Tax Competition, Foreign Direct Investments and Growth: Using the Tax System to Promote Developing Countries

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“Those who possess vehicles chat among themselves, while those who possess wheelbarrows chat among themselves also.”
A Malawian saying.

I. INTRODUCTION AND BACKGROUND INFORMATION

Global population is 6 billion people. 1.2 billion, one fifth, are rich, while 4.8 billion, four-fifths, are poor. The world is more unequal today than at any time in world history. There's a basic reason for that, which is that about 240 years ago (the beginning of the industrial revolution) everybody was poor. As Lant Pritchett explained, the very poor nations today are just barely above the subsistence level measured in income per person. Since, subsistence means not starving to death, the very poor nations today must have had

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3 According to a World Bank study, per capita income in the richest countries was 11 times greater than in the poorest countries in 1870, 38 times greater in 1960, and 52 times greater in 1985. In the early 1990s, of $23 trillion in global GDP, only $5 trillion - less than 20 percent - was generated in developing countries, even though these countries accounted for about 80 percent of the world's population. See Tatyana P. Soubbotina & Katherine Sheram, Beyond Economic Growth: Meeting the Challenges of Global Development, Ch. 4 (World Bank, 2000) [hereinafter: Beyond Economic Growth].
about the same income two centuries ago as they do today. It couldn't have been less, because that would mean they were below subsistence level, which, by definition, cannot be true. The period of economic growth is a fairly recent one, but it has been a period of extreme divergence in economic performance. A relatively small part of the world achieved what economists call a modern economic growth. Most of these countries sustained the increase year after year. When you accumulate that over two centuries, you get quite a change, maybe a twenty-fold increase or more in the standard of living measured in material terms. The effect of sustained growth rates on living standards (the nation’s wealth) is the same as that of compounding interest on the wealth of savers. It is so great it is often considered to be ‘magical’. A rule of thumb, often used by investors, was introduced to development economics by Noble price winner Robert Lucas, stating that a country growing at $g$ percent per year will double its per capita income every $70/g$ years. 70 divided by 1.8, the per capita growth rate that persisted in the U.S. over most of the last two-hundred years, means that the average American is two or three times as rich as his or her grandparents. A few other countries, such as Japan and the Asian Tigers (Singapore, Hong-Kong, South Korea and Taiwan) experienced unprecedented high growth rates beginning in the 1950’s sustaining well into the 1990’s. But, most other parts of the world, even if they improved a bit their living standards, did not come close to that kind of achievement as of the United States, Western Europe and South East Asia.

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4 Unlike measures of ‘poverty’ that might vary across time, or across cultures, the concept of ‘subsistence’ cannot change. Incomes cannot get much lower than $1 per day: below this level widespread starvation and death set in.


6 Between 1950 and 1990, world per capita GDP grew at a rate of 2.2 percent per year. Between 1850 and 1950 the annual growth rate was merely 0.88 percent, and prior to 1850 it was less than 0.2 percent. Over most of the world’s history growth rates were close to zero. See Angus Maddison, Monitoring the World Economy 1820-1992 (OECD, 1995) (finding that between the year 500 to 1500 the growth rate was zero).

7 Only 26 countries are considered high-income countries. The cutoff in 2002 was $9,266 per capita or more. Their combined population is about 0.9 billion, less than one-sixth of the world’s population. See http://www.worldbank.org/depweb/english/modules/glossary.html#high-income.

8 E.g., the United States real GDP per capita was about $1,450 in 1776 and $36,300 in 2002 meaning that the U.S. living standards are 25 times higher today than they were 226 ago. See the CIA World Factbook 2002. http://www.odci.gov/cia/publications/factbook/.


10 Per capita income in the Asian Tigers increased from 18 percent of the developed countries' average in 1965 to 66 percent in 1995. See Beyond Economic Growth supra note 3. After the Second World War Japan’s GDP per capita was about one sixth that of the United States. Now it is about 75 percent. The average citizen of those countries is twenty times as rich as her grandparents.
Some of the poor countries grew very slowly, and some, such as most African nations, did not grow at all. This created a huge gap between the countries that enjoyed sustained growth and the rest of the world. Moreover, developing countries are not only relatively poorer but are worse off by absolute measures as well, as the median per capita growth in developing countries between 1980-99 was zero.

Sustained growth is the key to improvement in poor countries’ situation. Surely, there are other important factors in measuring quality of life. Gross Domestic Product (GDP) measures only market transactions, does not account for environmental costs of production (e.g., pollution), and does not account for equality of wealth (income) distribution, and for non-economic factors such as freedom, education and health. Alternative welfare indicators include: the Genuine Progress Indicator (GPI), Human Development Index (HDI), and the International Index of Social Progress (ISP). However, there is strong positive correlation between GDP per capita and most other factors such as health, education and income distribution. The residents of rich countries benefit from better health, larger number of years of education (and probably higher

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11 The average per capita income in African countries equaled 14 percent of the developed countries’ level in 1965 and only 7 percent in 1995.
12 Penn World Tables at http://datacentre2.chass.utoronto.ca/pwt/.
13 See Vito Tanzi, Public Finance in Developing Countries 11-12 (London: Edward Elgar, 1991) (“Growth has been considered the major and in many cases the only objective of economic policy in developing countries for much of the period following the end of world war II...[T]he overwhelming objective of tax and budgetary policy in developing countries must be the acceleration of economic development.”); See also Kevin Davis, Ethnically Homogeneous Commercial Elites in Developing Countries, 32 Law & Pol'y Int'l Bus. 331, 359 (2001)(suggesting “redistributive policies that operate outside of, and alongside, markets rather than redistributive policies designed to displace or severely constrain market functions,” citing empirical studies finding that “market-oriented developing states generate substantially higher levels of economic growth than developing states that assign markets a highly constrained role.”).
14 GDP is divided by the number of people (GDP per capita) or workers (GDP per worker) to account for differences in populations, and is translated into dollars using Purchasing Power Parity (PPP) instead of relying on prevailing exchange rates, in order to measure the actual ability to purchase products and services.
15 This indicator extends beyond GDP measures by placing a value on non-market contributions such as childcare and other factors like income distribution. In addition, unlike real GDP per capita, it counts many economic transactions related to the depletion of natural capital or pollution as costs rather than benefits to society.
16 The HDI consists of three dimensions: longevity, knowledge and standard of living, and is estimated for 174 countries. Closely related with the works of the economist-philosopher Amartya Sen.
17 This index measures economic development, social and political conditions, and the ability of nations to produce welfare services for their citizens.
18 There is, of course, a question of causality: a healthier workforce is more productive. It is difficult to say which of the two came first.
quality, but this was never measured), and greater income equality, than the residents of poor countries. Finally, as William Easterly puts it, a rise in incomes in developing countries translates into the most basic human needs one could think of such as lower infant and child mortality rates, food to eat, basic medical treatment, and freedom from oppression.

Part II deals with the neo-classical growth theories and the bad experience of the past 50 years in using them to promote growth in developing countries. Growth theory has substantially evolved relatively recently. Some of the greatest economists such as Solow, Kaldor, Mirlees and Arrow developed it extensively during the 1960’s, but in the 1970’s it went out of fashion, to come back in full force about 15 years ago with the development of the new growth theories. The traditional growth models stressed the importance of savings as a means of accumulating capital, which was believed to be the key to growth. Developing countries were considered too poor to afford the required levels of savings, therefore, developed countries lent them the money, to ‘fill the

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19 The average in the least developed countries is 3 years of education, compared with 11 in the most developed countries.
22 According to Easterly, infant mortality in the richest fifth of countries is 4 out of every 1,000 births; in the poorest fifth of countries it is 200 out of every 1,000 births; see also Lant Pritchett & Lawrence H. Summers, Wealthier is Healthier, 31 Journal of Human Resources 841 (1996) (the source for Easterly’s calculation that the deaths of about half a million children in 1990 would have been averted if Africa’s growth rate in the 1980’s had been 1.5 percentage points higher”).
23 In the poorest of nations, nearly half of all children under the age of three are abnormally short because of nutritional deficiency.
24 Millions of children die every year from easy to cure diseases such as bacterial pneumonia and dehydration from diarrhea. Bacterial pneumonia can be cured by a five-day course of antibiotics that costs about twenty-five cents.
25 The State of the World’s Children 2000 UNICEF (“A particularly cruel burden falls on the children, as parents take out meager loans in exchange for consigning or selling a child to a factory or plantation owner. An estimated 20 million, and perhaps as many as 40 million, girls and boys in South Asia toil in this debt servitude, hunched over looms, making bricks, or rolling cigarettes by hand. Countless others spend their childhood and adolescence in domestic servitude, sweeping floors and scrubbing pots and pans.”) Even more horrifying are the evidence on widespread child prostitution in developing countries and the use of 200,000 child soldiers from the ages of six to sixteen to fight wars in poor African countries.
temporary financing gap,’ on the assumption that this would lead developing countries to self sustained growth that would later allow them to repay the loans. More than trillion dollars were transferred from developed to developing countries over the past 50 years and most of it was lost.26 Currently, $54 billion are transferred annually through the World Bank and the International Monetary Fund (IMF) alone, and more is transferred through private institutions.27

Most of the money transfers were meant to achieve growth, with very little success. The World Bank and the IMF pursued an ambitious plan of making developing countries improve their institutions and policies by conditioning loans given to them on implementing reforms.28 These loans were named “adjustment loans”. Overall, conditioning aid on the fulfillment of certain institutional and policy changes was not successful. Most countries did not comply, used the money to finance current consumption instead of promoting growth, and were later unable to service the debts, which were eventually forgiven. By September 2002 $37.2 billion of debt were forgiven, and the total amount of debt forgiveness is planned to be more than $50 billion.29

Where did the money go? Some of it helped alleviate immediate needs such as relieving famine, but most of it was wasted. Used to build unnecessary wasteful projects such as new capital cities,30 extravagant projects such as dams31 and finance corruption.32

26 See The Quest for Growth, supra note 21, at 33 (stating that $1 trillion, measured in 1985 dollars, were transferred between 1950 and 1995 stating that the financing gap approach was one of the largest policy experiments ever based on a single economic theory).
27 World Bank report supra note 2.
28 The World Bank’s main goal is to fight poverty in the world, and the IMF’s purpose is bailing countries out of short-run crises. Both institutions employ dedicated, hard working, economists and lawyers who travel around the world and advise developing countries’ governments on fiscal and macro-economic matters, mostly in an effort to help those countries achieve sustained economic growth.
29 www.worldbank.org/HIPC
30 Such as Brasilia the capital of Brazil.
31 E.g., Akosombo Dam on the Volta River in Ghana.
32 There are numerous anecdotes. The rulers of some of the world’s poorest nations have stolen from them billions of dollars. For example, Mobuto Sese Seko the president of Zaire took to himself the entire gold mining region of Kilo-Moto, and on another transaction sold to a German company the rights to an area in the size of West-Germany itself, taking the money to his own personal accounts. See Robin Theobold, Corruption, Development, and Underdevelopment 97 (Duke University Press, 1990). See also Hernando De Soto, The Other Path (Harper and Row, 1989) (describing an interesting experiment he conducted in Peru, starting a small garment factory and measuring the costs of complying with government bureaucracy when starting a business. In the process he was asked to pay bribes 10 times.); For a review of economic
So how can the developed countries help promote sustained growth in the developing countries? The answer might lie in our modern understanding of what causes growth: sound institutions and technological progress. In this paper I build on these new theories in proposing to promote growth in developing countries using the tax systems: The tax systems of the developing countries as well as the international tax regime.

The second half of Part II deals with the new growth theories. According to the new growth theories technology is the engine of growth. This was already recognized by the advanced neo-classical growth theories. But unlike those theories, which assumed that policies cannot affect the technological progress (i.e., that it is exogenous to the model), the new theories recognized that policies such as promoting research and development can increase the rate of technological progress, or in other words, increase the production of ideas. A new idea allows a given bundle of inputs to produce more or better output. Growth promoting ideas range from Henry Ford’s assembly lines and mass production techniques, to inventing new software, to coming up with the idea of having a drive-through window in fast food restaurants, or using the double entry method for bookkeeping. Ideas are non-rivalrous, meaning that the use of an idea by one person does not preclude its use by another, and tend to be only partially excludable. The degree to which a good is excludable is the degree to which the owner of the good can charge a fee for its use. The marginal cost of most ideas is zero. E.g., once new software is invented, additional copies can be created costlessly. Such characteristics of increasing returns to scale make ideas a powerful engine of growth. On the other hand, the government must intervene to allow inventors to cover their costs and capture at least some of the benefits their ideas produce. Otherwise, there would be little incentive to invent. The development of intellectual property rights, a cumulative process that occurred over centuries, has probably played a critical role in sparking the Industrial Revolution and is responsible for modern economic growth.\footnote{Douglass North, Structure and Change in Economic History 164 (W.W. Norton, 1981).} Usually, inventors do not capture the full value of their inventions and society benefits from positive externalities (spillovers effects). In other

\footnote{analysis see Pranab Bardhan, Corruption and Development: A Review of Issues, 35 Journal of Economic Literature 1320 (1997).}
words, the social rates of return far exceed the private returns to the investor.\textsuperscript{34} A classic example is the invention of sea navigation. Up until the middle of the 18\textsuperscript{th} century, sea travelers were unable to determine the longitude.\textsuperscript{35} A generous prize (20,000 pounds) offered by the British Board of Longitude drove a clockmaker named John Harrison to spend many years building a chronometer that solved the navigation problem. It is clear that the prize could not reflect the huge benefit to society (and not only the British society) in terms of greater international trade and other spillover effects that accurate navigation entails.\textsuperscript{36}

Most of the world’s technological progress takes place in about 20 countries. It is then transferred through international trade, cross border education, and foreign direct investments (FDI) to other parts of the world. FDI is an important avenue, especially when it comes to knowledge such as management techniques and blueprints.\textsuperscript{37}

Only a small fraction of the world’s FDI is located in developing countries,\textsuperscript{38} and multinational corporations (MNCs) are the main carriers of FDI.\textsuperscript{39} They bring the host economies valuable tangible and intangible assets such as capital, technology, market

\textsuperscript{34} Zvi Griliches, The Search for R&D Spillovers, 94 Scandinavian Journal of Economics 29.
\textsuperscript{35} This was why Columbus mistakenly thought he found a new route to India.
\textsuperscript{36} In fact, John Harisson was viciously denied the prize for many years after making his fabulous invention and finally received it by a special Act of Parliament. See Heather & Mervyn Hobden, John Harrison and the Problem of Longitude (The Cosmic Elk, 2002).
\textsuperscript{37} FDI is formally defined as ownership of assets in one country by resident of another for purposes of controlling the use of those assets. The aspect of ‘control’ distinguishes FDI from portfolio investment, which is simply the establishment of a claim on asset for the purpose of realizing some return. See Edward Graham & Paul Krugman, Foreign Direct Investment In the United States 7-8 (Institute for International Economics, Washington D.C. 1995). Direct investment is defined by the U.S. Department of Commerce as ownership or control of 10% or more of an enterprise’s voting securities, or the equivalent, by a single person (including legal entities). See Bureau of Economic Analysis, U.S. Department of Commerce, Foreign Direct Investment in the United States: Detail for Historical-Cost Position and Related Capital and Income Flows, 2001 (SCB 2002).
\textsuperscript{38} In 1990, countries that were not OECD members (i.e., a very broad definition of developing countries) received roughly 15 percent of the $200 billion of world FDI. See James Hines, Tax Sparing and FDI in Developing Countries, in International Taxation and Multinational Activity 39 (James Hines ed., University of Chicago Press, 2001).
\textsuperscript{39} See the World Investment Report 1 (UNCTAD, 2002) (“Recent estimates suggest there are about 65,000 multinational corporations today, with about 850,000 foreign affiliates across the globe. Their economic impact can be measured in different ways. In 2001, foreign affiliates accounted for about 54 million employees, compared to 24 million in 1990; their sales of almost $19 trillion were more than twice as high as world exports in 2001, compared to 1990 when both were roughly equal; and the stock of outward foreign direct investment increased from $1.7 trillion to $6.6 trillion over the same period. Foreign affiliates now account for one-tenth of world GDP and one-third of world exports.”).
access, and management skills. FDI in general, and FDI by MNCs in particular, can strengthen, or even build, economic markets and institutions (achieve “market discipline”) in developing countries that benefit from spillovers (positive externalities) by the MNCs’ existence and activities.

The thesis offered in this Article is based on a three-level proposal. The proposal is modular, i.e., the first stage is the basis, and the two other levels are merely additions. Part III describes the first stage, which is limited to what developing countries can do on their own as a form of self-help. They can attract foreign direct investments by offering tax incentives. This is widely considered to be a bad policy, and therefore a main goal of this Article is to explain why this might be a good policy for developing countries to adopt.

Alternatively, they could attract FDI by offering zero, or very low, corporate tax rates. Ideally such low corporate tax rates would not be offered to activities involving ‘economic rent’ such as mining, and to retail activities, e.g., a Coca-Cola plant that is located in a developing country simply to sell its products to the domestic market. Such low tax rate should ideally be offered only to corporations in sectors that entail spillover effects. Eliminating all, or most, of the corporate tax would require reliance on alternative revenue sources. My point is that the greater marginal attraction of FDI entailing spillover effects, i.e., promoting growth in developing countries, justifies a move from taxing corporate income to greater reliance on consumption taxes. What is the tax incidence of the corporate tax, i.e., who bears the tax economic (as opposed to formal) burden is an open question in developed as well as developing countries. But, in general, it is assumed that in developing countries, 50 percent of the corporate tax is shifted to consumers and 50 percent is borne by the owners of capital in the economy. Therefore, the corporate tax incidence is assumed to be more regressive in developing countries than it is in developed countries. Hence, eliminating the corporate tax rate and increasing consumption taxes does not necessarily make the income distribution more regressive,

and in terms of efficiency, consumption taxes (such as the Value Added Tax that can be found in most developing countries) are usually considered to be more efficient than corporate income taxes.

To the extent that developed countries tax their residents on their income generated in developing countries, and give credit for taxes imposed by the developing countries, tax incentives or low corporate tax rates fail to attract investments, and are net transfers from the developing country to the Treasuries of the developed countries. As detailed in Part IV, this is not a significant phenomenon, but to the extent it exists, the second, and the more ambitious, level of my proposal applies, requiring the active support of the developed countries.

I do not propose to ask developed countries to increase the amounts that they transfer to developing countries, but to change the mixture of their contributions. Instead of contributing only money, I propose that some of the aid will be given through their tax systems, in the form of giving up some tax revenue. The tax revenue given up would not be transferred to the governments of the developing countries, but instead would be given to the investors who invest in developing countries. This might seem like a counter-intuitive argument since usually direct grants are considered to be superior to tax subsidies, but a closer examination would reveal the difference on the recipient side. Instead of giving all the foreign aid money to the governments I propose to give some of it to a certain type of private market players whose profit-seeking activity in the developing countries is an important key to those countries’ economic growth.

Current international tax regime determines the proper division of the tax base among countries in cross border transactions according to principles of entitlement and

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41 Even though that would be very helpful. The amounts being transferred have been decreasing in real terms (as opposed to nominal terms) over the years. Official flows (ODA) are now significantly lower than during the 1980’s. See World Bank, Global Development Finance 2002, Vol. II, p. 22 (Washington D.C., 2002).
administrative ease.\textsuperscript{44} The wealth of the countries sharing the tax revenue is not taken into account.\textsuperscript{45} On the other hand, domestic tax systems usually redistribute income from rich to poor taxpayers, and federal states often use their tax systems to redistribute tax revenue from the richer to the poorer states or provinces.\textsuperscript{46} Using the international tax regime to redistribute revenues from richer to poorer countries could be another channel to promote greater equality among the countries of the world and to fight poverty.\textsuperscript{47} Moreover, as will be explained in this paper, replacing some of the direct transfers from rich to poor countries, with indirect transfers carried through the international tax laws (i.e., replacing money contributions with tax revenue losses incurred by the rich countries) is a more efficient way to promote economic growth in developing countries then the current provision of grants.

Part IV describes the third stage to my proposal, which is limiting the abilities of developed countries to engage in tax competition over FDI with developing countries, and limiting the abilities of developing countries to engage in tax competition one against

\textsuperscript{44} Active business income is taxed in the country in which it originates (the source country) and passive income, such as dividends, interest, royalties and capital gains, is taxed in the country in which the recipient of the income resides (the residence country). Countries either exempt their residents’ active foreign sourced income, or give them a tax credit for foreign taxes paid if they tax the worldwide income of their residents (or citizens as in the case of the U.S.). The source (location) of active business income is defined in tax treaties as income generated by a "permanent establishment," or, in U.S. terms, "effectively connected with the conduct of a trade or business in the United States." There are important exceptions to these rules, and a variety of flaws, but they are not relevant to the argument made in this paper.

\textsuperscript{45} With the minor exception, that the imposition of the burden of alleviating double taxation on the residence country, in the case of an active business income, was meant to give an advantage to poor countries, as they are more likely to be the source countries, while the investors will typically come from the rich countries. See Reuven Avi-Yonah, Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State, 113 Harvard Law Review 1573, 1649 (2000). [Hereinafter: Avi-Yonah Globalization].

\textsuperscript{46} See, e.g., Albert J. Radler, Germany, in Hugh J. Ault, Comparative Income Taxation: A Structural Analysis 49, 49 (1997).

\textsuperscript{47} Using the international tax system to transfer tax revenue to the governments of poor countries was proposed thirty years ago by Peggy and Richard Musgrave who offered a uniform rate schedule for corporate tax and withholding tax, agreed upon by international convention (equivalent to GAAT) wherein tax rates would relate inversely to per capita income in the host country (the developing country) and directly to per capita income in the home country (the developed country). See Richard A. Musgrave & Peggy B. Musgrave, Inter-nation Equity, in Modern Fiscal Issues 63, 74 (Richard Bird & John Head eds., 1972). My proposal has a different focus. I do not suggest replacing direct money transfers with transfer of tax revenue to the governments of developing countries. I propose to use the international tax regime to pay multinationals with some of the tax revenue of rich countries to induce foreign direct investments in developing countries.
the other. This last stage is related to what is known in the legal tax literature as ‘the tax competition debate.’ On one side of the debate are those who are concerned that tax competition will increase the regressivity of tax systems in the world and reduce the social safety net offered by countries to their residents. On the other side there are those who view the tax competition as any free market price competition, which generally lead to the most efficient result.

The proposal made in this paper is neutral with respect to this debate. If the tax competition is indeed harmful (Professor Avi-Yonah wins the debate), then my proposal is to make an exception to the general advice to eliminate tax competition, by allowing (only) developing countries to engage in it. The justification would be based on international equity basis, as it will effect wealth redistribution from rich to poor countries. To the extent that tax competition between developing countries is perceived to be harmful, an international body should help them commit one to the other not to compete below a certain threshold. A possible sanction against a defecting developing country would be the repeal of exemption or tax sparing treatment given to investors in that country by the country of residence of the foreign investors.

If on the other hand, tax competition is not perceived to be harmful (Professor Roin wins the debate), then my proposal is, again, to interfere with efficiency in the name of international equity, and disallow developed countries to engage in tax competition while allowing developing countries to do so. Moreover, by creating an enforceable mechanism that will allow developing countries to coordinate tax rates they will be able to extract cartel profits i.e., improve their bargaining position against the MNCs, while having the

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50 The question whether global taxes should be harmonized is an open question in the economic literature as well. The economic analysis crucially depends on the modeling assumptions, and it seems that no consensus over one model has been reached yet. For a relatively simple classic stylized model see Jacob Frenkel, Assaf Razin & Efraim Sadka, International Tax Competition and Gains from Harmonization, in International Taxation in an Integrated World 197 (MIT Press, 1991).
ability to offer tax advantages to FDI that developed countries are prohibited from offering.

Both sides to the tax competition debate agree that tax competition on portfolio investment is harmful. In fact, both sides correctly view it as a problem of tax evasion. My proposal deals with FDI and not with portfolio investment, but since developing countries are especially harmed by tax evasion of portfolio investment income, I devote a short part of this paper, Part V, to analyze proposals to curb this type of tax competition, followed by a short Conclusion.

The ideology on which my proposal is based has two guiding principles. The first is that close economic contact between the industrial core and the developing periphery is the best way to accelerate the transfer of technology, which is the sine qua non for making poor economies rich. Hence all barriers to international trade should be eliminated as fast as possible, and developing countries must attract FDI. The second is that governments in general, and in developing countries in particular, lack the capacity to run large industrial and commercial enterprises; hence, save for core missions of income distribution, social insurance, public-good infrastructure, administration of justice, and a few others, governments should shrink and privatize.

An interesting aspect to my proposal is that attracting FDI to developing countries clearly serves an equity (inter-nation redistribution) end. But, at the same time it is also efficient from the world’s perspective, i.e., even developed countries would be made better-off. The reason is that spreading the knowledge and sharing it with greater numbers of the world’s population increases the likelihood that new ideas will be created, as ideas are used as platforms to new further reaching ideas. I.e., greater technological progress will be made, and since technology transfers from one country to another, all the countries in the world, including the developed countries, would benefit from the policy proposed in this paper.

51 A well known, widely recognized, and important policy that is not the subject of this paper.
II. GROWTH THEORIES AND FOREIGN DIRECT INVESTMENT (FDI)

The Neoclassical Growth Models

The first post-Keynesian growth theory is known as the Harrod-Domar model. According to this model, all that the government had to do in order to secure growth was to invest in machines. More machines meant greater output (GDP). Labor was left out of this model because, at the time, high unemployment rates were taken as given, therefore, workers were assumed to be in unlimited supply.

A later model, developed by Noble laureate Robert Solow in 1956-57, acknowledged the fact that the Harrod-Domar model could not explain sustained growth, since as the capital per worker increases, the marginal productivity of capital declines, until capital-labor ratio approaches a constant level (the steady-state), at which savings (which were assumed in the model to be a constant fraction of the income) are only just sufficient to replace worn out machines and equip new workers (assuming population growth), and productivity growth becomes zero.

To explain the long run sustained growth that the United States’ economy had been experiencing, Solow added an exogenous term, labeled “technological progress.” Technology - or knowledge - was thought to be accessible for everybody at no charge. This point is worth emphasizing. Solow’s model assumed perfect competition, and therefore the technology (knowledge) was not only non-rival as knowledge usually is, but also non-excludable. It was assumed to be a pure public good. The ability to extract monopoly rents through patents, for example, did not exist in Solow’s model.

54 Ordinary goods are rival goods, but information is non-rival. For example, the use of the double entry bookkeeping accounting method by one accountant or manager does not affect the ability of another manager to use it.
Technological progress increases the supply of “effective” labor and keeps the capital-labor ratio going, thus preventing decline of marginal returns to capital.

Solow never applied his model to any other country besides the United States, but other economists did. And this revealed a major problem with the assumption that technology, or knowledge, is freely and equally accessible to everyone, i.e., to all the countries of the world. Countries do not seem to be converging to a common level of per-capita income, as they should be under this neoclassical model, which assumes that all countries share similar savings behavior and have the same access to technologies.

A classic demonstration of the difficulty in the model’s assumptions was carried by Robert Lucas. As Lucas explained, under the neoclassical model’s assumptions, if production per worker differs between two countries, it must be because they have different levels of capital per worker, since the model’s assumptions ruled out all other possible differences. Then, argued Lucas, the law of diminishing returns implies that the marginal product of capital is higher in the less productive (i.e., in the poorer) economy. If so, capital should flow to the poorer country, until the returns on capital in both countries are equalized. By comparing production per worker in the United States with that in India (taking into account the average of U.S. and Indian capital shares), Lucas found that according to the model, marginal returns on capital in India must be about 58 times the marginal returns on capital in the United States. Such high rate of return was bound to attract significant amounts of foreign capital as no fear of political instability,

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55 The number of workers does not increase because labor is a fixed factor, but technology makes each worker more effective, reaching the same outcome as an increase in the number of workers would get.
56 See e.g., Edward Denison, Why Growth Rates Differ: Post-War Experience in Nine Western Countries, (Brookings Institution, 1967).
58 Another way that Lucas used this example to show the shortcomings of the model was to point out that each American worker would have to have about 900 times more machines than each Indian worker. American workers had only about 20 times more capital than Indian workers. Similar type of calculation was done by Paul Romer comparing productivity in the United States and the Philippines finding that in order to justify the differences in labor productivity between the two countries, under the model’s assumptions, the share of investment in the United States would have to be 30 or 100 times the share in the Philippines, while in fact it was only twice as large. See Paul Romer The Origins of Endogenous Growth, 8 Journal of Economic Perspectives 3, 6 (1994); See also Paul Romer, Increasing Returns and Long-Run Growth, 94 The Journal of Political Economy 1002 (1986) for similar criticism. The latter paper, together with Lucas’s paper, supra note 57, are considered to have pioneered the new (endogenous) growth theories.
corruption, or risk of appropriation, can prevent investors from investing at such high a yield. Since this was obviously not the case, Lucas concluded that the assumptions on technology and trade conditions that give rise to the example must be drastically wrong.  

The New Growth Theories

The main theory is one of intentional endogenous technological progress. There is assumed to be a separate technology sector in the economy that supplies the other sectors with new technologies. Producers pay the technology sector for the right to use the technology. These are monopoly profits because information has no opportunity cost. The basic assumption is that the technology producers have some control over the access to the information. The producers must charge a price above marginal cost for what they produce, i.e., take advantage of the imperfect competition. Otherwise the technology producers would not generate enough income to cover their costs, including the initial investment in new technology. However, in addition to the private, proprietary component, innovation also has a public component (externality) that increases the productivity of all subsequent innovation projects.  

This offsets the tendency toward decreasing productivity of new investments in innovative activity, and allows innovation production - and hence growth - to go on. In these models the rate of growth depends on the amount of resources devoted to innovation activity (e.g., R&D); the degree to which new technology can be privately appropriated; and the time horizon of investors. High-

59 However, there is at least one influential paper that defends the neoclassical model. See Gregory, Mankiw, David Romer & David Weil, A Contribution to the Empirics of Economic Growth, 107 Quarterly Journal of Economics 407 (1992) (arguing that if saving rates vary across countries, reflecting differences in tastes or culture, and the model includes human capital as well as physical capital, the evidence on the international disparity in levels of per capita income and rates of growth is quite consistent with a standard Solow model.) But see Gene Grossman & Elhanan Helpman, Endogenous Innovation in the Theory of Growth, 8 Journal of Economic Perspectives, 23, 29 (1994) (answering that the assumption of a common rate of technological progress in all 98 countries included in the study over 25 years “is simply indefensible,” and that “The rate at which producers in Japan have acquired new technologies, be they technologies that were new to the global economy or those that were new only to the local economy or the individual firm, has been markedly different from the rate of technology acquisition in Chad, for example.”). It seems that most of the literature that mentioned this debate tended to agree with Grossman and Helpman on this point but view Mankiw et al. paper as giving those who find it very difficult to depart from the neo-classical model, a respectable excuse to cling to it.

60 A classic example is Isaac Newton’s famous, modest, saying: “If I have been able to see further, it was only because I stood on the shoulders of giants,” referring to previous scientists such as Copernicus, Galileo and Kepler.
growth also implies high-growth in physical capital, but unlike the previous models, in this model it is a result, not a cause, of technological progress. Even though innovation activity usually involves great amounts of risk and only a small percentage of R&D projects succeed, the actual success is not an exogenous event. Actions affect the chances of innovation and discovery. The more firms invest time and money to achieve technological progress, the more technological progress will take place.

The scope of technology progress in these models is very comprehensive and raises many fascinating legal and economic issues. As Paul Romer comments, this model allows policy-makers to do something more insightful than the standard neo-classical prescription: more saving and more schooling. The examples he provides include: giving tax subsidies for private research, antitrust exemptions for research joint ventures, the effect of government procurement, the feedback between trade policy and innovation, the scope of protection for intellectual property rights, the links between private firms and universities, the mechanisms for selecting the research areas that receive public support, the cost and benefits of an explicit government led technology policy, and last but not least - the activities of multinational enterprises. This is where this Article fits in. I suggest using these profit maximizers to stimulate technological processes in, and transfer technological knowledge to, developing countries. My definition of “technology process” is as wide as could be. Imitation, adaptation of Western technology to the unique national circumstances,61 and innovation. The types of knowledge include modes of organization, blueprints, patents, manufacturing methods, marketing, product design, and any other knowledge that could promote growth.

One of the major channels for technology diffusion from developed to developing countries is foreign direct investment (FDI) by multinational corporations (MNCs). They are among the most technologically advanced firms in the world, accounting for a substantial part of the world’s research and development (R&D) investment. Most studies

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confirm the assumption that foreign-owned firms are more productive than their domestically owned competitors.62 Domestic firms have better knowledge and access to domestic markets;63 therefore, if a foreign firm decides to enter the market, it must compensate itself for the disadvantages compared to domestic firms. It is most likely that a foreign firm that decides to invest in another country enjoys lower costs and higher productive efficiency than its domestic competitors. In the case of developing countries in particular, it is likely that the higher efficiency of FDI would result from a combination of advanced management skills and more modern technology; Hence, FDI seems to be an important channel through which advanced technology could be transferred to developing countries.

Some case studies suggest that substantial technological diffusion to domestically-owned firms takes place.64 Firms in sectors with relatively high presence of MNCs, tend to be more productive.65 There is, of course, a difficult question of causality in these cases. It is possible that FDI is attracted only to sectors or firms that have greater productivity potential. But, it seems at least plausible to assume that FDI inflows raise the levels of technology in the host economy and contribute to higher productivity. This can be carried through a variety of mechanisms. One plausible mechanism is that FDI inflows increase the variety of intermediate products and types of capital equipment in the host economy.66 In so doing, FDI inflows lead to an increase of the productivity in the host economy. Another important mechanism through which FDI affects growth is learning. FDI inflows diffuse knowledge about production methods, product design and new organizational and managerial techniques. In this light, imitation becomes a crucial

63 See Graham & Krugman, supra note 37, at 36.
element. Another important mechanism is that FDI raises the productivity of domestic research and development activities.

A different kind of productivity spillover takes place when domestic firms learn from the export activities of MNCs or their host subsidiaries through information externalities. Exporting involves fixed costs, such as establishing distribution networks, transport infrastructures, marketing and market research, coping with regulation, and more. MNCs already have knowledge and experience in these fields and have established networks and procedures of managing those international transactions. Domestic firms can piggyback on some of these investments, such as those in infrastructure, and can benefit from some of the marketing that the MNCs created for the developing countries’ market. In addition, information such as technologies and management techniques often leak through local clients, suppliers and MNC’s workers.

In general, spillovers often take the form of imitation. Products, processes, managerial and organizational methods can all be reverse engineered if complicated or imitated if simple. Another important source of spillovers is working for the MNC. To the extent that the MNC supplies its local employees with general training, i.e., training that would be useful to them out of the specific workplace. When employees leave the MNC to existing domestic firms, or to start their own firms, large spillovers take place, since they carry with them knowledge of new technology or new management techniques, and gradually the MNC will face fierce competition from domestic firms using its own methods and unprotected technology. This is in fact a form of an implicit tax that the MNC is paying when it chooses to come to a developing country and employ local employees. Some argue that this is the most important channel for spillovers.\(^{67}\)

A wonderful example of the great potential that foreign direct investment can have for developing countries is the story of Desh Garments Ltd., a small company established in

December 1977 in Bangladesh. Its joint-venture with Daewoo, a major world textile producer from South-Korea is directly responsible for Bangladesh's thriving garment industry that annually exports $4.5 billion worth of goods – 75% of all Bangladeshi exports. In 1978, Bangladesh had no textile industry, and Desh garments sent 130 workers and management trainees to be trained at Daewoo state-of-the-art factories in South Korea. After six months they came back to Bangladesh to start a shirt factory. Their most valuable asset was not their knowledge of operating the machines, but a clever way to get around the Bangladeshi protectionist trading system and strict foreign exchange controls. The method required obtaining certain back-to-back letters of credit and getting the government’s approval to give duty-free imports to exporter such as Desh, and helping the government administer the scheme. Daewoo acquired this knowledge by dealing with similar issues in Korea and transferred the knowledge to Desh as part of running the business. After little more than a year of successful production, Desh canceled the collaboration agreement with Daewoo. Out of the 130 Desh workers trained by Daewoo, 115 of them left during the 1980's to set up their own garment export firms. This explosion of garment companies started by ex-Desh workers, gave Bangladesh its textile industry, currently responsible for three-quarters of its export.

This story demonstrates the value of knowledge leaks. Daewoo, made a small profit, though in the unusual circumstances of this specific example, maybe an unusually small profit. The founder of Desh Garments made a small profit as well. Most of the gains were shared by the Bangladeshi society as a whole.

Another example of employees spreading the employer’s knowledge as a source of growth is the difference between the Californian Silicon Valley and Massachusetts’ Route 128. One of the explanations to Silicon Valley’s higher rate of growth was that covenants not to compete have been unenforceable in California and enforceable in

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70 See Yung Rhee & Therese Belot, Export Catalysts in Low-Income Countries: A Review of Eleven Success Stories (World Bank, 1990); The Quest for Growth, supra note 21, at pp. 145-148
Massachusetts. This, among other things, caused faster knowledge leaks in Silicon Valley, hence a higher growth rate.  

FDI-created spillovers are not limited to the everyday meaning of the term “technology.” The spillovers I am referring to are what enable FDI to create, in developing countries, markets that do not yet exist, such as the textile industry in Bangladesh, and to improve the quality of existing markets. They can even help build and strengthen growth-required institutions in developing countries.

The dual listing of stock on the Israeli stock exchange is an example that supports the latter point. Israeli legislature enacted a pioneering unilateral recognition arrangement that allows issuers who comply with the reporting requirements under certain foreign laws to list their stocks in Israel as well. One of the reasons for this move was the hope that bringing "higher league" players into the local market would improve market discipline and trading norms. The mere listing of big corporations such as Microsoft on the Israeli stock exchange was thought to have positive spillovers affecting Israeli institutions. FDI can in certain circumstances bring higher “market discipline” to developing countries, improving their institutions. This of course should not be done instead of promoting good government policies and institutions in the regular direct way. But FDI can have such beneficial influences.

Moreover, multinationals’ activity in developing country can help a developing country to get out of a lock-in situation, such as having a comparative advantage in traditional industries, that dooms it to be permanently worse off compared to a country with a comparative advantage in more advanced industries. Knowledge spillovers in general, -

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71 AnnaLee Saxenian, Regional Advantage: Culture and Competition in Silicon Valley and Route 128 (Harvard University Press, 1994).
73 Id.
74 See Mancur Olson, Big Bills Left on the Sidewalk: Why Some Nations are Rich and Others are Poor, 10 Journal of Economic Perspective 3 (1996) (stressing the importance of institutions).
75 The United States has the greatest comparative advantage possible in agriculture. Yet, only 2 percent of its economy is devoted to agriculture. On the other hand, most developing countries, including those that have the worst possible condition to grow anything due, for example, to severe lack of water, base on agriculture most of their economies. See CIA World Factbook 2002, supra note 8.
and in the case of a developing country that hopes to use FDI spillovers to acquire a more advanced comparative advantage - in particular, require active participation on behalf of the local firms. The ability and motivation of the domestic firms to engage in investment and learning to absorb the foreign knowledge and skills is a central determinant of whether or not the potential spillovers will be realized. Therefore, the developing country has to do more than merely attracting FDI in order to benefit from the FDI’s spillovers. It has to provide its local firms with good incentives to increase the chances of knowledge absorption. This can be done, for example, by offering tax incentives to locals as well as to foreign firms, or by using non-tax measures such as subsidized or free training and by requiring the foreign investors to employ and train local employees.

Lastly, hosting multinationals’ activity can help developing countries keep their more competent residents from immigrating to developed countries, a widespread phenomena known as the “brain drain.” The better-educated people are attracted to developed countries where their higher education level can be matched, yield higher returns, and allow them to benefit from higher standards of living. Multinationals create a working environment that is more likely to provide the better-educated individuals the kind of opportunity that will keep them in their home countries.

Surely, attracting FDI is not the only way in which technology could transfer from developed to developing countries. As mentioned above trade is one important route and education is another. There are institutions such as the Fulbright scholarships that finance the studies of carefully selected individuals from developing countries in leading universities in developed countries, conditioning the finance on students’ return to their countries of origin shortly after they have complete their studies. Such schemes could be run on much larger scale funded by the developed countries in an effort to promote growth in developing countries. But, first, this type of scheme is much more limited in scope, compared to the different types of spillover effects that FDI might entail; second it

76 The economic damage suffered by developing countries when their better skilled individuals migrate developed countries was estimated to be many billions of dollars, greater than the amount of the foreign aid given by developed countries to developing countries. For an ingenious proposal to compensate developing countries for this loss, by taxing the individual emigrants and their employers see Taxing the Brain Drain (Jagdish Bhagwati & Martin Partington Eds., North-Holland Publishing Company, 1976).
is impossible to prevent the educated people in developing countries from immigrating to
developed countries a year or two later, and third, it requires the goodwill and action of
the developed countries, while attracting FDI can be initiated and carried through by the
developing country itself.

III. TAX INCENTIVES

The standard arguments against the use of tax incentives

According to the conventional wisdom, using tax incentives to attract investment in
general, and FDI in particular, is not recommended. In fact, international organizations,
such as the United Nations, World Bank, IMF, OECD and the EU have unanimously
opposed the use of tax incentives to attract investments. Tax incentives are considered to
be “bad policy.”77

There is a vast literature on tax incentives. The main arguments against the use of tax
incentives to attract FDI are the following:

(a) Tax incentives distort behavior and are therefore inefficient.78

(b) They are not effective and are harmful – Tax incentives have only minor effect on
FDI decisions.79

77 See e.g., United Nations, The Determinants of Foreign Direct Investment: A Survey of the Evidence,
(New York: United Nations, 1992); United Nations, Incentives and Foreign Direct Investment (New York:
United Nations, 1996); OECD, Taxation and Foreign Direct Investment: The Experience of the Economies
78 See e.g., Alex Easson, Tax Incentives for Foreign Direct Investment Part 1: Recent Trends and
Countertrends, 55 Bulletin for International Fiscal Documentation 266, 266 (2001)Id. id., (describing the
literature as saying that tax incentives “are bad in theory principally because they cause distortions:
investment decisions are made that would not have been made without the inducement of special tax
concessions.”).
79 Id., id., reviewing the literature as stating that tax incentives “are bad in practice, being both ineffective
and inefficient. They are ineffective in that tax considerations are only rarely a major determinant in FDI
decisions; they are inefficient because their cost, in terms of revenue forgone, often far exceeds any
benefits they might produce.”
(c) One should deal directly with the problems that make developing countries less attractive for investments, instead of trying to compensate for the disadvantages by offering tax incentives.

Tax incentives distort behavior

The first argument, that tax incentives are inefficient because they distort behavior is obviously wrong. Tax incentives are meant to distort behavior. They are meant to attract investments that otherwise would not have taken place. This does not mean they are inefficient. If investments did not take place because of certain market inefficiencies (e.g., asymmetric information between potential investors in developed countries and entrepreneurs in developing countries, or incomplete world capital markets), or if the FDI attracted by the tax incentives entail positive externalities (as described in Part II above), tax incentives that “distort behavior” are efficient, i.e., increase social welfare.

Moreover, another way to look at it from an efficiency point of view is that taxes on capital distort investment behavior; hence, the tax incentives (to the extent they do not result in negative tax rates) reduce economic distortions.

Tax incentive are ineffective and harmful

The second argument, that tax incentives are ineffective and harmful because their cost in terms of revenue forgone far exceeds their benefits, does not make much sense either. At least not at face value. If tax incentives are indeed ineffective as alleged, then no harm was done. The investors were not attracted, therefore, behavior was not distorted and tax revenue was not forgone. Tax incentive cannot be harmful and ineffective at the same time. The argument could hold if taxpayers were able to take advantage of the tax incentives without actually investing, or if investors, who would have made the investment even without the tax incentives, benefited from the tax incentives. This is an

80 For a similar idea see Boris Bittker, Equity, Efficiency, and Income Tax Theory: Do Misallocations Drive Out Inequities?, 16 San Diego L. Rev. 735 (1979) (One of the classics in tax policy literature, explaining a tradeoff in the effect that a tax provision might have between efficiency and equity).
issue of design and implementation that is relevant with regard to any form of
government intervention - tax as well as non-tax measures – which importance should not
be overlooked.\footnote{For guidelines see Richard Bird, Tax Incentives for Investment in Developing Countries, in Fiscal
Reform and Structural Change in Developing Countries, 201 (Vol. I) (Perry, Whalley & McMahon, eds.,
New York: St. Martin's Press, 2000).} But, the question whether tax incentives can attract FDI is an important
question, which is crucial to my proposal.

Until about ten years ago, there was a consensus in the literature that tax considerations
had only a minor effect on FDI decisions.\footnote{See e.g., David Holland & Richard Vann, Income Tax Incentives for Investment, in Tax Law Design &
Drafting 986, 998 (Vol. 2) (Thuronyi, eds. IMF 1998).} Determinants such as the consumer market
size of the country (e.g., China), labor skills, infrastructure, trade policies and political
and macroeconomic stability dominated the decision regarding investment location.

Globalization has dramatically reduced the importance of these factors, making tax
incentives a far more important determinant of FDI location than it used to be. Many of
the former barriers to FDI, such as tariffs and currency exchange controls, were
eliminated, or at least reduced, making taxes a relatively more decisive factor.\footnote{See Easson supra note 78, at 272.}
Moreover, thanks to lower transportation fees and better communication systems, the
activities of a multinational, such as the production of different parts of one product, or a
line of products, can take place in different countries around the world.\footnote{See Avi-Yonah Globalization supra note 45, at 1549 ("An Intel chip developed at a design center in Oregon, might be manufactured at a wafer fabrication facility in Ireland, packaged and tested in Malaysia, and then sold to a customer in Australia. Another chip might be designed in Japan, fabricated in Israel, packaged and tested in Arizona, and sold in China.")}
tax incentives are now an important determinant of FDI location\textsuperscript{85} is supported by empirical studies as well.\textsuperscript{86}

**Tax incentives should not be used to compensate for unattractive investment environment**

The third argument made by opponents to the use of tax incentives as a means of attracting FDI - an argument which we come to consider only after finding that tax incentives are effective - is that countries should not use tax incentives to compensate for weaknesses in infrastructure, mal-functioning court system, corruption, political instability, etc. This argument seems quite sensible, as we usually believe that problems should be addressed directly. Nevertheless, I find this argument to be unconvincing for the following reasons.

\textsuperscript{85} For a common-sense theoretical argument see Bird, supra note 81, at 204 (“After all, if investment is assumed to respond to changes in the cost of capital, and incentives change the cost of capital, then incentives must affect investment.”); For an empirical study that supports Bird’s assumption see Kevin Hassett, & Glen Hubbard, Tax Policy and Investment, in Fiscal Policy: Lessons from Economic Research 339 (Alan Auerbach Ed., Cambridge, MA: The MIT Press, 1997); But see Austan Goolsbee, Investment Tax Incentives and the Price of Capital Goods, 113 Quarterly Journal of Economics 121 (1998) (finding that much of the benefit of tax incentives is captured by the suppliers of capital goods through higher prices); Cf. Kevin Hassett & Glen Hubbard, Are Investment Incentives Blunted by Changes in Prices of Capital Goods?, 1 International Finance 103 (1998) (suggesting regression problems in Goolsbee’s econometrics).

If developing countries could have accomplished goals such as good infrastructures, highly skilled labor force, zero inflation, well functioning progressive tax and transfer system,\textsuperscript{87} political stability, good court system and enforcement of rulings, they would not be developing countries. They would be the United States. One has to be realistic. Developing countries lack most of these qualities and this is exactly what makes them developing and not developed countries, and this is why they are less attractive to investors compared to developed countries. Total World FDI inflows in 2001 were $735 billion, out of which less than $110 billion were to poor countries, with China accounting for $46 billion, i.e., almost half of this amount.\textsuperscript{88} Tax incentives are not being used to attract FDI \textit{instead} of adopting sound policies and building good institutions, but \textit{in addition} to such efforts. The fact that we do not see much progress on these fronts has only little to do with the fact that developing countries offer tax incentives, and a lot to do with the fact that these are very hard goals to achieve and in many cases government officials lack the correct set of incentives to do that. Tax incentives, like any other intervention in the market, are justified if required to correct market inefficiencies, or in the case of positive externalities. My core assumption in this paper is that FDI entail such positive externalities (productivity spillovers). As in any other case of positive externality, the amount of FDI, with no government intervention, would be socially sub-optimal since the foreign investors cannot capture the full gains of their investments.

According to one, possibly extreme, yet, well-known model, the developing country, assumed to be a small open economy, cannot tax the FDI at all. Capital is mobile and the tax burden will be shifted to immobile factors in the developing country, such as land and labor, as their marginal product falls when the capital stock declines. It would be more efficient to explicitly exempt the FDI from tax, except for the taxation of economic rents,

\textsuperscript{87} Even under my proposal, tax incentives should \textit{not} be used to compensate for deficiencies in the way the tax provisions are drafted. The costs of designing, implementing and monitoring the tax incentive provisions could be spent on improving the design, implementation and monitoring of the regular tax provisions.

\textsuperscript{88} FDI Statistics, Division on Investment, Technology, and Enterprise Development (UNCTAD, 2002). Overall, countries in the category of “developing countries”, which includes countries such as Hong-Kong, Singapore, Taiwan and South-Korea, benefited from $225 billion of FDI inflows. The countries that attracted most FDI offer significant tax incentives.
and impose taxes on the immobile factors directly. Taking this last point to the extreme, the real issue that is being raised by the third argument is a question of subsidy, not tax. The question is how much should the developing country pay in order to attract FDI. The payment is *formally* done through the tax system, as the country does not impose tax (or imposes a low tax). But, in substance, the subsidy is paid to the foreign investor by offering it the use of infrastructure that was financed by the domestic taxpayers without charging the investor for the use.

Moreover, (and this is true even if we do not assume that any tax imposed by developing countries is shifted to labor and land income,) the question is not a question of *theory*, but is a *factual* one. I therefore disagree with the literature that rejects the use of tax incentives based on the principle (i.e., a theoretical “truth”) that countries should deal with their weaknesses in a direct manner, instead of “patching it up” with tax incentives. Tax incentives cannot be ruled out on theoretical grounds. It is a question of marginal cost/benefit analysis, comparing the cost and benefits of using the marginal dollar to directly “build sound institutions” on the one hand, and attracting FDI on the other hand. The answer would vary from case to case depending on what is the next item on the agenda of “building sound institutions” compared to what spillovers are expected to take place from investing the next dollar in tax incentives to attract FDI.

I maintain that both avenues are important, and that it is unlikely that the marginal efficiency of direct government actions to build sound institutions is so high that no money at all should be spent on attracting FDI.

There are two ways in which the government could use its money to promote growth. It could use it to build infrastructure, invest in education, reduce distorting taxes, and do all the other good things we refer to as “building good institutions.” On the other hand, the money could be used to attract FDI that entail productivity spillovers. It is very difficult

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89 The only exception is when the investor’s home country taxes the investor on its worldwide income and provides the investor with a tax credit for foreign taxpayers paid, and the investor is in a position that enables it to use the tax credit (known as ‘excess limit position’). See Part III infra. See Joel Slemrod, Tax Policy Toward FDI in Developing Countries in Light of Recent International Tax Changes, in Fiscal incentives for Investment and Innovation (Anwar Shah, ed., World Bank, 1995).
to measure the exact marginal costs and benefits of these two options. I assume that both avenues to promote growth involve diminishing marginal returns. Therefore, it seems reasonable to argue that some degree of this type of tax incentives is justified (in addition to certain tax incentives that come at no cost, as will be explained below). Exactly how much, is a complicated question that requires a careful analysis of each specific case.

Moreover, one of the basic claims I make in this paper is that the first avenue – building good institutions - is very taxing on the government. The experience of the past 50 years teaches us that governments in many developing countries are not doing a good job in building such sound institutions, and the gap in growth rates (and even more so in absolute living standards) is widening. The advantage of using the tax incentives avenue is that it requires less from the developing countries governments. Unfortunately, the spillovers are not automatic. The developing country must invest in education, and build the right set of incentives for individuals to succeed, but it is far less demanding than building the good institutions in isolation from the world. Trade with other countries is one way in which the developing country can benefit from spillovers, and FDI is another.

The theoretical case for using some of the tax revenue to attract FDI seems to me to be quite compelling. The mere fact that multinationals will benefit from it does not mean that it comes at the expense of the developing countries. Voluntary economic transactions are mutually beneficial. Multinationals could exploit the developing countries only if there was some inherent difference in the bargaining positions. As long as there are enough players on both sides - multinationals and developing countries – multinationals are not likely to have the power to exploit developing countries and dissipate the entire surplus generated by the investment transaction, i.e., force developing countries to pay for the spillovers they gain.\footnote{In Part IV below, I propose a mechanism that would allow developing countries to form a “cartel” that will give them a bargaining position advantage over the multinationals, if we assume that both parties are otherwise on equal bargaining positions. If we assume that multinationals have an advantage due to a relatively small number of players, which causes a phenomenon such as a prisoner’s dilemma (harmful tax competition), then the proposed mechanism will offset this advantage.}
There are cases in which tax incentives are always good, and no cost/benefit analysis is required. These are tax incentives that satisfy the following two conditions:

(1) They attract FDI that otherwise would not have been made; and

(2) They do not involve a transfer of tax revenue from domestic taxpayers to the foreign investors. No such transfer takes place if the foreign investor pays taxes that cover the costs of the infrastructure and any other costs that the developing country incurs due to the direct foreign investment existence and activities. Alternatively, the foreign investor might not pay any taxes, but if practically all that it uses are pure public goods, it imposes no marginal costs on the developing country, and therefore, tax incentives that attract such marginal FDI are always justified. They come at no cost to the local taxpayer; yet, entail spillovers (positive externalities) and promote growth.

The use of tax incentives could be justified even if some of the investments that benefit from them would have taken place without the tax incentives, if the administrative costs of using separate tax rules for different investors are high, and the overall outcome is justified under a cost/benefit analysis.

**Tax Incentives Versus Low Corporate Income Tax Rate**

Tax incentives are tax provisions that deviate from the base line provisions. Therefore, by definition, tax incentives have to be targeted at specific types of investors and/or specific types of investments. Targeting makes tax incentives a much more powerful (cost effective) policy tool than an across-the-board low corporate income tax rate (or a zero tax rate) assuming that the policymaker knows what types of investment involve the greatest positive spillovers.

It is often assumed that investments in plant and equipment in medium and high tech industries promote growth. Attracting such investments can be done through faster-than-economic cost recovery of such investments and/or the provision of various forms of

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91 Assuming they are well designed to avoid manipulation.
investment allowances or tax credits. Allowing the taxpayer to deduct (or even expense, i.e., deduct it all in the first year) education and training investments, or providing the employer with tax credits for such investments can apply these forms of tax incentives to investments in human capital as well.

The disadvantage of targeting is that policymakers cannot be expected to estimate correctly which types of investments would have the greatest positive spillovers. As explained in Part II supra, the spillovers can take a wide variety of forms, such as knowledge of management techniques, market discipline, blueprints, and all kinds of subtle advances that are not necessarily captured when tax incentives are restricted to investments in plant, equipment and job training. Conventional tax incentives, targeted at investments in machines, are based on rationales such as the Harrod-Domar formula (capital formation) or technology transfers. But, foreign direct investments, in almost any economic sector, enable the host economies to absorb and adopt best international practices in terms of governance and other institutional structures. Hence, optimally tailoring tax incentives to lure foreign direct investments that have the greatest potential spillover effects is a very complicated task.

It might be easier for a policymaker to identify a good potential investment once they see it, instead of defining a category of “good investments.” This calls for a case-by-case discretionary decision. But, there are many disadvantages to such a regime. First, it is more difficult to market this type of tax incentives to potential investors, who might be unaware of the potential tax incentives. It therefore fits mostly large investments since the investors in such cases are more likely to “shop around.” Second, the advantage over the “general category tax incentives” mentioned above, is limited, since policymakers might not be able to correctly assess the potential spillovers even when they examine a specific investment. Lastly, the most acute disadvantage of discretionary tax incentives, especially

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92 For a good description of advantages and disadvantages of various tax incentives see Howell Zee, Janet Stotsky & Eduardo Ley, Tax Incentives for Business Investment: A Primer for Tax Policy Makers in Developing Countries 30 World Development 1497 (2002).

93 This would also allow the government officials who are taking the decision to check if the investor would be taxed by its home country and be eligible for a foreign tax credit. In such a case imposing a tax that would be offset by the foreign tax credit available to the investor would be optimal from the host country’s point of view.
in developing countries, is that they are susceptible to corruption. In fact, discretionary application of tax incentives was found to be one of the most important contributing factors to corruption in many countries.\textsuperscript{94}

Therefore, I maintain that a general corporate income tax rate reduction, although conventionally considered to be the worst type of tax incentive,\textsuperscript{95} is a viable possibility to attract FDI that promote growth.\textsuperscript{96} If we think that FDI spillovers are large enough and are generated by a wide range of activities that cannot be reasonably expected to be well defined by policymakers in developing countries, then maybe it is not such a bad form of tax incentive after all.

Tax holidays are usually targeted at production activities as this type of activities are more likely to entail spillovers and since retail enterprises can be expected to locate in their consumer markets even without tax incentives. Such a limitation seems to be warranted, and even though it is likely to generate litigation by taxpayers trying to broaden the definition of the term “production” or “manufacturing” by means of court interpretation, these costs are likely to be justified compared to the benefits of raising tax revenue from corporations that locate in the developing country in order to sell their services or products to the local consumers.

A problem with tax holidays is that if they are restricted to foreign investors, they either create a competitive disadvantage to domestic firms, or are relatively easy to abuse by domestic taxpayers forming foreign corporations and investing as ‘foreigners’ in their own country (‘round tripping’). These problems could be mitigated, assuming that the tax holiday (or a general low corporate income tax rate) applies to domestic taxpayers as well, or assuming that the benefited foreign enterprises are not allowed to sell their

\textsuperscript{94} See Andrew Goudie & David Stasavage, Corruption: The Issues, Technical Paper No. 122 (OECD, 1997).

\textsuperscript{95} See e.g., Zee, Stotsky & Ley, supra note 92, at 39.

\textsuperscript{96} Tax holidays are the most prevalent form of tax incentive in developing country, and as Professor Bird mentioned in the context of tax incentives in general, it raises the question: “If everyone is doing it, can it really be wrong?” See Bird supra note 81, at 202.
products in the domestic market, or are otherwise isolated from the domestic market (‘ring fenced’) and effective anti-avoidance measures are in place.\(^97\)

Another potential problem with tax holidays arises when they are limited by time. In general, I do not propose such limitation, and it is possible that this means that what I am proposing should not be considered ‘tax holiday’. In the case such time limitation is imposed, due for example to a desire to make it politically easy to terminate if the policy is found to be unsuccessful, then it is important to design the tax holiday in a way that would not make FDI less attractive than the regular tax system. This could happen, for example, by disallowing the foreign taxpayer to deduct depreciation when the tax holiday is over. Allowing the deduction is necessary in the case of FDI start up, since during the tax holiday period the net earnings were likely to be low or even negative because of the depreciation.\(^98\)

Tax holidays result in greater revenue loss compared to other, more targeted, forms of tax incentives. They are offered to investors who would invest even in the absence of tax incentives. The revenue loss can be reduced by limiting the tax holiday in time or by restricting the amount of revenue that is exempt from tax. An elegant way of doing that is giving the investor a large tax credit that is a fixed sum determined when the investment is made. Assuming that the corporate income tax is at a uniform rate, as is usually the case, such a tax credit is equivalent to a tax rate reduction (possibly to zero if the credit is greater than the taxable income). The unused amount of the tax credit is rolled over to the following tax year to be used to offset that year’s taxable income. The taxpayer computes its tax liability every year under the regular tax system, and is then allowed to offset it with whatever is left of its tax credit amount. If the policymaker wishes to impose further limitations, it can allow the use of only a limited amount of the tax credit each year, thus extending the period in which the tax incentive will be in effect. Once the tax credit is diminished, the investment is taxed under the normal tax rate.

\(^97\) See next sub-Part below for a short analysis of what happens when the tax incentives are not limited to foreign investors.

This type of limitation (especially in terms of preventing abuse) might be too administratively demanding for some developing countries. Moreover, it obviously makes the investment less attractive as the investors know that by the end of the time period (or amount of tax credit) the enterprise will be subject to regular tax rates. This might attract more investments of a type that can be easily relocated at the end of the tax incentives’ period, a phenomenon that is usually considered to be undesirable.99

Therefore, a simple across-the-board rate reduction might be a good policy option after all.100 A zero tax rate is less recommended since imposing some tax forces the taxpayers to report to the tax authorities, thus providing the government with information that is relevant to the monitoring and reassessment of the tax incentive regime.

The revenue loss, from offering the tax incentive to investments that would have been taken in the absence of the tax incentive, might be worth the simplicity, i.e., savings in administrative costs of implementing and monitoring a (targeted) tax incentive system.101

**Giving up the ability to impose corporate income tax on domestic taxpayers**

This is by far the most troubling aspect of using tax incentives (or low corporate tax rate) to attract FDI. Limiting the tax incentives to foreign investors might not be administratively feasible. Moreover, extending the benefits to domestic corporate

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100 The low rate should not apply (unless administrative costs of differentiating are too high) to activities involving ‘economic rent’ such as mining, and to retail activities (e.g., a Coca Cola plant that is located in a developing country simply to sell its products to the domestic market).
101 This is often done in the domestic context. When the policymaker wants to provide poor people with a certain good, say, free or subsidized milk in schools, it provides it universally instead of targeting it at the poor alone. This is wasteful in the sense that the rich receive the subsidy as well. But, targeting it at the poor would be even more expensive as it will involve a variety of costs. For an excellent demonstration of the costs of targeting (and the advantages of universality) see Daniel Shaviro, Effective Marginal Tax Rates on Low Income Households, 84 Tax Notes 1191.
taxpayers might be desirable in order not to put them at a competitive disadvantage relative to the FDI with respect to the local markets, and in order to place them at a good starting point to absorb spillovers with respect to export activity.

Losing the ability to impose regular corporate income tax rates on domestic taxpayers might not be too harmful, for the following reason. Shifting from income to consumption tax is usually considered efficient but regressive, since capital tends to be concentrated with the rich, and exempting capital income from tax\textsuperscript{102} obviously benefits them. But, the regressivity can be offset by a more progressive use of the tax revenue generated from other sources, i.e., through the expenditure side of the national budget.\textsuperscript{103} Moreover, there are differences between the incidences of taxes in developed and developing countries. According to Shah and Whalley, the incidence of corporate income tax in developing countries makes it somewhat regressive.\textsuperscript{104} Replacing the (regressive) corporate income tax with greater reliance on the regressive consumption tax, might not add much, if at all, to the overall regressivity of the tax system, even without adjusting the budget’s expenditure side. Hence, a shift to consumption tax might be justified, if the tax incentives indeed attract FDI that result in spillovers that promote growth. Moreover, one of the current differences between tax systems in developed and developing countries is that rich countries rely on individual income taxes while developing countries rely on corporate income taxes.\textsuperscript{105} If reducing the corporate income tax rates will force developing countries to exert greater efforts to tax individual income taxes, and domestic taxpayers would not be exempted from tax, it would make their tax systems closer to those of developed countries, and since we usually assume that developed countries adopt better policies, this might not be a bad outcome.

\textsuperscript{102} That is the difference between income and consumption tax bases.

\textsuperscript{103} It would be essential to prevent individuals from transforming their labor income into corporate retained earnings, and receive their income in the form of exempt capital gains. A corporate cash flow tax, which levies zero tax on marginal investment in net present value terms but collects some tax on economic rents, could be the optimal solution. See Zee, Stotsky & Ley, supra note 92, at\textsuperscript{104} See supra note 40.

\textsuperscript{104} See Robin Burgess & Nicholas Stern, Taxation and Development, 31 Journal of Economic Literature 762, 776 (1993) (“For rich countries (>\$6,000) personal income taxes, to a substantial extent, replace taxes on corporations.”). Developing countries obtain most of their tax revenues from equal shares of consumption taxes, trade taxes and income taxes (mostly corporate income tax). Developed countries, on the other hand, obtain 36% of their revenue from individual income taxes, 29% from consumption taxes and about 29% from social security contributions. Id., at 775.
Another potential harmful effect the use of tax incentives might involve is greater corruption and rent seeking behavior on the part of government officials. Limiting the discretion given to officials, such as by legislating the tax incentive, or using a universal low corporate tax rate, could help in minimizing the problem. In addition, one should take into account the goal this policy is trying to achieve – which is promoting growth in developing countries. Other methods that are being used to achieve this goal, such as the provision of grants or loans to the governments of developing countries to promote growth by government projects, seem to me to be at least as susceptible to corruption and rent seeking behavior. Tax incentives, if carefully designed, are probably less vulnerable to corruption than most other available options.

IV. EQUITY BASED TAX EXPENDITURES AND THE INTERNATIONAL TAX REGIME

One of the current disadvantages of tax incentives is that their benefits might not accrue to the investor, as it will be taxed away by its country of residence. This might take place if the investor is a resident of a country, such as the United States, the United Kingdom, or Japan, that imposes tax on its residents’ worldwide income and relieves double taxation by providing tax credit for foreign tax paid [hereinafter: FTC countries]. The host country’s tax incentives reduce the foreign tax paid by the investor, but also reduce the foreign tax credit given to the investor by the residence country. Under such a scenario, the investor does not benefit from the tax incentive, and therefore, the tax incentives are ineffective in attracting FDI.

This harsh result, from the investor’s and the host country’s point of view, can be mitigated if the investor incorporates in the host country, or channels the FDI through an entity incorporated in a third country that exempts foreign income from tax. Most FTC

106 Other countries such as France and the Netherlands exempt foreign income generated by their residents.
107 Provided it is done in a way that avoids the application of the home country’s anti-avoidance provisions such as CFC rules.
countries tax the income of foreign subsidiaries only when the income is repatriated to the resident parent company in the form of dividends, interest, royalties, or capital gains.

Moreover, FTC countries, such as the United States, often allow their resident corporations to pool together their foreign incomes from different foreign countries, and apply a foreign tax credit to all of them. Since the amount of foreign tax that can be credited against the resident country’s tax liability is limited by the tax rate of the resident country, corporations that have foreign sourced income, that was subject to foreign taxes at tax rates that were higher than the rates imposed by the resident countries, cannot credit the full foreign tax paid against the resident country’s tax. These corporations are in ‘excess credit position.’ Such corporations benefit from tax incentives offered to them by the host countries in which they invest, since the income they generate in those countries is added to the foreign sourced income that they generate in high tax countries. Hence, the total foreign tax rate is reduced, as it is the average of the tax rates of the high and low tax countries, enabling the corporation to fully credit the foreign taxes paid against its resident country tax.

Empirical studies support the assumption that U.S. resident corporations do not pay U.S. effective tax rates on their foreign source income, although they are formally taxed by the United States on their worldwide income. Or, in other words, tax incentives benefit the investors and not the investors’ country of residence.\(^{108}\)

The actual division of the host country’s tax concessions between the investors and their home FTC countries is unknown. It is possible that some of the benefit accrues to the home country. This happens when the foreign subsidiaries repatriate profits to the parent company, or when FDI are carried through a branch and the investor is in ‘excess limit position’, i.e., no averaging with investments in high tax countries took place.

Moreover, to benefit from tax incentives, investors have to incur some transaction costs. If they prefer to operate through foreign branches, they are limited in their investment choices, as they have to invest at a certain ratio of high to low tax countries to avoid both excess credit and excess limit positions. If they have too much income in a high tax country they get into an excess credit position, i.e., are unable to get credit for the full foreign tax paid. If on the other hand, they have too much income in low tax countries they get into an excess limit position, and lose some of the tax savings offered to them by the low tax host countries, to their home countries’ Treasuries.

If they operate through foreign subsidiaries they suffer from a cash flow constraint, as they cannot repatriate the foreign profits to the parent corporation without paying the home country tax. Moreover, they might have to compromise in terms of accepting less preferred corporate and securities laws, and suffer from many other undesirable legal or economic applications that operating through a foreign subsidiary might involve. In developing countries it could be long waiting periods for registration, various fees, greater risk of appropriation by the government, etc. If they operate through an entity incorporated in a third country, they run the risk of anti-avoidance provisions, e.g., anti-treaty-shopping rules, bearing various legal and accounting costs.

I therefore propose that FTC countries that are home countries of investors (mostly multinationals) making FDI in developing countries, should either exempt, or apply ‘tax sparing’ provision to, income generated in the developing countries.

This will make FDI in developing countries that offer tax incentives more attractive for the following two reasons. First, it will save the costs, mentioned above, that are currently incurred to avoid the home country tax. Second, to the extent that investors pay tax to their home country on their foreign sourced income from developing countries, this proposal will save them the tax, i.e., direct the tax incentive benefits to the investor and not to its home country’s Treasury.
The proposal transfers revenue from the Treasuries of developed countries to their resident multinationals that make FDI in developing countries. It is an indirect transfer to developing countries, as it increases the attraction of their tax incentives. It is equivalent to giving the governments of the developing countries targeted aid, i.e., money they can use only to attract FDI. 109 Alternatively one could suggest that developed countries give their resident MNCs direct grants, instead of tax exemption (or tax sparing), to the extent they invest in developing countries. As mentioned above, in essence the two alternatives are equivalent. The differences are in the administrative details. Direct grant has the advantage of promoting FDI to an unlimited extent because operating through the tax system limits the size of the grant to the difference in tax rates. A direct grant on the other hand, could be as high as the developed countries wish it to be. The advantages of operating through the tax system are saving the transaction costs mentioned above, e.g., the need to average investments in low and high tax rate countries if operating through branches, or incorporating and refraining from repatriation of profits if operating through a subsidiary. 110 Moreover, it seems likely that by giving MNCs direct grants we would give them greater ability to divert the funds to their operations in developed countries, making only minimal investments in developing countries, as it might be difficult to establish workable rules that link the grants to FDI in developing countries. Exempting the tax on the other hand, establishes a direct link between the FDI in developing countries and the subsidy, as it is only the income generated by that FDI that benefits from the tax break.

The transfers from rich to poor countries can be further intensified by imposing limitation on rich countries’ abilities to engage in tax competition with poor countries. 111 Tax

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109 Usually we do not believe in these types of targeted aid, though they are quite prevalent, e.g., food stamps. But, the relative incompetence of developing countries in promoting growth (and maybe the incompetence of any government when compared to the operations of a free market,) based on the experience of the past 50 years, leads me to suggest this proposal, which may be viewed as ‘paternalistic.’

110 Operating through the tax system in this case has the same administrative elegance of a negative income tax system, or a refundable credit. Instead of imposing a full tax and giving a cash grant, i.e., two separate administratively costly transactions, we have only one transaction, giving a tax break.

111 Those, such as the EU and the OECD, which advocate tax harmonization, would welcome the proposal, as their main concern is the tax competition among developed countries.
harmonization can be justified (in addition to any other justification) as part of an inter-
nation equity regime transferring wealth from developed to developing countries.112

Tax competition could be defined in broad terms – beyond the conventional definition of
what constitutes harmful tax competition - to include low corporate tax rates, even if they
are applied to domestic and foreigners alike. Ireland, for example, would be required to
raise its corporate tax rate (12.5%) to decrease the relative disadvantage that developing
countries have when competing against Ireland over FDI. Ireland might be allowed to
maintain a lower corporate tax rate than other developed countries, thus preserving its
relative tax advantage over them, but it should be much higher than the tax rate (could be
zero) offered by developing countries.113 This would involve some transfer from low tax
developed countries, such as Ireland, to developing countries. The transfer is not a money
transfer (quite the opposite since increased tax rates are likely to increase revenue) but a
transfer of FDI which potentially is translated into economic growth. The size of the
transfer might not be large, since developed countries, such as Ireland compete mostly
against similarly situated countries. Ireland has many advantages; one of them is its
geographic location and its EU membership. The low tax rates are therefore mostly
needed to give it an advantage over other European countries, and Ireland would be
allowed to maintain that. It is the relative advantage that matters the most in the
investment attraction game.114

Developing countries might engage in tax competition as well, undercutting each other’s
tax preferences. To the extent that we see it as harmful tax competition, we might want to

112 These proposals are based on the notion of ‘offering a carrot’ to MNCs to direct FDI to developing
countries. The tax system is used as an instrument increasing the rate of return on investments in
developing countries. To the extent these proposals require cooperation and goodwill on behalf of the
developed countries, similar results could be achieved using a ‘stick’ instead of the ‘carrot’. Developed
countries could agree to regulate their R&D activity carried by their residents so that some of it would have
to be transferred to developing countries. This would require the cooperation of all, or most, of the
developed countries, but if done could be more effective than the tax avenue.
113 Ireland’s low corporate tax rate is not considered to be a form of harmful tax competition according to
the EU and OECD definitions, because it is not limited to foreign investors. See OECD report supra note
114 See for example, Switzerland and Luxemburg’s clever move to abstain instead of veto the OECD report
suggesting to eliminate preferential tax regimes. By abstaining they did not prevent the adoption of the
report by other OECD Member countries. Such adoption by the other OECD would increase the relative
attraction force of these two countries. See OECD Report, supra note 48, at 78.
apply similar anti-tax competition rules to developing countries, thus establishing two
different harmonized tax levels. One for developed countries and the other for developing
countries.

The division between developed and developing countries could be done based on GDP per capita. In contrast to domestic tax and transfer systems that might induce low income people to quit work in order to qualify for subsidies or direct transfers, similar phenomenon is unlikely to take place in the inter-nation redistribution system. Countries will not reduce their GDP per capita to benefit from the proposed transfer. Yet, some arbitrary (unfair) cutting point would have to be established, as gradual rate implementation would seems to be too complicated.

Unfortunately, very complicated rules would be required to prevent channeling of investments in developed countries through developing countries to take advantage of the tax exemption or tax sparing provisions. Other complicated rules would be required to assess the effective tax rates, taking into account statutory tax rates, tax base (as it can be eroded by measures such as accelerated depreciation deductions), and non-tax subsidies to investments. The various harmonization proposals deal with many of these issues, and some helpful provisions already exist under current laws.

The proposal could be implemented gradually through bilateral treaty network between developed and developing countries, assuming that a significant number of the strongest economies, such as the OECD, or the United States together with the EU and Japan, will be the first to sign such treaties. Multilateral agreement (GAAT for taxes) would be much more suitable, and the establishment of an organization equivalent to the WTO to monitor the agreement could be especially beneficial.115

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115 For proposals to establish multilateral tax agreement and a world tax organization see e.g., Vito Tanzi, Taxation in an Integrating World 140 (Brookings Institution, 1995) (concluding his book with the sentence “There is no world institution with the responsibility to establish desirable rules for taxation and with enough clout to induce countries to follow those rules. Perhaps the time has come to establish one.”).
Limits Imposed by International Organizations

International organizations such as the World Trade Organization (WTO), the IMF, and the EU, often use their powers to force countries to give up tax incentives. When the forced country is a developed country, as in the case of EU members, such practice conforms to my proposal. I suggest that international organizations would disallow developed countries to engage in tax competition with developing countries. The EU, which is concerned with tax competition among its members, would find it easy to comply with this type of redistribution policy.116

On the other hand, I propose to change the IMF’s policy of conditioning loans to developing countries on their repeal of tax incentives.117 I suggest that the IMF and the World Bank’s experts, who frequently advise developing countries on fiscal issues, would change their anti-tax incentives policy, and help governments in developing countries to perform the cost/benefit analysis mentioned in Part II above, and design and implement tax incentives that will attract the type of FDI with maximum spillover effects taking into account the specific country’s situation. An essential part of such planning is taking non-fiscal actions that are necessary to allow the country to absorb the FDI spillover effects.

I do not suggest limiting the WTO’s actions in ensuring free trade. For example, I do not think that developing countries should be generally allowed to subsidize exports, because such actions are unlikely to give them an economic advantage over developed countries. Developed countries can benefit from such subsidies (or trade taxes) since they change

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116 As a precondition to their accession to the European Union, each of the 10 states that were allowed to become full EU members in May 2004, had to commit to EU tax standards. See Chuck Gnaedinger, 10 Accession Countries Poised for EU Membership, 28 Tax Notes International 1183; See also Balazs Bekes, EU Pact Raises Questions About FDI, 29 Tax Notes International 28 (Hungary was required as a preliminary condition to its acceptance to the EU, to give up its corporate tax breaks for foreign investment. Investors that might be adversely affected by the changes represent approximately 40 percent of Hungary’s total exports).

117 See Easson supra note 78, at 270 (giving examples for such IMF pressure on Indonesia, the Philippines, Romania, Tanzania and Uganda); See also Country Digest, IMF Nixes Budget Proposals, 28 Tax Notes International 23 (stating that the IMF did not approve Bulgaria’s proposed zero tax on reinvested profits in its 2003 budget).
the terms of commerce to their advantage. But, developing countries are unlikely to have such powers, and will generally become worse-off by imposing trade taxes or providing export subsidies, as it will isolate their industries from efficiency-enhancing competition. Yet, the WTO should not prevent developing countries from offering tax incentives that attract FDI through non-export related tax concessions. A recent WTO ruling that Thailand must end some of its investment incentives by 2004 is an intriguing example of a borderline case.

IV. PORTFOLIO INVESTMENTS

This paper should not be understood as promoting tax competition in general. Although it proposes to allow developing countries to engage in tax competition to attract FDI away from developed countries, it suggests forbidding developed countries, such as Ireland, from offering low tax rates that might undercut the developing countries’ efforts; and proposes to limit tax competition within the developing countries’ group. Moreover, while developing countries might benefit from tax competition that attracts FDI, they are severely harmed by tax competition that attracts portfolio investments.

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118 See the U.S.-Africa Growth and Opportunity Act (AGOA) that provides (thirty-eight) reforming African countries with the most liberal access to the U.S. market available to any country or region with which the United States does not have a Free Trade Agreement. Signed into law on May 18, 2000 as Title 1 of The Trade and Development Act of 2000, and amended on August 6, 2002 as Sec. 3108 of the Trade Act of 2002. One could think of an analogy between my proposal and AGOA. But, AGOA deals with tariffs, which are a well-known barrier to free trade hence to worldwide growth. Taxes on the other hand, should not be eliminated as a means to promote growth. Further analysis of this analogy requires an in-depth discussion of the tax competition debate, a topic that is outside the scope of this paper.

119 A fine line has to be drawn here; a complicated task that requires detailed explanation that is currently beyond the scope of this preliminary draft.

120 In the last three years, the Thai government has relied heavily on tax incentives to lure many large foreign firms and investment projects to Thailand. The WTO might affect about 1,400 such projects, and some of them are likely to uproot elsewhere. See Jonathan Rickman, WTO Orders Thailand to Phase Out Foreign Investment Tax Breaks, 29 Tax Notes International 39 (2003).

121 This is a subject I tried to avoid throughout this paper.

122 Portfolio investments are claims on assets for the purpose of realizing some return. The investor does not have control over the underlying firm. The ‘control’ aspect distinguishes them from FDI. See supra note 37.
According to current international tax regime, the country of residence has the priority to tax passive income. The problem is that it is not administratively feasible to tax portfolio income on a residence basis because even fiscal authorities of developed countries generally lack the means of learning about the income that their residents earn abroad. First, there is no uniform, worldwide system of tax identification numbers, and second, investors can channel their portfolio investments through a tax haven with bank secrecy, so that even if the payer (such as a bank) in the host country is willing to disclose information to the tax authorities of the investor’s country of residence, it does not know what it is.

Developing countries are unlikely to attract portfolio investments. Portfolio investors tend to invest in the large capital markets in developed countries, mostly the United States, Western Europe and Japan. On the other hand, the few rich residents of developing countries usually invest their money outside of their countries and do not report the income to their tax authorities. As Professor Avi-Yonah describes, “Latin American countries provide a prime example: after the enactment of the portfolio interest exemption, about $300 billion fled from Latin American countries to bank accounts and other forms of portfolio investment in the United States. (footnote omitted) Most of these funds were channeled though tax-haven corporations and therefore escaped taxation in the country of residence. Estimates of the capital flight from all developing countries to the United States in the 1980s range as high as $148 billion in a single year.”

Therefore, eliminating this form of tax competition, which is in fact a problem of tax evasion, would be especially beneficial to developing countries. There are several proposals to do so. A European Union proposal would allow countries to choose between levying a twenty percent withholding tax on interest payments to individual residents of another member state, or providing a tax information report to the investor's country of residence.

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123 See Avi-Yonah Globalization, supra note 45, at 1585-85.
124 On the contrary, the tax competition over FDI is not a problem of tax evasion. Countries offer tax incentives to attract foreign direct investments by investors such as MNCs. The MNCs do not conceal the existence of such FDI from the tax authorities in their countries of residence.
This proposal could not help developing countries since it is limited to interest payments to residents of EU member states. Moreover, even if it were not so limited, it would not have helped developing countries since the proposal allows the host countries to keep the withheld taxes to themselves, therefore, they are most likely to choose the tax withholding option over the reporting option.

A much more sensible proposal, one that is not catered only to the interests of EU members, is offered by Professor Avi-Yonah who suggests a mandatory forty-percent withholding tax, refundable upon the taxpayer's provision of proof that such income has been reported to the country of residence. Special rules will have to be developed to solve cases of multiple-residence taxpayers. This proposal is likely to help developing countries, since investors would prefer to report the income to their countries of residence and pay them a lower tax compared to the high withholding tax that they would otherwise be required to pay. Channeling investments through tax-havens with bank secrecy laws would not help taxpayers to avoid the withholding tax, because a proof of residency would be required.

Professor Roin raised a concern that low-tax countries, or countries that do not tax their residents’ foreign portfolio investment income, might “sell” their residence status, thus allowing portfolio investors to avoid the withholding tax without paying tax in their true

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125 See Proposal for a Council Directive to Ensure a Minimum of Effective Taxation of Savings Income in the Form of Interest Payments Within the Community, Art. 8.1, Doc. 598PC0295 (98/C 212/09) COM(98)295 final--98/1093 (June 4, 1998). So far this proposal was not implemented, as it must be accepted unanimously. Luxembourg, Belgium and Austria refuse to approve it as long as non-EU countries such as Switzerland and the United States do not take equivalent measures, for fear of losing investments to those countries. Switzerland refuses to abandon its banking secrecy, and the United States was unwilling to support the EU directive. See Cordia Scott, White House Signals Lack of Support for EU Savings Tax Directive, 28 Tax Notes International 421.

126 It was limited to interest payments made to residents of EU member states to address the fear, mentioned above, of EU member states that adoption of the proposal would drive capital away from EU members to other countries such as Switzerland or the United States. This is not a perfect solution since investors from EU member countries might still be driven to invest in non-EU member countries. And indeed, both Luxembourg and the United Kingdom have opposed the Directive for this reason. See Conclusions of the ECOFIN Council Meeting on 1 December 1997 Concerning Taxation Policy, 1998 O.J. (C 2) 1, 2 (U.K. position); Luxembourg Says No Agreement Reached on EU Savings Tax, 17 Tax Notes Int'l 1039 (1998).

127 See Avi-Yonah Globalization supra note 45, at 1669.
country of residence.\textsuperscript{128} I do not have data to assess the importance if this claim, but assume that it is much more difficult and expensive to buy a residency status than to open a bank account in a tax-haven. Only few rich investors would therefore use this route of evasion. As Professor Roin suggests, to combat such schemes, "real" residence countries must be able to obtain taxpayer information from source states. This would require a high degree of international information-sharing, that might be difficult to achieve at current political situation.

Professor Roin suggests a comprehensive solution to problems of tax evasion in cross border transactions by fighting secrecy laws, and "distinguishing between situations where secrecy can be maintained as a form of protection against political (or racial or ethnic) persecution and those where it serves less laudable goals."\textsuperscript{129}

A more limited solution, addressing only the problem of false residency that seems to create a loophole in Professor Avi-Yonah’s proposal, might be the following. The source countries, i.e., the countries in which the portfolio investments take place, would be required to impose a forty-percent withholding tax, refundable upon the taxpayer's provision of proof that such income has been reported to the country of residence. But be allowed to keep, say, 10\% of the tax withheld, each time a false residency is being exposed. The “real” country of residence would collect the tax and either give the taxpayer a tax credit for the 10\% of tax withheld by the source country, or not (if it chooses to use this as a civil penalty for trying to evade its tax, or for administrative simplicity reasons.) This kind of mechanism provides source countries with an incentive to share information with residence countries in order to expose fraudulent residencies. Otherwise they have an incentive not to share this information, in order to attract investments. Countries are interested in portfolio investments even if they do not tax them. If a 10\% withholding tax is found to be too low to offset the above-mentioned incentive, a higher rate of withholding tax should be allowed.

\textsuperscript{128} See Roin, supra note 49, at 596.
\textsuperscript{129} Id., at 599.
The difficulty in this proposal is that it requires the participation of all, or at least most, of the developed countries. Otherwise most countries would refuse to commit to it, for fear of driving away portfolio investments to those countries that would not commit.

**CONCLUSION**

Over the last 50 years, developed countries transferred more than a trillion U.S. dollars to developing countries; yet, the world is more unequal today than at any time in world history and a large share of its population live at subsistence level. The key to raising living standards and reducing poverty around the world is increasing productivity growth in the poorest countries. Economic growth theory experienced a revival about 15 years ago with the development of the “new growth theories.” I build on these new understandings, to take an unpopular stand regarding tax incentives, and suggest that developing countries should use them to attract multinational enterprises to strengthen or build their economic markets and institutions (achieve “market discipline”), gain access to technology and benefit from productivity spillovers. Foreign direct investments, in almost any economic sector, enable the host economies to absorb and adopt best international practices in terms of governance and other institutional structures. In addition to promoting sustained growth, multinationals’ activities can help developing countries to get out of situations in which they are permanently locked with comparative advantage in traditional low-tech industries, and to fight the “brain drain” phenomenon.

Unfortunately, the spillovers are not automatic. In addition to offering well-designed tax incentives (which might turn out to be a simple uniform low or zero tax rate) the developing countries’ governments would have to take non-fiscal actions necessary to allow the country to absorb the FDI spillover effects. The developing country must invest in education, and build the right set of incentives for individuals to succeed, but it is far less demanding than building the good institutions in isolation from the world. Trade with other countries is one way in which the developing country can benefit from spillovers, and FDI is another.
Moreover, I suggest that rich countries should replace some of their foreign direct aid with an equity-based tax expenditure policy, i.e., allow their residents who invest in developing countries to fully benefit from the tax incentives offered by the developing states by exempting these incomes or providing “tax sparing.” The proposal transfers revenue from the Treasuries of developed countries to the developing countries, but it is done indirectly and the money is targeted. It is equivalent to giving the governments of the developing countries money that can be used only to attract FDI. The underlying assumption is that governments in general, and in developing countries in particular, lack the capacity to run large industrial and commercial enterprises; hence, promoting growth through multinationals’ activity might be more efficient.

The transfers from rich to poor countries can be further intensified by imposing limitation on rich countries’ abilities to engage in tax competition with poor countries. A special form of tax harmonization, with a sharp division based on GDP per capita measure for simplicity considerations, can be justified (in addition to any other justification) as part of an inter-nation vertical equity regime transferring wealth from developed to developing countries.

Tax competition could be defined in broad terms – beyond the conventional definition of what constitutes harmful tax competition - to include low corporate tax rates, even if they are applied to domestic and foreigners alike. Ireland, for example, would be required to raise its corporate tax rate to decrease the relative disadvantage that developing countries have when competing against Ireland over FDI.

Developing countries might engage in tax competition as well, undercutting each other’s tax preferences. To the extent that we see it as harmful tax competition, we might want to apply similar anti-tax competition rules to developing countries, thus establishing two different harmonized tax levels. One for developed countries and the other for developing countries.
In the meantime, international organizations such as the WTO, the IMF, and the EU should refrain from using their powers to force developing countries to give up tax incentives, and should make it as difficult as possible for developed countries to engage in tax competition with developing countries. The IMF should change its policy of conditioning loans to developing countries on their repeal of tax incentives, and help governments in developing countries to perform the cost/benefit analysis mentioned in Part III above, and design and implement tax incentives that will attract the type of FDI with maximum spillover effects taking into account the specific country’s situation.

In Part V I offered a small contribution to Professor Avi-Yonah’s proposal to eliminate tax competition over portfolio investments. A proposal that if implemented would be especially beneficial to developing countries.

The proposal presented in this paper should be viewed as four separate parts. The first one is establishing the case for the use of tax incentives. The second is suggesting that developed countries would give exemptions or tax sparing to foreign source income generated by their residents through FDI in developing countries. The third is imposing limits on the abilities of developed countries to engage in tax competition with developing countries. And the forth is limiting tax competition among developing countries. Each of the parts can stand by itself. The adoption of each additional part would increase the proposal’s likelihood to succeed in promoting growth in developing countries.

Finally I would like to draw the reader’s attention to the interesting fact that there is one country whose recent history supports each and every part of my basic (the first stage) model. I.e., that tax incentives attract FDI; and that FDI promote economic growth; that tax incentives can be limited to foreign investors; and that if they are offered to domestic taxpayers as well, the lost corporate tax revenue can be picked up by other components in the tax system. That country is Ireland.
In the 1950’s Ireland was the poorest country in Europe. Its GDP per capita was half of that of the United Kingdom. Today its GDP per capita is greater than the U.K.’s, after 15 years of uninterrupted growth, being Europe’s fastest growing economy in the 1990’s, with an average growth of over 9% per year in 1995-2001. The key to Ireland’s economic success was attracting FDI by offering foreign investors low corporate tax rate (10%) if engaged in manufacturing activity within Ireland. American high-tech corporations, attracted by the low corporate tax rates, established subsidiaries in Ireland, and soon after spillover effects started to show up, as Ireland became the leader of Europe in software exports with 500 of its own newly sprung up corporations. In response to some pressure from the European Union, Ireland changed its tax law as of the beginning of 2003, and the corporate tax rate is now 12.5%, across the board, with the exception of corporations that were previously attracted as FDI to Ireland and will continue to benefit from the 10% tax rate until 2010.

Tax policy was not the only factor that attracted FDI to Ireland, but it sure was the dominant one, and without it nothing would have happened. The people in Ireland were not necessarily exceptionally gifted or equipped for high-tech compared to other European countries. It was the nature of the foreign direct investments that Ireland has attracted with their spillover effects that made it the European leader in software export.

The story of Ireland demonstrates the great potential and optimism that is at the core of the new growth theories. The key to growth is innovation. Therefore, it is only the latest technology that counts, so countries that are behind can catch by adopting the latest technology without incurring the burden of writing off investments in old technologies. Once the new technology is there, e.g., through FDI, workers in developing countries could have higher productivity than workers in developed countries using older technologies, and could improve the technology by adapting it to their own circumstances and adding new ideas to it. Therefore, growth depends a lot on intelligent people being

130 The CIA World Factbook, supra note 8 (cross analysis).
131 See Meredith Coleman, Comment, The Republic of Ireland's Economic Boom: Can the Emerald Isle Sustain Its Exponential Growth?, 21 U. Pa. J. Int'l Econ. L. 833, 851 (2000) (“The favorable corporate tax policy of Ireland and the relative ease with which a company was able paint itself as performing a manufacturing function were the magnets that drew foreign corporations to Ireland.”)
exposed to current technology (i.e., spillover effects), and this gives great hope for developing countries as well. Because as stated by Jared Diamond, a biologist who wrote a fascinating book trying to explain why did the West rise over all other cultures in the last 500 years, who was talking to a young New Guinean (a nation that was still living in the stone age 200 years ago): “He and I both knew perfectly well that New Guineans are on average at least as smart as Europeans.”\textsuperscript{132}

\textsuperscript{132} Jared Diamond, Guns, Germs, and Steel 14 (W.W. Norton & Company, 1999).