.1	0.0	0.0
TOTAL	100.0	100.0	100.0
d. Norms			
More flexible exchange conversion norms	53.8	28.6	17.4
Stronger intelectual property rights	28.6	20.8	43.5
A more flexible environmental legislation	9.9	49.4	37.7
Other	7.7	1.3	1.4
TOTAL	100.0	100.0	100.0
e. Taxes			
Lower income taxes	64.1	18.7	12.8
Lower VAT taxes	18.5	29.7	20.9
Lower "transfer" (remesas) taxes	7.6	22.0	31.4
Lower local taxes	7.6	28.6	32.6
Other	2.2	1.1	2.3
TOTAL	100.0	100.0	100.0
f. Stability of the law			
stability on income tax rates	46.6	18.8	18.2
transition periods before the new law is adopted	21.6	22.4	19.5
stability in tax bases	14.8	32.9	19.5
more analysis before changes introduced	9.1	15.3	28.6
agreements firm-government on transfer prices	8.0	10.6	14.3

Source: Fedesarrollo, 1999; survey of 101 manufactured firms

In addition, the survey found that (1) most subsidiaries were almost totally foreign owned (foreign capital controlled 75%-100% of the firm in 70% of the cases), (2) most of the multinationals surveyed named Colombia as their main investment country in Latin America, and (3) most multinationals were primarily interested in the Colombian market.⁸ Finally, almost

⁸ However the importance of the local market is declining over time, as the size of the domestic market was the critical factor in determining the location of FDI for 71% of the firms in 1990-95, 64% in 1996-99, and 59% in 2000-2005.

half of the exports of the sample firms went to parent firms in other countries, primarily in Venezuela and Ecuador.⁹

Turning next to similar analyses of other Latin American countries, Steiner and Salazar (2001) compare the investment environment in Colombia with those in the other Andean countries and in the developed countries. They focus on five areas: institutions, regulations, infrastructure and transport, labor markets, and taxes, exchange rates and commercial policies. Colombia does poorly in the area of institutions (security, corruption, justice and public sector efficiency), both in comparison to other countries in the Andean region and to the developed countries. It is “average” in the area of regulation, and ranks highly in infrastructure and transport (energy, telecommunications, etc). Colombia gets mixed results in the area of labor markets. Positive factors are average wages and the qualifications of the labor force (mainly the quality of executives), but labor legislation (firing costs, the “parafiscales” (payroll taxes used to finance earmarked social services) and the costs of overtime) are negative factors. Most importantly for this study, Colombia does poorly in the area of taxes, primarily with respect to income taxes and local taxes (not the VAT), both in comparison to the Andean countries and (usually) when compared to the developed countries. In addition, Steiner and Salazar (2001) note that multinationals are very concerned with tax stability in Colombia, given the eight major tax reforms enacted between 1970-2001; they recommend that Colombia adopt an efficient and well-designed tax structure and then avoid constant tax changes.^{10 11 12}

Another important aspect of international competitiveness that lies outside the tax system is the regulatory framework facing business, especially in terms of the difficulty of establishing a new business. This issue is addressed by Djanokov, et al. (2000), who perform a comparative analysis of the difficulty of starting a business in 75 countries, considering the number of steps and the total number of days involved. Their main results are summarized in

⁹ These results generally confirm earlier surveys conducted in Colombia by Fedesarrollo (1994), Fedesarrollo-Coinvertir (1998), and Coinvertir-DNP (2000). In addition, according to the Fedesarrollo-Coinvertir (1998) survey, lack of security and poor public administration (too much red tape and corruption) are also important factors discouraging FDI.

¹⁰ This recommendation is echoed by Villamizar (2002).

¹¹ Note that under current law Colombia has a special regime designed to provide businesses with tax stability (*Regimen Especial de Estabilidad Tributaria*) under Law 223 of 1995. Firms subject to this regime pay a 2% surtax on their income tax, but are guaranteed constant tax rates for the following ten years. However, this legislation has had a minimal impact, because firms consider the surtax too costly. Similar tax stability regimes are in effect in Peru, Brazil and Mexico and could be analyzed to determine their effectiveness. However, it is clear that maintaining a well-designed and stable tax system is far preferable to special schemes designed to introduce some stability to an otherwise constantly changing tax system

¹² Note that international tax agreements provide some additional tax stability. Colombia has signed eight agreements designed to eliminate double taxation in the area of air and ocean transport (with the US, Argentina, Germany, Brazil, Chile, France, Italy and Venezuela), as well as agreements with the Andean countries to avoid double taxation of FDI. Colombia is also negotiating bilateral treatments to avoid double taxation with other countries: the United Kingdom, Canada, France, Mexico, Korea, Israel, Sweden, Russia, South Africa, Thailand, Ukraine, Cyprus, Spain, Belgium, Lithuania, the Benelux countries and Trinidad and Tobago. Colombia has also entered into bilateral investment agreements (BITS) with Chile, Cuba, Spain, Peru and the United Kingdom (see Parra, Rodriguez and Cavalier, 2002), and has signed the following international agreements on investment protection: Overseas Private Investment Corporation, OPIC, 1985; Multilateral Investment Guarantee Agency, MIGA, 1988; and the International Center for the Settlement of Investment Disputes, ICSID (CIADI).

Table 3 for several different regions and for Colombia. The number of procedures required to create a business is highest in Latin America (13), the ex-socialist countries (12) and Africa (11), and is much lower in the developed countries (8) and in the US (4). The number of days required to establish a business is also highest in Latin America (93) in comparison to the developed countries (53) and the US (7). Note that the number of procedures in Colombia is greater than the (already relatively high) Latin America country average, although the amount of time involved and the total costs are lower than the Latin American average.¹³ These figures strongly suggest that startup firms face a severe regulatory burden in Colombia, and that one way to encourage business formations, beyond reforming the tax structure, is to significantly simplify the regulatory environment facing business startups.

Table 3. Procedures, Time and Costs Involved in Creating a Business in Different Countries

Region (averages)	Number of procedures						Time (days)	Cost	GDP per capita
	Total	Sa Étýand Health	Environment	Taxes	Labor	Screening			
Latin America	13	1	1	2	3	7	93	0.47	4,049
Ex-Socialist	12	1	0	2	1	8	57	0.26	2,702
Africa	11	1	0	2	2	6	68	0.72	814
Asia	9	1	0	1	1	5	59	0.14	9,123
Developed	8	0	0	1	1	5	53	0.13	23,188
USA	4	0	0	1	0	3	7	0.01	29,231
Colombia	17	3	1	1	2	10	55	0.12	2,391

Source: Djankov et al (2000) and author's calculations

This discussion makes clear that many factors other than the tax system affect the level of FDI in Colombia, and that simplification of the regulatory regime may in particular be effective in facilitating FDI. Nevertheless, these results should not be interpreted as implying that Colombia should ignore the effects of its tax system as it attempts to increase its share of multinational FDI. A considerable amount of recent empirical evidence (reviewed below) suggests strongly that taxes do matter at the margin for decisions regarding FDI — even if other factors are generally more important. Moreover, tax policy is under the control of the government in both the short and long runs, while the ability of the government to affect many of the other factors cited above is small in the short run and may be quite limited in the long run as well. In addition, a well-designed tax structure will not only affect FDI, but can have a positive effect on domestic investment as well. Accordingly, reforming the tax system to make it more conducive to investment should be a critical element of any plan to increase FDI in Colombia.¹⁴

¹³ For a detailed description of the steps involved in the creation of a firm in Colombia see Villamizar (2002).

¹⁴ This discussion also suggests, as will be discussed further below, that the way in which tax revenues are used is critical to their effect on FDI. In particular, taxes that provide revenues that are used to improve the investment climate in any of the dimensions described above are less likely to have negative effects on FDI and indeed may have a stimulative effect on FDI.

This paper focuses on such issues, in particular the difficult problem of the appropriate design of tax structure in Colombia in the face of an increasingly competitive international market for investment capital. The analysis will examine the design of tax policies toward foreign direct investment (FDI) in Colombia, focusing on potential reforms of the corporate income tax.¹⁵ The paper is organized as follows. The following section provides an overview of the characteristics of FDI in Colombia, including the patterns of FDI flows over time and across business sectors as well as the characteristics of multinationals in comparison to purely domestic firms. Sections III and IV consider the economic theory of the taxation of FDI. Section III begins with a benchmark theoretical result which shows that, under the appropriate circumstances, a small open economy like that of Colombia should not utilize source-based taxes on capital income (including the corporate income tax). The analysis then discusses several extensions of the basic model underlying this result which reinforce its basic conclusion. Of course, few countries have followed the policy prescription of setting their source-based tax rates on capital income at or near zero. Accordingly, Section IV discusses a wide variety of counter-arguments to the benchmark “zero tax” result, each of which supports the application of a source-based tax to capital income,¹⁶ in some cases at rates as high as those that are applied to labor income under a progressive income tax. This rather pronounced theoretical ambiguity suggests that the determination of the most appropriate tax policy toward FDI is an inherently difficult issue, with the appropriate policies varying across countries depending on their individual circumstances. Accordingly, the Section V examines the empirical evidence on the relative importance of these various considerations, considering both the academic literature on the general effects of taxation on FDI as well as the available empirical evidence that is specific to Colombia. The final section offers some specific proposals for reform of the existing tax system in light of increasing globalization and international tax competition.

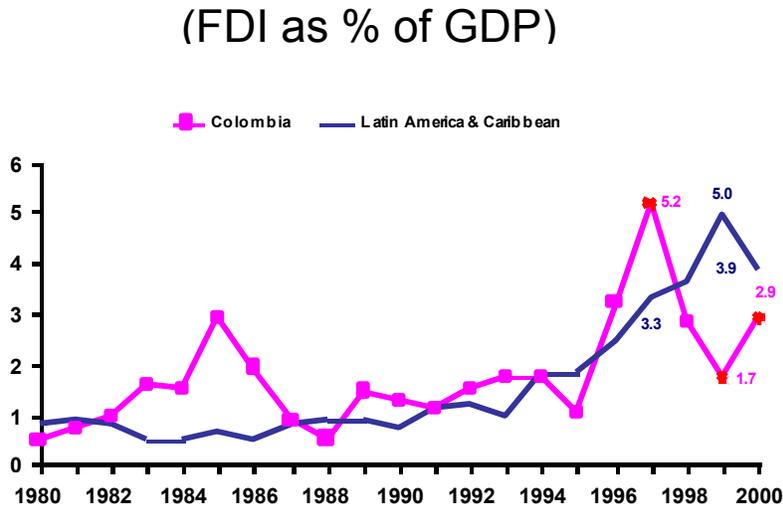
II. CHARACTERISTICS OF FOREIGN DIRECT INVESTMENT IN COLOMBIA

Foreign direct investment is an important component of total investment in Colombia, but it is a less significant factor than in those neighboring Latin American countries that have been more successful in attracting FDI. Figure 1 shows the evolution of FDI flows to Colombia and to all of Latin America and the Caribbean (including Colombia), relative to both GDP and total investment. FDI relative to GDP is currently less important in Colombia than in Latin America (2.9% vs. 3.9%) but comprises a larger fraction of total investment (23.9% vs. 19.1%), reflecting the fact that total investment is currently relatively low in Colombia. FDI in Colombia was relatively stagnant during 1990-94, increased rapidly in 1994-97, and then decreased sharply until experiencing a sizable rebound in 2000. The large upsurge of 1996-1997 is attributable primarily to privatization in the energy sector and the purchase of several Colombian financial institutions by Spanish and US banks.

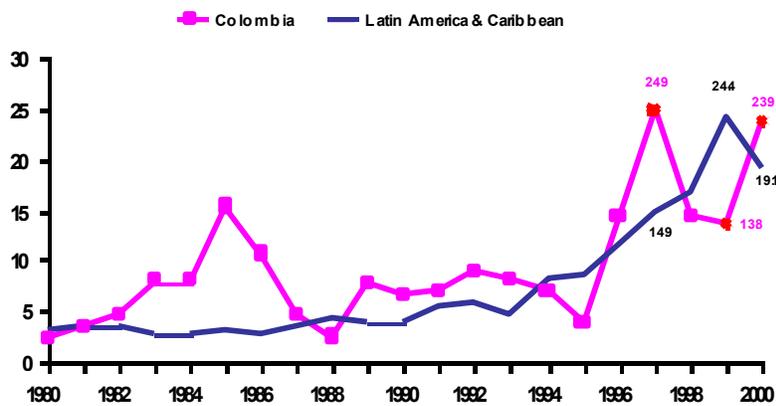
¹⁵ For an overview of the current tax system in Colombia that focuses on the corporate income tax, see Echavarría and Zodrow (2002, Annex A).

¹⁶ For the balance of the analysis, this source-based tax will be assumed to be the business income tax, perhaps supplemented by withholding taxes on dividends and/or interest paid to the parent company.

Figure 1. FDI flows to Colombia and to Latin America and the Caribbean



(FDI as % of gross investment)



Source: World Bank, World Development Indicators

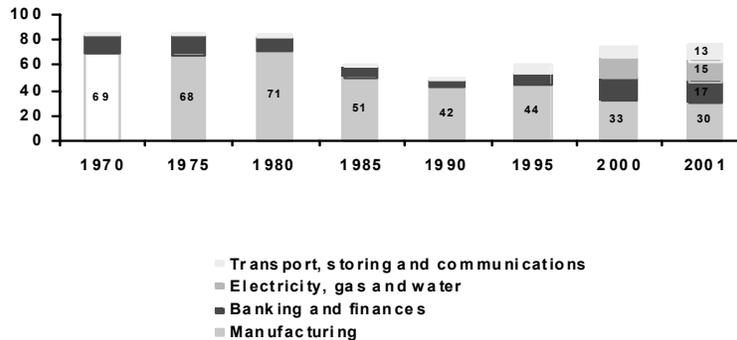
FDI in Colombia is distributed across several major economic sectors. Figure 2 provides the percentage of FDI in each of the four sectors in which FDI is most important in Colombia. It shows that FDI is still primarily concentrated in manufacturing, although the

fraction of FDI in total manufacturing investment has declined significantly, from nearly 70% in 1970 to 30% in 2001. FDI is also important in the financial sector (17% in 2001), the electricity, gas and water sector (15%), and the transport and communications sector (13%).¹⁷ FDI started becoming important in transport and communications in 1995, and in electricity, gas and water in 2000, due primarily to privatization initiatives in these sectors. Figure 2 also shows the percentages of total FDI in all other sectors, including the mining sector, which consists primarily of oil production. This figure illustrates the declining importance of FDI in the mining sector, from average levels of 35% of total FDI in 1985-95 to just 12% in 2001, despite important FDI flows to coal mining (Intercor and ZCN) and nickel mining (Cerro Matoso). FDI in retail commerce is still relatively small, but recent foreign investments in the main supermarkets (Makro, Carulla-Vivero and Carrefour) have been an important component of overall FDI.

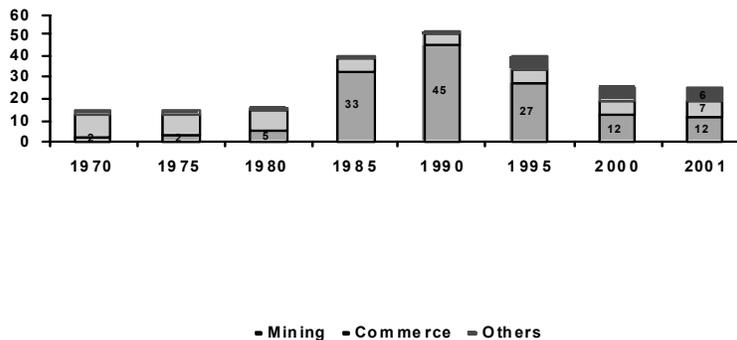
Figure 2. FDI in Colombia by Sector, 1970-2001

¹⁷ FDI was especially important in telecommunications in 2001 with the entrance of Bellsouth and Comcel, and the purchase of Milenimu by AT&T.

Main four sectors in 2001



All other sectors



Echavarría and Zodrow (2002, Annex B) provide an empirical analysis of the ways in which the multinationals that invest in Colombia differ from purely domestic firms. Using a sample of 9451 listed firms registered to the *Superintendencia de Sociedades* and the *Superintendencia de Valores* in 2000, they conduct a regression analysis that identifies the differences in the characteristics of firms with and without FDI, controlling for variations in business sector, department, and size of firm. Echavarría and Zodrow show that multinational firms typically (1) are much larger than domestic firms (except in the size of their labor forces), especially in term of total assets (70-80% larger) and total plant, machinery and equipment (30-40% larger), (2) are more capital intensive, with the ratios of plant and machinery to employment, sales to employment, and assets to employment typically 40-80% larger than for domestic firms, (3) export 70-80% less (as a fraction of total sales) than local firms a result consistent with a multinational focus on the local market), and (4) have a labor force that has a larger share of executives. However, wages paid by multinationals, even to executives, are similar to those paid by wholly domestic firms, and there are no important differences across multinational and domestic firms in the importance of imported raw materials, the fraction of financial obligations in dollars, profitability, or in the average year of creation.

Like other countries in Latin America and around the world, Colombia has experienced a decline in FDI during the recent economic downturn. Fortunately, this decline in FDI has been relatively modest. For example, UNCTAD (2002) reports that in 2000-2001 FDI in nominal dollars decreased by almost 60% in the United States and Europe, by 71% in Argentina, by 31% in Brazil and by 24% in Venezuela; the comparable figure is only 15 percent in Colombia. Nevertheless, there is considerable potential for increasing the level of FDI in Colombia, as FDI as a percentage of GDP (2.9%) is considerably less than the levels observed in those countries in the region that have been relatively successful in attracting FDI. For example, FDI is 10.6% of GDP in Nicaragua, 8.9% in Bolivia, 6.1% in Panama, 5.5% in Brazil, and 5.2% in Ecuador and Chile. Since recent evidence on FDI in Latin America is consistent with the consensus view that FDI has a significant positive impact on host economies,¹⁸ it is important that this potential be realized. This in turn implies that the tax system should be structured to minimize the disincentives to FDI as much as possible. We turn next to theoretical discussions of the appropriate tax treatment of FDI.

III. THE CASE FOR NO SOURCE-BASED TAXATION OF FDI

Recent years have seen an explosion of research on international taxation issues. This section and Section IV provide a brief overview of this literature, focusing on its implications for how Colombia should structure its business taxes if it is attempting to attract increased FDI. The analysis draws often on the excellent recent survey by Gordon and Hines (2002).¹⁹

III.1 THE “SMALL OPEN ECONOMY” ARGUMENT

To a first approximation, Colombia can be characterized as a small open economy. That is, Colombia is not large enough in the international capital market to appreciably affect the world interest rate, nor is it large enough in most of the international markets for its tradable goods to affect their world prices. Under these circumstances, economic theory provides a perhaps surprising prescription for tax policy toward foreign direct investment. Specifically, a now standard result argues that small open economies should not impose any source-based tax whatsoever on foreign direct investment (Gordon, 1986; Slemrod, 1988; Razin and Sadka, 1991).²⁰ The rationale underlying this argument is straightforward. Since international capital is by assumption perfectly mobile in the long run, the owners of capital within a small open economy will not bear the burden of any business tax imposed by its government. Instead,

¹⁸ The literature on the effects of FDI in the area finds numerous positive effects of FDI, including important complementarities in production, increases in productivity, transfers of new technologies and higher wages. For example, Borensztein, et al. (1999) find important complementarities between FDI and the level of human capital accumulation. Aitken, Harrison and Lipsey (1995) find a positive effect of FDI on wages, and Aitken, Hanson, and Harrison (1997) find evidence of spillovers of FDI on export activity in Mexico. Echavarría (2002) shows that firms with FDI adopt new technologies more quickly than local competitors.

¹⁹ See also Gresik (2001) and Ballard (2002).

²⁰ A source-based tax is assessed on the basis of production that occurs within a country. By comparison, a residence-based tax on the worldwide capital income of a country's residents is consistent with the theory of optimal taxation (Diamond and Mirrlees, 1971).

capital will migrate from the taxing country until the before-tax rate of return to capital invested in the country rises enough to entirely offset the tax. This emigration of capital lowers the productivity of the fixed factors in the taxing country — land and labor (or at least relatively immobile labor). As a result, these local factors of production bear not only the entire burden of the capital income tax but also its “excess burden” or efficiency cost.²¹ The clear implication of this analysis is that, even solely from the viewpoint of the residents of the taxing country, it is preferable simply to tax local factors directly, and thus avoid at least the excess burden of the tax on capital income. That is, in a small open economy, taxes on labor income (and the returns to land) or taxes on domestic consumption (e.g., a destination-based VAT) are unambiguously preferable to a source-based tax on capital income.

This conclusion is reinforced by the tax competition literature, which examines the interactions among countries that finance public services using some combination of lump sum taxes on their residents and source-based taxes on capital income. In the typical model in this literature, each country chooses its policies to maximize the welfare of its residents while acting as a Nash competitor in the world economy, setting its tax rates assuming that the tax rates of its competitors are fixed. Under these circumstances, as the number of independent countries gets large — that is, as they become small open economies — then interjurisdictional competition leads to a result that is consistent with the argument detailed above, as each country eliminates its source-based tax on capital income and relies solely on lump sum tax finance (Zodrow and Mieszkowski, 1983; Gordon, 1986; Razin and Sadka, 1991; Hoyt, 1991). Moreover, if countries are for any reason constrained to use taxes on capital income, a new source of inefficiency is introduced, as each government under-provides public services because it is concerned about tax-induced outflows of internationally mobile capital and decides to reduce its reliance on the distorting tax on capital income (Zodrow and Mieszkowski, 1986; Wilson, 1986). There are of course many other effects of international tax competition, some of which are also efficiency reducing and others that are efficiency enhancing (Wilson, 1999; Zodrow, 2002). Nevertheless, a central message of this literature is that to the extent that capital is internationally mobile, tax competition leads to downward pressure on capital income tax rates — and the public services financed by the associated revenues — and under certain circumstances leads to the elimination of source-based capital income taxation.

III.2 OTHER ARGUMENTS

Several other arguments buttress the case for low or zero source-based taxes on capital income in a small open economy — hereafter, referred to as the “zero tax” argument. First, the analyses described above assume that international businesses are perfectly competitive. However, modern multinationals are generally believed to generate significant economic rents, attributable to factors such as advanced technological knowledge, including specialized patents and proprietary production techniques, superior managerial skills, greater

²¹ These efficiency costs arise for two reasons. First, the overall capital intensity of production is inefficiently low due to the tax-induced outflow of capital from the taxing country. Second, use of the capital income tax creates a tax bias favoring production of labor-intensive goods; this arises because the tax-induced reduction in wages that occurs as the capital income tax is shifted to labor is less pronounced for goods with a relatively large labor income share, causing an inefficient reallocation of labor to the labor-intensive sector.

access to capital, or valuable trademarks or reputations.²² Indeed, much of the rationale underlying attempts to attract multinational foreign direct investment, especially in developing countries, reflects a desire to obtain the benefits, such as increased productivity and higher returns to local factors, that arise from access to these rent-generating factors. However, to the extent that these economic rents are firm-specific,²³ tax competition among countries attempting to attract multinational investment will — as in the basic tax competition model described above — tend to result in an equilibrium characterized by no source-based taxation of capital income. That is, if the multinational investment that generates firm-specific economic rents is perfectly mobile internationally, each country will face an incentive to undercut its competitors in an attempt to gain the benefits of such investment for its residents, resulting in an equilibrium in which capital income tax rates are competed down to zero (Gordon and Hines, 2002).

Second, source-based taxation of foreign direct investment typically takes the form of a corporate income tax, applied more or less equally to domestic and foreign enterprises. However, the corporate income tax is a notoriously inefficient and thus undesirable tax instrument, typically causing large and costly distortions of the choice of organizational form, investment choices across assets and sectors, and financing and payout decisions (Gravelle, 1994; Cnossen 1996). Although distortions of the choice of organizational form is not an issue in Colombia as the business tax applies to all businesses, the results presented in Annex E indicate that the existing tax system results in large tax differentials across business sectors and thus seriously distorts the allocation of investment. Moreover, the tax incentive for debt finance is especially great in Colombia. As in many countries, the income tax system favors debt finance, with dividends non-deductible (although exempt at the individual level) and interest fully deductible (subject to inflation indexing) with relatively little interest income taxation at the level of the bondholder. In addition, Colombia has a presumptive income tax on net wealth at both the business and individual level, creating further incentives for debt finance. McLure and Zodrow (1997) note that tax policy makers in Colombia have long been concerned about the extent to which the tax system encouraged the decapitalization of the corporate sector. They cite figures from Carrizosa (1986) that demonstrate that the ratio of debt to the sum of debt and equity has increased from just under 25 percent in 1950 to about 45 percent in the late 1960s to over 70 percent in 1980. However, data presented in Arbaláez and Echavarría (2001) suggest that decapitalization in Colombia has declined in importance in recent years, as the ratio of debt to total assets has declined from 55% in 1990 to 38.6% in 1999.

Finally, the corporate income tax is one of the most complicated of tax instruments. It is thus relatively costly in terms of both compliance and administration and imposes a particularly onerous burden on small firms who lack sophisticated accounting expertise. Moreover, a highly complex tax like the corporate tax may be particularly inappropriate for a developing country like Colombia, where administrative resources and managerial talent are especially scarce. For all these reasons, corporate taxes are a relatively inefficient source of tax

²² For example, Dunning (1977, 1981) posits that multinationals must have rent-generating ownership, location and internalization (OLI) advantages over domestic firms in order to make FDI profitable, given the inherently higher costs faced by foreign enterprises. Markusen (1995) reviews the theory of multinationals.

²³ Location-specific economic rents will be discussed below.

revenue, which argues for relatively small reliance on (or elimination of) corporate income taxes as a revenue source.

Another disadvantage of corporate taxes is that they are relatively “hidden” in the sense that they are assessed on businesses rather than paid directly by individuals. As a result, individuals are much less likely to be aware of the burden of the corporate income tax than they are of the burdens of alternative revenue sources such as personal income taxes or the VAT. Moreover, the economic incidence of the corporate tax is still a highly controversial issue, so that even from an academic perspective it is difficult to determine who ultimately bears the burden of the tax. Public choice theory argues that efficiency in public service provision is promoted by the use of highly visible taxes with relatively certain economic incidence, in order to ensure that citizens are aware of and pay the costs of public services they consume. The corporate tax scores poorly in terms of this criterion; in particular, its highly hidden nature and uncertain incidence may promote inefficiently high levels of public expenditures.

Finally, modern multinational corporations have considerable discretion in allocating profits among the various countries in which they operate. In particular, it is exceedingly difficult (1) to determine the “appropriate” way to allocate overhead expenses, including managerial and administrative expenses and R&D costs, (2) to determine the appropriate “transfer prices” to charge for these and many other intermediate inputs that are exchanged between affiliated companies based in different countries, and (3) to allocate the deductions for interest expense associated with investment loans taken out by a multinational. This in turn implies that a multinational corporation exercises considerable discretion in allocating income and expenses across countries, and will naturally tend to allocate revenues to low-tax countries and expenses to high-tax countries. Although many countries have implemented various rules designed to limit the revenue losses from such accounting manipulations, this problem still plagues tax administrations everywhere. The use of such tax avoidance strategies in turn puts downward pressure on corporate income tax rates around the world, as no country wants to receive a disproportionate share of deductions or lose its share of worldwide revenues; indeed, from the perspective of the taxing country, an advantage of a lower tax rate — beyond the conventional effect of attracting investment through a lower cost of capital — is that it may increase revenues by encouraging firms to manipulate its transfer prices such that revenues are allocated to the taxing country and expenses are allocated elsewhere. Similarly, a lower tax rate may have an independent effect in terms of attracting foreign direct investment, as having investments in low-tax countries facilitates such tax avoidance manipulations (Slemrod, 1997).

IV. THE CASE FOR TAXATION OF FDI

Despite these rather strong arguments for avoiding source-based taxation of capital income in a small open economy like that of Colombia, virtually all countries, including both developing and developed nations, impose source-based taxes on both domestic and foreign business entities. Of course, source-based taxes can be justified as benefit taxes for public services received by businesses (Bird and Tsiopoulos, 1996; Zodrow, 1999) or as fees on polluting emissions. However, corporate income taxes, at least at the levels imposed in Colombia and in other countries, clearly cannot be justified on these grounds since their bases (corporate

profits) are not related to either benefits received²⁴ or effluents generated. Thus a variety of alternative rationales for corporate taxes have been proposed.

IV.1 THE TREASURY TRANSFER EFFECT

Perhaps the most often cited rationale for source-based corporate income taxes (at least in capital importing countries) arises due to the foreign tax crediting mechanism utilized by many capital exporting countries, including the US, the UK, Italy and Japan. Specifically, although these countries adopt the “residence principle” in taxing their multinationals — subjecting all of their worldwide income to domestic taxation — they also allow a foreign tax credit (FTC) for taxes paid abroad, up to the maximum tax that would be assessed under the domestic tax system.

To see the potential importance of FTCs, consider the following admittedly extreme example. Suppose that all of the FDI in a host country is attributable to multinationals based in a single home country, which fully and contemporaneously grants FTCs for all taxes paid in the host country. Under these circumstances, the host country has a clear and powerful incentive to impose a corporate income tax at a rate equal to that assessed in the capital exporting country; reducing the tax rate below this level would merely transfer revenues from the treasury of the host country to the treasury of the home country, without affecting the investment incentives facing the multinational firm in the host country in any way whatsoever. Such a “free” source of revenues is naturally very attractive to the host country. Indeed, Bird (1996) argues that the worldwide prevalence of corporate income taxes with creditability implies that any relatively small country simply cannot deviate very far from the norm of utilizing a “conventional” corporate income tax without incurring large revenue losses.²⁵ This “treasury transfer” argument thus provides a rationale for a tax system that is at the opposite end of the spectrum from the “zero tax” argument presented above, as it implies that a capital importing country arguably should impose a corporate income tax with a rate equal to that of its primary source of capital imports (assuming that it grants FTCs).

However, the treasury transfer argument must be qualified in three important ways. First, many capital exporting countries, including Australia, Canada, France, Germany and the Netherlands, do not allow foreign tax credits and instead simply exempt foreign-source income from home country taxation. In this case, the host country tax determines the final tax burden faced by a multinational based in such a country. Accordingly, a host country must weigh the benefits of additional “treasury transfer” revenues obtained by taxing investment income from

²⁴ Although businesses benefit from some public services, including general services such as the enforcement of property rights and the construction of a public infrastructure, these benefits are not related to profits and apply to all businesses rather than just corporations. In addition, although corporations benefit from limited liability, easy transfer of ownership, and other aspects of corporate status, the value of these benefits is unlikely to approach the level of corporate income taxation found in most countries (Bird, 1996). Thus, it is exceedingly difficult to justify current corporate income taxes on benefit tax grounds.

²⁵ In addition, such deviations would be undesirable because they might lead to significant reductions in foreign direct investment by firms reluctant to invest in a country without an “appropriate” corporate income tax system (Bird, 1996; McLure and Zodrow, 1998).

multinationals based in countries that grant FTCs against the costs of creating tax disincentives for investment from multinationals based in exemption countries.²⁶

Moreover, many capital exporters who grant foreign tax credits, including Australia, Canada, France, Germany, Italy, Japan, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom, nevertheless also have entered into many bilateral treaties with “tax sparing” provisions under which host country tax reductions are not offset by corresponding tax increases in the home country (as typically occurs under a FTC system).²⁷ Instead, countries that allow tax sparing typically grant special foreign tax credits for taxes that would have been paid in the absence of host country tax incentives. Thus, under tax sparing, host countries that introduce or expand tax incentives for foreign investment do not simply transfer the foregone revenues to the home country treasury. Instead, such tax incentives have their intended effect of reducing the tax burden faced by foreign firms, thus maintaining the ability of developing countries to use fiscal incentives to attract FDI, even from multinationals that are based in FTC-granting countries.

Recent empirical studies suggest that tax incentives are effective in stimulating FDI from countries that allow FTCs but provide for tax sparing. Hines (2001) compares FDI by firms based in Japan, which allows tax sparing in certain developing countries, to FDI by firms based in the US, which has not instituted tax sparing on the grounds that such provisions are excessively costly and largely ineffective. Hines concludes that tax sparing is effective in stimulating FDI. Indeed, his estimates suggest that tax sparing agreements lead to significant increases in FDI of 140-240 percent and stimulate host country tax incentives that reduce effective tax rates by 23 percent. Similarly, Echavarría and Zodrow (2002, Annex C) show that multinationals from countries that grant tax sparing have ratios of taxes paid in Colombia to total profits that are 5-10% lower than multinationals from countries that do not grant tax sparing.

The importance of this point is increasing over time in Colombia. Although the US, which does not grant tax sparing, is still the main source of FDI in Colombia, several other capital exporters are becoming increasingly important. Table 4 shows that until 1995 more than half of total FDI came from the United States (70.6% in 1990), but that this figure has decreased markedly during the 1990s to a total of 26.9% of total FDI in 2001. The main new sources of FDI were tax haven countries in Central America and the West Indies, which accounted for 5.6% of FDI in 1990 but 34.2% by 2001 (and to some extent reflects Colombian capital returning home), Spain (primarily investments in the financial sector) and countries which allow tax sparing such as the Netherlands (7.4%), Germany (2.5%), Switzerland (2.3%), France (2.2%), the United Kingdom (2.2%), Japan (1.1%), Canada (1.0%) and Sweden (0.5%).²⁸

²⁶ The US grants foreign tax credits only for host country taxes that apply uniformly to all foreign investment. This precludes tax systems that would attempt to tax US companies in order to “sop up” US foreign tax credits while exempting companies from countries that operate territorial tax systems.

²⁷ Note that many of these countries were previously also characterized as “exemption” countries. Tax sparing is still a (relatively minor) issue for these countries in some cases, however, because they typically tax — and allow FTCs for — certain forms of passive income as well as income from countries deemed to be tax havens (Hines 2001; OECD, 1998).

²⁸ For data on the sources of FDI by number of firms and by total sales, see Echavarría and Zodrow (2002, Annex C).

Table 4. Foreign Direct Investment by Country of Origin (%), Excluding Oil, 1980-2001

	1980	1985	1990	1995	2000	2001
North America	58.1	66.9	72.2	54.2	28.3	28.6
Canada	3.9	2.8	1.6	2.5	1.0	1.0
United States	54.1	64.1	70.6	51.4	26.6	26.9
Mexico	0.5	0.3	0.3	0.4	0.7	0.7
Central America and West Ind	9.7	5.6	5.6	16.1	35.5	34.2
Cayman Islands	0.0	0.0	1.0	0.0	12.2	9.1
Virgin Islands	0.0	0.1	0.2	1.4	4.9	7.0
Panama	6.5	3.4	3.2	8.2	9.9	9.5
Other	3.2	2.1	1.2	6.5	8.5	8.7
South America	6.8	3.8	3.5	8.0	4.4	3.9
Brazil	0.3	0.1	0.1	0.5	0.3	0.1
Chile	0.0	0.0	0.0	0.7	1.1	1.0
Ecuador	1.9	1.0	0.8	1.6	0.5	0.5
Venezuela	4.3	2.2	2.3	4.5	1.7	1.5
Other	0.3	0.5	0.3	0.6	0.8	0.8
Europe	23.7	21.6	17.1	19.8	30.3	32.0
Germany	2.8	2.2	2.0	2.2	3.7	2.5
Spain	0.5	0.5	0.6	1.3	9.8	12.8
France	2.5	1.5	1.5	2.5	2.2	2.2
Netherlands	2.3	1.7	1.6	2.6	7.3	7.4
United Kingdom	3.4	7.7	3.8	3.6	2.2	2.0
Sweden	1.5	1.1	1.0	1.2	0.5	0.5
Switzerland	9.0	5.0	4.9	3.9	2.5	2.3
Other	1.7	1.9	1.7	2.4	2.1	2.3
Asia	1.1	1.8	1.2	1.9	1.4	1.3
Japan	1.1	1.8	1.2	1.8	1.2	1.1
Other	0.0	0.0	0.0	0.1	0.1	0.2
Other	0.6	0.4	0.4	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Central Bank

Accordingly, in choosing the extent to which it applies source-based capital income taxation to foreign firms, Colombia must weigh the benefits of obtaining treasury transfers from certain countries including the US, against the tax disincentive for investment by multinationals in countries that allow FTCs but provide for tax sparing. The fact that FDI by multinationals in the latter group of countries has been increasing over time in Colombia, implies that the treasury transfer effect argument has been simultaneously declining in importance.

Second, in order to avoid unlimited drains on the home country treasury, capital exporting countries typically limit FTCs to the amount of tax that would be assessed under the domestic corporate income tax. Thus, a multinational investing in host countries with high tax rates (relative to the home country tax rate) will accumulate excess foreign tax credits. Some countries, including the US, allow limited pooling of FTCs, so that credits earned in high tax countries can to some extent be used to offset domestic tax due on income earned in relatively

low-tax countries.²⁹ Nevertheless, despite this relatively generous treatment, many US multinationals, including nearly all US firms engaged in the petroleum and mineral extractive industries, currently have more foreign tax credits than they can use — that is, they are in an “excess foreign tax credit position” (Grubert, Randolph and Rouslang, 1996). A multinational in an excess foreign tax credit position, especially one with a large stock of excess credits, views tax reductions in a host country very differently than a firm without excess credits. Specifically, for a firm with excess credits, host country tax reductions are not offset by tax increases in the home country, but instead merely reduce the firm’s stock of excess foreign tax credits.³⁰ Accordingly, the host country tax reductions represent a real gain to the multinational, so that such reductions again have effects similar to those in the absence of a foreign tax crediting system. To the extent that much of the investment in a host country is attributable to firms in an excess FTC position, the “treasury transfer” argument is invalid.

Third, the treasury transfer effect argument implicitly assumes that home country taxes are assessed in the same year as host country taxes. However, in practice, most countries including the US do not tax the active business income of the foreign subsidiaries of their multinationals until such income is repatriated by the subsidiary to the US parent. Since home country tax liability can thus be deferred for significant periods of time, especially if the earnings prospects for reinvestment in the host country are promising, the multinational is no longer indifferent to tax increases in the host country. Indeed, under certain circumstances, the home country repatriation tax is irrelevant to investments financed with the retained earnings of the subsidiary, which are affected only by the host country tax (Hartman, 1985; Sinn, 1987).³¹

Table 5 presents the main sources of funds for Colombian firms with and without FDI over the period 1992-99. Although new share issues are relatively more important for firms with FDI, they still comprise a relatively small fraction of investment funds (17.2%). And, although debt finance is the primary source of finance for both firms with FDI (46.8%) and without FDI (43.0%), retained earnings (internal funds) are also quite important for both firms with FDI (35.0%) and without FDI (40.4%). Thus, to the extent that the Treasury transfer effect applies only to investments financed with new share issues rather than retained earnings, its relevance may be fairly limited in the Colombian context.

²⁹ In the US, this pooling is limited to income within nine different “baskets” or types of income, and not across baskets. Most foreign source income (more than 80 percent) falls into the “general income” basket, which includes most active business income.

³⁰ In the US, firms are allowed to carry forward excess FTCs for five years and carry them back two years.

³¹ The logic underlying this result is analogous to that in the “trapped equity” or “new” view of the effects of individual dividend taxation (Auerbach, 1979; Bradford, 1981). Specifically, by retaining earnings rather than repatriating them to the parent company, the multinational avoids paying current tax (both the home country corporate tax and any host country withholding tax) and, for an investment with normal returns, the tax benefit of this deferral exactly offsets the tax due on future repatriated earnings. Thus, repatriation taxes have no effect on marginal investment incentives for investments financed with retained earnings. For a discussion of theoretical and empirical research on the new and traditional views of dividend taxation, see Zodrow (1991). The Hartman-Sinn result obtains only if the definitions of the home and host country tax bases are identical and if the home country tax rate is constant over time. Otherwise, investment decisions may be sensitive to home country tax rates (Leechor and Mintz, 1991; Altshuler and Fulghieri, 1994).

Table 5. Sources and Uses of Funds in Colombia, 1992-99

	Firms with FDI	Firms without FDI
A. Internal Funds	35.0	40.4
Depreciation	17.5	14.0
Reserves	8.4	12.9
Retained profits	9.1	13.5
Other*	1.1	5.1
B. New Shares	17.2	11.6
C. Bonds and debt	46.8	43.0
TOTAL	98.9	94.9

Source: Superintendencia de Sociedades,
Superintendencia de Valores and author's calculations
*: mainly "diferidos"

The discussion thus far suggests that the combined effect of these three qualifications in Colombia is sufficiently important to greatly diminish the importance of the treasury transfer effect. This conclusion is consistent with views expressed in the existing literature. For example, Gordon and Hines (2002) conclude that in general “it is difficult to argue that tax-crediting arrangements have much effect on equilibrium corporate tax rates in host countries.”

IV.2 OTHER ECONOMIC ARGUMENTS

Several other economic arguments can be utilized to justify source-based taxation of capital income.³² Perhaps the most important is related to the fact that multinational investments are likely to generate some location-specific economic rents. Indeed, as noted above, locational advantages constitute one of the three elements of the “OLI” (ownership, location, and internalization advantages) framework often utilized to explain FDI by multinationals and the ability of multinationals to compete successfully against domestic firms. These locational advantages may include factors such as lower transport costs, inexpensive local factors of production, and easier access to customers — as well as the ability to avoid trade barriers including tariffs and quotas. Taxing such location-specific rents provides an efficient and thus highly desirable means of raising tax revenue (Mintz, 1994). It is of course also politically very popular, especially since the owners of the rents are largely or exclusively foreign. Moreover, increasing globalization implies that foreign ownership of domestic corporations is increasing over time, so that taxation of domestic firms may also imply taxation of some economic rents that would otherwise accrue to foreigners (Huizinga and Nielsen, 1997).

In addition, the standard justification for a corporate income tax (independent of international considerations) is that it is required as a backup to the personal income tax. Since capital gains are virtually always taxed only upon realization rather than as accrued and often

³² Some of these arguments assume that the capital importing country has market power in either international capital markets (including the market for risk diversification of multinational investments) or international goods markets. However, these arguments are largely irrelevant in Colombia given its relatively small size, and are not discussed here.

benefit from other special treatment such as preferential rates and partial or full exemption at death, the effective capital gains tax rate is typically quite low relative to that applied to other forms of income, even taking into account the fact that inflationary gains are typically subject to taxation. Such treatment creates a tax bias favoring assets that generate income in the form of capital gains. Moreover, preferential tax treatment of capital gains creates large incentives for individuals to form corporations in order to convert other forms of capital income and especially labor income into tax-preferred capital gains. In the latter case, the returns to labor can be retained indefinitely within the corporation (with consumption needs financed through corporate loans to the individual) and escape individual-level taxes completely if capital gains are exempt at death (as in the US). A corporate tax has thus traditionally been viewed as an essential backstop to the personal income tax, as it provides a means of applying an additional level of tax to the income that generates tax-favored capital gains (Musgrave, 1959). In particular, a corporate income tax at a rate close to the maximum individual income tax rate will greatly reduce or eliminate tax incentives to convert labor income and/or other forms of capital income to lightly taxed capital gains.

This reasoning can be extended to imply the desirability of source-based taxation of foreign direct investment in one of two ways. First, given a tax on domestic corporations, political realities may simply make it impossible to exempt foreign corporations. Second, even if exemption of foreign corporations were feasible, it would not be desirable as domestic individuals and firms could easily establish corporations that were nominally “foreign” and again avoid domestic liability on their corporate income — and foreign tax liability as well if the corporation were established in a country in which foreign earnings were tax exempt or taxed at a very low rate (Gordon and Mackie-Mason, 1995).

Note that most of the anti-avoidance, anti-evasion characteristics of the corporate tax in this scenario could be achieved with a corporate cash flow tax, which would remove the incentives for the conversion of labor income into corporate income, while taxing economic rents and exempting ordinary returns to capital (Hubbard, 2002; Zodrow and McLure, 1991). However, given the difficulties of implementing corporate cash flow taxes, especially the virtual certainty that such a tax would not be creditable in the US (McLure and Zodrow, 1998), a corporate income tax may be the best feasible way of achieving this result.^{33 34}

³³ For a now somewhat dated discussion of the implementation in Colombia of a consumption-based tax reform that would have included a cash flow corporate tax, see McLure, Mutti, Thuronyi and Zodrow (1990). As discussed at length in that report, a cash flow tax has many advantages relative to an income tax, especially in the context of a developing country like Colombia. However, in addition to creditability issues, the cash flow tax suffers from avoidance problems that arise if only one country adopts the cash flow approach while its trading partners continue using the income tax (McLure and Zodrow, 1996). In addition, since the base of the cash flow tax is relatively small (since the normal return to capital is excluded), its rate may be relatively high, which gives rise to transfer pricing problems and a tax disincentive to investment by multinationals with firm-specific rents.

³⁴ Bird (1996) offers three other potential but less compelling economic justifications for a corporate income tax. First, a corporate tax might be used to offset other production inefficiencies (Hartman, 1986; Findlay, 1986), but it would be difficult in practice to structure the tax to do so effectively. Second, given the results presented above on the incidence of a corporate income tax, such a tax may be a means of increasing taxes on immobile local factors beyond the level politically possible through the direct individual tax system (Sorensen, 1995) if such increases are deemed desirable and cannot be implemented through alternative means. Third, a corporate tax facilitates government intervention in the economy in the form of corporate tax preferences for various types of activities which, if implemented for economically justifiable reasons (e.g., demonstrable external benefits

IV.3 POLITICAL ARGUMENTS

Two final arguments for source-based capital income taxation are primarily political in nature. First, somewhere between the realm of politics and economics lies the argument that source-based capital income taxes should be utilized because source countries have a “right” to tax the income generated within their boundaries. This argument would certainly apply to the benefit taxes and emission charges described previously. Similarly, royalties can easily be rationalized as payments for the use of a country’s natural resources. But the extension of this reasoning to corporate income taxation is far less straightforward, involving claims related to territorial sovereignty or the provision by the host country of a suitable investment environment and access to local markets (Musgrave, 2000). Nevertheless, source country entitlement is often asserted to be a compelling rationale for the imposition of income taxes on foreign corporations.

Second, as stressed by Bird (1996), popular perceptions of the relative desirability of corporate income taxes are far from those held by economists, and such perceptions play an important role in determining what types of tax reforms are politically feasible. Taxation of “rich” corporations is invariably extremely popular, irrespective of arguments that not all the owners of corporations are necessarily rich and that the economic incidence of corporate income taxes is far from clear and may well be primarily on land and labor. These sentiments are only strengthened when the owners of the corporations are (even richer) foreigners, again despite any economic arguments suggesting that income taxes on foreign corporations are largely or fully shifted to local factors of production. Moreover, as noted above, if domestic corporations are subject to tax, equity considerations are likely to dictate at least nominally similar or identical tax treatment of foreign corporations.³⁵ These perceptions suggest that some form of business taxation is essential under any politically feasible income tax system.^{36 37}

V. EMPIRICAL EVIDENCE ON TAXES AND FDI

The discussion thus far has made clear that, given the increasingly competitive international economic environment, the choice of a tax policy toward foreign direct investment in Colombia is difficult. Various theoretical arguments support policies that range from no source-based taxation to full taxation at a rate equal to that assessed on domestic corporations,

to additional research and development activity) rather than for purely political advantage, may be socially desirable; of course, direct government expenditures can achieve the same goal in a more transparent fashion and without incurring the distortions of the corporate tax.

³⁵ Such treatment achieves so-called “capital import neutrality.”

³⁶ There are also excellent administrative reasons to collect taxes from a relatively small number of corporations which tend to keep good accounting records rather than from a large number of individuals who may have rather poor records. Thus, a compelling case can be made for businesses to collect sales and payroll taxes, withhold personal taxes on wage and capital income (and perhaps on payments from larger to smaller businesses), and provide tax authorities with information on these and other income and tax flows (Bird, 1996). These arguments do not, however, necessarily imply the desirability of a separate corporate income tax.

³⁷ Indeed, this reasoning has also played an important role in the design of proposals for direct consumption-based taxation, which almost always include a business tax component, partly to satisfy public demands for a business component to any system of direct taxation (Zodrow and McLure, 1991).

which some would argue should equal the top marginal tax rate applied to individual income.³⁸ This section summarizes recent empirical research that should help inform Colombian policymakers on the best way to structure tax policy toward FDI. It reviews the general evidence, as well as evidence specific to Colombia when available, on the sensitivity of FDI to tax factors, the extent of tax avoidance by multinationals, and the extent to which international tax competition appears to be leading to reductions in corporate tax rates around the world.³⁹

V.1 TAX EFFECTS ON REAL INVESTMENT

Not surprisingly, it is difficult to identify the effects of taxes on FDI, especially since, as noted above, FDI is affected by many non-tax factors and, in most cases, by both host and home country taxes. Nevertheless, numerous careful studies have appeared in recent years, and the following tentative consensus regarding the effects of taxes on FDI is emerging.

The most basic issue is whether FDI is responsive to variations in effective tax rates in the host and/or home countries. The current consensus, which has developed only in recent years, is that taxes do have significant effects on foreign direct investment decisions. For example, Gordon and Hines (2002) review the existing time series studies and conclude they suggest an elasticity of aggregate FDI with respect to effective host country tax rates of roughly -0.6 . Cross-section studies of the effects of variations of host country tax rates across countries on multinational investments in property, plant and equipment (PPE) suggest even greater sensitivity of investment to tax rates, with some studies suggesting elasticities in the neighborhood of one (Hines and Rice, 1994; Grubert and Mutti, 2000). Moreover, a recent study by Altshuler, et al. (2001) suggests that the sensitivity of FDI is increasing over time, with an elasticity of investment with respect to host country tax rates of -2.8 in 1992, relative to an (already relatively large) estimate of -1.5 in 1984.⁴⁰ Thus, on balance, the evidence suggests that host country tax rates will have an important effect on multinational investment decisions, and that the sensitivity of FDI to host country tax rates is increasing over time.

A second critical issue is the relative importance of home country tax rates. If the treasury transfer effect described above were operative, then home country tax rates would be the primary determinant of FDI, but if the various factors that mitigate this effect are sufficiently important, then home country taxes should not have much of an effect on FDI. Some recent evidence supports the latter view (Slemrod, 1990), casting doubt on the importance of the treasury transfer effect. This interpretation is reinforced by results which suggest that FDI

³⁸ Indeed, one could argue for taxation of foreign corporations at rates even higher than those applied to domestic corporations if the earnings of the former reflected primarily location-specific economic rents, or at negative rates (subsidies) if foreign investors are inherently at a disadvantage in obtaining information about investment prospects in host countries (Gordon and Bovenberg, 1996).

³⁹ For a more complete literature review, see Echavarría and Zodrow (2002, Annex D), which draws on recent reviews by Hines (1999), de Mooij and Ederveen (2001), and Gordon and Hines (2002).

⁴⁰ In their sample of 25 time series and cross-section studies, de Mooij and Ederveen (2001) calculate a mean elasticity of FDI with respect to home country tax rates of -0.7 , which is very close to the -0.6 figure cited above by Gordon and Hines (2002). They also note that the studies in their sample that use more recent data tend to yield higher elasticity estimates.

financed with retained earnings is much more sensitive to host country taxes than investments financed with debt or equity transfers from the parent to the subsidiary (Young, 1988; Hartman, 1984; Boskin and Gale, 1987; de Mooij and Everdeen, 2001).⁴¹ Although the contrary results of Slemrod (1990) suggest caution in interpreting these results, these findings are broadly consistent with the Hartman-Sinn view that home country taxes are (1) the primary determinant of FDI for investments financed with transfers from the parent, but (2) are largely irrelevant for investment financed with retained earnings.

On a related issue, there is some evidence that multinationals from credit-granting countries are no more likely than firms based in countries that exempt foreign income to invest in the US during high tax years (Slemrod, 1990) or to invest in US industries with relatively high effective tax rates (Auerbach and Hassett, 1993). This would not be the case if the prospect of FTCs made multinationals based in countries that provide such FTCs largely indifferent to host country tax provisions. The empirical evidence on this point is not, however, entirely clearcut either. There is some evidence that multinationals based in exemption countries tend to invest more in US states with relatively low state corporate income tax rates than do multinationals based in FTC countries (Hines, 1996). Similarly, FDI generally rose in US industries that experienced increases in effective tax rates after the Tax Reform Act of 1986 (Swenson, 1994). Both of these results suggest that home country crediting arrangements may be important. De Mooij and Everdeen (2001) argue that their analysis suggests (albeit weakly) that investors from exemption countries are not more sensitive to tax factors than investors from countries that grant FTCs. Thus, it is still unclear how much weight to put on the “treasury transfer effect,” although much of the relevant evidence suggests great caution in putting much weight on this factor.

V.2 TAX AVOIDANCE

There is also considerable evidence which suggests that multinationals engage in various manipulations designed to reduce their tax liabilities. For example, several studies find that multinationals tend to take relatively large deductions, including interest payments, in high tax countries (Hines and Hubbard, 1990; Grubert, 1998; Hines, 1995; Grubert, Randolph and Rousslang, 1996). In addition, numerous studies find that after-tax profits are relatively high in low tax countries, suggesting that multinationals use transfer pricing on intra-firm transactions to reduce global profits and tax liability (Hines and Rice, 1994; Grubert and Mutti, 1991). Moreover, Grubert (2001) concludes that the extent of tax-motivated income shifting has increased over time. Finally, several studies have demonstrated that multinationals under residence-based tax systems, including US firms, reduce their tax liability by deferring dividend payments from their subsidiaries (Hines and Hubbard, 1990; Desai, et al., 2001).

Results presented in Echavarría and Zodrow (2002, Annex E) suggest that multinational behavior in Colombia is consistent with the pattern suggested above. They show that multinationals in Colombia on average pay lower taxes than local firms, and that the differential has been increasing in recent years. In particular, after controlling for the effects of business sector, region and firm age and size, the ratio of taxes paid to accounting profits over the period

⁴¹ Recall that the “trapped equity” argument that deferral of home country taxes implies that such taxes do not affect FDI applies only to investment financed with retained earnings.

1995-1999 was 8-13% lower for multinationals investing in Colombia than for local firms. Similarly, taxes as a fraction of net worth were 21-29% lower and taxes as a fraction of sales were 17-20% lower for multinationals in Colombia relative to their local counterparts.

These results strongly suggest that many multinationals engage in international tax avoidance activity, and that multinationals in Colombia are no exception to this general rule. Thus, a major advantage of relatively low corporate income tax rates in Colombia is protection of the revenue base from such manipulations. Indeed, relatively low tax rates may attract income and repel deductions and thus increase revenues. Moreover, in addition to attracting FDI by lowering effective tax rates, low statutory rates may attract multinational investment purely because they facilitate tax avoidance.

V.3 EVIDENCE OF TAX COMPETITION

Finally, it is useful to examine briefly the extent to which increasing tax competition is leading to reduced reliance on source-based capital income taxation. The evidence on this issue is mixed. Tax competition does not yet seem to be especially prevalent in the EU, as reductions in statutory corporate income tax rates have been accompanied by base-broadening measures so that marginal and effective average tax rates have declined relatively little (Devereux and Keen, 2001; Gorter and de Mooij, 2001). However, using a sample of 60 countries, Grubert (2001) shows that average effective tax rates fell by almost ten percentage points from 1984-1992, and that average effective tax rates fell much more in small, open and relatively poor countries than in other countries. The latter result suggests that competitive pressures — and the gains to lowering source-based taxes on capital income — are greatest in such countries, which in turn suggests that competitive pressures for lowering these taxes may be quite important in Colombia.

VI. CONCLUSIONS AND POLICY RECOMMENDATIONS

The analysis in this paper suggests that reform of the business income tax in Colombia should proceed in two steps.⁴² First, standard efficiency arguments suggest that Colombia should adopt a base-broadening, rate-reducing approach to reform, eliminating as many of the existing tax preferences as possible and using at least some of the resulting revenues to lower the business tax rate (with some of the revenues going to reduce the budget deficit). As described in Echavarría and Zodrow (2002, Annex E), the current tax system has numerous tax preferences which cause large tax differentials across business sectors. Such differentials distort the allocation of investment and should be eliminated.⁴³ Such a reform would not only improve efficiency, it would also simplify administration and compliance by providing for uniform

⁴² The following discussion focuses on reforms of the basic corporate income tax structure. For a brief discussion of other potential reforms, see Echavarría and Zodrow (2002, Annex F).

⁴³ Note, however, that if these preferences are eliminated, consideration should be given to providing transition rules to mitigate the loss experienced by the owners of existing assets in tax preferred investment areas (Zodrow, 1992). For further discussion of the desirability of base-broadening, rate-reducing corporate tax reform, see Echavarría and Zodrow (2002, Annex F).

treatment of all types of investment and thus reduce the extent to which scarce administrative resources are used to comply with and enforce the tax system in Colombia. It would also reduce various tax avoidance opportunities based on taking advantage of differential treatment under the corporate income tax. Finally, to the extent that the revenues obtained from such base broadening were used to lower the business tax rate, transfer pricing problems would be less of an issue, as firms would face a smaller incentive to manipulate their accounts to move deductions to Colombia and revenues elsewhere. Note in particular that such a base-broadening, rate-reducing approach is far preferable to the 10 percent corporate income tax surtax currently proposed by the government of Colombia, as the latter approach exacerbates existing tax distortions by increasing taxes on those segments of the business population already paying taxes while ignoring those who pay little or no tax under current law.

The move toward base-broadening and rate reduction should be the primary focus of reform of the business income tax. Nevertheless, several other measures should be considered as well. First, the current system of inflation indexing, which generally facilitates the accurate measurement of real economic income, does not apply to inventories (although firms do benefit from the absence of indexing for inventories under the wealth-based presumptive income tax). Inflation adjustment of inventories should be reinstated, even though this would entail a revenue cost, as such an adjustment would eliminate the existing tax bias against investing in inventories and against firms that are inventory-intensive in their production processes.

Second, McLure and Zodrow (1997) note that current depreciation rates are somewhat high relative to international standards, as depreciation deductions were not reduced at the time that depreciation deductions were indexed for inflation. (In many other countries, accelerated depreciation deductions are used as an ad hoc inflation adjustment measure.) Such accelerated depreciation deductions result in mismeasurement of income and distort the allocation of investment across assets and business sectors, depending on which assets are tax favored and which sectors tend to use tax-favored assets. Accordingly, some depreciation deductions could be reduced — say to a life of 30 years for buildings and a life for longer-lived machinery of 15 years — while leaving other machinery with a life of 10 years, and computers and vehicles with a 5-year life. Such changes would improve the measurement of real economic income under the income tax and provide some additional revenues for corporate rate reduction.

Third, current law provides for withholding on interest income at a rate of 7 percent, with the individual recipients of interest income required to report such income on their personal income tax returns. However, in practice, relatively little interest income is reported on individual tax returns, so that withholding approximates a final tax at a 7 percent tax rate. Since distributed earnings are in principle fully taxed at a 35 percent rate at the business level, this implies that the tax system in Colombia is biased toward debt finance, encouraging the “decapitalization” of investment described previously. (Note, however, that the bias toward debt finance is smaller than it would be if capital gains were taxed and interest income and expense were not indexed for inflation.) To reduce this bias for debt finance, and provide revenues to help finance the reduction in the business tax rate recommended above, the withholding tax on interest income could be increased, say to something in the neighborhood of 20 percent. In addition, if deemed desirable in light of the administrative difficulties of taxing interest income at the individual level as well the avoidance opportunities available abroad in the form of essentially tax-free interest income, this interest withholding could be treated explicitly as a final tax. Note also that increasing the taxation of interest income and using the revenues to lower the

business tax rate would reduce incentives for transfer pricing manipulations. Indeed, since interest withholding (especially when coupled with inflation indexing of interest deductions) would imply that borrowing would be treated relatively harshly in Colombia, firms would have an incentive to relocate their borrowing to other countries, which would have a positive effect on tax revenues in Colombia.

Once options for base broadening are exhausted, the government of Colombia should consider a second phase of reform. The discussion above has demonstrated that the determination of the optimal business income tax rate is an exceedingly difficult problem, as a wide variety of often-conflicting factors bear on this decision, with some factors implying an optimal tax rate of zero while others suggest relatively high tax rates, perhaps equal to the maximum individual income tax rate. The problem is made more difficult by the fact that most of the national taxes other than the corporate income tax, including the personal income tax, the payroll tax and the *parafiscales*, and the VAT, apply primarily to labor or to consumption financed by labor income, so that labor already bears a significant tax burden.

Nevertheless, it is quite possible that the balancing of the considerations discussed above would imply a corporate income tax rate below the top rate applied to labor income, especially since, as indicated in Table 6, the business tax rate in Colombia is high relative to its neighbors and many other countries as well. Indeed, if coupled with the increase in withholding on interest income and the treatment of such withholding as a final tax suggested above, such reforms would move the Colombian tax system in the direction of a Nordic “dual income tax”, under which labor income is subject to taxation at progressive rates while capital income is taxed at a relatively low flat rate, primarily or exclusively at the business level (Cnossen, 2000; Sorensen, 1994; Nielsen and Sorensen, 1997).⁴⁴ This approach is of course inconsistent with the Schanz-Haig-Simons income tax tradition, under which all forms of income should be taxed comprehensively under the same personal rate structure. However, the discussion above suggests that moving in the direction of such an approach may be an effective response to the offsetting tensions that characterize the current situation in Colombia, especially as it attempts to attract new foreign direct investment in the face of increasing international tax competition.

Table 6. Corporate Tax Rates: A Cross Country Comparison

(Maximum Statutory Rates in 2001)			
Country	Tax Rate	Country	Tax Rate
Argentina	35%	India	40%
Australia	30%	Ireland	20.0%
Austria	34%	Italy	36.0%
Belgium	39%	Japan	30.0%
Bolivia	25%	Korea	28.0%
Brazil	15%	Luxembourg	30.0%

⁴⁴ The Nordic dual income tax is discussed further in Echavarría and Zodrow (2002, Annex G).

Canada	42%	Mexico	35.0%
Chile	15%	Netherlands	35.0%
Colombia	35%	New Zealand	33.0%
Costa Rica	30%	Nicaragua	25.0%
Cuba	35%	Norway	28.0%
Czech Republic	31%	Panama	30.0%
Denmark	30%	Paraguay	30.0%
Dom. Rep.	25%	Peru	30.0%
Ecuador	25%	Poland	28.0%
El Salvador	25%	Portugal	32.0%
Finland	29%	Slovak Rep.	29.0%
France	33%	Spain	35.0%
Germany	25%	Sweden	28.0%
Greece	40%	Switzerland	24.7%
Guatemala	25%	Taiwan	25.0%
Haiti	35%	Turkey	30.0%
Honduras	25%	United Kingdom	30.0%
Hong Kong	16%	United States	35.0%
Hungary	18%	Uruguay	30.0%
Iceland	30%	Venezuela	34.0%

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