The Structure of the Asymmetric Tax Treaty Network: Theory and Implications

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Abstract

Certain parts of the international tax system are largely unexplored from a structural perspective. One prominent example is the asymmetric tax treaty network, i.e., the network that consists of bilateral tax treaties concluded between developed and emerging countries on the basis of the OECD Model Tax Convention on Income and on Capital (OECD model). The relative size of this network is substantial. For instance, the United States´ asymmetric tax treaty network represents about 53% of its entire tax treaty network.

This Article offers a structural analysis of the asymmetric tax treaty network. It answers two fundamental questions. First, it elaborates a theory for explaining why a representative emerging country is willing to conclude tax treaties with developed countries on the basis of the OECD model. Second, this Article extends that theory to understand the dynamics of tax treaty interpretation in the emerging world. This extension aims to illuminate the incentive structure that the courts of a representative emerging country normally have when construing OECD-based tax treaties in the foreign direct investment (FDI) area. Game theory is used as a theoretical framework for answering both questions.

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T a b l e   o f   C o n t e n t s

I- Introduction

The performance of the developing world in the global economy over the last decades is unprecedented since the industrial revolution. In the 18 centuries until 1820, developing countries produced, on average, around 80% of the global economic output.[2]   But developing countries were then left behind by Europe's industrial revolution in the 19th Century, and by 1950, developing countries´ share had fallen to 40% of global output.[3]

However, the developed countries´ dominance of the global economy since the industrial revolution may be over. In 2005, the combined output of developing countries rose above half of the global total.[4] This growth is broadly spread: Brazil, China, India and Russia account for only two-fifths of emerging-world output.[5]

Developing countries have become increasingly important markets for companies from the developed world: over half of the combined exports of the European Union, Japan and the United States of America go to emerging economies. Moreover, the rich economies´ trade with emerging economies is growing twice as fast as their trade with one another.[6]

The increasing economic interaction between the developed and developing worlds is producing a number of consequences.[7] These include the growing relevance of those parts of international law that link both worlds, such as the asymmetric tax treaty network. The asymmetric tax treaty network consists of bilateral tax treaties concluded between developed and developing countries. The word "asymmetric" denotes unequal investment flows between contracting states: while developing countries normally are capital importers, developed countries habitually are capital exporters. The United Kingdom-Chile tax treaty is an example of an asymmetric tax treaty because investment flows between those two contracting states are presumably unequal.

The asymmetric tax treaty network of leading developed countries is substantial. For example, the United Kingdom's asymmetric tax treaty network represents about 73% of its whole tax treaty network, and the United States' asymmetric tax treaty network represents about 53 % of its entire tax treaty network. [8]

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[2] Angus Maddison, The World Economy: A Millennial Perspective, Development Centre Studies, OECD 2001, at 27 (maintaining that "in the year 1000, Asia (except Japan) produced more than two thirds of world GDP, Western Europe less than 9 percent. In 1820 the proportions were 56 and 24 per cent respectively. In 1998, the Asian share was about 30 per cent compared with 46 per cent for Western Europe and Western Offshoots combined").

[3] Emerging Economies. Climbing back, The Economist, 69-70, January 21, 2006 (arguing that "since their industrial revolutions in the 19th century, the rich countries of the ´first world´ have dominated the global economy. By one measure at least, that era may be over. According to estimates by *The Economist*, in 2005 the combined output of emerging (or developing) economies rose above half of the global total").

[4] Emerging economies, note _ , ibidem (measuring the growth of the global economic output in purchasing-power parity).

[5] The Balance of Economic Power in the World is Changing, The Economist, at 13, September 16, 2006.

[6] The New Titans. A Survey of the World Economy, The Economist, 3-4, September 16, 2006.

[7] See, for example, Dancing with Giants: China, India and the Global Economy, World Bank, forthcoming (arguing that China and India may influence global norms, tastes, business models, and so forth).

[8] See Section II.

The asymmetric and symmetric[9] tax treaty networks constitute the core structure of the international tax system.[10] Both networks are fundamentally based on a single bilateral tax treaty model designed in the early 20th Century and embodied in the Organization for Economic Cooperation and Development Model Tax Convention on Income and on Capital (OECD model) since 1963.[11]

This Article offers an answer to two fundamental questions about the asymmetric tax treaty network. First, it elaborates a theory for explaining why a representative developing country is willing to conclude tax treaties with developed countries on the basis of the OECD model. This first question is crucial for understanding the emergence of the asymmetric tax treaty network since the OECD model presupposes a number of elements that are regularly absent in the developing world.[12] Second, this Article endeavours to explain the structure of incentives that the courts of a representative developing country normally has when construing OECD-based tax treaties in the foreign direct investment (FDI) area. This second question is relevant to understanding the evolution of the asymmetric tax treaty network given that, for example, case law may be relevant in tax treaty renegotiation. Game theory is used as a theoretical framework for answering both questions.

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[9] The symmetric tax treaty network refers to tax treaties in which there are approximately equal investment flows between contracting states. Tax treaties concluded between developed countries (such as the US-UK tax treaty) or between developing countries (such as the Argentine-Brazilian tax treaty) are examples of symmetric tax treaties.

[10] The literature on the international tax regime is broad and deep; only certain elements can be highlighted here. Excellent recent surveys of the entire international tax regime are the following: Diane Ring, International Tax Relations: Theory and Implications, Tax Law Review (Fall 2006/Winter 2007) (Ring offers a theory for explaining when and under what circumstances countries are able to reach agreement on conflicts over international taxation). Yariv Brauner, An International Tax Regime in Crystallisation — realities, experiences and opportunities, 56 Tax Law Review 259 (2003). Brauner outlines a general conceptual framework for achieving a world tax regime via a multilateral tax treaty that might be implemented in stages. Ian Roxan, Limits to Globalization — Some implications for taxation in the developing world (2003) (unpublished manuscript on file with author). Roxan does not share the negative view of the effects of globalization on taxation in the developing world. Michael Graetz, Taxing International Income: Inadequate Principles, Outdated Concepts, and Unsatisfactory Policies, 54 Tax Law Review 261 (2001), which argues that the current international income tax regime lacks a satisfactory normative basis. Richard Vann, International Aspects of Income Tax, in Tax Law Design and Drafting, (International Monetary Fund, Volume 2, 719-810, 1998). Reuven S. Avi-Yonah, The Structure of International Taxation: a Proposal for Simplification, 74 Texas Law Review 1301 (1996), which, as its title indicates, identifies the structure of international taxation and its normative underpinnings. Sol Piccioto, International Business Taxation, A Study in the Internationalization of Business Regulation (1992), which is an historical account of the evolution of corporate income taxation. Adrian Ogley, The Principles of International Tax: a Multinational Perspective (1993), which provides a brief and illuminating general overview.

[11] For a detailed analysis of the OECD Model, see Philip Baker, Double Taxation Conventions. A Manual on the OECD Model Tax Convention on Income and on Capital, Thomson, Sweet & Maxwell, 2003.

[12] See Section V. See also Eduardo Baistrocchi, The Transfer Pricing Problem: A Proposal for Simplification, The Tax Lawyer, Winter 2006, forthcoming (arguing that the OECD model presupposes two major elements: i) symmetric flow of cross border income between tax treaty partners; ii) a decentralized network of domestic courts capable of producing case law with public good features).

The two inquiries referred to in the previous paragraph are related to each other. This is so because this paper assumes that the same strategic interaction among developing countries in international taxation explains both the emergence and evolution of the asymmetric tax treaty network.[13] I will leave for another day the issue of what explains the emergence and evolution of the OECD model and the symmetric tax treaty network.

The Article is divided into six parts. After this introduction, Part II focuses on two conceptual elements. First, it defines competition within a compatible standard (as something different from competition between incompatible standards). Second, it addresses one major consequence of competition within a compatible standard: the emergence of network markets such as the telephone system.

Part III studies the strategic interaction among representative developing countries in the area of international taxation (the first strategic interaction). Part III maintains that there is a prisoner's dilemma among developing countries in the foreign direct investment arena that triggers harmful international tax competition among developing countries. The recent Indian Supreme Court decision *in re Union of India* is used as a case-study.

Part IV explores the strategic interaction between developed and developing countries in the area of international taxation (the second strategic interaction). It argues that a representative developing country has the incentive to conclude OECD-based tax treaties with developed countries for two different, but compatible reasons. First, the prisoner's dilemma among developing countries referred to above induces developing countries to follow the OECD model for fear of driving FDI away to competing jurisdictions if all other conditions are equal.

Second, the OECD model induces the emergence of a network market of international tax systems that has the standard features of all network markets. For example, the OECD-based network market of international tax systems conveys positive network externalities only to those countries (including developing countries) that are members of the OECD-based tax treaty network. Instances of positive network externalities emerging from the OECD-based tax treaty network are the following two: first, the minimization of communication and enforcement costs of the relevant tax treaty network; second, reputational advantages over otherwise comparable rivals who do not belong to the tax treaty network.[14]

Part V extends the theory on the emergence of the asymmetric tax treaty network to the area of tax treaty interpretation in the developing world. Part V elaborates two points. First, it argues that central provisions of the OECD model are predominantly standards-based (rather than rules-based). Hence, the precise meaning of those provisions is not certain ex-ante. Their precise meaning can only be determined *ex-post* through case law (or something functionally equivalent to case law). Second, given the standard nature of the OECD model, courts normally have enough room to strategically choose between competing (sometimes opposing) constructions equally consistent with the Vienna Convention on the Law of

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[13] See Sections IV and V.
[14] See Section IV.

Treaties. Part V assumes that developing countries´ courts – consistent with the individual interest of their own countries - are influenced by the prisoner's dilemma and network externalities arguments referred to above.[15] Consequently, developing countries' courts have the incentive to construe the local tax treaty network in the foreign direct investment arena in favour of the taxpayer (rather than the tax authority). Once again, the recent Indian Supreme Court decision *in re Union of India* is used as a case-study. Part VI concludes.

II- Some Conceptual Issues

The world has experienced two globalization booms and one bust over the past two centuries. The first boom started about 1820, and lasted until the advent of World War I. The second began at the end of World War II and has continued since. The inter-war years witnessed a retreat from this otherwise continuous shift towards greater global integration.
[16]

One major consequence of the globalization movement was the emergence in the late 19th century of a novel strategic problem among nations: how to divide the international tax base in the absence of a higher authority. Developed countries eventually reached a fundamental consensus on how to solve this problem.[17] That consensus is currently embodied in the OECD model which is the foundation of a network of over 2500 bilateral tax treaties that are either symmetric or asymmetric.[18]

The asymmetric tax treaty network represents a substantial part of the entire tax treaty network. The United States and United Kingdom's asymmetric tax treaty networks are assumed to be representative examples. As of January 2006, the US tax treaty network comprises sixty-three tax treaties, of which thirty-four are asymmetric.[19] Thus, the US asymmetric tax treaty network represents about 53% of its whole tax treaty network. The United Kingdom tax treaty network comprises one hundred and thirteen tax treaties, of which eighty three tax treaties are asymmetric. Hence, the UK asymmetric tax treaty

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[15] See Section III.

[16] Jeffrey G. Williamson, Winners and Losers over Two Centuries of Globalization (NBER Working Paper N° 9161, 1992), at http://post.econom-ics.harvard.edu/faculty/jwilliam/papers/w9161.pdf (last visited December 14, 2003).

[17] This consensus was suggested in the seminal *Report on Double Taxation*, League of Nations Doc. E.F.S. 73 F. 19 (1923).

[18] On the definitions of symmetric and asymmetric tax treaties see Section I.

[19] The standard that should be used to determine if a country is developed or developing is a controversial question. This Article assumes that all OECD members are developed countries whereas all non-OECD members are assumed to be developing countries. The US asymmetric tax treaties are those concluded with the following 34 developing countries because investment flows between contracting states are assumed to be unequal: Armenia, Azerbaijan, Barbados, Belarus, Bermuda, China, Cyprus, Egypt, Estonia, Georgia, India, Indonesia, Israel, Jamaica, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Morocco, Pakistan, Philippines, Romania, Russia, Slovenia, South Africa, Sri Lanka, Thailand, Trinidad Tobago, Tunisia, Turkmenistan, Uzbekistan, Ukraine, and Venezuela. Conversely, the United States symmetric tax treaties are those concluded with the following 29 countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, and the United Kingdom (See the IBFD Tax Treaty data base at http://online2.ibfd.org/cl/).

network represents about 73% of its whole tax treaty network.[20] These data can be showed in graphic format as follows.

US TAX TREATY NETWORK

47%

53%

■ Asymmetric Tax Treaty Network
■ Symmetric Tax Treaty Network

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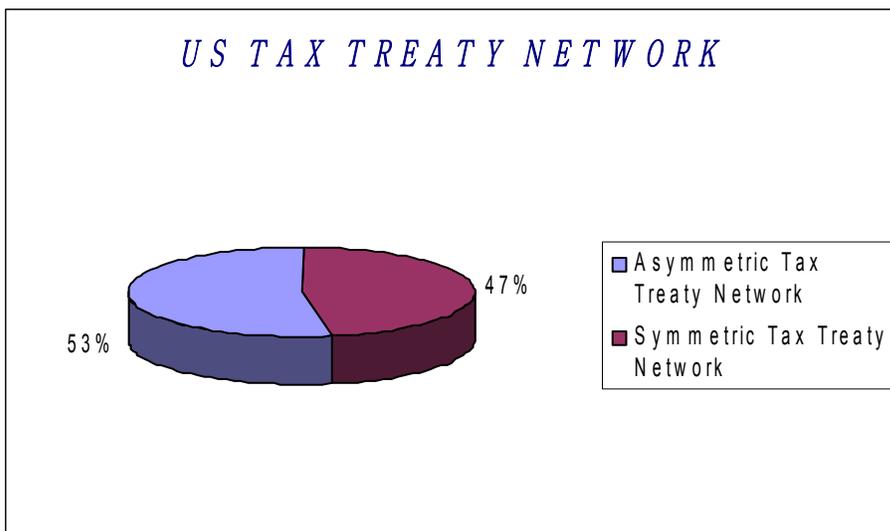
[20] The UK asymmetric tax treaties are those concluded with the following 83 developing countries and associated territories (such as the Falklands Islands) because, as noted before, investment flows between contracting states are assumed to be unequal: Antigua and Barbuda, Argentina, Armenia, Azerbaijan, Bangladesh, Barbados, Belarus, Belize, Bolivia, Bosnia-Herzegovina, Botswana, Brunei, Bulgaria, Chile, China, Croatia, Cyprus, Dominica, Egypt, Falklands Islands, Fiji, Gambia, Georgia, Ghana, Grenada, Guernsey, Guyana, India, Indonesia, Isle of Man, Israel, Ivory Coast, Jamaica, Jersey, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyzstan, Latvia, Lesotho, Lithuania, Macedonia, Malawi, Malaysia, Malta, Mauritius, Mongolia, Montserrat, Morocco, Myanmar, Namibia, Nigeria, Oman, Pakistan, Papua New Guinea, Philippines, Romania, Serbia and Montenegro, Sierra Leone, Singapore, Slovenia, Solomon Islands, South Africa, Sri Lanka, St. Christopher and Nevis, Sudan, Swaziland, Taiwan, Tajikistan, Thailand, Trinidad and Tobago, Tunisia, Turkmenistan, Tuvalu, Uganda, Ukraine, Uzbekistan, Venezuela, Vietnam, Zambia, Zimbabwe. Conversely, the UK symmetric tax treaties are assumed to be the following 30: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Russia, Slovak Republic, Spain, Sweden, Switzerland, Turkey, and the United States (See the IBFD Tax Treaty data base at http://online2.ibfd.org/cl/.)

UK TAX TREATY NETWORK

28%

72%

- Asymmetric Tax Treaty Network
- Symmetric Tax Treaty Network
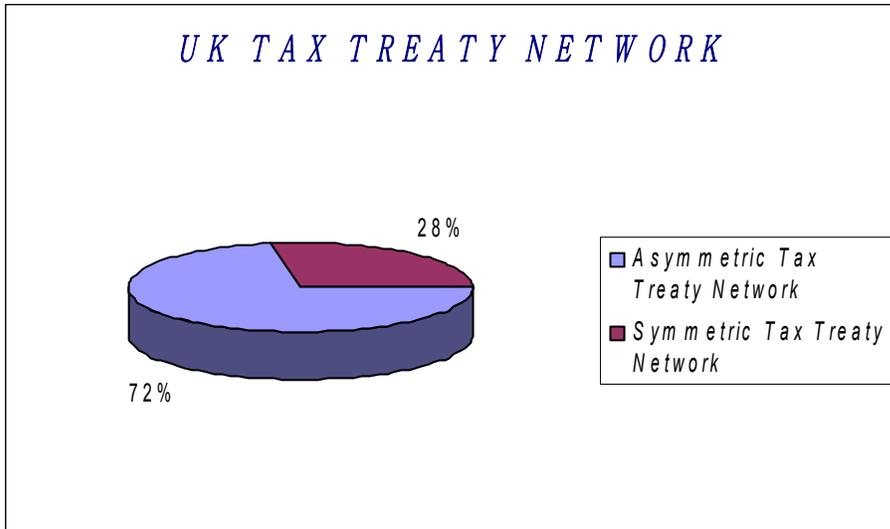
Conventional wisdom maintains that the emergence of the international tax regime is a miracle.[21] This is so, the argument goes, because taxes are the last topic on which a Hobbesian observer would have predicted sovereign nations to reach a consensus given the zero-sum nature of the game: one's country gain in revenue is another's loss. This Article argues, however, that the emergence of a core part of the international tax regime (i.e., the asymmetric tax treaty network) is not a miracle, but rather an intelligible, sometimes failed, attempt to solve the problems arising from the strategic interaction among nations for the division of the international tax base.

Demonstrating that the emergence of the asymmetric tax treaty network is not a miracle requires the discussion of some conceptual issues of game theory.[22] Game theory is particularly well suited to international tax relations because the lack of higher authority places nations in a situation of pure strategic interaction, where they are solely concerned with the limits that the behaviour of others places on their own pursuit of self-interest.[23]

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[21] Reuven Avi Yonah seems to have been the first author to coin the idea that the international tax regime is a miracle. He maintains that "the current international tax regime is a flawed miracle". See Reuven S. Avi Yonah, The Structure of International Taxation: A Proposal for Simplification, 74 Texas Law Review 1301, 1303. In a similar vein, Yariv Brauner refers to the "miraculous equilibrium achieved almost, solely, thanks to tax treaties" (See Yariv Brauner, note 4, at 43 of the digital version of his paper).

[22] Game theory is the formal analysis of interaction where the gains and losses of participants partly depend on what others do. It assumes that everyone is instrumentally rational, that is, it assumes that every participant will pursue his subjective ends by choosing the course of action that, given his belief, is both conductive to that end and is personally the least costly. For an introduction to game theory, see Douglas Baird, Robert Gertner & Randal Picker, Game Theory and the Law (1994).

[23] Duncan Snidal, The Game Theory of International Politics, in Cooperation under Anarchy, 28 (1986). He argues that "the purpose of any theory –including game theory- is not to reproduce reality but to increase our understanding of fundamental processes by simplifying it. For this reason, it is not desirable to incorporate all of the details of any individual case. Simplicity and abstraction guide us through a morass of information to focus on more fundamental issues". For a sceptical view on the explanatory potential of game theory and international relations, see Fernando Tesón, A Philosophy of international law, Chapter 3 (1998) (arguing that game theory is unable to explain moral decisions made by States.) The literature of international taxation and game theory produced by international lawyers is small. Seminal papers in this area are the following: Charles

1- Two Basic Types of Competition

This section refers two different sorts of competition that illuminate the strategic interaction among developing countries in international taxation: competition between incompatible standards and competition within a compatible standard.[24] Both types of competition are outlined below.

a- Competition between Incompatible Standards

One central feature of competition between incompatible standards is the lack of cooperation between competitors. A familiar example of competition between incompatible standards is the Philips and Sony battle in the videocassette recorder industry over VHS/Betamax standards. Their lack of cooperation in the design of a compatible standard meant that users of Betamax were unable to use VHS tapes in their machines (and vice-versa). The competition between incompatible standards eventually led to the victory of VHS and the defeat of its rival Betamax.[25] In order to avoid repeating the VHS/Betamax battle, Philips and Sony agreed to compete within a compatible standard in the compact disk industry.

b- Competition within a Compatible Standard

Philips and Sony agreed on a compact disk standard and licensed their technology to competitors. This triggered the emergence of competition within a compatible standard in the compact disc industry. Agreeing on a compatible standard may eliminate competition between technologies, but it does not eliminate competition altogether. Instead, it channels competition into other dimensions, such as price, service, and product features.[26]

Competition within a compatible standard can be modelled as a co-opetition game.[27] That is, a game in which elements of cooperation and competition are mixed simultaneously. For example, both Philips and Sony cooperated in the design of a compatible standard (e.g., the CD format), and they competed in the CD market in areas such as price, service, and product features.[28]

Kingston, The Coherence of International Taxation, 81 Columbia Law Review 1151 (1981) (arguing that tax systems do interact and the implications of this; he maintains that the main players of the international tax game are countries and that countries compete for revenues, investments, markets, and jobs); Tsilly Dagan, National Interests in the International Tax Game, 18 Virginia Tax Review 363 (1998) (arguing that countries play as self-interested players in the international tax game; footnote 40 of Dagan's paper maintains that the international tax game is a repeated game played infinitely).

[24] See Standley M. Besen & Joseph Farell, Choosing How to Compete: Strategies and Tactics in Standardization, Journal of Economic Perspectives, Volume 8, Number 2, Spring 1994, pages 117-131. The relevance of distinguishing between these two different types of competition in international taxation is outlined in Section II.2 below.

[25] Ibidem, at 118 (describing the Betamax/VHS competition).

[26] Ibidem.

[27] Adam M. Brandenburger & Barry J. Nalebuff, Co-opetition, Currency Doubleday (1996).

[28] See Standley M. Besen & Joseph Farell, Choosing How to Compete: Strategies and Tactics in Standardization, op. cit.

In sum, given certain conditions, a co-opetition game emerges. That is, self-interested players *cooperate* to create a bigger market, but *compete* to divide it up. Hence, there are simultaneous elements of cooperation and competition at work among those players.[29]

One key consequence of competition within a compatible standard is the creation of a network market, i.e., an environment where users can interact at a relatively low transaction cost. For example, since the CD format is universally accepted by all CD producers, users are able to interact at a lower transaction cost than would be the case if CD producers were competing among incompatible standards.

Network markets normally have three main features: i) network externalities; ii) expectation and iii) lock-in effect. Network externalities denote that the larger the number of members of the network, the better for each of them. The classic example of network externalities is the telephone. Indeed, the relative value of having a telephone is related to the number of telephones being used.[30]

Expectation is another feature in any network market. In effect, one standard may prevail over another not because it is better but because it is sponsored by an influential player. For example, the initial success of MS-DOS is usually attributed not to any technical superiority but to its support by IBM.[31]

A lock-in effect is frequent in any network market because better products that arrive later may be unable to displace a technologically inferior one that arrived earlier. An example of the lock-in effect is the QWERTY typewriter keyboard.[32]

2- The International Tax System as a Network Market

The analysis of this Article is premised on the following three major assumptions. First, developing countries are habitually engaged in international tax competition within a compatible standard (rather than between incompatible standards). The current compatible standard is the OECD model, which channels international tax competition into areas that are not regulated by the OECD Model, such as the inclusion of clauses like most–favoured-nation in asymmetric tax treaties.[33] Second, the OECD-based tax treaty network is a network market of decentralized international tax regimes that has the standard features of all network markets: externalities, expectations, and lock-in effects.[34] Third, the OECD model compatible standard is capable of destroying incompatible standards (such as the

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[29] Ibidem.
[30] *Ibidem.*
[31] Ibidem.
[32] Standley M. Besen & Joseph Farell, supra note _ (describing the QWERTY case as an example of lock-in effect in network markets.)
[33] See Section IV.1.a (offering examples of asymmetric tax treaties that include most-favoured-nation clauses (MFN). The OECD model does not even refer to the MFN clause).
[34] See Section IV.1.b (providing examples of externalities, expectations and lock-in effects of the OECD-based tax treaty network).

Andean Model)[35] and inducing other, different, but compatible standards (such as the United Nations model) to gradually converge towards the OECD Model.[36]

III- The Strategic Interaction among Developing Countries

There are several macroeconomic differences between developed and developing countries.[37] One main difference is that developing countries have not yet reached a sufficient level of national income to yield the domestic savings necessary to finance the investment required for further growth.[38] Thus, developing countries normally have a relatively compelling need for inward investment *vis-à–vis* developed countries to finance, for example, public goods. This need has triggered international tax competition among developing countries to attract inward investment that has been apparent since at least the end of World War II.[39] International tax competition was facilitated by the increasing mobility of capital, which was in turn accelerated by such technological advances as the electronic transfer of funds and improved long-distance communication.[40]

This section focuses on the strategic interaction among developing countries in international taxation. It argues that there is a prisoner's dilemma among developing countries in the area of foreign direct investment that induces developing countries to incur in harmful international tax competition. To illustrate, I shall focus on the Supreme Court of India decision *in re Union of India*. This Article assumes that *Union of India* is a representative case of international tax competition among developing countries.

1- China versus India: The Union of India Case

The case of *Union of India and Anr vs. Azadi Bachao Andolan and Anr* (the Union of India case) was decided by the Supreme of Court of India on 7 October 2003. The facts of the case, the main issue, and the holding of the Indian Supreme Court are as follows.

Foreign investors, both institutional and direct, many of them from OECD countries, had been massively channelling their investment into India via Mauritius (rather than channelling them from OECD countries directly into India). Those investors had decided to utilize the Indo-Mauritius tax treaty because of its advantageous tax features (tax treaty shopping).

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[35] See Section III.3.a (focusing on the incompatibility of the OECD and Andean Models and the virtual irrelevance of the Andean model in international taxation).

[36] See Section III.3.b (offering an explanation of why the evolution of the UN model is towards an increasing convergence with the OECD model.)

[37] According to the World Bank, as of 2003, there are 208 countries in the world. While 56 are developed countries, the remaining 152 are developing countries. That is, over 73% of all countries are developing ones. See World Investment Report (2003) available at http://www.unctad.org/Templates/WebFlyer.asp?intItemID=2412&lang=1.

[38] See Dictionary of Economics, Graham Bannock, R.E. Baxer, Evans Davis, Penguin, Sixth Edition, at 104 (1998).

[39] See Reuven Avi-Yonah, *Globalisation, Tax Competition, and the Fiscal Crisis of the Welfare State* 113 Harvard Law Review 1573 at 1575 (2000).

[40] Ibidem.

The scheme was structured via a conduit company based in Mauritius to channel investment from, say, the Netherlands to India in such a way as to subject capital gains to double non-taxation. For example, the alienation of shares of companies based in India controlled from a conduit company based in Mauritius was not subject to capital gains in either India or Mauritius under the Indo-Mauritius tax treaty. Moreover, that flow of income was not taxed by Netherlands domestic law. [41]

The use of this sort of tax treaty shopping scheme had resulted in an increase of funds coming into India from 37.5 million Rupees in 1993 to 61.7 billion Rupees in the year 2001.[42] It was basically produced by the interaction of the Indo-Mauritius Tax Treaty and Mauritius domestic tax law, according to which conduit companies based in Mauritius are exempted from both India and Mauritius taxes on the capital gains made on the sale of shares of Indian companies.

The main issue before the Indian Supreme Court was whether the tax treaty shopping was valid under the Indo-Mauritius tax treaty, considering that the only justification for channelling the investment in that way was tax avoidance. The Indian Supreme Court described the term "tax treaty shopping" as "a graphic expression used to describe the act of a resident of a third country taking advantage of a fiscal treaty between two contracting states."[43]

The Indian Supreme Court decided the case in favour of the taxpayer. It argued that the tax treaty shopping at issue in this case was lawful and reversed the lower court decision. The Supreme Court elaborated two independent arguments for backing its decision. These two arguments are based on law and economics, and legal considerations, respectively. The Indian Supreme Court elaborated its law-and-economics analysis as follows. It focused on the cost/benefit implications of tax treaty shopping as a vehicle for attracting FDI to India.

> "Developing countries need foreign investments, and the treaty shopping opportunities can be an additional factor to attract them. The use of Cyprus as a treaty haven has helped capital inflows into Eastern Europe. Madeira (Portugal) is attractive for investments into the European Union. Singapore is developing itself as a base for investments in South East Asia and China. Mauritius today provides a suitable treaty conduit for South Asia and South Africa. In recent years, India has been the beneficiary of significant funds through the 'Mauritius conduit'. Although the Indian economic reforms since 1991

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[41] Channelling an investment by a Dutch Corporation in India through a conduit company in Mauritius (M-corp) by equity contributions to the M-corp, which acquires the company in India, is relatively simple in the case that the Dutch participation exemption applies to the shareholding in M-corp. In that case, dividends from and capital gains on the shares in the M-corp might be exempted from tax in the Netherlands. I am grateful to Professor Heiko Lohuis from the University of Leiden for this example.

[42] Union of India case, paragraph 127. <http://www.lexsite.com/home.asp?destination=lexdoc.asp?DocId=213107>. See also Jayanthi Iyengar, Mauritius Tax Loophole Under Indian Scrutiny, Asia Times, December 5, 2002 http://www.globalpolicy.org/nations/corrupt/2002/1205mauritius.htm

[43] Union of India case, paragraph 113.

permitted such capital transfers, the amount would have been much lower without the India-Mauritius tax treaty."[44]

"The developing countries allow treaty shopping to encourage capital and technology inflows, which developed countries are keen to provide to them. The loss of revenue could be insignificant compared to the other non-tax benefits to their economy."[45]

Treaty shopping "is perhaps regarded in contemporary thinking as a necessary evil in a developing country."[46]

The Indian Supreme Court then elaborated a legal (rather than a cost/benefit) argument for backing the treaty shopping focused on in this case. It compared the wording of the Indo-US and the Indo-Mauritius tax treaties in the areas of anti-avoidance methods, concluding that treaty shopping is invalid under the former and valid under the latter. The Court said:

"Article 24 of the Indo-US tax treaty is in marked contrast with the Indo-Mauritius tax treaty. The appellants rightly contend that in the absence of a limitation clause, such as the one contained in Article 24 of the Indo-U.S. Treaty, there are no disabling or disentitling conditions under the Indo-Mauritius Treaty prohibiting the resident of a third nation from deriving benefits thereunder."[47] Hence, treaty shopping "...may have been intended at the time when the Indo-Mauritius tax treaty was entered into."[48]

Finally, the Court construed domestic anti-avoidance provisions, such as the business purpose test, in such a restrictive way as to severely limit their scope in the tax treaty area. The Court argued as follows:

"...[T]he taxpayer, where he is in a position to carry through a transaction in two alternative ways, one of which will result in liability to tax and the other of which will not, is at liberty to choose the latter and to do so effectively in the absence of any specific tax avoidance provision."[49]

The Supreme Court of India did not refer to the commentary to Article 1 of the OECD model, which implicitly bars tax treaty shopping. This omission could be justified on two alternative grounds. First, the Supreme Court of India implicitly decided that the OECD model Commentary is not binding on India in light of the Vienna Convention on the Law of Treaties.[50] Second, the Supreme Court of India implicitly followed a static (rather than an ambulatory) interpretation of the Indo-Mauritius tax treaty. Hence, the OECD

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[44] Ibidem, paragraph 135.
[45] Ibidem, paragraph 136.
[46] Ibidem, paragraph 137.
[47] Ibidem, paragraph 115.
[48] Ibidem, paragraph 137.
[49] Ibidem, paragraph 144.
[50] See Philip Baker, Double Taxation Conventions. A Manual on the OECD Model Tax Convention on Income and on Capital, Thomson, Sweet & Maxwell, 2003 (arguing that it is debatable if the Vienna Convention on the Law of Treaties requires contracting states to follow the OECD Model commentary if those contracting states are non-members of the OECD).

commentary on tax treaty shopping is irrelevant in this case given that it was published after (rather than before) the 1983 conclusion of the Indo-Mauritius tax treaty.

In short, the holding of the Supreme Court of India *in re Union of India* is as follows. Tax treaty shopping is valid under the Indian tax treaty network, unless there is a specific tax treaty prohibition, such as a Limitation of Benefit Clause. Moreover, general, domestic anti-avoidance provisions (e.g., the business purpose test) cannot be applied to address tax treaty shopping cases.

The holding of the Supreme Court of India arguably creates a (controversial) taxpayer right. Indeed, it grants taxpayers the right to implement tax treaty shopping schemes that produce double non-taxation outcomes.

As noted earlier, this Article assumes that *Union of India* is a representative case of international tax competition among developing countries. It can be modelled as a prisoner's dilemma as follows.

		India	
		Cooperate	Defect
China	Cooperate	2,2	4,1
	Defect	1,4	3,3

Prisoner's dilemma among developing countries in the FDI area

In the matrix above, both players are developing countries: India and China. Both countries had concluded bilateral tax treaties with Mauritius, and it is assumed that China is as good as India at attracting FDI.[51] They are competing with each other to attract FDI, let us also assume, major foreign investments from OECD countries such as the Netherlands (foreign investor). India and China may choose between two alternative strategies: to cooperate with the other player by not engaging in harmful tax competition and considering tax treaty shopping invalid (cooperate), or to engage in harmful tax competition by considering tax treaty shopping lawful (defect). Let us also assume that there are no other actors that can influence the decisions of these two players. Each country has only to consider the

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[51] Both China and India have concluded bilateral tax treaties with Mauritius. For example, the Income Tax Agreement and Final Protocol concluded by China (P.R.C.) and Mauritius was entered into on August 1, 1994. It is available in LEXIS, World Tax Treaties.

behaviour of the other country. The matrix above shows a possible structure of payoffs in such a situation.[52]

This strategic interaction of India and countries such as China arguably explains why the Indian Supreme Court had the incentive to hold that tax treaty shopping is lawful.[53] The following Indian Supreme Court words dramatically reflected its awareness of the prisoner's dilemma in which India was involved: "[Treaty shopping] is a necessary evil in a developing economy."[54]

In sum, the *Union of India* case suggests that developing countries normally have the incentive to offer mutually harmful tax incentives to potential foreign direct investors because developing countries do not have better options for attracting them given the prisoner's dilemma in which they are involved. Hence, developing countries tend to offer a variety of tax incentives even in those cases in which the foregone tax revenue exceeds the increase in the desired foreign direct investment.[55]

The harmful international tax competition referred to above has led a number of developing countries to gradually mutate into some type of production tax haven (103 as of 1998).[56] This scenario arguably explains the gradual decline of tax revenues from corporate income taxation in the developing world. From 1990 to 2001, corporate tax rates declined in both developed and developing countries. However, in developed countries that decline in the rates was matched by a broadening of the tax base, so that no decline in revenues can be observed; in developing countries, the same period witnessed a decline of corporate tax

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[52] The symbols in this matrix are as follows. One player, India, is represented in the column; the other player, China, is represented in the row. As said, both players can choose to cooperate or not to cooperate. This generates four possible combinations for those two individual choices. The numbers stand for the payoff for each combination, ordinarily ranked (Thus, for each player 1>2>3>4). In this matrix, India's best outcome (1) is to offer a tax incentive to the foreign investor when China does not do so (i.e. 4,1). Hence, the foreign investor will prefer India over China for locating its investment provided all other things are equal between both countries. India's worst outcome (4) is the reverse, that is, to cooperate unilaterally, and thus become vulnerable to China's tax incentive (i.e. 1,4). India's second best outcome (2) occurs if both cooperate by not incurring in harmful tax competition (i.e. 2,2). Thus, the chosen country would be able to tax this business activity, and hence raise revenue to finance the public goods desired by its constituents. India's third best outcome (3) is to incur in harmful tax competition (i.e. 3,3). This is worse than avoiding harmful tax competition (because it forces India to collect less than optimum tax revenues), but better than cooperating unilaterally. The same analysis holds for China: to take advantage of the other's party naïveté is the best outcome (cooperate when the other party does not); mutual cooperation is the second best outcome (to mutually avoid harmful tax competition); mutual defection is the third best outcome (to mutually incur in harmful tax competition); and unrequired cooperation (limiting harmful tax competition unilaterally) is the worst outcome.

The dominant strategy for each country caught in this dilemma is not to cooperate, that is to incur in harmful tax competition. Because both countries reason in a similar way, both will incur in harmful tax competition, thus reaching the lower left cell (3,3) in the matrix above, which is not a socially optimum point (2,2).

[53] See Section V.3.
[54] See the Union of India case, paragraph 137.
[55] See Jack M. Mintz & Thomas Tsiopoulos, *Corporate Income Taxation and Foreign Direct Investment in Central and Eastern Europe* 10 (1992).
[56] World Investment Report (1996). Production tax havens are jurisdictions that offer targeted tax incentives to foreign direct investments. See also Reuven Avi Yonah, supra note _.

revenues by about 20% on average.[57] That decline is particularly important in light of the larger overall share of tax revenues produced by the corporate tax in developing countries (average of 17 percent, as opposed to 7 percent for developed countries). Most of the decline has been attributed to the spread of targeted tax incentives for multinational enterprises (MNEs). From 1990 to 2001, the percentage of developing countries granting tax holidays to MNEs grew from 45% to 58%, and similar trends can be seen in tax breaks for exporters (32% to 45%), reduced corporate rates for MNEs (40% to 60%), and free trade zones (17.5% to 45%).[58]

The mutation of many developing countries into production tax havens sometimes is the first step towards achieving development. For example, Ireland originally mutated into a production tax haven in the software service area. As the Irish workforce and certain institutional elements improved over time, other high-value service areas emerged. Ireland eventually became a developed country within a few decades.[59]

2- Is the Arm's Length Standard Dormant in Developing Countries?

The prisoner's dilemma referred to above produces two major consequences. First, as seen, it explains the frequent mutation of developing countries into production tax havens. Second, it implies a growing gap between the law on the books and law in action in the area of international taxation in the developing world. This growing gap will be explored in this section using the arm's length standard as a case study.

Many developing countries have included in their tax legislation some of the measures requested by the OECD Report on Harmful Tax Competition, such as transfer pricing regulations based on the OECD Guidelines.[60] However, a representative developing country does not have the incentive to actually enforce transfer pricing regulations for fear of driving FDI away to other jurisdictions. As the United Nations has argued, "many developing countries are in a delicate position if they want to curb transfer pricing abuses without adversely affecting foreign investment flows".[61]

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[57] Michael Keen and Alejandro Simone, Is Tax Competition Harming Developing Countries More than Developed? Tax Notes International, June 28, 2004, p. 1317. See also World Bank, *Tax Policy Handbook*, 295-318 Washington D.C. (1994).

[58] Ibidem.

[59] See Yoram Margalioth, Tax Competition, Foreign Direct Investment and Growth: Using the Tax System to Promote Developing Countries, 23 Virginia Tax Review 161 (2003).

[60] OECD Report on Harmful Tax Competition: an Emerging Global Issue (1998). See, for example, Eduardo Baistrocchi, The Transfer Pricing Problem: The Argentine Experience (1932-1998), Revista de Teoría Jurídica, Universidad Torcuato Di Tella, Volumen 2, Número 1, November 2000.

[61] See Transfer Pricing Abuses and Developing Countries, published in the 1988 UN Report entitled International Income Taxation and Developing Countries. An open question is why developing countries introduce norms into their legal system when it is clear *ex ante* that they will remain largely unforced (such as the arm's length standard). One possible reason for this is that international lending institutions (like the International Monetary Fund) either explicitly or implicitly induce developing countries to adopt those norms. For example, in a book recently edited by the International Monetary Fund, it was suggested that developing countries should adopt the arm's length standard at both tax treaty and domestic levels. It states:

> "A drafting issue for the domestic [tax] law is that the arm's length principle
> should be provided for both branches and subsidiaries. This is most easily

This strategic scenario explains, for instance, the virtual absence of transfer pricing litigation in the developing world.[62] Hence, this Article assumes that the arm's length standard is normally dormant in the developing world, except in exceptional circumstances like the following three: a) countries that face difficulties in raising funds from the international capital market because, say, they have defaulted on sovereign debt; b) large developing countries in which inward investment is not deterred by transfer pricing enforcement because of the relatively large size of their domestic market; c) industries that cannot readily move their businesses elsewhere and are under-represented in the local political process.

In the first group, the sovereign debt default has substantially limited a country's ability to raise funds from the international capital market. This paper assumes that that inability to use the capital market has induced countries like Argentina to be aggressive in the enforcement of its international tax law in order to maximize tax revenue collection. This aggressive enforcement has produced *inter alia*, a wave of transfer pricing litigation in Argentina since 2003. Not coincidentally, 2003 was the year after it defaulted on its sovereign debt.[63]

In the second group, transfer pricing litigation occurs in jurisdictions such as Brazil and Mexico. These are markets large enough to be aggressive in the enforcement of transfer pricing regulations with limited fear of driving FDI to other jurisdictions. For example, tax assessments in Brazil related to transfer pricing adjustments have become a frequent occurrence and involve larger sums of money. While tax assessments unrelated to transfer pricing issues have an average assessed amount of BRL 2.7 million (approximately US $1.15 million), transfer pricing tax assessments have an average assessed amount of almost 7.5 times higher, totalling on average BRL 20.2 million (approximately US $8.6 million).[64]

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done by using language similar to that found in tax treaties. Such an approach ensures that there is a basis in domestic law for making transfer pricing adjustments. In many countries, it is not clear whether tax treaties on their own would provide a sufficient basis for such adjustments, and, in any event, it is necessary to have the rules in the case of residents of countries with which there is no tax treaty in force. Using statutory language based on treaties has the added advantage of giving a clear signal that the country intends to follow international norms", Richard Vann, International Aspects of Income Tax, at 782, published at Tax Law Design and Drafting, Victor Thuronyi editor, Volume 2, International Monetary Fund, 1998.

[62] For example, there is no registered developing countries´ case law on transfer pricing at the IBFD web site as of March 2006.
[63] Those multinational enterprises based in Argentina which extensively use intangibles, such as the automobile and pharmaceutical industries, are facing large transfer pricing litigation since the year Argentina defaulted its sovereign debt in 2002.
[64] See David Roberto R. Soares da Silva, Brazil Tightens Transfer Pricing Regime, Tax Notes Int'l, June 5, 2006, p. 861. Tax treaty prevails over local transfer pricing rules, Brazilian Court Rules, Doc 2001-9960, April 3, 2001 (Discussing the Brazilian federal court injunction according to which the Brazil-German tax treaty prevails over Brazil's domestic transfer pricing norms that are inconsistent with the arm's length standard).

In the third group, transfer pricing litigation is focused on industries that cannot readily move to other jurisdictions and are under-represented in the local political process. This paper assumes that the Argentine industry of agricultural commodities (such as soya) is a case in point. Indeed, it is governed by a relatively stringent transfer pricing regulation that has already triggered transfer pricing litigation in this area.[65] This type of agricultural commodity industry cannot readily move to other jurisdictions and is not labour intensive, which normally implies an under-representation in the local political process.

3- Why the international tax regime has failed to solve the PD among Developing Countries

As said, the strategic interaction among developing countries in the area of foreign direct investment is a prisoner's dilemma, which triggers mutually harmful tax competition among developing countries. It is time to question why the international tax regime has been unable to solve such a prisoner's dilemma.

There are two central mechanisms for solving a prisoner's dilemma.[66] On the one hand, it may be solved through a contract entered into by the parties and enforced by an external authority capable of conveying a credible threat to the defecting party (the contract solution).[67]

On the other hand, a prisoner's dilemma may be solved via iteration, that is, being played repeatedly (iterated prisoner's dilemma). The iterated prisoner's dilemma may lead players to develop cooperative behaviour under the tit-for-tat rule, which means that players tend to start the game with cooperative behaviour, defecting only if the other player has defected on the previous move (the tit-for-tat solution).[68]

A classic example of the tit-for-tat rule is the live-and-let-live system in trench warfare during World War I. German and British soldiers deployed in trench warfare were able to spontaneously reach cooperation among themselves according to which no British soldier would shoot to kill a German one unless the other had done it first (and vice-versa).[69]

Tit-for-tat emerges if certain conditions are met. These conditions are the following: a) the relationship among the players shall be perceived as durable; b) cooperation shall be based on reciprocity; and c) the players shall have the ability to recognize defection when it occurs.[70] That is, there shall be clarity of behaviour so that the other player can adapt to the first player's pattern of action (i.e., the player must have the ability to retaliate for the other

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[65] See Cristian Rosso Alba, 1/5/04 TAX NOTES INT'L 7 2004 WLNR 17744086 (maintaining that Argentina's transfer pricing regulation for related-party transactions involving agricultural commodities were made more stringent for those transactions involving non-agricultural commodities).

[66] To solve a prisoner's dilemma means to induce the players to deploy cooperative strategies capable of moving the equilibrium from the strictly dominant strategy (i.e. lower right cell) to a socially optimum outcome (i.e. upper left cell).

[67] See Hardin, Liberalism, Constitutionalism, and Democracy, supra note _ at 102

[68] Robert Axelrod, *The Evolution of Co-operation* (1984).

[69] Id. at 29-182.

[70] Id at 140.

party's uncooperative move).[71] The basic idea is that a player must not be able to get away with defecting without the other individual being able to retaliate effectively. It is important for one player to know what the other player actually did on the previous move because tit-for-tat always defects exactly once after each defection by the other.[72] If these requirements are met, the prisoner's dilemma may be solved spontaneously without legal intervention.

Let us explore both mechanisms for solving a prisoner's dilemma using international taxation as a case study. The contract and tit-for-tat solutions will be studied independently as follows.

This Article assumes that in the area of inward investment, the states of the United States of America face a strategic interaction among themselves that is similar to that faced by developing countries. Both groups of tax jurisdictions have the incentive to engage in mutually harmful tax competition (such as the offering of location tax incentives) for promoting inward investment. This is because both groups of tax jurisdictions are involved in a prisoner's dilemma.[73]

Interestingly, the Constitution of the United States of America includes a legal device that tries to solve the prisoner's dilemma in which the US states are involved. It is implemented through a provision that is functionally equivalent to a contract (the Commerce Clause) and that is enforced by an external authority (the federal judiciary).

The Commerce Clause limits certain types of harmful tax competition among the states.[74] For example, the Commerce Clause prohibits states from giving tax incentives to businesses to locate in-state in the same way that it constrains states from providing other measures designed to set a state's economy apart from the nation's.[75] Moreover, the US

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[71] Id. at 29-182.

[72] Id. at 132.

[73] See Peter Henrich, Saving the States from Themselves: Commerce Clause Constraints on State Tax Incentives, 110 Harvard Law Review 377, 396 (1996) (arguing that "the political cost of adopting tax breaks for business are lower than the cost of failing to participate aggressively in the incentives bidding competition. Consequently, the states find themselves caught in a classic prisoner's dilemma. If all the states would refrain from deploying location incentives for business, then they all could retain more robust tax bases to support other governmental functions. But, if the other states are going to offer a widening array of tax breaks, then none can afford the cost –more political than economic- of abstaining"). See also Reuven Avi Yonah, Passport to Toledo: Cuno, the WTO, and the ECJ, 41 Tax Notes International 289, November 30, 2005 (arguing that the state location incentives force the states into a prisoner's dilemma).

[74] The Commerce Clause provided for in the United States constitution states the following: "The Congress shall have Power […] to regulate Commerce with foreign Nations, and among the several States […]". There are many cases in which the US Supreme Court has effectively sanctioned the defecting behaviour of certain states because of having incurred in harmful tax competition among them. Main leading cases in the area of discrimination against interstate commerce are the following: *Bacchus Imports, Ltd. V. Dias,* 468 US 263, 104 S. Ct. 3049 (1984). In Bacchus, the US Supreme Court invalidated a tax incentive scheme implemented by Hawaii according to which only whisky produced in Hawaii (rather that produced elsewhere) would be exempt from certain local tax. The Supreme Court grounded its holding on the Commerce Clause. The Bacchus holding has a long progeny. See, for example, *Metropolitan Life Ins. Co. V. Ward,* 470 U.S. 869 (1985); *New Energy Co. v. Limbach* 486 US 269, 108 S. Ct. 1803 (1988).

[75] See Peter Henrich, supra note _.

Constitution grants the federal judiciary the role of an external authority with the power to sanction defecting states.

The role of the Commerce Clause and the federal judiciary outlined in the previous paragraph is consistent with the decision of the United States Court of Appeals for the Sixth Circuit *in re Cuno*.[76] (The Court of Appeals decision was eventually reversed by the United States Supreme Court on procedural, rather than substantive, grounds. Hence, the Supreme Court may share the Court of Appeals holding on the merits in a future case.[77])

This Article assumes that the *Cuno* case is a representative example of harmful tax competition among the US states through location incentives. In 1998, Daimler Chrysler entered into an agreement with the City of Toledo to construct a new vehicle-assembly plant near the company's existing facility in exchange for various tax incentives. Daimler Chrysler estimated that it would invest approximately $ 1.2 billion in this project, which would provide the region with several thousand new jobs. In return, the City and two local school districts agreed to give Daimler Chrysler a ten-year, 100 percent property tax exemption, as well as an investment tax credit of 13.5 percent against the state corporate franchise tax for certain qualifying investments. The total value of the tax incentives was estimated to be worth $ 280 million.[78]

Ohio's investment tax credit grants a taxpayer a non-refundable credit against the state's corporate franchise tax if the taxpayer "purchases new manufacturing machinery and equipment during the qualifying period, provided that the new manufacturing machinery and equipment are installed in [Ohio]."[79] The investment tax credit is generally 7.5 percent "of the excess of the cost of the new manufacturing machinery and equipment purchased during the calendar year for use in a county over the county average new manufacturing machinery and equipment investment for that county."[80] The rate increases to 13.5 percent of the cost of the new investment if it is purchased for use in specific economically depressed areas.[81] The credit may not exceed $ 1 million unless the taxpayer has increased its overall ownership of manufacturing equipment in the state during the year for which the credit is claimed.[82] To the extent that the credit exceeds the corporation's total Ohio franchise tax liability in a particular year, the balance of the credit is carried forward and can be used to reduce its liability in any of the three following years.[83]

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[76] Cuno v. Daimler Chrysler, Inc., 386 F.3d 738, 741 (6th Cir. 2004).

[77] US Supreme Court certiorari granted by Daimlerchrysler Corp. v. Cuno, 2005 US 5422 (U.S. Sept. 27, 2005). The US Supreme Court then vacated and remanded this case on procedural grounds (arguing that plaintiffs lacked standing to sue). See Daimlerchrysler Corp.. *et al. v*. Cuno *et al.*certiorari to the United States Court of Appeals for the Sixth Circuit Argued March 1, 2006--Decided May 15, 2006   No. 04-1704.

[78] Cuno at 741

[79] Ohio Rev. Code Ann. § 5733.33(B)(1).

[80] Ohio Rev. Code Ann. § 5733.33(C)(1).

[81] Ohio Rev. Code Ann. § 5733.33(C)(2), (A)(8)-(13).

[82] Ohio Rev. Code Ann. § 5733.33(B)(2)(a).

[83] *See* Ohio Rev. Code Ann. § 5733.33(D). Cuno at 741.

The United States Court of Appeals for the Sixth Circuit held that the Ohio investment tax credit was inconsistent with the Commerce Clause provided by the US Constitution. This decision was grounded on the rationale that an investment credit is a location incentive that is an invalid state regulation of interstate commerce. [84]

The Court of Appeals decision *in re Cuno* successfully solves the said prisoner's dilemma via a contract entered into by the States (i.e., the Commerce Clause) enforced by an external authority (i.e., the United States federal judiciary). Consequently, the US constitutional framework can solve the prisoner's dilemma in which the US states are involved in the inward investment area. The European Union has implemented a legal framework similar to the United States Commerce Clause. It has been applied by the European Court of Justice (ECJ) in a number of cases for solving the prisoner's dilemma emerging from the location tax incentives area.[85]

The United States legal framework has not been replicated in the international tax regime arena. There is an OECD Report that is functionally equivalent to the Commerce Clause, but unfortunately, there is no institution equivalent to an external authority capable of conveying a credible threat for defecting jurisdictions, such as the United States federal judiciary.

The OECD 1998 Report entitled *Harmful Tax Competition: an Emerging Global Issue (OECD Report on Harmful Tax Competition)* is functionally equivalent to the US Commerce Clause in the following respect. Both the Commerce Clause and the OECD Report on Harmful Tax Competition prohibit tax jurisdictions from establishing targeted location tax incentives for foreigners in order to promote inward investment. For example, the targeted tax incentives focused on the *Cuno* case are arguably prohibited by both the Commerce Clause and the OECD *Report on Harmful Tax Competition*. [86] However, the

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[84] Cuno at 750.

[85] See, for example, the Bobie and Humblot cases in which the ECJ barred location tax incentives in light of Article 95 of the EEC Treaty. *In re* Bobie, the European Court of Justice held that "The levying by a member state of a tax on a product imported from another member state in accordance with a method of calculation or rules which differ from those used for the taxation of the similar domestic product, for example a flat-rate amount in one case and a graduated amount in another, would be incompatible with the first paragraph of article 95 of the EEC Treaty if the latter product were subject, even if only in certain cases, by reasons of graduated taxation, to a charge to tax lower than that on the imported product" (See Bobie Getrankevertrieb GmbH v. Hauptzollamt Aachen-Nord, Judgment of the Court of 22 June 1976). In a similar vein, the ECJ held *in re* Humblot the following. "Article 95 of the EEC Treaty prohibits the charging on cars exceeding a given power rating for tax purposes of a special fixed tax the amount of which is several times the highest amount of the progressive tax payable on cars of less than the said power rating for tax purposes, where the only cars subject to the special tax are imported, in particular from other member-States" (See Michel Humblot v. Directeur des Services Fiscaux, decided by the European Court of Justice on May 9, 1985). I am grateful to Tom O´Shea, from Queen Mary, University of London for noticing the functional similarity between the United States Commerce Clause and Article 95 of the EEC in the tax location incentive area.

[86] The OECD Report makes a distinction between tax competition in the form of generally applicable lower tax rates, and targeted tax regimes designed to attract foreign investors. The OECD considers that the latter form of tax competition (unlike the former) should be deemed invalid. In effect, the OECD considers tax regimes designed to attract foreign investors are invalid if this goal is implemented through a system different from generally applicable tax rates (See Harmful Tax Competition: an Emerging Global Issue, OECD, at 34, 1998, and Reuven Avi Yonah, Globalization and Tax Competition: Implications for Developing Countries, at

OECD is not functionally equivalent to the United States Federal Judiciary. It lacks the power to convey a centralised, credible threat to uncooperative jurisdictions.

In sum, developing countries have been unable to enter into a treaty capable of solving their prisoner's dilemma due to the lack of an external authority.[87] Hence, the first method of solving a prisoner's dilemma referred to above (i.e., by a contract) does not work in the international tax scenario.

The relevant question at this point is the following: Why does an iterated prisoner's dilemma not emerge among developing countries to spontaneously solve the harmful international tax competition in which they are involved? In order to answer this question, it is necessary to recall the elements required for "tit-for-tat" to emerge, and then to determine which of those elements are not met in the developing countries´ context.

As discussed above, "tit-for-tat" emerges if certain conditions are met, namely that: a) the relationship between the players is perceived as durable; b) the cooperation is based on reciprocity; and c) the players have the ability to recognize defection when it occurs.[88] Clarity of behaviour must exist so that the players can adapt to the other player's pattern of action; in other words, players must have the ability to retaliate in response to uncooperative moves made by the other players.[89] The basic idea is that a player must not be able to get away with defecting without the other player being able to retaliate effectively. It is important for one player to know what the other player actually did on the previous move because tit-for-tat always defects exactly once after each defection by the other.[90] If these requirements are met, the prisoner's dilemma may be solved via iteration without external intervention.

First, this paper assumes that developing countries´ political instability normally implies a frequent turnover of both governments and public officials (including those involved in tax matters). This turnover makes it difficult for reciprocity among countries to arise because, according to empirical tests done by Axelrod, tit-for-tat normally emerges if the identity of the players is relatively stable. Hence, requirement "a" listed above is not normally met by developing countries.

17, published at http://www.utdt.edu/departamentos/derecho/posgrado/pidt/Globalization_and_tax_competition.doc). In a similar vein, the US Commerce Clause constraints States from implementing tax incentives for promoting domestic economic activity. See Peter D. Enrich, supra note _ (arguing that the Commerce Clause precludes the states from efforts to channel or distort interstate economic activity. In the competition over location incentives, mobile multi-state businesses are not victims of state efforts but, in fact, are their primary beneficiaries. The harms fall instead on the states themselves, on the citizens who depend upon and pay for services provided by the state, and on the national economy). See also the Cuno case referred to above.
[87] Arbitration in tax matters still is an infrequent element in the tax treaty network. See, for example, David Tillinghast, Arbitration of Disputes under Income Tax Treaties, 97 Am. Soc'y Int'l. L. Proc. 107 (2003).
[88] Robert Axelrod, supra note _ at 140.
[89] Id. at 29-182.
[90] Id. at 132.

Second, this paper assumes that developing countries normally face high monitoring costs for identifying any defecting behaviour by their developing country counterparts. In effect, it is usually costly for a representative developing country to promptly identify the harmful tax incentives that another developing country may have introduced to its tax system. This is so for a number of reasons that include the following two. On the one hand, developing countries´ institutions (e.g., tax authorities) are not usually sophisticated enough to produce this key information in a timely manner. On the other hand, as already been argued, there normally is a substantial gap between the law on the books and law in action in the developing world. For example, there may be transfer pricing norms in a given developing country but they might have been implicitly abrogated by lack of enforcement.[91] Hence, the requirements "b" and "c" according to which the players must have reciprocity and the ability to recognize defection when it occurs are not normally met by developing countries in the international tax area.

In sum, it is difficult for "tit-for-tat" to emerge among developing countries in the area of international taxation. This prevents the prisoner's dilemma from being spontaneously solved.

Let us now explore two relevant attempts to accommodate the interests of developing countries in the international tax arena: the Andean and UN model tax conventions. The next section's central question is why those attempts have failed to solve the aforementioned prisoner's dilemma among developing countries.

a- The Andean Model Tax Convention

Five South American countries are Members of the Cartagena Agreement of 1969, which established a sub-regional common market in Latin America.[92] They signed a multilateral tax agreement in 1971 along with a model tax convention, which should be used by Member States when negotiating bilateral tax treaties with non-member countries (the Andean Model Tax Convention (Andean MTC) or Andean model).

The Andean MTC was intended to protect the taxing jurisdiction of Member States especially *vis-à-vis* developed countries. It is based on the source or territorial principle. It gives exclusive taxing power to the source country.[93] The profits are taxable only in the state where the business activities are undertaken using a broad definition of permanent establishment.[94] Royalties are only taxable where the technology is used.[95] Interest from loans is taxable where the loan is used.[96] Dividends are taxable where the company distributing the dividends is resident. Only the country where the property is located at the time of its disposal may tax capital gains. Personal services may only be taxed where the

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[91] See Part III.2.
[92] These countries are Bolivia, Chile, Colombia, Peru, and Venezuela
[93] Andean MTC, Art. 4.
[94] For example, preparatory or auxiliary activities are deemed to be a PE.
[95] Andean MTC, Art. 9
[96] *Id*. Art. 10

services are performed. There are also provisions for exchange of information and mutual assistance on tax matters among the Contracting States

The Andean MTC has been in force for over 30 years. It has never been used as the basis for a bilateral tax treaty among a developed and developing country arguably because no developed country was willing to accept the exclusive taxing power of the source country.[97] The Andean community tax treaty network is currently largely based on the OECD Model.[98] There are only two tax treaties concluded between developing countries which are based on the Andean model.[99] Thus, the Andean model is virtually irrelevant in international taxation.

The Andean MTC can be seen as a failed attempt for two main reasons. First, the Andean model aims to solve the prisoner's dilemma in which developing countries are involved. Both players are developing countries who are members of the Cartagena Agreement and both have two alternative individual choices: to defect or to cooperate. These options can be defined as follows. To defect means adopting residence based taxation (as provided for by the OECD model) when concluding tax treaties with developed countries. To cooperate means adopting source taxation (as provided for by the Andean model) when concluding tax treaties with developed countries. Unsurprisingly, the defecting option prevailed within the members of the Cartagena Agreement given: i) the lack of an external authority capable of sanctioning defecting behaviour of the players, and ii) the lack of emergence of a tit-for tat pattern of behaviour among the players.[100]

Second, the Andean model can also be seen as an attempt to change the nature of the international tax competition among countries: from competition within a compatible standard (the OECD model) into a competition between incompatible standards (the OECD and Andean models). The OECD and Andean models are incompatible because while the OECD model has a residence bias, the Andean Model has a source bias. [101] The Andean

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[97] James Husban, *The Andean Pact Model Convention as Viewed by the Capital Exporting Countries*, 59-64, in Fiscal Harmonization in the Andean Countries (1975).

[98] Ronald E. Evans, The Expanding Role of Income Tax Treaties in Planning Latin American Ventures, Tax Notes Int'l 1471 (Sept. 25, 2000), available in LEXIS, WTD file.

[99] The Andean MTC has only been used in two bilateral treaties among developing countries: the Argentina-Chile and Argentina-Bolivia tax treaties. See Ronald Evans*, Régimen Jurídico de la Doble Tributación Internacional* 170-193 (1999).

[100] See Section III.3 for an explanation of why tit-for-tat does not normally emerge among developing countries in the international taxation area. The Andean Community overlooked international tax competition among developing countries in the area of Foreign Direct Investment. In effect, the Andean Community behaved as if it were a cartel that could withhold the provision of natural resources in order to induce developed countries to accept the source principle as the exclusive jurisdiction to tax. In other words, the Andean Community strategy when passing the Andean MTC would have been understandable if it were in a position similar to the OPEC countries in the oil industry during the 1970s (that succeeded in pushing world oil prices well above what they would have been in a competitive market by restraining output). Of course, this is not the case of the Andean Community because they are not a cartel; this paper assumes that there are other developing countries (such as Asian countries) with similar natural resources to those of the Andean Community willing to attract FDI from developed countries without requiring them to accept the source principle as the exclusive tax jurisdiction. This explains why the Andean Community Members were unable to conclude any of their tax treaties with developed countries on the basis of the Andean MTC.

[101] On the difference between competition within a standard and between standards, see Section II.A above.

model was eventually defeated by the OECD model. The defeat of the Andean model by the OECD model is functionally equivalent to the Betamax defeat by VHS in the videocassette recorder technology. In both scenarios there was competition between incompatible standards; and the prevailing standard implied the virtual elimination of the rival one.[102] In short, the Andean model failed to solve the prisoner's dilemma among developing countries in international taxation for the two major reasons stated in the previous paragraph.

b- The UN Model Tax Convention

The United Nations Model Double Taxation Convention (UN model) is somewhere between the (pro-source country) Andean model and the (pro-residence country) OECD model. Indeed, the UN model attempts to provide larger, but not exclusive, jurisdiction to tax to the source country than that granted by the OECD model.

The main goal of the UN model is to help developing countries (which are normally source countries) in their tax treaty negotiations with developed countries by providing a model tax treaty.[103] The UN model emerged after both the OECD (1963) and Andean models (1969). The UN model was first published in 1980 and eventually updated in 2001.

The UN consists of the OECD model with 27 specific adaptations aimed at enlarging source taxation *vis a vis* residence taxation.[104] These adaptations include the following: the UN permanent establishment definition is broader than that of the OECD model;[105] the UN model provides a "limited force of attraction rule" that aims to deter the manipulation of permanent establishment attribution rules;[106] and the UN definition of royalty is broader that that of the OECD model.[107]

The evolution of the UN model from its 1980 to 2001 version is towards an increasing similarity with the OECD model.[108] The dynamics of the converging trend towards the OECD model compatible standard is assumed to be similar to that witnessed in United States corporate law towards the Delaware compatible standard.[109] This evolutionary trend

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[102] For an explanation on why the Andean Model was defeated by the OECD model using the network market theoretical basis, see Section IV.1.b.

[103] Resolution 1273 (XLIII) of the Economic and Social Council of the United Nations.

[104] Willem F.G. Wijnen, Towards a new UN Model? 1998, International Bureau of Fiscal Documentation, Vol. 52, No. 3 (arguing that the UN model consists of the OECD Model with 27 specific adaptations aimed at enlarging source taxation *vis a vis* residence taxation).

[105] For example, under the OECD model a building site constitutes a PE only if it lasts more than twelve months, whereas under the UN Model the required period is only six months. See Art. 5 of the OECD and UN MTC.

[106] See UN model, Article 7 (1)

[107] UN model, Article 12 (3)

[108] See, for example, Bart Kosters, The United Nations Model Tax Convention and its Recent Developments, Asia-Pacific Tax Bulletin, January/February, 4-11 at 7, 2004 (arguing that "The 2001 UN Model made some changes to the 1980 version of the UN Model and with regards to the text, the bulk of the changes were made with a view to bring the UN Model more in line with the OECD Model").

[109] See Lucian Arye Bebchuk, Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law, 105 Harvard Law Review 1435, 1443 (arguing that "Delaware's dominance of the state

is arguably triggered by the lock-in effect of the relevant leading compatible standard[110] (that is, the OECD model in international taxation and the Delaware model in the United States corporate law).

In sum, the international tax regime (be it in the OECD, UN or Andean Model versions) has been unable so far to solve the prisoner's dilemma among developing countries for two core reasons: a) the lack of an external authority with the authority of conveying a credible threat for defecting countries; b) the lack of an iterated prisoner's dilemma among countries able to spontaneously solve the said prisoner's dilemma. [111]

IV- The Strategic Interaction among Developed and Developing Countries

The motives for which developing countries enter into OECD-type tax treaties with developed countries are debatable for two major reasons. First, the OECD model assumes a number of elements that are normally absent in asymmetric tax treaties. Those assumptions include a symmetric flow of cross-border income between tax treaty partners,[112] and a network of domestic courts capable of producing case law with public-good features.[113] Second, there is no empirical evidence about on impact of OECD-based tax treaties on Foreign Direct Investment in developing countries.[114] These two reasons cause some disagreement as to the extent that the OECD model is a cost-effective method for

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charter competition has resulted in the widespread diffusion of its law. Other states, anxious to stem the exodus of corporations from their jurisdictions, have followed Delaware in adopting various legal rules").

[110] See Section IV.b.

[111] See Section III.3.

[112] The OECD Model has a residence bias. That is, all things considered, the residence state has a larger tax jurisdiction than the source state. Article 21 of the OECD model is a case in point. Article 21 establishes the principle according to which items of income not dealt with by the other articles of the OECD Model shall be taxable only by the residence state. The residence bias is substantially neutralized in tax treaties among developed countries given that capital flows between the contracting states are basically symmetric. Conversely, the residence bias is not neutralized in tax treaties concluded between developed and developing countries because capital flows are typically asymmetric. Hence, the OECD model usually favours the tax jurisdiction of residence states (primarily developed countries) at the expense of source states (mainly developing countries).

[113] See Section V.2.b. Case law is a public good (rather than a private good) if it allows a representative person to predict the probable outcome of a future court's decision. See James M. Buchanan, The Limits of Liberty: Between Anarchy and Leviathan (1974), chapter 6 (arguing that legal precedent is a form of social capital having public good characteristics). *See also* W. Landes and R. Posner, Legal Precedent: A Theoretical and Empirical Analysis, 19 Journal of Law and Economics 249 (1976) (arguing that the body of legal precedents is a capital stock that yields a flow of information services).

[114] One of the few analyses of the empirical evidence available on the impact of tax treaties on FDI in developing countries is Ronald B. Davies, Tax Treaties and Foreign Direct Investment: Potential versus Performance, International Tax and Public Finance, 11, 775-802 (2004). Davies argues, page 784, that "FDI is influenced by factors such as labour markets and location in addition to governmental policies. Thus, the available data may be too noisy to tease out the positive effect of tax treaties. Second, it may be that the ways treaties are used in practice differ in important ways from the potential uses discussed by theorist". He adds on page 776 that "many tax treaties contain provisions addressing tax evasion by MNEs, which, if effective, could reduce FDI."

developing countries to attract FDI given the restriction of source taxation that OECD-based tax treaties imply.

This Section argues that a representative developing country has the incentive to conclude OECD-based tax treaties with developed countries for two different (but compatible) central reasons. First, there is a prisoner's dilemma among developing countries in the FDI arena that, *ceteris paribus*, induces developing countries to follow the OECD model for fear of driving FDI to competing jurisdictions. Second, the OECD model produces a network market of international tax systems that has the standard features of all network markets.

1- Why the Asymmetric Tax Treaty Network Emerged

a- The Prisoner's Dilemma Explanation

Since the end of the World War II, bilateral investment treaties (BITs) have become an important international legal mechanism for the encouragement and governance of foreign direct investment. These intergovernmental treaties normally grant extensive rights to foreign investors, including protection of contractual rights, the right to international arbitration in the event of an investment dispute, and the most-favoured-nation-clause. The spread of asymmetric BITs is driven by international competition among potential host countries –typically developing countries- for foreign direct investment.[115]

The evidence suggests that potential hosts are more likely to sign BITs when their competitors have done so.[116] The finding is that BITs' diffusion is associated with competitive economic pressures among developing countries to capture a share of foreign investment.[117] Hence, the emergence of asymmetric BITs is arguably triggered by a prisoner's dilemma among developing countries in the area of foreign direct investments.[118]

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[115] Zachary Elkins, Andrew Guzman, Beth Simmons, Competing for Capital: The Diffusion of Bilateral Investment Treaties, 1960-2000, unpublished paper on file with the author.

[116] Ibidem.

[117] Ibidem.

[118] Andrew Guzman, Why LDCs Sign Treaties That Hurt Them: Explaining the Popularity of Bilateral Investment Treaties, Virginia Journal of International Law 38:636-88 (1998). Guzman explains why developing countries sign treaties that hurt them, using BITs as a case study. Guzman suggests that developing countries´ opportunity to selectively expropriate investors amounts to a tax on investment that benefits developing countries because of their collective market power over investment opportunities. Accordingly, developing countries sought to strengthen that power when given the opportunity to do so collectively within the United Nations. But when they were approached on a bilateral basis and asked by developed countries to sign a BIT, they faced a Prisoner's Dilemma. Each nation could attract more investment by committing to not expropriate investors, but the private gain from such a commitment was largely a transfer from other developing nations. The growth of BITs thus represents a cascade of defection from the collective interest of developing nations. Guzman concludes that although BITs may be globally welfare enhancing because they represent a retreat from the exercise of market power by developing nations, they may well have lowered the welfare of the developing world. See also Zachary Elkins, Andrew Guzman and Beth Simmons, Competing for Capital: The Diffusion of Bilateral Investment Treaties, 1960-2000, unpublished manuscript on file with the author (arguing that the spread of BITs is driven by international competition among potential host countries –typically developing countries – for foreign direct investment.

This paper assumes that the same prisoner's dilemma that explains the emergence of asymmetric BITs also explains the emergence of the asymmetric tax treaty network. This assumption is grounded on the following rationale. There are a number of differences between the tax treaty and BITs networks. However, both types of asymmetric treaty networks seek the same fundamental goal: to provide investors with credible property rights protection according to norms that are normally consistent with customary international law.[119] Hence, both asymmetric treaty networks effectively imply an institutional outsourcing in the property rights arena.

There are a number of examples that show the interaction between asymmetric BITs and the asymmetric tax treaty networks. The gradual inclusion of standard BIT clauses (such as the most–favoured nation) in the asymmetric tax treaty network is a case in point.[120] For example, the most favoured nation clause is included in several asymmetric tax treaties concluded by Argentina with OECD member countries.[121] As noted, the interaction

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The authors design and test three different measures of economic competition. They also look for indirect evidence of competitive pressure on the host to sign BITs. The evidence suggests that potential hosts are more likely to sign BITs when their competitors have done so. They find some evidence that coercion plays a role, but less support for learning or cultural explanations. Their main finding is that diffusion in this case is associated with competitive economic pressures among developing countries to capture a share of foreign investment. They are dubious of the benefits of this competition for development).

[119] See Andrew Guzman, et al, Competing for Capital: The Diffusion of Bilateral Investment Treaties, 1960-2000, note_ at 3-5 (arguing that BITs are consistent with "customary international law, expressed succinctly in the ´Hull Rule,' [that] held that ´no government is entitled to expropriate private property, for whatever purpose, without provision for prompt, adequate, and effective payment therefore"). See also Reuven Avi Yonah, International Tax as International Law, 57 Tax Law Review 483, 496-498 (2004) (arguing that "an international tax regime does exist and that it rises to the level of customary international law").

[120] On the MFN clause, see, for example, John H. Jackson, William J. Davey and Alan O. Sykes, Jr., Legal Problems of International Economic Relations, Third Edition, West Group, 1995 at 440 (arguing that "the concept embodied in the MFN has been traced to the 12th century, although the phrase ´most favored nation´ did not appear until the end of the 17th Century). The concept of MFN originally emerged in international trade law. It currently is the cornerstone of the international trade rules embodied in the General Agreement of Tariffs and Trade (GATT). The concept of MNF later expanded to the bilateral investment treaties network, and then to the asymmetric tax treaty network.

[121] The most favoured nation (MFN) clause is included in those tax treaties concluded by Argentina with a number of OECD countries such as Australia, Belgium, Canada, Denmark, Netherlands, Norway, Spain, Sweden, and Switzerland. A representative wording of the MFN is that included in the Argentine-Dutch tax treaty. It provides the following: *"If under any double tax treaty concluded after the date of conclusion of this Convention between the Republic of Argentina and a third country which is a member of the OECD, the Republic of Argentina limits its taxation at source on insurance or reinsurance premiums, on dividends as meant in subparagraph (a) of paragraph 2 of Article 10, on branch profits, on interest, on royalties, on capital gains, on independent personal services, on other income as meant in Article 23, or on specific items of such income, to a rate lower, including exemption from taxation, exemption from the additional taxation as meant in Article 11, or a taxation over a reduced taxable base, than the rates provided for in paragraph 5 of Article 7, subparagraph (a) of paragraph 2 of Article 10, Article 11, paragraph 2 of Article 12, paragraph 2 of Article 13, paragraphs 2, 5 and 6 of Article 14, subparagraph (b) of paragraph 2 of Article 15 and paragraph 3 of Article 23 of this Convention, respectively, then the lower rates, the exemption or the reduced taxable base as provided for in the double tax treaty concerned shall automatically apply to the residents of both Contracting States, with effect from the date of the entry into force of such double tax treaty, in respect to the relevant type or category of income* (see Argentine- Netherlands tax treaty - Protocol Clause XIV. Additions to Articles 7, 10, 11, 12, 13, 14, 15 and 23).

between both treaty networks is arguably triggered by international competition among developing countries for inward investment.

The prisoner's dilemma theoretical framework provides a strong explanation for developing countries´ behaviour in international taxation. It sheds light on the controversy about the emergence of the asymmetric tax treaty network that has been addressed by prominent academics, such as Charles McLure, Tsilly Dagan, Yariv Brauner, and Diane Ring. Some of their views on this controversy will be analysed in light of the prisoner's dilemma framework.

Charles McLure has argued that "[…] although developing countries may prefer to follow the UN Model Treaty, which is generally more favourable to source countries, they often lack the political clout to prevail in treaty negotiations with developed countries".[122] Charles McLure´s point seems to be consistent with the prisoner's dilemma theoretical framework. His point could be reconceptualised as follows. C*eteris paribus,* the larger the relative relevance of a given developing country in the global economy, the closer its tax treaty network will be to the UN model. Conversely, the smaller the relative relevance of a given developing country in the global economy, the closer its tax treaty network will be to the OECD model. Hence, the UN and OECD models are the opposing ends of a continuum. The tax treaty network of a given developing country will be closer to the UN or OECD model depending on its relative relevance on the global economy.

The Brazilian and Kazakhstan asymmetric tax treaty networks are a case in point. Indeed, the Brazilian asymmetric tax treaty network is closer to the UN model than to the OECD model,[123] whereas the Kazakhstan tax treaty network is closer to the OECD or US models than to the UN model.[124] This seems to be so because Brazil is relatively more significant than Kazakhstan in the global economy.

Tsilly Dagan has argued that developing countries should avoid international double taxation through unilateral mechanisms (rather than tax treaties) because the former is more cost-effective than the latter for developing countries´ interests.[125] Even assuming that her point on this topic is correct on normative grounds, from a positive perspective the unilateral mechanism is only available to a developing country at a relatively high cost. In effect, as stated above, if a given developing country does not consent to sign a bilateral tax treaty with a developed country, it is likely *ceteris paribus* that another developing country

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[122] Charles E. Mc. Lure, Transfer Pricing and Tax Havens: Mending the LDC Revenue Net, at 5 (unpublished manuscript on file with the author).
[123] Likewise, Article 9 of the Argentine tax treaty network (which regulates transfer pricing between associated enterprises) is closer to Article 9 of the UN model than that suggested by the OECD model. In effect, Article 9 of the tax treaties concluded between Argentina and certain developed countries (such as Denmark, Canada, Finland, Netherlands, Norway, and Sweden) includes paragraph three of Article 9 of the UN Model.
[124] An example of this strategic scenario is the Kazakhstan-USA tax treaty in which Kazakhstan accepted to follow the US model as is. (I am grateful to Reuven Avi Yonah for providing me this example).
[125] See Dagan, supra note _, at 995-996.

will. This pattern of behaviour is the result of the above mentioned prisoner's dilemma involving developing countries, and the network externalities derived from the tax treaty network.[126] Within that strategic framework, entering into a tax treaty seems to be the best available option for a representative developing country to attract FDI into its jurisdiction if all other conditions are equal.[127] In sum, Tsylly Dagan´s point arguably overlooks international tax competition among developing countries.

Yariv Brauner has maintained that "...there is a definite proof that developing countries have benefited from the current bilateral tax treaty practice. They have never been forced, nor claimed to have been forced, into concluding a bilateral tax treaty with a developed country. In fact, in most cases the developing countries wish to conclude treaties with the developed countries, which reject their wishes in times...". [128]

Brauner's point also arguably overlooks international tax competition among developing countries. The fact that developing countries normally conclude OECD-based tax treaties may be the result of the prisoner's dilemma referred to above. Indeed, developing countries have no better option (from an individual rather than aggregate perspective) for attracting FDI given the prisoner's dilemma and network market in which they are involved. Moreover, developed countries like the United States have sometimes rejected the conclusion of tax treaties with certain developing countries because those developing countries may not be willing to introduce provisions (such as limitation of benefit clauses) that ban tax treaty shopping schemes. This pattern of behaviour does not necessarily deter United States investment into, say, Latin American countries. For example, there is no tax treaty between Brazil and the United States of America. However, a US Multinational enterprise may invest in Brazil via its subsidiary based in, say, the Netherlands within the framework of the Brazil-Netherlands tax treaty (the United States-Netherlands-Brazil example).

Finally, Diane Ring has argued that "… the double taxation regime process most closely mirrors a coordination game. As such, we would expect that agreement would be relatively easier to achieve because there is no monitoring problem (no need to prevent defection). The primary challenge in a coordination game is the need to reach a decision that may have some distributive effect. The greater the distributional component of the coordination game, the more difficult it is to reach a consensus. Thus, where negotiating countries A and B are both developed countries with similar investment flows, fewer distributional issues should arise. If A is a developed country and B a developing country, the selection of regime rules will carry distributional consequences that will impede agreement".[129]

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[126] See Part IV.b below.
[127] Davies, supra note _ at 775-802, 2004. Davies argues, on the basis of empirical evidence, that tax treaties seem to be a necessary, but not sufficient, for attracting FDI to developing countries.
[128] See Brauner, supra note _, at 45.
[129] Diane Ring, International Tax Relations: Theory and Implications, at 65, final electronic version forthcoming in Tax Law Review (Fall 2006/Winter 2007).

Ring's point, according to which the double taxation regime process most closely mirrors a coordination game, is debatable when applied to the asymmetric tax treaty network. As the China vs. India example suggests, the strategic interaction among developing countries in international taxation is a prisoner's dilemma (rather than a coordination game).[130] This prisoner's dilemma influences the interaction between developed and developing countries when concluding asymmetric tax treaties. Indeed, there are competition (rather than coordination) elements that induce developing countries to include clauses in their asymmetric tax treaties such as the most favoured nation.[131] The presence of these sorts of competition elements in the asymmetric tax treaty network suggests that the interaction among developed and developing countries in international taxation is something different from a coordination game.

In sum, two major conclusions can be reached on Brauner, Dagan, and Ring's aforementioned points. First, those points seem to overlook the international tax competition in which developing countries are involved in international taxation.[132] Second, Brauner's and Dagan's points are grounded in a debatable assumption. They both assume that developing countries´ strategic interaction is static (rather than dynamic). Indeed, Brauner's point assumes that it is always good for a representative developing country's interest to join the tax treaty network. Conversely, Dagan´s point assumes that that behaviour is always bad for the interest of a representative developing country. [133]

b- The Network Market Explanation

This section elaborates a second reason (compatible with that based on the prisoner's dilemma referred to above) for explaining why a representative developing country is willing to conclude OECD-based tax treaties. According to this second reason, the OECD model creates a network market of international tax systems that induces developing countries to join the tax treaty network.

As noted earlier, this section is grounded on the following assumption. Countries are involved in international tax competition within a compatible standard (rather than between incompatible standards) in which the compatible standard is the OECD model. Interestingly, the current international tax competition within a compatible standard seems to be functionally equivalent to that witnessed in the CD Market. Taxpayers (like users in the CD market) can interact at a lower transaction cost than would be the case if the competition were among incompatible standards. Examples of incompatible standards in the videocassette recorder industry are VHS-Betamax, whereas those of international taxation are the OECD - Andean models.[134]

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[130] See Section III.1.
[131] See Section IV.1.a.
[132] *Ibidem.*
[133] See Section IV.1.3 (arguing that the strategic interaction of developing countries in this area is dynamic (rather than static)).
[134] See Section III.3.2.

This assumption entails two central implications. On the one hand, the OECD-based tax treaty network is a network market of competing, decentralized international tax systems. On the other hand, the OECD-based tax treaty network has the standard features of all network markets: externalities, expectations, and lock-in effects. These three features are explored independently as follows.

b.1 Network Externalities of **the Tax Treaty Network**

Network externalities exist when the benefits from a good or service depend on the number of users of the same good or service. This happens, for example, with telecommunications. In effect, the value of having a telephone for an individual user depends on the number of other consumers using compatible telephones.[135] Likewise, the benefits for a country joining the OECD-based tax treaty network depend on the number of countries that are members of that network. Indeed, the tax treaty network produces positive network externalities only for those countries (including developing countries) that participate in the tax treaty network. Following are five examples of positive network externalities of the tax treaty network.

First, a major set of costs associated with the operation of legal institutions consist is that of disseminating information about the content of the law among members of society including foreign investors (communication cost).[136] The fact that most tax treaties are based on the same model and are normally written in the same language (i.e. English) is instrumental in minimising the communication cost of the tax treaty network.[137] Moreover, the larger the number of countries involved in the tax treaty network, the lower the average communication cost of the tax treaty network.

Second, another major set of costs associated with the operation of legal institutions are those costs incurred in the course of applying the law to a particular dispute (enforcement cost).[138] The larger the number of countries involved in the tax treaty network, the lower the average enforcement cost of a given developing country tax treaty network. For example, the OECD network market provides developing countries´ domestic courts the option of minimising enforcement cost by referring to legal sources that are unavailable to those countries that are outside the tax treaty network. These legal resources include case law produced by foreign domestic courts interpreting OECD-based tax treaties. For example, the Supreme Court of Singapore has the option of using the Supreme Court of

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[135] Network Externalities, Competition, and Compatibility, The American Economic Review, Vol. 75, N° 3, 424-440 (June, 1985).

[136] Kevin Davies, Lawmaking in Small Jurisdictions, New York University School of Law at 5 (September 2004) (unpublished manuscript on file with the author).

[137] OECD-based asymmetric tax treaties concluded between non-English speaking countries are frequently in English. This is probably in order to minimize communication costs. See, for example, the Argentina-Netherlands tax treaty concluded in 1998.

[138] Ibidem.

India decision *in re Union of India* in cases related to tax treaty shopping.[139] Needless to say, this option for minimizing the enforcement cost is unavailable to courts belonging to countries that are not members of the tax treaty network.[140]

Third, the OECD-based tax treaty network offers countries a number of procedures for solving transfer pricing disputes that are normally unavailable to countries that do not participate in the tax treaty network. A prominent example of this sort of procedure is the multilateral advance pricing agreement (APA) that is regulated by Article 25 (Paragraph 3) of the OECD Model.[141] An APA is an arrangement that determines, in advance of controlled transactions, an appropriate set of criteria (*e.g.* method, comparables and appropriate adjustments thereto, and critical assumptions as to future events) for the determination of the transfer pricing for those transactions over a fixed period of time.[142] For example, in the early nineties a multilateral APA was successfully issued to solve a transfer pricing problem relating to the global trading of derivatives and commodities. In the context of a multilateral APA among tax treaty partners, the US, the UK, and Japan agreed to develop a profit-split formula for the allocation of income derived from the global trading of derivatives and commodities (APA on Global Trading).[143] The contracting states considered that the agreed-upon profit-split formula was consistent with the ALS as codified in Article 9.1 of the relevant tax treaties.[144] Needless to say, the APA on Global Trading would have been more costly to reach in a world without tax treaties. Interestingly,

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[139] See Section III.1

[140] This paper assumes that developed countries normally prefer the OECD model to other options because that is the prevailing preference of their taxpayers for minimising both information and enforcement costs. When a representative MNE has to choose between two developing countries that offer similar advantages where one has a tax treaty with his home jurisdiction and the other does not, it normally prefers the former to the latter. There are a number of reasons that may explain this preference. For example, domestic courts´ have a broader scope for construing arbitrarily domestic norms than tax treaty norms. This is so because courts´ improper behaviour might be more visible to an international audience in the latter case than in the former.

[141] See OECD guidelines. See, for example, Eduardo Baistrocchi, The Transfer Pricing Problem: A Global Proposal for Simplification, note _ (providing examples of multilateral APAs).

[142] See OECD guidelines, 4.124. By the same token, an APA has been defined by the U.S. as an agreement between the tax authority and the taxpayer on the transfer pricing method. The APA can be applied to any apportionment or allocation of income, deductions, credits, or allowances between two or more organizations, trades, or businesses owned or controlled (directly or indirectly) by the same interests. See section 1 of the U.S. Rev. Proc. 96-53, IRB CB 96-49 (December 2, 1996). Similar definitions of APAs have been established in some other countries, such as Australia (section 10 of the ATO Taxation Ruling 95/23, on APAs) and Canada (sections 3 and 4 Revenue Canada Information Circular Number 94-4)). S*ee* Jose Manuel Calderon, *Advance Pricing Agreements. A Global Analysis,* Kluwer Law International (1998).

[143] Libin, Jerome B., Formulary Apportionment for Global Trading in the Manufacturing Industry: Can It Work? Tax Notes Int'l, p. 1375 (Nov. 20, 1995).

[144] This position is consistent with the current OECD view according to which, under some circumstances, a multifactor formula reflects the ALS. See OECD, Discussion Draft of the Attribution to Permanent Establishments (PES: Part III (Enterprises Carrying on Global Trading of Financial Instruments), paragraphs 157-160 (March 4, 2003), available at www.oecd.org. That report provides, *inter alia*, "guidance on how to apply the profit split method in accordance with the arm's length principle, with particular reference to the multi-factor formula approach." (See paragraph 160.)

developing countries who are members of the tax treaty network (such as China) have already concluded multilateral APAs.[145]

Fourth, the secondary adjustment system (SAS) is a bilateral or multilateral procedure that is normally unavailable to countries that do not participate in the OECD-based tax treaty network. SAS seeks to minimize international double taxation problems emerging in those cases of transfer pricing adjustment implemented unilaterally (rather than bilaterally) by a competent authority.[146]

Fifth, belonging to the tax treaty network gives its members a reputation of being committed to keeping their local international tax system consistent with customary international law (i.e., the international tax regime) for a substantial period of time. Indeed, the process of termination of a tax treaty is more time consuming than that required for the abrogation of domestic tax legislation which, in some jurisdictions, can be implemented overnight.[147] Hence, for a developing country to belong to the tax treaty network normally amounts to a credible commitment to predictability and stability according to well-known legal norms; that is, those norms based upon the OECD model or compatible models (such as the UN Model) and their related body of precedent. This argument is functionally equivalent to the race for predictability and stability theory that has been elaborated to understand the dynamics of competition among the states in United States of America in the area of corporate law.[148]

In short, the OECD-based tax treaty network produces positive network externalities for its members that are unavailable to non-members. They are the following: i) minimization of communication and enforcement costs; ii) provision of a number of procedures for minimising international double taxation, such as the APA and the secondary adjustment procedure; and iii) credible commitment to predictability and legal stability.

b.2- Expectations for the Tax Treaty Network

A second standard feature of all network markets is expectations. As already noted, the initial success of the MS-DOS operative system is not normally explained by its technical

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[145] See Paul Previtera, First China-Japan APA: A Coup for Both Countries, Tax Notes International, August 22, 2005, p. 686.

[146] The SAP procedure is regulated by Article 9 of the OECD model as follows: *"Where a Contracting State includes in the profits of an enterprise of that State –and taxes accordingly- profits on which en enterprise of the other Contracting State has been charged to tax in that other State and the profits so included are profits which would have accrued to the enterprise of the first-mentioned State if the conditions made between the two enterprises had been those which would have been made between independent enterprises, then that other State shall make an appropriate adjustment to the amount of the tax charged therein on those profits. In determining such adjustment, due regard shall be had to the other provisions of this Convention and the competent authorities of the Contracting States shall if necessary consult each other".*

[147] Tsylly Dagan, The Tax Treaty Myth, supra note _

[148] See, for example, Lucian Arye Bebchuk, Federalism and the Corporation: the Desirable Limits on State Competition in Corporate Law, 105 Harvard Law Review 1435, 1446-1447 (1991-1992) (arguing that the success of Delaware's corporate law over competing regulations is due to its ability to offer a credible commitment to predictability and stability).

superiority, but rather due to the fact that it was backed by IBM.[149] Likewise, the acceptance of the OECD Model over other available standards by developing countries can be explained by the fact that the OECD model is sponsored by the world's most developed countries that are, not coincidentally, the major capital exporting countries. In sum, the expectation that the OECD model would prevail over other available standards (such as the Andean model) is a key element that explains the success of the OECD Model as the core structure of the international tax regime.

b.3- Lock-in Effect of the Tax Treaty Network

Finally, another key element of all network markets is its lock-in effect. For example, a better standard that arrives later may be unable to prevail over another, inferior model that arrived earlier. An instance of this problem is the QWERTY system.[150] Likewise, the lock-in effect may explain that the fundamental structure of the OECD model is identical to that designed by the League of Nations Report in 1923 despite the substantial changes that have occurred in the world economy since then.[151]

The consequences of the lock-in effect of the OECD model can be witnessed in two different dimensions. First, it induces other different but compatible standards to be based on the OECD model and to gradually converge towards the OECD Model (such as the UN model).[152] Second, the lock-in effect of the OECD model is capable of destroying incompatible standards (such as the Andean Model).[153] Both dimensions of the lock-in effect of the OECD model are outlined as follows.

The UN model is based on the OECD model because, *inter alia*, the OECD model emerged earlier. The United Nations Ad Hoc Group of Experts implicitly acknowledged the lock-in effect of the OECD Model:

> "(The) Group of Experts . . . decided to used the OECD Model Convention as its main reference text in order to take advantage of the accumulated technical expertise embodied in that Convention and the Commentary thereon, and also for reasons of practical convenience stemming from the fact that the Convention was being used by OECD member countries in the negotiation of tax treaties not only with each other but also with developing countries."[154]

Moreover, the lock-in effect of the OECD model has arguably influenced the evolution of the UN model over time. This explains, for example, why the UN model is increasingly similar to the OECD model. As noted earlier, the 2001 version of the UN model is closer than its 1980 version to the OECD model. [155]

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[149] See Section II.1.a.
[150] See Section II.1.b.
[151] See Section I.
[152] See Section II.1.b
[153] See Section III.3.a.
[154] See United Nations, Introduction to Model Treaty.
[155] See Section III.3.b.

The dynamics of the lock-in effect of the OECD model can also be seen when an incompatible standard emerges. Indeed, those international tax systems that are incompatible with the OECD-based international tax regime are normally destroyed because of that incompatibility. The Andean Model, referred to above, is a case in point. In effect, the Andean model was eventually defeated by the OECD model because of their incompatibility.[156]

In sum, both the line of reasoning grounded on the prisoner's dilemma and the one on the network market rationale arguably explain the behaviour of developing countries in concluding OECD-based tax treaties with developed countries. Neither of these arguments sheds light on whether this behaviour is consistent with developing countries aggregate (rather than individual) interests. This is an empirical and dynamic issue. It is an empirical issue because it requires measuring the cost (e.g. reduction of source taxation triggered by the prisoner's dilemma) and benefits (e.g. positive network externalities) faced by developing countries when joining the tax treaty network. This empirical issue is also dynamic. The cost/benefit implications of the asymmetric tax treaty network to developing countries may change over time. It may be cost effective at one time and cost ineffective at another.[157]

V- Tax Treaty Interpretation in Emerging Economies

This Section extends the theory on the emergence of the asymmetric treaty network, elaborated in the previous sections, to the area of tax treaty interpretation in the developing world. Three major points are argued.

First, that tax treaty interpretation is a debatable issue mainly because central provisions of the OECD model are predominantly standards-based (rather than rules-based). Hence, the precise meaning of those provisions is not certain ex-ante. Their precise meaning can only be determined *ex-post* through case law (or something functionally equivalent to case law).

Second, identifying the structure of incentives that courts normally face when solving tax-treaty cases is a relevant element for predicting court decisions given the standard-based nature of the OECD model.

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[156] See Section III.3.a.

[157] This Article assumes that the decision of a representative developing country to join the tax treaty network is a condition necessary (but not sufficient) for attracting inward FDI. First, this condition is necessary because of the prisoner's dilemma and network externalities arguments elaborated above. (A caveat is required here. As the United States-Netherlands-Brazil example suggests, joining the tax treaty network does not mean for a developing country concluding tax treaties with all available developed countries (including the United States). It means something less demanding than that. It means concluding tax treaties with some developed jurisdictions with an extensive tax treaty network (such as the Netherlands), which may operate as a conduit for channelling investments between developed and developing countries.) Second, as the Argentine case suggests, joining the tax treaty network is a condition not sufficient for attracting inward FDI. For example, inward investment to Argentina shrank dramatically after its 2001 crisis despite the fact there was no substantial change to the Argentine tax treaty network, which had arguably facilitated massive investments during the 1990´s.

Third, this Section assumes that, *ceteris paribus*, courts of a representative developing country have an incentive to construe the OECD-based tax treaties in favour of the taxpayer, instead of the tax authority, for fear of driving FDI to competing jurisdictions. Hence, the prisoner's dilemma and network market arguments referred to above have an impact on tax treaty interpretation in the developing world. The *Union of India* case is used as a case study for grounding this assumption.

1- Standards versus Rules: An Economic Analysis[158]

Identifying the structure of incentives that courts normally face when solving tax treaty cases is a relevant element for predicting court decisions given the standard-based nature of the OECD model. This section aims to demonstrate the said standard (rather than rule) based nature of the OECD model.

Legal systems must provide information about the legal norms applicable in a given society. Interestingly, the government can give content to legal norms *ex ante* (via rules) or *ex post* (via standards). Examples of rules and standards can be found in many settings. For instance, a norm demanding "no driving in excess of 55 miles per hour" is a rule because its meaning is precise before an individual drives her vehicle. Conversely, the norm "drive carefully" is a standard because its meaning can be determined *ex post* via case law only (or by something functionally equivalent to case law).

Rules and standards differ in at least three important dimensions: (i) cost structure; (ii) distribution of power within a legal system; and (iii) institutional assumptions. Those three dimensions will be addressed independently.[159]

First, rules and standards have different costs of promulgation (*i.e.* the expenses incurred in the creation of a norm) and enforcement (*i.e.* the cost arising from applying a norm to a given set of facts). On the one hand, rules are normally associated with high promulgation costs and low enforcement costs. An example of a rule is a precise tax norm that clearly specifies *ex ante* the taxpayer's expected behaviour. Hence, rules are expensive to create, but relatively cheap to apply given their largely self-enforcing character. [160] On the other hand, standards are normally associated with low promulgation costs and high enforcement costs. An instance of a standard is the arm's length approach. Its precise meaning can only be provided *ex post* via case law. [161] Therefore, the enforcement cost of standards is high *vis-à-vis* its promulgation cost.

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[158] This section is closely based on the following Articles: Kaplow Louis, Rules versus Standards: An Economic Analysis, 22 Duke Law Journal 557 (1992); Kaplow, Louis, The Value of Accuracy in Adjudication: An Economic Analysis, 23 Journal of Legal Studies 307 (1994).

[159] *Ibidem*.

[160] Reinier Krakman & Bernard Black, A Self-Enforcing Model of Corporate Law, 109 Harvard Law Review 1911 (1996) (arguing that violation of rules is more visible to public opinion than violation of standards. Hence, rules, unlike standards, normally are self-enforcing).

[161] Eduardo Baistrocchi, The Arm's Length Standard in the 21st Century: A Proposal for both Developed and Developing Countries, Tax Notes International, October 18, 2004.

Second, rules and standards imply differing institutional allocations of power. While rules are usually a centralised creation of the legislative branch of government, standards are a decentralised creation of the law through, paradigmatically, the judiciary.

Finally, standards and rules have different institutional assumptions. Standards (unlike rules) presuppose a legal system capable of producing case law with public good features. Standards therefore require a higher threshold of human capital endowments than rules within the legal system in which they operate (such as competent lawyers and judges).

2- The OECD Model: A Standard-Based Regime

This Section identifies the structure of the OECD model using the rule/standard distinction as a theoretical framework. It argues that the central norms of the OECD model are fundamentally standards-based (rather than rules-based). That is, the full meaning of the central norms of the OECD model can be provided *ex post* by case law only (or by something functionally equivalent to case law). Articles 9.1 and 3.2 are used as examples for grounding this proposition.

a- The Cases of Articles 3.2 and 9.1: Standard-based Norms

The OECD model regulates the transfer pricing problem through two separate provisions. Article 7 addresses that problem in the context of permanent establishments, whereas Article 9.1 focuses on the transfer pricing problem in the context of associated enterprises. Article 9.1 states the following:

> "Associated Enterprises
>
> 1. Where
>
> a) an enterprise of a Contracting State participates directly or indirectly in the management, control or capital of an enterprise of the other Contracting State, or b) the same persons participate directly or indirectly in the management, control or capital of an enterprise of a Contracting State and an enterprise of the other Contracting State, and in either case conditions are made or imposed between the two enterprises in their commercial or financial relations which differ from those which would be made between independent enterprises, then any profits which would, but for those conditions, have accrued to one of the enterprises, but, by reason of those conditions, have not so accrued, may be included in the profits of that enterprise and taxed accordingly."

Article 9.1 embodies a norm that has the following logical structure:

1) If associated enterprises conclude a transfer price;
2) And that transfer price is not consistent with the arm's length standard (ALS); then
3) The tax authority may adjust that transfer price to make it consistent with the ALS.

Interestingly, the OECD model does not provide an *ex ante* meaning for two fundamental elements of Article 9.1: neither "associated enterprise" nor "ALS" is defined by the OECD model. Article 3.2 governs those situations where terms are not defined in the OECD model in order to solve the interpretative problem of norms without *ex ante* meaning. Article 3.2 states the following:

> "As regards the application of the Convention at any time by a Contracting State, any term not defined there in shall, unless the context otherwise requires, have the meaning that it has at that time under the law of that State for the purposes of the taxes to which the Convention applies, any meaning under the applicable tax laws of that State prevailing over a meaning given to the term under other laws of that State."

The logical structure of Article 3.2 is the following:

1) If a term is not defined in the OECD model;
2) And the context does not otherwise require; then
3) The meaning of that term will be provided by domestic law of Contracting States.

Article 3.2 of the OECD model has a mixed character. It consists of a rule embedded in a standard. In effect, the rule ("undefined terms must be defined by contracting states' domestic law") is subject to the standard ("unless the context otherwise requires"). Article 3.2 has, therefore, a prevailing standard-based nature because only case law can provide a meaning for the standard "unless the context otherwise requires." In sum, both Article 9.1 and Article 3.2 have a standards-based (rather than a rules-based) structure because they lack a precise *ex ante* meaning.

b- Main Assumption of the OECD Model: a Decentralised Network of Domestic Courts Capable of Producing Case Law with Public Good Features

The previous Section has shown that two central norms of the OECD model (i.e., Articles 3.2 and 9.1) have standard-based features. Other prominent examples of OECD norms that are of a standard-based nature include the following, for reasons similar to those identified when analysing Articles 3.2 and 9.1: agent of independent status (Article 5.6), beneficial owner (Articles 10, 11 and 12), and royalties (Article 12).[162]

The standard-based structure of the OECD model is significant as it shows that the OECD model is grounded on a crucial institutional assumption. The OECD model assumes that the content of its norms will be fundamentally provided by a network of decentralised domestic courts via case law of a public good nature.[163] The standard-based nature of the OECD model explains why tax treaty interpretation is not like mathematics. Courts normally have room in construing tax treaties that they can take into account strategic considerations as the *Union of India* case shows.[164]

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[162] The standard-based structure of the OECD model is shared by the UN model given the decreasing differences between these two models (see Section III.3.b)

[163] Case law is a public good (rather than a private good) if it allows a representative person to predict the probable outcome of a future court's decision. See James M. Buchanan, The Limits of Liberty: Between Anarchy and Leviathan (1974), chapter 6 (arguing that legal precedent is a form of social capital having public good characteristics). *See also* W. Landes and R. Posner, Legal Precedent: A Theoretical and Empirical Analysis, 19 Journal of Law and Economics 249 (1976) (arguing that the body of legal precedents is a capital stock that yields a flow of information services).

[164] Eduardo Baistrocchi, The Transfer Pricing Problem: A Global Proposal for Simplification, The Tax Lawyer, summer 2006, forthcoming.

3- The Union of India Case: a Possible Alternative Decision

a- Incentives Matter in Tax Treaty Interpretation in Emerging Countries

The *Union of India* is a paradigmatic case of tax treaty shopping.[165] The taxpayer had designed a triangular tax planning scheme for channelling FDI from the relevant OECD countries into India via the Mauritius-India tax treaty (rather than channelling them from an OECD country to India). According to the Supreme Court of India, the taxpayer's main goal in this case was to achieve an international double non-taxation result. The Supreme Court of India decided the case in favour of the taxpayer.

As seen, the Supreme Court of India construed one tax treaty (the Indo-Mauritius tax treaty) in light of another tax treaty (the Indo-US tax treaty).[166] This inter-textual method of interpretation seems compelling. However, there are other equally compelling legal arguments that could have led to an opposing result, that is, in favour of the tax authority (instead of the taxpayer). One argument that may have led to a result in favour of the tax authority is the following.

Article 31 of the Vienna Convention on the Law on Treaties (VCLT) sets forth the general rule of treaty interpretation. It prohibits the use of unilateral documents for construing treaties.[167] The commentary to Article 31 rejects the interpretative value of unilateral documents as follows: "The principle on which this provision is based is that a unilateral document cannot be regarded as forming part of the ´context´ within the meaning of Article 31 […]". Hence, Article 31 of the Vienna Convention forbids construing a treaty signed between A and B (first treaty) in light of a treaty concluded between A with C (second treaty). This is because the second treaty should be considered as a unilateral document in relation to the first treaty, given that C did not take part in the treaty concluded between A and B. In sum, the second treaty should be irrelevant for construing the first treaty according to Article 31 of the Vienna Convention.

The reasoning outlined in the previous paragraph is arguably crucial to the *Union of India* case. There is no evidence in the *Union of India* decision that Mauritius had accepted in

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[165] See Section III.1.

[166] Ibidem.

[167] Article 31 of the VCLT provides the following. "General rule of interpretation 1. A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose. 2. The context for the purpose of the interpretation of a treaty shall comprise, in addition to the text, including its preamble and annexes: (a) any agreement relating to the treaty which was made between all the parties in connection with the conclusion of the treaty; (b) any instrument which was made by one or more parties in connection with the conclusion of the treaty and accepted by the other parties as an instrument related to the treaty. 3. There shall be taken into account, together with the context: (a) any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions; (b) any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation; (c) any relevant rules of international law applicable in the relations between the parties. 4. A special meaning shall be given to a term if it is established that the parties so intended." (Emphasis added).

any way the Indo-US tax treaty.[168] Thus, the Indo-US tax treaty should be treated as a unilateral document in relation to the Indo-Mauritius tax treaty, and, as such, should be immaterial for construing the Indo-Mauritius tax treaty.

In sum, incentive matters in tax treaty interpretation given the standard (rather than rule) based structure of tax treaties based on the OECD model. The incentive structure for developing countries referred to above[169] seems to be an instrumental element in predicting their decisions in tax treaty cases because courts normally have enough room to choose between competing (sometimes opposing) constructions equally consistent with the Vienna Convention of the Law of Treaties and Article 3.2 of the OECD model. The Union of India case suggests that developing countries´ courts – consistent with the individual interest of their own countries - are influenced by the prisoner's dilemma and network externalities previously mentioned.[170] Hence, this paper assumes that developing countries' courts have the incentive to construe the local tax treaty network in the foreign direct investment arena in favour of the taxpayer (rather than the tax authority) for fear of driving this investment to competing jurisdictions if all other conditions are equal.

VI. Conclusion

This Article offers an answer to two fundamental questions on the emergence and evolution of the asymmetric tax treaty network that represents, for example, over 50% of the United States and United Kingdom tax treaty networks. First, it elaborates a theory for explaining why a representative developing country is willing to conclude tax treaties with developed countries on the basis of the OECD Model Tax Convention on Income and on Capital (OECD model). Second, this Article extends that theory to tax treaty interpretation in the developing world. This extension aims to illuminate the structure of incentives the courts of a representative developing country normally have when construing OECD-based tax treaties in the foreign direct investment (FDI) area. Game theory is used as a theoretical framework for answering both questions.

This Article's analysis is premised on the following three major assumptions. First, developing countries are habitually engaged in international tax competition within a compatible standard (rather than between incompatible standards). The current compatible standard is the OECD model, which channels international tax competition into areas that are not regulated by the OECD Model, such as the inclusion of clauses like most–favoured-nation in asymmetric tax treaties.[171] Second, the OECD-based tax treaty network is a network market of decentralized international tax regimes that has the standard features of all network markets: externalities, expectations, and lock-in effects.[172] Third, it is also assumed that the OECD model compatible standard is capable of destroying incompatible

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[168] The Indo-Mauritius tax treaty became effective six years before the Indo-US tax treaty. In effect, while the former become effective as of 1983, the latter did so in 1989.
[169] See Sections III and IV.
[170] See Section III.
[171] See Section IV.1.a (offering examples of asymmetric tax treaties that include most favoured nation clauses (MFN). The OECD model does not even refer to the MFN clause).
[172] See Section IV.1.b (providing examples of externalities, expectations and lock-in effects of the OECD-based tax treaty network).

standards (such as the Andean Model)[173] and inducing other, different, but compatible standards (like the United Nations model) to gradually converge towards the OECD Model.

The Article argues that a representative developing country has the incentive to conclude tax treaties with developed countries for two different, but compatible, central reasons. First, there is a prisoner's dilemma among developing countries in the arena of foreign direct investment (FDI) that induces developing countries to follow the OECD model for fear of driving FDI to competing jurisdictions if all other conditions are equal.[174] Second, the OECD model produces a network market of international tax systems that has the standard features of all network markets. For example, the OECD-based network market of international tax systems conveys positive network externalities only to those countries (including developing countries) that are members of this network.[175]

Both the point grounded on the prisoner's dilemma and the one on the network market rationale arguably explain the behaviour of developing countries in concluding OECD-based tax treaties with developed countries. Neither of these points sheds light on whether this behaviour is consistent with developing countries aggregate (rather than individual) interests. This is an empirical and dynamic issue.[176] It is an empirical issue because it requires measuring the cost (e.g. reduction of source taxation triggered by the prisoner's dilemma) and benefits (e.g. positive network externalities) faced by developing countries when joining the tax treaty network. This empirical issue is also dynamic. The cost/benefit implications of the asymmetric tax treaty network to developing countries may change over time. It may be cost effective at one time and cost ineffective at another time.[177]

Finally, this Article extends the theory on the emergence of the asymmetric tax treaty network to the area of tax treaty interpretation by developing countries´ courts. It assumes that developing countries´ courts – consistent with the individual interest of their own countries - are influenced by the prisoner's dilemma and network externalities referred to above. Hence, developing countries courts have the incentive to construe the local tax treaty network in the foreign direct investment arena in favour of the taxpayer (rather than the tax authority) for fear of driving investment to competing jurisdictions if all other conditions are equal. This strategic construction of the asymmetric tax treaty network is facilitated by the standard (rather than rule) character of the OECD model. The *Union of India* case recently decided by the Indian Supreme Court is used as a case study.[178]

In sum, the emergence of the asymmetric tax treaty network since the early 1960´s is not a miracle but rather an intelligible, but sometimes failed, attempt to solve problems arising from the strategic interactions among nations for the division of the international tax

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[173] See Section III.3.a (focusing on the incompatibility of the OECD and Andean Models and the virtual irrelevance of the Andean model in international taxation).
[174] See Section III.
[175] See Section IV.
[176] See Section IV.1.a.
[177] See Section IV.1.b.3.
[178] See Section V.

base.[179] It remains to be seen if the emergence of the OECD Model itself (and its predecessors) is a miracle.

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[179] See Section II.