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# Navigating the Expanding Universe of International Treaties on Foreign Investment--Creation and Use of a Critical Index

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# Navigating the Expanding Universe of International Treaties on Foreign Investment

## Creation and Use of a Critical Index

Julien Chaisse* and Christian Bellak**

**ABSTRACT**

There have been many successful attempts to analyse most of the rules and principles that make up the substance of the international law of foreign investment. There is, however, a lack of a general theory, or, at least, a tool which would allow us to analyse, compare, and make sense of this expanding patchwork of international rules on foreign investment. This article precisely aims at explaining how a combination of legal and economic perspectives can help to break new ground and allow both economists and lawyers to further grasp and analyse the complexity of the current regulatory framework. We created an index, called 'BITSel Index', which can help to link case studies to broader analysis and, conversely, more general theories with specific cases; this will help to conduct broader investigation among the large numbers of treaties and link general analysis to specific provisions or practices. Such an effort is not only an intellectual challenge but it also has practical and policy-oriented ramifications, especially in the light of the recurring debate on the effect of investment treaties on Foreign Direct Investment (FDI) flows.

*'If you want to build a ship, don't drum up people to collect wood and don't assign them tasks and work, but rather teach them to long for the endless immensity of the sea'.*
Antoine de Saint-Exupéry, La Citadelle (1948)

## I. INTRODUCTION

The efforts to better understand the fast evolution of the international law of foreign investment have resulted in numerous publications over the past

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decade.[1] The substantive and procedural norms that regulate foreign investments are better understood than a few years ago. Renewed efforts of scholarship have contributed in elucidating the meaning of the vague principle of fair and equitable treatment,[2] as well as the increased interactions between investment treaties principles and World Trade Organization (WTO) law.[3] Scholars have also explored particular specie of the umbrella clauses sometimes found in international investment agreements (IIAs) to show how unstable is their application.[4] Many contributions have clarified different countries' practices and experiences.[5]

Although each of these advances is truly important for furthering our general understanding of the international law of foreign investment, there is a recurring lack of a systemic dimension which often frustrates researchers and practitioners in the area of investment law. Even if we understand the potential meaning of fair and equitable treatment, it will remain a key issue to know how a specific standard has been drafted in a specific treaty. The same is true for all the other investment standards. In the same vein, although it is possible (and necessary) to study national practices, what can be learned from one country is difficult to replicate for the others. In a nutshell, there have been many successful attempts to analyse most of the rules and principles that make up the substance of the international law of foreign investment. There is a lack of a general theory, or, at least, a tool which would allow us to analyse, compare, and make sense (if any) of this expanding patchwork of international rules on foreign investment.

This article explains how the coding of thousands of legal provisions can generate data which in turn can be used to identify new legal issues or develop new approaches in both the legal and/or economic analysis of international investment treaties. We created an index, called 'BITSel Index', which can help to link case issues

1 The international law of foreign investment is essentially made of IIA which is a type of treaty between countries that addresses issues relevant to cross-border investments, usually for the purpose of protection, promotion, and liberalization of such investments. The most common types of IIAs are Bilateral Investment Treaties (BITs) and Preferential Trade Agreements (PTAs) with an investment chapter. See Jeswald W. Salacuse, *The Three Laws of International Investment: National, Contractual, and International Frameworks for Foreign Capital* (Oxford: Oxford University Press, 2013) 393.

2 See the excellent piece by Michele Potesta, 'Legitimate Expectations in Investment Treaty Law: Understanding the Roots and the Limits of a Controversial Concept', 28 (1) ICSID Review 88 (2013), at 89–90.

3 See Jurgen Kurtz, 'The Merits and Limits of Comparativism: National Treatment in International Investment Law and the WTO', in Stephan Schill (ed.), *International Investment Law and Comparative Public Law* (Oxford: Oxford University Press, 2010), at 243–78.

4 See Jarrod Wong, 'Umbrella Clauses in Bilateral Investment Treaties: of Breaches of Contract, Treaty Violations, and the Divide between Developing and Developed Countries in Foreign Investment Disputes', 14 George Mason Law Review 135 (2006), at 138.

5 Such as China (See Congyan Cai, 'China-US BIT Negotiations and the Future of Investment Treaty Regime', 12 Journal of International Economic Law (2009), at 457); Brazil (See Leany Barreiro Lemos and Daniela Campello, 'The Non-Ratification of Bilateral Investment Treaties in Brazil: A Story of Conflict in a Land of Cooperation', Contexto Internacional (forthcoming); India (See Prabhash Ranjan, 'India and Bilateral Investment Treaties - A Changing Landscape', 29 (2) ICSID Review 419 (2014); and the USA (See Kenneth J. Vandevelde, *U.S. International Investment Agreements* (London: Oxford University Press, 2009) 908), while the EU is developing its new investment policy (See Julien Chaisse, 'Promises and Pitfalls of the European Union Policy on Foreign Investment – How Will the New EU Competence on FDI Affect the Emerging Global Regime' 15 (1) Journal of International Economic Law 51 (2012).

to broader analysis and vice versa; this will help to link general analysis to specific provisions or practices.[6] Such an effort is not only an intellectual challenge but it also has practical and policy-oriented ramifications, especially in the light of the recurring debate on the effect of investment treaties on FDI flows. If most of the studies that sought to evaluate the impact of IIAs on FDI flows have not produced convincing results, it was essentially because they never succeeded in taking into account the great diversity of IIAs provisions.

In order to explain this research, the article first reviews the reasons that justify the creation of an Index and, hence, the coding of thousands of legal provisions. To do so, the article identifies the research frontier not only for academics but also for practitioners and stakeholders and explains the gap that is filled by this research (Section II). This is important because we intend to provide an instrument and some answers not only to academics but also to those who are responsible for negotiating and drafting investment rules. In the third section, the article explains the characteristics and the methodology employed to build the BITSel, and this represents a breakthrough in the study and analysis of investment treaties (Section III). Equally important are the descriptions of the many possible applications of this Index which all open new horizons for researchers and policy-makers (Section IV). Conclusions are drawn in the final section (Section V).

## II. WHY AN INDEX? CHALLENGES OF LINKING THE GENERAL, THE SPECIFIC, AND THE SPECIAL IN INVESTMENT TREATIES ANALYSIS

The construction of an Index is intended to allow new forms of research in the universe of investment treaties.[7] As we mentioned in the introduction, there is already a wealth of analysis regarding countries' practices or variations around treaty and/or provisions drafting. What is missing is a tool which would allow creating linkages among all these treaties and provisions in order to compare them, i.e. to compare a great number of countries' treaties or compare a number of specific provisions across regions and over time. We also see in the recurring debate over the impact of

6 See Julien Chaisse and Christian Bellak, 'Do Bilateral Investment Treaties Promote Foreign Direct Investment? Preliminary Reflections on a New Methodology', 3 (4) Transnational Corporations Review 3 (2011). See also further works published as Julien Chaisse, 'Assessing the Exposure of Asian States to Investment Claims' 6(2) Contemporary Asia Arbitration Journal 187 (2013) and Christian Bellak, 'Economic Impact of Investment Agreements' Asian Development Bank, Regional Integration Unit Working Paper Series (forthcoming 2015).

7 The Division on Investment and Enterprise (DIAE) in the United Nations Conference on Trade and Development (UNCTAD) is also working on a broad database in the context of the Investment Policy Framework for Sustainable Development (IPFSD) which consists of a set of 'Core Principles for investment policy-making' and translates them into UNCTAD 'options for international investment agreements'. See United Nations Conference on Trade and Development, 'the Investment Policy Framework for Sustainable Development', (2014), http://investmentpolicyhub.unctad.org/ipfsd (visited 15 December 2014). The goal of the IPFSD is different from the BITSel Index. The IPFSD's goal is to gather in one place a comprehensive list of options designed to support rule-makers in shaping investment policies more sensitive to sustainable development issues. In a nutshell, the IPFSD contains a broad variety of policy options covering the whole range of policy issues dealt with in IIAs. However, the IPFSD does not provide any analysis or possible use of these data what is a key feature of the BITSel Index.

investment treaties on foreign investment flows another major justification to our endeavour.

Over time, the views about the role and relevance of IIAs concerning the objective of FDI attraction underwent substantial change and the only constant was that the view has never been uniform.[8] The main hypothesis tested in the empirical studies is whether IIAs affect (inward or outward) FDI positively, as this is the only plausible effect of a BIT on FDI from an economic point of view. Empirical studies estimating the impact of IIAs on FDI usually derive some type of elasticity,[9] i.e. they show how much the dependent variable (FDI) changes upon a change in the independent variable (BIT), *ceteris paribus*.

However, a percentage change of a BIT is not meaningful information, because BITs, be it a bilateral treaty or the unilateral stock of all BITs of a single home or host country, can only change in whole units. As a semi-elasticity expresses the percentage impact of a one-unit change of the independent variable (BITs) on the dependent variable (FDI), we have decided to re-calculate each single empirical result to a semi-elasticity.[10]



8 Here, a few relatively recent examples should suffice to demonstrate this fact. Firstly, UNCTAD's World Investment Report (2003) held that 'BITs play a minor role in influencing global FDI flows. . . . The policy framework is at best enabling, having by itself little or no effect on FDI flows. . . . As a rule, IIAs tend to make the regulatory framework more transparent, stable, predictable and secure – that is, they allow the economic determinants to assert themselves. And when IIAs reduce obstacles to FDI and the economic determinants are right, they can lead to more FDI. But it is difficult to identify the specific impact of the policy framework on FDI flows, given the interaction and relative importance of individual determinants.' Newcombe and Paradell concluded that: 'Although later studies provide support for a more robust relationship between IIAs (International Investment Agreements, author) and FDI levels, the existence of a causal relationship and the strength of that relationship remain disputed. . . . Nevertheless, even if empirical evidence of a causal relationship is inconclusive, there remains strong competitive pressure for developing states to enter into IIAs and thereby signal to foreign investors that an enabling environment for foreign investment exists.' Andrew Paul Newcombe and Lluis Paradell, *Law and Practice of International Investment Treaties* (Alphen aan den Rijn: Kluwer Law International, 2009). Thirdly, Büthe and Milner develop a more direct link between BITs and FDI: 'In sum, enforcement procedures established by (or as a consequence of) BITs enable foreign governments and private actors to impose higher economic and political costs on governments that renege on their policy commitments – and to do so more quickly – than in the absence of BITs. By increasing the likelihood and the time-discounted magnitude of the punishment for reneging, international institutions should reduce the time-inconsistency problem posed by FDI for developing country governments.' Tim Büthe and Helen Milner, 'Bilateral Investment Treaties and Foreign Direct Investment: A Political Analysis', in Karl P. Sauvant and Lisa E. Sachs (eds), *The Effect of Treaties on Foreign Direct Investment* (USA: Oxford University Press, 2009), 171–224 at 187. Fourthly, Busse *et al.*, on the basis of their empirical analysis, go even further and conclude that 'BITs may even substitute for domestic institutions.' Matthias Busse, Jens Königer and Peter Nunnenkamp, 'FDI Promotion through Bilateral Investment Treaties: More than a Bit?', 146 (1) Review of World Economics (2010), at 147–77. Finally, Tobin and Rose-Ackerman argue on the basis of empirical evidence that '. . . the global surge in BITs has weakened the treaties as a tool for attracting FDI to a particular country'. Jennifer Tobin and Susan Rose-Ackerman, 'When BITs Have Some Bite: The Political-Economic Environment for Bilateral Investment Treaties?', 6 (1) The Review of International Organizations 1–32 (2010), at 2.

9 The percent change in one variable given a 1% ceteris paribus increase in another variable. See e.g. the glossary in Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach,* 5th ed. (Boston: Cengage Learning, 2012) 912 at 844.

10 A semi-elasticity is the percentage change in the dependent variable given a one-unit increase in an independent variable. (See e.g. the glossary Wooldridge, ibid, 912 at 844) A coefficient, which expresses the quantitative relationship between the dependent and the independent variable, in our case, FDI and

Whether IIAs are able to deliver on the policy goal of increasing inward or outward FDI is an empirical question. The existent literature provided three approaches to this question, all three of them using regression analysis in order to establish whether there is a causal impact of IIAs on FDI.

- Firstly, studies analysing this question on an aggregate level, using the stock of signed or ratified IIAs.
- Secondly, several authors have used a dummy variable, indicating on a bilateral level whether or not a BIT is in existence for a specific country pair.
- Thirdly, while often claimed to be necessary, only recently have some studies been undertaken which use the *content of IIAs* to establish a relationship between IIAs and FDI. In particular, their authors have shown that the effect of IIAs on FDI depends on whether or not a certain provision has been included into the treaty. Liberal admission rules generally promote FDI, but dispute settlement provisions play a minor role.[11]

While economic theory suggests a statistically and economically significant and positive impact of IIAs on FDI, results published in empirical studies often show negatively signed coefficients or an implausibly large economic impact. Therefore, we engage in a meta-analysis[12] of existing empirical results.[13] The main contribution of a meta-analysis is to highlight the fact that existing literature—with few exceptions—has compared empirical results only as to the sign of the coefficient[14] and the statistical significance,[15] but not as to the economic significance of IIAs.[16]

Before we report the result of the meta-analysis, a descriptive look at the evidence, put forward so far in empirical studies, seems to be in order. To this end, we calculate the mean values and standard deviations of semi-elasticities (Table 1).

The semi-elasticities have been selected on the criteria that they are positive and that they are smaller than 50 for FDI stocks and smaller than 100 for FDI flows. This seems to be a useful approach, as economic plausibility arguments suggest that signing or ratifying a treaty does not—on average—greatly increase FDI. Indeed, most of the experts we have spoken to in the last couple of years, consider an effect

BITs, may carry a positive sign or a negative sign. The positive sign means that BITs impact positively on FDI (and vice versa for the negative sign).

11 Axel Berger et al., 'Do Trade and Investment Agreements Lead to more FDI? Accounting for Key Provisions Inside the Black Box', 10 (2) International Economics and Economic Policy 268 (2013).

12 A meta-analysis seeks to summarize and explain the heterogeneous empirical findings reported in a certain area of empirical research. For its application in economics, see Tom Stanley and Hristos Doucouliagos, *Meta-Regression Analysis in Economics and Business* (London: Routledge Advances in Research Methods 2012) 200 at 80.

13 See Bellak, mimeo: Economic Impact of Investment Agreements, Asian Development Bank (forthcoming 2015). A full list of empirical studies included in the meta-analysis can be found there.

14 Supra footnote 10.

15 Statistical significance means rejecting the null hypothesis that a parameter is equal to zero against the specified alternative, at the chosen significance level. (See e.g. the glossary in Wooldridge, supra note 9, 912 at 844

16 While this fact applies to many other fields in economics, too, it is particularly deplorable concerning BITs, as bilateral and regional investment treaty-making is currently a crucial area of international policy-making, but little is known about its effects.

**Table 1. Mean semi-elasticity of BIT on FDI, by various measures of FDI and BIT**

| | BIT total | | BIT dummy | |
|---|---|---|---|---|
| | FDI flow | FDI stock | FDI flow | FDI stock |
| **Inward FDI** | | | | |
| **Number of semi-elasticities** | 93 (44) | 4 (1) | 73 (45) | 9 (5) |
| **Mean** | 3.8 (4.1) | 4.0 (0.8) | 16.8 (18.1) | 20.2 (19.8) |
| **Standard deviation** | 8.6 (4.5) | 2.1 (–) | 13.0 (13.3) | 10.3 (14.4) |
| **Outward FDI** | | | | |
| **Number of semi-elasticities** | 6 (4) | – | 49 (25) | 37 (25) |
| **Mean** | 5.7 (7.6) | – | 32.7 (38.5) | 15.6 (17.6) |
| **Standard deviation** | 4.1 (3.5) | – | 18.4 (5.6) | 11.4 (12.0) |

Notes: only positive semi-elasticities have been used; as an upper bound, 50% has been chosen for FDI stocks and 100% for FDI flows, i.e. semi-elasticities above these values have been excluded; see main text for interpretation; figures in parentheses are based on statistically significant results on the 5 and 1 percent level.

**Table 2. Maximum semi-elasticity of BIT on FDI, by various measures of FDI and BIT**

| | BIT total FDI flow | FDI stock | BIT dummy FDI flow | FDI stock |
|---|---|---|---|---|
| **Inward FDI** | | | | |
| **Maximum** | 71.3 (19.7) | 5.2 (0.8) | 53.1 (53.1) | 35.4 (5.2) |
| **Outward FDI** | | | | |
| **Maximum** | 11.6 (11.6) | – | 72.1 (65.4) | 39.1 (39.1) |

Notes: the number of observations used is the same as in Table 2; figures in parentheses are based on statistically significant results on the 5 and 1 percent level.

size[17] in the one-digit range to be the most plausible. For all positive values, independently of their statistical significance, Table 1 shows the substantial impact of IIAs on FDI in the range of 4%–33%. For all positive and statistically significant values, Table 1 shows rather similar semi-elasticities. Overall, Table 1—not unexpectedly—still reflects a great deal of heterogeneity in the results.[18]

Table 2 reveals that the evidence on the maximum values suggests a larger impact than expected, certainly when considering FDI stocks. Overall, the descriptive results presented in Table 1 and Table 2 suggest that the size of the effect of IIAs on FDI is substantial, especially when considered in the light of the fact that many other location factors determine FDI. For example, Büthe and Milner use beta

17 Effect size is used here synonymously to semi-elasticity (See definition Supra in footnote 9).

18 Note that several studies find different effects of signing and ratifying a BIT on FDI, but we do not discuss these here in greater detail.

coefficients[19] to show the importance of IIAs relative to other location factors which determine FDI flows: an increase of IIAs by one standard deviation results in 11.1% of a standard deviation of FDI, while an increase in the market size by one standard deviation results in 4.4% of a standard deviation of FDI and an increase in the (General Agreement on Tariffs and Trade) GATT/WTO membership by one standard deviation results in 10.4% of a standard deviation of FDI.[20] Yet, this evidence derives from a single study. Alternatively, a meta-analysis allows for a more useful interpretation, as it summarizes empirical results from many studies.

After a careful review process of the published results to be included in the meta-analysis and the transformation of coefficients into semi-elasticities, the meta-analysis yielded an increase of FDI due to IIAs in the range of 2.3%–8.2%, when based on all estimates and close to zero, when based on the most significant results.[21] The difference is explained by the existence of a large publication bias, which leaves the bias-corrected estimates close to zero. Publication bias emerges from a variety of sources, among others, authors tend to publish results which confirm theoretical models rather than the opposite.

The results of the meta-analysis stand in stark contrast to the descriptive results just presented. In a nutshell, the positive impact of IIAs on FDI suggested by theoretical reasoning is not confirmed empirically. These results suggest that the effect of IIAs on FDI are of no practical relevance, which calls into question the large increase of bilateral treaties from an economic point of view. However, the results discussed so far are based only on the information whether a BIT exists or does not exist. Instead, we need to better take into account the substantive contents of IIAs. It is a daunting task if we look at the expanding universe of IIAs but it justifies the construction of the BITSel Index which can allow for finer appreciation. As has been outlined in the Introduction, in order to fine-tune the economic impact assessment of IIAs, it is necessary to focus on the substance of the most important legal provisions of IIAs.

## III. CODING OF INVESTMENT TREATIES: INDEX CREATION METHODOLOGY

Earlier literature did not take into account the heterogeneity of IIAs, and this suggests that the 'average effect', as derived in the present analysis, may not be the relevant information for policy-makers. These aspects are directly related to the effect size studied in the meta-analysis: the use of counts of IIAs (quantity) instead of acknowledging the legal heterogeneity of IIAs (quality). This problem has

19 A beta coefficient is interpreted in the following way: how large is the change in FDI (in terms of percent of a standard deviation of FDI) resulting from a one standard deviation change in a regressor, e.g. BIT variable.

20 Tim Büthe and Helen Milner, 'The Politics of Foreign Direct Investment into Developing Countries: Increasing FDI through International Trade Agreements?', 52 (4) American Journal of Political Science 741 (2008), at 750.

21 See Supra reference in footnote 13 for details.

been acknowledged by prominent authors in the field, but not really addressed empirically.[22] IIAs have become precisely the core of the current framework for FDI. IIAs seek to promote investment flows between two countries by establishing international obligations concerning the entry and/or the treatment of investment by nationals of one state in the territory of another state.[23] In 2011, we published a first description of the BITSel Index and subsequent versions have been made available online until the current version 4.20 released on 1 March 2015 since we take the view that data are a valuable long-term resource and that making them publicly available is a way to realise their potential value (both as part of the scholarly record or for re-use by others).[24]

The BITSel Index is based on the 11 most important elements found in most of the existing IIAs. For the sake of the explanation of the methodology we can group the 11 most important provisions in five main categories which are the breadth of the investment agreement (Subsection III.A), the liberalization of foreign investment flows (Subsection III.B), the anti-discrimination principle (Subsection III.C), the regulatory constraint (Subsection III.D) and the access to international dispute settlement (Subsection III.E). Each of these five categories is explained, detailed and examples are provided to justify the coding of the provisions in the BITSel Index.

### A. Breadth of investment agreement

The provisions concerning the breadth of the investment agreement are of essential importance, because they delimit the cases where the agreement will apply or will fail to apply. In particular, the definition of 'investment' determines the subject-matter of

22 To give just three examples here, Hallward-Driemeier writes: 'While it should be recognized that a BIT could be an important commitment device, the nature of the commitment can vary enormously depending on the terms of the BIT. Too much attention has been placed on whether or not a BIT exists, than on the strength of the property rights actually being enshrined in these agreements.' Mary Hallward-Driemeier, 'Do Bilateral Investment Treaties Attract Foreign Direct Investment? Only a Bit . . . And They Could Bite', World Bank Policy Research Working Paper No. 3121, 1-37 (2003) at 4. Swenson writes: 'Another reason why BITs may appear less effective in stimulating investment than they actually were is that large cross country analyses necessarily involve generalizations that are unable to capture the full degree of heterogeneity in choices and outcomes. To begin, while some BITs provide more comprehensive investor benefits than others, the regression analysis is limited to noting whether a BIT was in place or not. . . . What is worth remembering, when interpreting this study or other work that examines how investment responds to BITs, is that the use of BIT counts relies on an imprecise measure of the investment environment. As such, the analysis is less likely to observe results, even if BITs are effectively fostering new investment.' Deborah L. Swenson, 'Why do Developing Countries Sign BITs?', 12 University of California, Davis 131 (2005), at 153. Busse *et al.* maintain: 'Treating BITs as homogenous may be justified to the extent that most of them share important characteristics; but this "does not mean . . . that all agreements provide the same degree of investment protection" (quoted from UNCTAD). In particular, some recent BITs have broadened the coverage of FDI-related issues and have become more binding. . . . However, it is clearly beyond the scope of the present paper to classify the about 2,500 BITs according to the degree of protection offered.' Busse et al., supra note 8, 147–77.

23 In so doing, they may take the protection of foreign investment beyond the requirements of general international law (stemming, for instance, from customary international law or the general principles of law). See Jeswald W. Salacuse, 'The Emerging Global Regime for Investment', 51 Harvard International Law Journal 427 (2010), at 429–30.

24 See Julien Chaisse and Christian Bellak, 'Bilateral Investment Treaties Selection Index (BITSel) Version 4.20', http://www.cuhk.edu.hk/law/proj/BITSel (visited 1 March 2015).

the agreement (Subsection III.A.1). Equally important are the temporal scope of application (Subsection III.A.2) and the 'umbrella clause' (Subsection III.A.3).

### *1. Definition of foreign investment*

As investment is a collection of resources for a given period, for future profits, the formal definitions found in international instruments have significant variations. Against this legal background, we make two hypotheses: when investment definition is broad there is a strong incentive to invest; and when it is narrow the contrary (less investments will be covered/protected) the risk is higher for the investor. In constructing the BITSel and coding the IIAs, we considered that the 'asset-based'[25] definition and the 'tautological'[26] approach of the definition of investment provide a broad definition of investment, while the 'closed-list'[27] definition and other techniques that exclude certain assets and transactions from the definition[28] tend to narrow the definition of investment and hence automatically reduce the scope of application of the BIT.

### *2. Temporal scope of application*

Regarding the issue of application in time, two main questions have traditionally arisen in BIT negotiations. The main difference as for the temporal scope of application relates to the duration. In order to ensure protection and a stable investment environment, investment agreements typically foresee a minimum period of duration.

25 Such lists typically include five categories of material and immaterial assets (as in the Hong Kong–Austria BIT: (1) movable and immovable property and any related property rights such as mortgages, liens or pledges; (2) various types of interests in companies, such as shares, stock, bonds, debentures or any other form of participation in a company, business enterprise or joint venture; (3) claims to money and claims under a contract having a financial value and loans directly related to a specific investment; (4) intellectual property rights; and (5) business concessions, that is, rights conferred by law or under contracts. Some BITs only refer to 'all direct investment' (as in the Hungary–Bulgaria BIT): '1. The term "investment" shall mean every kind of asset . . . [T]hese assets shall refer to all direct investment made in accordance with the laws and regulations in the territory of the Contracting Party . . . '.

26 The tautological definition of 'investment' can be flexible enough to apply to new types of investment that might emerge in the future. Numerous BITs concluded by the USA illustrate this approach, such as the BIT with Bahrain (1999). It defines an 'investment' as 'every kind of investment' and not only 'every kind of asset'.

27 The third approach that has emerged to avoid an excessively broad definition of 'investment' is what is called a 'closed-list' definition. It consists of an ample but finite list of tangible and intangible assets. Originally envisaged as an 'enterprise-based' definition used in the context of USA–Canada FTA, this approach evolved towards the definition used in Article 1139 of NAFTA. It has been incorporated into the 2004 Canadian BIT model. Government of Canada, 'Canada's Foreign Investment Protection and Promotion Agreement (FIPAs) Negotiating Programme', http://www.dfait-maeci.gc.ca/tna-nac/what_fipa-en.asp#structure (visited 11 December 2014).

28 In NAFTA, investment means: (a) an enterprise, (b) an equity security of an enterprise, (c) a debt security of an enterprise (i) where the enterprise is an affiliate of the investor, or (ii) where the original maturity of the debt security is at least three years, but does not include a debt security, regardless of original maturity, of a state enterprise; but investment does not mean, (i) claims to money that arise solely from (i) commercial contracts for the sale of goods or services by a national or enterprise in the territory of a Party to an enterprise in the territory of another Party, or (ii) the extension of credit in connection with a commercial transaction, such as trade financing, other than a loan covered by subparagraph (d); or (j) any other claims to money, that do not involve the kinds of interests set out in subparagraphs (a) through (h).

In the landscape of bilateral investment treaties, the usual minimum term is 10 years, although longer and shorter terms are also provided in some agreements. Beyond this period, the parties retain the ability to terminate the agreement after an advance notice to the other party, normally of at least one year. If the treaty extends to investments made before the entry into force of the agreement and it applies for more than 10 years, the BITSel will mark it as rather favourable to foreign investment.[29] If the treaty has a shorter period of duration, it will be relatively less appealing to foreign investors.

### *3. Umbrella clause*

Some IIAs cover only those disputes which relate to an 'obligation under this agreement', i.e. only for claims of BIT violations. Others extend the jurisdiction to 'any dispute relating to investments'. Some others create an international law obligation that a host state shall, for example, 'observe any obligation it may have entered to', 'constantly guarantee the observance of the commitments it has entered into', 'observe any obligation it has assumed', and other formulations, in respect to investments. These provisions are commonly called *'umbrella clauses'*.[30] In essence, an umbrella clause extends the scope of the application of a BIT, and it offers more protection to the investor. The BITSel Index makes the distinction between the IIAs with an umbrella clause and those which do not include such a favourable protection granted to the investor and its investment. An umbrella clause extends the scope of application of BIT because it offers more protection to the foreign investor. If it contains an umbrella clause, it is a positive sign which we hypothesize will be an incentive for the investor to invest. Conversely, if there is no such umbrella clause, there will be a relatively lesser interest to use a BIT to invest.

## B. Liberalization of foreign investment flows

Among the key issues to tackle in IIAs is the degree of liberalization of the rules governing the entry of foreign investors. In general terms, investments agreements do not provide entry rights to foreign investors into their territory.[31] Rather, most IIAs provide only a best-endeavour provision in regard to the admission of the foreign investments (Subsection III.B.1). A second rule that affects the degree of liberalization is the provision on transfer of investment-related funds (Subsection III.B.2) and potential additional standards (Subsection III.B.3).

29 Hong Kong–Austria BIT applies 'to all investments whether made before or after the date of its entry into force' (Article 11).

30 An umbrella clause can be drafted in different ways. Under the Germany–Pakistan BIT, Article 7: 'Either Party shall observe any other obligation it may have entered into with regard to investments by nationals or companies of the other party.' In Australia–Poland 1991, Article 10: 'A Contracting Party shall, subject to its law, do all in its power to ensure that a written undertaking given by a competent authority to a national of the other Contracting Party with regard to an investment is respected'. In Singapore–Czech Republic 1995, Article 7.2: 'Each Contracting Party shall observe commitments, additional to those specified in this Agreement it has entered in to with respect to investments of the investors of the other Contracting Party. Each Contracting Party shall not interfere with any commitments, additional to those specified in this Agreement, entered into by nationals or companies with the nationals or companies of the other Contracting Party as regards their investments'.

31 See Chaisse, supra note 5, 56, 70–71.

### *1. Admission versus establishment*

Under international law, the usual rule that derives from the principle of territorial sovereignty allows a state to prohibit the admission of foreigners and to deny the right to settle within its territory. This principle is reflected in many international instruments. In other words, under the bilateral investment treaty classic, the host country has the exclusive authority to decide whether the investment may be allowed on its territory. However, once the host country decides to admit the investment it will be entitled to all the protections afforded by the Treaty. IIAs negotiation has evolved within this context, and there are two relevant models. One makes the admission/establishment subject to the domestic laws of the host country; it is called the 'admission clause' model.[32] The other grants foreign investors a right of establishment, although not in an absolute manner; it is called the 'right of establishment' model. The right of establishment consists of providing foreign investors with National Treatment (NT) and Most-favoured Nation (MFN) treatment not only once the investment has been established, but also with respect to its establishment.[33] These treaties aim at liberalizing investment flows.[34] The use of this approach was traditionally limited to the US BITs and later to Canadian (post- NAFTA (North American Free Trade Agreement)) ones. However, during the past years other important capital-exporting countries, such as Japan, have adopted this method.[35] Presumably, admission is likely to have a limited impact on FDI flows, as any investor decision to invest is subject to an administrative approval by the host state. On the other hand, the right of establishment can be presumed to have a positive impact as the investor knows in advance under which condition he or she can invest.

### *2. Transfer of investment-related funds out of the host state*

The clauses on transfer payments are considered by investors, but also by the host country as the most important in a bilateral treaty. They deal with one aspect of the

32 The right to be admitted is entitled the host state, which frames its Model BIT with such admission provisions as 'shall admit', 'in accordance with local legislation'. It allows the host country to operate a screening mechanism for foreign investment or to implement any admission laws that it may have in place and therefore to determine the conditions on which foreign investment will be allowed to enter the country. An example of the admission clause can be found in Article 2:1 Hong Kong–Austria: 'Each Contracting Party shall encourage and create favourable conditions for investors of the other Contracting Party to make investments in its area, and, subject to its laws and regulations, shall admit such investments.'

33 Investors of one party will receive treatment no less favourable with regard to investing in the territory of the other party than domestic investors (NT) and investors of any other third country (MFN). The option of right of establishment is illustrated by the Article 2.1 USA–Panama 1982: '1. Each Party shall maintain favorable conditions for investment in its territory by nationals and companies of the other Party. Each Party shall permit and treat such investment, and activities associated therewith, on a basis no less favorable than that accorded in like situations to investment or associated activities of its own nationals or companies, or of nationals or companies of any third country, whichever is the more favorable . . . '

34 BITs may contain country-specific reservations because, in practice, no State will grant unlimited access to FDI. Parties retain some degree of flexibility to control the admission of foreign investment. This flexibility may take the form of a list of industries, activities or laws and regulations to which the obligations to grant NT and MFN treatment in the pre-establishment phase do not apply.

35 As a result, a growing number of developing countries actually apply two different BIT models depending on who their treaty partners are: the 'admission clause' model (mostly in BITs with European countries); and the 'right of establishment' model (mainly in treaties concluded by USA, Japan, and Canada).

relationship between the host country and the foreign investor on which their interests can be widely divergent.[36] Whereas such clauses can and do differ from treaty to treaty, most IIAs stipulate that a wide range of payments and other-investment related funds shall have a right to be transferred out of the host state without delay, and, typically, in a freely convertible currency.[37] Some IIAs allow deviation from the obligations enshrined in the transfer of funds provision in four cases.[38] Whereas this is most common in Free Trade Agreements (FTAs), which usually allow the introduction of safeguards motivated by the balance of payments or external financial difficulties,[39] exceptions of this nature are rather unusual in bilateral investment agreements. In constructing the BITSel, we made the hypothesis that a broad guarantee to allow outward transfers is likely to attract FDI while exceptions to the principle have to be considered as being relatively less encouraging to FDI. Indeed, from the foreign investors' point of view, these clauses are key in investment treaties, as the ability to freely repatriate funds can be an important factor in their investment-decision process.

### 3. *Additional standards*

We here consider whether there is any protection offered to additional standards (be they environmental, labour etc.). Preambles and non-binding statements are one

36 The numerous investment claims brought against Argentina in the wake of its 2001 financial crisis have sparked a debate on the risks of not subjecting such guarantees to certain exceptions. But while this particular crisis might have brought attention to this issue, it has always been controversial. Jeswald W. Salacuse thus stated in 2013: '[T]he negotiation of treaty provisions on monetary transfer is sometimes difficult to conclude. Capital-exporting countries seek broad, unrestricted guarantees on monetary transfers, while developing countries press for limited guarantees, subject to a variety of exceptions.' Salacuse, supra note 1, at 393. Also see Duncan Williams, 'Policy Perspectives on the Use of Capital Controls in Emerging Nations: Lessons From the Asian Financial Crisis and a Look at the International Legal Regime', 70 Fordham Law Review 561 (2001), at 614 and Horacio Grigera Naon, 'Sovereignty and Regionalism', 27 Law and Policy in International Business 1073 (1996), at 1077–78.

37 A very comprehensive agreement would normally cover: (i) 'returns' on investment, including all profits, benefits, interest, capital gains, royalties, and management, technical assistance or other fees, (ii) proceeds from the liquidation or sale or all or any part of the investment, and (iii) payments under a contract, and earnings of other remuneration of foreigner personnel in connection with the investment. Austria–Hong Kong provides for a relatively broad one (Article 7:1): 'unrestricted right to transfer abroad their investments . . . and returns'. The same BIT in Article 7:2 clarifies that 'Investors shall also have the unrestricted right to transfer abroad in particular, but not exclusively . . . . Article 7:2: 'Transfers of currency shall be effected without delay in any freely convertible currency.'

38 One option is to subject the transfer clause to domestic laws, in which case the host state is free to limit the flow of capital out of its economy, for instance during economic crises, as long as it is done through law. *E.g.* Agreement for the Promotion and Mutual Protection of Investments, Portugal–Bulgaria, Article 5, 27 May 1993. Another option is to allow exceptions to the free transfer of funds, but only during balance-of-payments difficulties and typically with a requirement that such restrictions should be necessary, non-discriminatory and on a temporary basis. See, e.g. Agreement for the Promotion and Protection of Investments, UK–Argentina, Article 6, 11 December 1990. Finally, some treaties include other major limitations that permit restrictions on capital flight, such as certain Chilean BITs attempting to restrict short-term capital in- and out-flows. See, e.g. Agreement for the Promotion and Reciprocal Protection of Investments, Chile–Austria, protocol, 8 September 1999. Other possible exception: host state should be able to prevent foreign investors from freely transferring revenues and capital out of its country if it were under economic difficulties.

39 See, for instance, Korea–Singapore FTA, Article 10.12, or NAFTA, Article 21.04.

way to do this.[40] However, more important than the general opening statements are provisions within the text of the agreement that relate to the environment, and these can be found in several recent investment agreements.[41] Because IIAs grant strong protection to investors of either state party who is operating in the territory of the other party they may impinge upon human rights enforcement and realization in several ways. Therefore, states may face conflicting international legal obligations under the two regimes. As a result a BIT without any such provision may be considered as

40 For example the Netherlands 2004 Model BIT states Article 6: 'Considering that these objectives can be achieved without compromising health, safety and environmental measures of general application.'

41 In Norway BIT model such concerns are reflected in a provision that reads: 'The Parties recognize that it is inappropriate to encourage investment by relaxing domestic health, safety or environmental measures or core labour standards. Accordingly, a Party should not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such measures as an encouragement for the establishment, acquisition, expansion or retention of an investment of an investor.' The Central America–Dominican Republic Free Trade Agreement (CAFTA–DR) contained an article that specifically refers to the relationship of the agreement with MEAs. Article 17.12(1) of the CAFTA–DR states that:

> The Parties recognize that multilateral environmental agreements to which they are all party play an important role in protecting the environment globally and domestically and that their respective implementation of these agreements is critical to achieving the environmental objectives of these agreements. The Parties further recognize that this Chapter and the ECA can contribute to realizing the goals of those agreements. Accordingly, the Parties shall continue to seek means to enhance the mutual supportiveness of multilateral environmental agreements to which they are all party and trade agreements to which they are all party.

In Austria BIT Model Article 4 (environment):

> The Contracting Parties recognize that it is inappropriate to encourage investment by weakening or reducing the protections afforded in domestic environmental laws. Accordingly, each Party shall strive to ensure that it does not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such laws in a manner that weakens or reduces the protections afforded in those laws as an encouragement for the establishment, acquisition, expansion, or retention of an investment in its territory. If a Party considers that the other Party has offered such an encouragement, it may request consultations with the other Party and the two Parties shall consult with a view to avoiding any such encouragement.

Article 5 (Labour):

> The Parties recognize that it is inappropriate to encourage investment by weakening or reducing the protections afforded in domestic labour laws. Accordingly, each Party shall strive to ensure that it does not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such laws in a manner that weakens or reduces adherence to the internationally recognized labour rights referred to in paragraph 2 as an encouragement for the establishment, acquisition, expansion, or retention of an investment in its territory. (2) For the purposes of this Article, 'labour laws' means each Party's statutes or regulations, that are directly related to the following internationally recognized labour rights: (a) the right of association; (b) the right to organize and to bargain collectively; (c) a prohibition on the use of any form of forced or compulsory labour; (d) labour protections for children and young people, including a minimum age for the employment of children and the prohibition and elimination of the worst forms of child labour, and (e) acceptable conditions of work with respect to minimum wages, hours of work, and occupational safety and health.

having a great impact on FDI flows whereas any provision in a BIT seeking to protect human rights, environment etc. may be expected as having a lower impact.

### C. Anti-discrimination principle

Non-discrimination, in the broadest sense, means that the host country must refrain from discriminatory actions against foreign investors in general or against specific groups of foreign investors. Bilateral investment treaties use two different terms in order to prevent the discriminatory treatment of investments. This is the clause of the MFN and the clause or the standard of NT. We discuss below the applicability of these two types of treatment in bilateral treaties.

#### *1. MFN clause*

The MFN standard establishes, at least in principle, a level playing field between all foreign investors. The MFN treatment requires that a government does not discriminate between foreign investors from different countries. Unlike NT, all these IIAs include, at least in principle, the MFN standard.[42] MFN treatment does not require the host country to treat enterprises in different sectors or in different 'situations' or 'circumstances' in the same way; however, again there is a difficulty in determining what constitutes a 'like circumstance'. A first option consists of a drafting which gives the MFN a broad scope of application.[43] This first option is expected to be relatively more favourable to foreign investments. Conversely, restrictions are considered as being relatively less appealing to foreign investments. A second option limits the scope of the MFN clause through the inclusion of different possible restrictions. In order to identify these limitations, three issues can be raised: firstly, when there is a limited set of activities;[44] secondly, whether the MFN clause applies to third treaties

42 BITs commonly provide that MFN treatment shall not apply so as to require that investors be given the same benefits as may be given to investors under the terms of customs unions, free trade zones, economic unions, and the like. That provision ensures that the BIT does not become an impediment to regional economic integration. See Article 4, Hong Kong–Austria: MFN obligations shall not apply so as to require the host State to match any benefits resulting from any arrangements 'designed to lead in future' to a regional customs, monetary, tariff or trade arrangement, or from any arrangement with any third state in the region 'designed to promote regional cooperation in the economic, social, labour, industrial or monetary fields within the framework of specific projects'.

43 As in the Article 4 Argentina–Spain BIT (1991) which has been the provision of the Argentina–Spain BIT that led the tribunal in *Emilio Agustín Maffezini v. The Kingdom of Spain,* ICSID Case No. ARB/97/7: 'In all matters subject to this Agreement, this treatment shall be no less favourable than that extended by each Party to the investments made in its territory by investors of a third country.' [unofficial translation]

44 Any limited set leads us to take the clause as narrow. Some MFN clauses, specifically those applying to pre-establishment, link the treatment to a limited set of activities (sometimes for both investors/investments or only for investments) as in the Economic Partnership Agreement between Japan and Malaysia (2006) Article 76 Most-Favoured-Nation Treatment: 'Each Country shall accord to investors of the other Country and to their investments treatment no less favourable than that it accords in like circumstances to investors of a third State and to their investments, with respect to investment activities.': 'Investment activities' being defined as 'establishment, acquisition, expansion, management, operation, maintenance, use, possession, liquidation, sale, or other disposition of investments.'

providing for substantial liberalization of investment;[45] and, thirdly, whether the MFN applies to the investment only (and not to the investor).[46]

## *2. NT*

NT means the obligation of contracting parties to grant investors of the other contracting party treatment no less favourable than the treatment they grant to investments of their own investors. Essentially, NT requires that countries do not discriminate against foreign investors in favour of domestic investors.[47] The promise of NT in an IIA has to be assumed to be appealing to foreign investors.[48] Conversely, some IIAs allow contracting states to have exceptions to NT in its

45 Some treaties indeed regulate potential interaction with third treaties as to preserve the arrangements entered into under the base treaty. For instance, the Japan–Switzerland EPA 2009 establishes that the MFN clause does not apply to third treaties providing for substantial liberalization of investment; if such liberalization does occur, it would be subject to consultation with a view of incorporating it into the base treaty. For instance, the Most-Favoured-Nation Treatment of the Japan–Switzerland EPA reads in Article 88:3 that:

> If a Party accords more favourable treatment to investors of a non-Party and their investments by concluding or amending a free trade agreement, customs union or similar agreement that provides for substantial liberalization of investment, it shall not be obliged to accord such treatment to investors of the other Party and their investments. Any such treatment accorded by a Party shall be notified to the other Party without delay and the former Party shall endeavour to accord to investors of the latter Party and their investments treatment no less favourable than that accorded under the concluded or amended agreement. The former Party, upon request by the latter Party, shall enter into negotiations with a view to incorporating into this Agreement treatment no less favourable than that accorded under such concluded or amended agreement.

46 Some BITs provide that MFN treatment applies only to investment. E.g. the BITs between China on the one hand, and Cambodia, Qatar, and Brunei Darussalam, respectively, on the other hand. Some of China's earlier BITs are limited in scope and cover only investments in their MFN Clause, without direct reference to 'investment-related activities' (see China–Sweden BIT 1982). Some IIAs cover only investments and there may be measures affecting the investor but not the investment (for example, a discriminatory entry or operational barrier applicable only to foreigners). This would have the consequence of excluding foreign individuals or companies from the MFN standard, and limiting it to subsidiaries constituted or assets acquired under the legislation of the host state. This has been a common approach for countries like China and Australia. The Australia–Uruguay BIT serves a good example as its Article 4 defines MFN as: 'Each Party shall at all times treat investments in its own territory on a basis no less favourable than that accorded to investments of investors of any third country . . . .'

47 The standard of treatment can be defined in two ways: 'same' or 'as favourable as' treatment or 'no less favourable' treatment than the treatment they grant to investments of their own investors. The difference is subtle, but the 'no less favourable' formulation leaves open the possibility that investors may be entitled to treatment that is more favourable than that accorded domestic investors, in accordance with international standards. Often the definition of NT is qualified by the inclusion of the provision that it only applies in 'like circumstances' or 'similar circumstances'. With the situations of foreign and domestic investors often not being identical, this language obviously leaves room for interpretation.

48 In Russia–Lithuania, Article 1 '1. Each Contracting Party shall accord in its territory to the investors, investments made by investors of the other Contracting Party and activities related to such investments fair and equal treatment . . . 2. The treatment, set forth in the paragraph 1 of this Article, shall be at least no less favourable than the treatment accorded by the Contracting Party to the investments and activities related to such investments of its own investors or the investors of third state.'

legislation which is relatively less appealing to foreign investment as the hypothesis of the absence of the national treatment provision.[49]

### D. Regulatory constraint

The concept of political risk emerged in the 1970s as a result of the confrontation between multinational companies and claims of economic sovereignty. Political risk is primarily the risk of expropriation of foreign investment or situations in which the essential elements related to the ownership of the foreign investor are seriously affected by government intervention (Subsection III.D.1). In order to address foreign investors' concerns (and protect them by the same token), IIAs enshrine a provision on expropriation and fair and equitable treatment (Subsection III.D.2).

#### *1. Expropriation and indirect expropriation*

Historically, the direct taking of foreign property was one of the most significant risks to foreign investors. Outright takings are now considered rare in most parts of the world. However, another form of taking, referred to as indirect expropriation, has become increasingly important. If traditional international investment protection law was aimed at direct expropriations (towards the taking of a foreign investor's assets), indirect expropriations (deprivations) have become a part of international legal investment protection rules and are in practice an importance cause of treaty violations.[50] The indirect expropriation can be illustrated by several treaties. Although the specific wording may vary, most expropriation clauses have continued with the traditional approach of extending protection to those measures of the host country that may have an effect equivalent to expropriation or are tantamount to expropriation (other agreements use the term 'indirect expropriations').[51] Some treaties do not mention the case for indirect expropriation, neither do they imply its coverage by the

49 Russia–Sweden Article 3: 'Each contracting Party may have in its legislation limited exceptions to national treatment provided for in Para. (2) of this Article.'

50 Indirect expropriations fall short of actual physical taking of property, but result in the effective loss of management, use or control, or a significant depreciation of the value of the assets of a foreign investor. There is however no clear definition of indirect expropriation. Despite a number of decisions of international tribunals, the line between the concept of indirect expropriation and governmental regulatory measures not requiring compensation has not been clearly articulated and depends on the specific facts and circumstances of the case. Of course, although there are some variations in the way some arbitral tribunals have distinguished legitimate non-compensable regulations having an effect on the economic value of foreign investments and indirect expropriation requiring compensation, examination reveals that, in broad terms, they have identified the following criteria which look very similar to the ones laid out by the recent agreements: (i) the degree of interference with the property right, (ii) the character of governmental measures, i.e. the purpose and the context of the governmental measure, and (iii) the interference of the measure with reasonable and investment-backed expectations. See Anne Van Aaken, 'International Investment Law between Commitment and Flexibility: A Contract Theory Analysis', 12 Journal of International Economic Law 507–38 (2009), at 510–12.

51 For example, treaties entered by France refer to: 'measures of expropriation or nationalization or any other measures the effect of which would be direct or indirect dispossession'. Some UK treaties provide that expropriation also covers measures 'having effect equivalent to nationalization or expropriation'. Other treaties, such as some of those concluded by Sweden, refer to 'any direct or indirect measure' or 'any other measure having the same nature or the same effect against investments'. The former US Model BIT mentions 'measures tantamount to expropriation or nationalization'. Several USA treaties are more specific on these measures: 'any other measure or series of measures, direct or indirect, tantamount

treaty. In this regard, Italy does not cover indirect expropriation in any of its IIAs, whereas the UK has dealt with it in only a few of them. Our hypothesis is that since most IIAs contain brief and general indirect expropriation provisions which focus on the effect of the government action, this has to be attractive to foreign investors. Conversely, when some IIAs do not protect investors against indirect expropriation, the effect expected on economic FDI flows is likely to be relatively weaker.

#### *2. Fair and Equitable Treatment*

IIAs usually include one or several general principles intended to provide overall criteria by which to judge whether the treatment given to an investment is satisfactory. The absolute standards found are the *international minimum standard of treatment*, *fair and equitable treatment* and *full protection and security*. The Fair and Equitable Treatment (FET) is the most important (in theory and practice) of those general principles.[52] This standard is not totally new, but it has been extensively applied only since 2000. It however lacks sufficient clarification. According to some, the vagueness surrounding this standard is intentional, in order to give arbitrators a certain amount of discretion. The clauses providing foreign investment with FET are widespread in IIAs.[53] Thus, FET offers high protection when included in treaties. The FET favours FDI flows, while no FET might be less encouraging.

### E. Access to international dispute settlement

In order to ensure a proper respect and conformity with investment rules regarding protected foreign investments, investment treaties provide various dispute-resolution mechanisms, 'one of the most important of which is international investor–state arbitration which entitles an injured investor to sue the host government for damages because of a violation of treaty standards and rights'.[54] On the basis of these provisions, disputes between an investor and a host state are settled by international arbitration rather than by the domestic courts of the host state (as would be the case otherwise).[55] The host government's consent to the jurisdiction of an international arbitration tribunal is granted *ex ante* in the form of an open offer in either the investment treaty or in its national law. In a few years investment disputes brought before international arbitrators have multiplied and have raised attention by reason of the significant compensations host states have had to pay in some instances.[56]

to expropriation (including the levying of taxation, the compulsory sale of all or part of an investment, or the impairment or deprivation of its management, control of economic value . . . '.

52 Catia Yannaca-Small, 'Fair and Equitable Treatment Standard in International Investment Law', OECD Working Papers on International Investment 2004/03.

53 As in the German Model Investment Protection Treaty, Article 3: 'Each Contracting State shall . . . accord investments by investors . . . fair and equitable treatment as well as full protection under the Treaty.' In Australia–Hungary, FET is in Article 3:2: 'A Contracting Party shall ensure fair and equitable treatment in its own territory to investments.'

54 Salacuse, supra note 23, at 446. Also See Olivia Chung, 'The Lopsided International Investment Law Regime and Its Effect on the Future of Investor-State Arbitration', 47 Vanderbilt Journal of International Law 958 (2007), at 960.

55 See Susan D. Franck, 'The Legitimacy Crisis in Investment Treaty Arbitration: Privatizing Public International Law Through Inconsistent Decisions', 73 Fordham Law Review 1521 (2005), at 1525.

56 One notable example is the case of *CME Czech Republic B.V.* v *The Czech Republic*, an UNCITRAL arbitration under the Netherlands–Czech Republic BIT, which resulted in an award and payment of $355

An investor–state dispute mechanism is an incentive to invest because it provides as an ultimate resort access to international (neutral) jurisdiction.[57] If such a mechanism is included in the BIT, it can be expected to have a positive effect on FDI flows, but if it is subject to conditions, the effect is expected to be less.

## IV. UNVEILING THE POSSIBLE APPLICATIONS OF THE BITSEL

The coding of thousands of treaties and provisions allow conducting a virtually unlimited number of investigations in the universe of IIAs. The BITSel allows any researcher to more easily identify major trends (in order to make sense of the whole) while assisting in spotting exceptions or unusual patterns which require a more detailed case-study. The BITSel provides a wonderful breakthrough for looking at all these issues with a new eye. In this section, we want to give some examples of the possible applications of the BITSel in order to encourage further applications depending on the need researchers or policy-makers may encounter.

We explain the two major levels of information that can be gathered from the BITSel Index. The BITSel Index allows gathering data for a great number of IIAs at the provision level (Subsection IV.A) and/or a great number of data at the agreement level (Subsection IV.B).

### A. Provision level indicators

The provision level indicators allow a precise and detailed analysis of specific provisions. For instance, a large number of definitions of the concept of investment can be extracted and compared across specific countries, regions or over time in order to identify trends and changing patterns. The provision level also allows paying attention to the specific meaning and likely impact of each provision by grouping them in indicators which shed light on key specificities of IIAs. For instance, instead of simply comparing the definitions of NT, one can prefer to look at the liberalization indicator of a treaty or series of treaties (Subsection IV.A.1). It is also possible to identify the degree of anti-discrimination (Subsection IV.A.2) as well as many other indicators (Subsection IV.A.3).

#### *1. BITSel liberalization quality indicator*

Most BITs require that, subject to their domestic laws, parties shall encourage and admit in their territories investments by nationals and companies of the other party.[58] The reference to domestic laws means that the commitment to encourage foreign investment is subject to any existing or future restrictions on the entry of foreign investment contained in domestic legislation. The priority accorded in these IIAs to domestic laws reflects the fact that these treaties have been designed

million to an injured investor, one of the largest awards ever made in an arbitration proceeding. See UNCITRAL, *CME Czech Republic B.V. v. The Czech Republic*, Final Award, 14 March 2003.

57 The Austria–Hong Kong provides for a relatively broad scope of application of investor–state dispute settlement procedures without any condition (Article 9): 'any dispute . . . concerning an investment'. This approach is by far the most common in all IIAs.

58 See United Nations Conference on Trade and Development, 'Bilateral Investment Treaties 1995–2006: Trends in Investment Rulemaking', U.N. Doc. UNCTAD/ ITE/IIT/2006/5 (2007), http://www.unctad.org/en/docs/iteiia20065_en.pdf (visited 7 December 2014), at 21–22, 26.

primarily to regulate the treatment of foreign investment after admission. A fundamentally different approach to the admission of foreign investment is found in most IIAs concluded by the USA.[59] They require the application of MFN and NT with respect to both to admission and to subsequent treatment of investments, subject, however, to the right of each party to make or maintain exceptions in sectors or matters specified in an annex to the IIAs. The BITSel Liberalization Quality Indicator has been created on the basis of the coding of three provisions which are the regulation of foreign investment entry (in the form of an admission clause or pre-establishment rights), the regulation of transfer of investment-related funds out of the host state, and, finally, the presence of non-economic standards. The BITSel Liberalization Quality Indicator provides an indicator that depicts the degree of openness of an economy to foreign investment, or, conversely, the degree of control still maintained by a state over foreign investment. In order to calculate the 'BITSel Liberalization Quality Indicator', one needs to extract from the BITSel the sum of the regulation of foreign investment entry (in the form of admission clauses or pre-establishment rights), the regulation of transfer of investment-related funds out of the host state, and, finally, the presence of non-economic standards. The closer the indicator is to the number 2, the more open is the local economy. The closer the indicator is to the number 1, the more controls are in place.

Table 3 extracts the BITSel liberalization indicators for three sample countries (China, India, and Germany) which have been chosen for their divergent approaches towards inward and outward foreign investment policies.

A cursory look at Table 3 allows many comments and offers a rich canvass for further analysis.

- Firstly, among these five countries, the liberalization indicator shows that China is the country with the weakest IIAs. Indeed, four of its IIAs (concluded with Singapore, Madagascar, New Zealand, Sri Lanka) obtain a relatively low score. This may partly be explained by the fact that these IIAs were concluded by China at a time when the country would not export much capital and they reflect a rather defensive approach towards foreign investors. China places a majority of its IIAs in the second category but only five agreements in the most liberal category.
- Secondly, Germany has a majority of agreements which offer relatively broad NT and MFN. However, Germany has a number of relatively less liberal IIAs mainly with developing countries such as Benin, Chile, Congo, Saint Lucia, Trinidad and Tobago, Iran, Mexico, Lesotho, Papua New Guinea, Swaziland, Senegal, Rwanda, Vietnam, Zimbabwe, Syria, Germany also concluded three relatively less liberal IIAs with Central Asian countries before their accession to the EU (Bulgaria, Greece, Poland).

59 BITs that include liberalization provisions are mostly North American and Japanese BITs. In fact, the inclusion of investment liberalization provisions in the US and Japanese BITs originates in earlier trade and investment agreements within FCNs, whereas in the post-war period the US FCNs embodied liberalization provisions based on NT and MFN treatment. See Kenneth J. Vandevelde, 'A Brief History of International Investment Agreements', 12 U.C. Davis Journal of International Law and Policy 158 (2005), at 163.

**Table 3. China, India, Germany Liberalization Quality Indicator**

| *International investment Agreements (by Country Pairs)* | BITSel Liberalization Quality Indicator |
|---|---|
| | Broad indicator = 1.5–2; Narrow indicator = 1–1.5 |
| China–Singapore, Madagascar–China, New Zealand–China, Sri Lanka–China | 1.00 |
| Belize–China, Benin–Germany, Bosnia & Herzegovina–China, Brunei Darussalam–China, Bulgaria–China, Cambodia–China, Chile–Germany, Chile–China, China–Albania, China–Argentina, China–Australia, China–Bahrain, China–Benin, China–Bolivia, China–Botswana, China–Colombia, China–Costa Rica, China–Cote D'Ivoire, China–Cuba, China–Denmark, China–Djibouti, China–Ecuador, China–Egypt, China–Estonia, China–Ethiopia, China–Georgia, China–Ghana, China–Greece, China–Guyana, China–Iceland, China–Iran, China–Jamaica, China–Japan, China–Korea, DPR, China–Korea, Republic of, China–Latvia, China–Lebanon, China–Lithuania, China–Mexico, China–Norway, China–Pakistan, China–Peru, China–Poland, China–Qatar, China–Slovakia, China–Sweden, China–Switzerland, China–Turkey, China–Uganda, China–Uruguay, Croatia–China, Czech Republic–China, Germany–Bulgaria, Germany–Congo, Democratic Republic of, Germany–Saint Lucia, Germany–Trinidad and Tobago, Greece–Germany, Hungary–China, Iceland–India, India–Israel, India–Mexico, India–Syrian Arab Republic, Indonesia–China, Iran–Germany, Italy–China, Korea, Republic of–Germany, Kuwait–China, Lao PDC–China, Lesotho–Germany, Malaysia–India, Mexico–Germany, Mongolia–China, Morocco–China, Myanmar–China, Papua New Guinea–Germany, Philippines–China, Poland–Germany, Portugal–China, Romania–China, Rwanda–Germany, Senegal–Germany, Slovak Republic–India, Slovenia–China, Spain–China, Swaziland–Germany, Swaziland–China, Syria–Germany, Thailand–China, Trinidad & Tobago–China, Uganda–Germany, UK–China, | 1.33 |

(*Continued*)

**Table 3. (continued)**

| *International investment Agreements (by Country Pairs)* | BITSel Liberalization Quality Indicator |
|---|---|
| Vietnam–China, Vietnam–Germany, Zimbabwe–Germany | |
| Algeria–Germany, Angola–Germany, Armenia–Germany, Austria–India, Azerbaijan–Germany, Bahrain–Germany, Bangladesh–India, Barbados–Germany, Belgium–China, Bolivia–Germany, Botswana–Germany, Burkina Faso–Germany, Cambodia–Germany, Cameroon–China, Central African Republic–Germany, China–Germany, Congo, Republic–Germany, Costa Rica–Germany, Cuba–Germany, Cyprus–India, Czech Republic–India, Czechoslovakia /Czech Republic–Germany, Czechoslovakia /Slovakia–Germany, Dominica–Germany, Ecuador–Germany, Estonia–Germany, Ethiopia–Germany, France–China, France–India, Gabon–Germany, Germany–Afghanistan, Germany–Albania, Germany–Antigua and Barbuda, Germany–Argentina, Germany–Bangladesh, Germany–Belarus, Germany–Bosnia and Herzegovina, Germany–Brazil, Germany–Brunei Darussalam, Germany–Burundi, Germany–Cameroon, Germany–Cape Verde, Germany–Chad, Germany–Cote D'Ivoire, Germany–Croatia, Germany–Egypt, Germany–El Salvador, Germany–Georgia, Germany–Guinea, Germany–India, Germany–Honduras, Germany–Hong Kong, SAR, Germany–Israel, Germany–Jordan, Germany–Kazakhstan, Germany–Latvia, Germany–Lebanon, Germany–Lithuania, Germany–Madagascar, Germany–Mali, Germany–Mauritania, Germany–Mongolia, Germany–Nepal, Germany–Niger, Germany–Pakistan, Germany–Philippines, Germany–Portugal, Germany–Qatar, Germany–Romania, Germany–Sierra Leone, Germany–Somalia, Germany–Tajikistan, Germany–Timor-Leste, Germany–Togo, Germany–Turkmenistan, Germany–USSR/ Russia, Germany–Uzbekistan, Germany–Yemen, | 1.67 |

(*Continued*)

**Table 3. (continued)**

| *International investment Agreements (by Country Pairs)* | BITSel Liberalization Quality Indicator |
|---|---|
| Ghana–Germany, Greece–India, Guatemala–Germany, Guyana–Germany, Haiti–Germany, Hungary–Germany, India–Argentina, India–Armenia, India–Australia, India–Bahrain, India–Belarus, India–Belgium, India–Bosnia & Herzegovina, India–Brunei Darussalam, India–Bulgaria, India–China, India–Croatia, India–Denmark, India–Egypt, India–Finland, India–Hungary, India–Jordan, India–Kazakhstan, India–Kyrgyz Republic, India–Latvia, India–Mongolia, India–Mozambique, India–Oman, India–Qatar, India–Romania, India–Russian Federation, India–Saudi Arabia, India–South Korea, India–Spain, India–Sweden, India–Switzerland, India–Taiwan, India–Tajikistan, India–Thailand, India–Trinidad and Tobago, India–UK, India–United Kingdom, India–Vietnam, India–Yemen, Indonesia–Germany, Indonesia–India, Iran–Germany, Italy–India, Jamaica–Germany, Jordan–China, Kenya–Germany, Kuwait–Germany, Kuwait–India, Kyrgyzstan–Germany, Lao PDC–Germany, Lao PDR–India, Liberia–Germany, Libya–Germany, Libya–India, Lithuania–India, Macedonia–India, Macedonia, FYR–Germany, Malaysia–Germany, Malta–Germany, Mauritius–Germany, Mauritius–India, Moldova–Germany, Morocco–Germany, Morocco–India, Mozambique–Germany, Myanmar–India, Namibia–Germany, Netherlands–India, Nicaragua–Germany, Nigeria–Germany, Oman–Germany, Panama–Germany, Paraguay–Germany, Peru–Germany, Philippines–India, Poland–India, Poland–India, Portugal–India, Saint Vincent and the Grenadines–Germany, Saudi Arabia–Germany, Senegal–India, Serbia (Yugoslavia)–India, Singapore–Germany, Slovenia–Germany, South Africa–Germany, Sri Lanka–Germany, Sri Lanka–India, Sudan–Germany, Sudan–India, Tanzania–Germany, Thailand–Germany, | |

(*Continued*)

**Table 3. (continued)**

| *International investment Agreements (by Country Pairs)* | BITSel Liberalization Quality Indicator |
|---|---|
| Tunisia–China, Tunisia–Germany, Turkey–Germany, Turkey–India, Turkmenistan–India, Ukraine–Germany, Ukraine–India, United Arab Emirates–Germany, Uruguay–Germany, Uzbekistan–India, Venezuela–Germany, Yemen–Germany, Yugoslavia/ Serbia–Germany, Zambia–Germany | |

- Thirdly, in terms of research, the BITSel liberalization indicator provides useful information for topics like the response of FDI to crisis, mainly current account problems of countries. As FDI involve a number of capital transfers (like equity, reinvested earnings or profit shifting), future analyses may take into account economic policies related to long-term capital movements, where FDI are included, besides indicators related to movements of short-term capital like portfolio investment. Also, the BITSel liberalization indicator could be usefully applied to questions related to economic growth: e.g. do countries with a more liberal capital grow faster?

### *2. BITSel Anti-discrimination Quality Indicator*

MFN treatment and NT are both key principles of international investment law. They are expressions, and variations, of the idea of equality, equal treatment, and non-discrimination. Economically, they seek to bring about level playing fields and fair conditions of competition for products which have different origins. The BITSel Anti-discrimination Quality Indicator logically combines the coding of these two principles to create an indicator which indicates the degree to which IIAs ensure a certain degree of equality for foreigners (among themselves and/or vis-à-vis the nationals). In order to calculate the BITSel Anti-discrimination Quality Indicator, we extract and add the codes of MFN and NT.

Table 4 extracts the Anti-discrimination indicator with a view to distinguish treaty-practices of five sample countries, namely India, Russia, USA, Indonesia and China.

The Anti-discrimination indicator information collected in Table 4 offers quantity of useful information at a glance.

- Firstly, surprisingly, India scores relatively high in the Anti-discrimination indicator. Except in the IIA with Taiwan, India seems to always provide (and ask for) a relatively high protection on discrimination. This result shows a consistent practice which contrasts quite a lot with the BITSel Liberalization Quality Indicator for which a rather inconsistent practice was observed. This surprising result may partly explain why India is facing so many investment claims before international

**Table 4. India, Russia, USA, Indonesia, China BITSel Anti-discrimination Quality Indicator**

| International investment Agreements (by Country Pairs) | BITSel Anti-Discrimination Quality Indicator |
|---|---|
| | *Broad indicator = 1.5-2; Narrow indicator = 1-1.4* |
| China–Singapore, Croatia–USA, El Salvador–USA, Indonesia–Algeria, Indonesia–Australia, Indonesia–Bangladesh, Indonesia–Belgium, Indonesia–Cambodia, Indonesia–Chile, Indonesia–China, Indonesia–Cuba, Indonesia–Czech Republic, Indonesia–Denmark, Indonesia–Egypt, Indonesia–Germany, Indonesia–Jamaica, Indonesia–Jordan, Indonesia–Korea, Indonesia–Kyrgyzstan, Indonesia–Laos, Indonesia–Malaysia, Indonesia–Mongolia, Indonesia–Morocco, Indonesia–Mozambique, Indonesia–Netherlands, Indonesia–Norway, Indonesia–Pakistan, Indonesia–Romania, Indonesia–Singapore, Indonesia–Slovakia, Indonesia–Spain, Indonesia–Sri Lanka, Indonesia–Sudan, Indonesia–Sudan, Indonesia–Sweden, Indonesia–Syria, Indonesia–Thailand, Indonesia–Turkey, Indonesia–Ukraine, Indonesia–Uzbekistan, Indonesia–Zimbabwe, Jordan–USA, Lebanon (unknown)–Russia, Madagascar–China, New Zealand–China, Norway–Russia, Romania–USA, Russia–Cyprus, Russia–Sweden, Russia–Ukraine, Sri Lanka–China, Sri Lanka–USA, Turkey–Russia, UAE (unknown)–Russia, USA–Albania, USA–Argentina, USA–Armenia, USA–Azerbaijan, USA–Bahrain, USA–Bangladesh, USA (X)–Bolivia, USA–Cameroon, Democratic Republic of, USA–Congo, Republic, USA–Czech, USA–Ecuador, USA–Estonia, USA–Georgia, USA–Grenada, USA–Haiti, USA–Honduras, USA–Jamaica, USA–Kazakhstan, USA–Kyrgyzstan, USA–Latvia, USA–Lithuania, USA–Moldova, USA–Mongolia, USA–Morocco, USA–Mozambique, USA–Nicaragua, USA–Panama, USA–Russia, USA–Senegal, USA–Slovakia, USA–Trinidad and Tobago, USA–Tunisia, USA–Turkey, USA–Ukraine, USA–Uzbekistan | 1.00 |

(*Continued*)

**Table 4. (continued)**

| International investment Agreements (by Country Pairs) | BITSel Anti-Discrimination Quality Indicator |
|---|---|
| Belize–China, Bosnia & Herzegovina–China, Brunei Darussalam–China, Bulgaria–China, Cambodia–China, Chile–China, China–Albania, China–Argentina, China–Australia, China–Bahrain, China–Benin, China–Bolivia, China–Botswana, China–Colombia, China–Costa Rica, China–Cote D'Ivoire, China–Cuba, China–Denmark, China–Djibouti, China–Ecuador, China–Egypt, China–Estonia, China–Ethiopia, China–Georgia, China–Ghana, China–Greece, China–Guyana, China–Iceland, China–Iran, China–Jamaica, China–Japan, China–Korea, DPR, China–Korea, Republic of, China–Latvia, China–Lebanon, China–Lithuania, China–Mexico, China–Norway, China–Pakistan, China–Peru, China–Poland, China–Qatar, China–Slovakia, China–Sweden, China–Switzerland, China–Turkey, China–Uganda, China–Uruguay, Croatia–China, Czech Republic–China, Hungary–China, Indonesia–China, Italy–China, Kuwait–China, Lao PDC–China, Mongolia–China, Morocco–China, Myanmar–China, Philippines–China, Portugal–China, Romania–China, Slovenia–China, Spain–China, Swaziland–China, Thailand–China, Trinidad & Tobago–China, UK–China, Vietnam–China | 1.33 |
| Germany–USSR/ Russia, Greece–Russia, India–Taiwan, Indonesia–Croatia, Indonesia–Finland, Netherlands (unknown)–Russia, Russia–Philippines, Russia–Thailand, USSR (Russia)–Austria, USSR (Russia)–Canada, USSR (Russia)–Korea, Republic of | 1.50 |
| Belgium–China, Cameroon–China, China–Germany, France–China, Jordan–China, Tunisia–China | 1.67 |
| Austria–India, Bangladesh–India, Cyprus–India, Czech Republic–India, France–India, Germany–India, Greece–India, Iceland–India, India–Argentina, India–Armenia, India–Australia, India–Bahrain, India–Belarus, India–Belgium, India–Bosnia & Herzegovina, India–Brunei Darussalam, India–Bulgaria, India–China, India–Croatia, India–Denmark, India–Egypt, India–Finland, India–Hungary, India–Israel, India–Jordan, India–Kazakhstan, India–Kyrgyz Republic, | 2.00 |

(*Continued*)

**Table 4. (continued)**

| International investment Agreements (by Country Pairs) | BITSel Anti-Discrimination Quality Indicator |
|---|---|
| India–Latvia, India–Mexico, India–Mongolia, India–Mozambique, India–Oman, India–Qatar, India–Romania, India–Russian Federation, India–Saudi Arabia, India–South Korea, India–Spain, India–Sweden, India–Switzerland, India–Syrian Arab Republic, India–Tajikistan, India–Thailand, India–Trinidad and Tobago, India–UK, India–Vietnam, India–Yemen, Indonesia–India, Italy–India, Italy–Russian Federation, Kuwait–India, Lao PDR–India, Libya–India, Lithuania–India, Macedonia–India, Malaysia–India, Mauritius–India, Morocco–India, Myanmar–India, Netherlands–India, Philippines–India, Poland–India, Portugal–India, Russia–Egypt, Russia–Hungary, Russia–Japan, Russia–Lithuania, Rwanda–USA, Senegal–India, Serbia (Yugoslavia)–India, Slovak Republic–India, Sri Lanka–India, Sudan–India, Turkey–India, Turkmenistan–India, UK–Russian Federation (USSR), Ukraine–India, USA–Bulgaria, USA–Poland, USA–Uruguay, Uzbekistan–India | |

Tribunals in the recent years. The high degree of protection provided in its IIAs may well generate a greater exposure to treaty claims.

- Secondly, in contrast, the US practice seems to limit its commitment vis-à-vis anti-discrimination.
- Thirdly, competition policy has many facets on the national and international level. Yet, many analyses neglect the impact of international treaties on the degree of competition and the nature of the level playing field between domestic and foreign competitors. As M&As are a very important means of market entry for foreign investors, there are questions related to welfare effects following the restricted competition through the actions of foreign firms for the host country. The BITSel Anti-discrimination Quality Indicator provides a way to include the international level, besides supra-national policies (like the EU Competition Policy) and the domestic policies.

### *3. Other BITSel Quality Indicators*

As explained above, the BITSel provides a coding for the definitions of three key elements which determine the scope of each treaty, namely, the definition of investment, the temporal scope of application, and the umbrella clause. The combination of these three key elements results in what we have called the 'BITSel Breadth Quality Indicator'. This indicator provides a precise view for each IIA potential scope of application. The broader the scope, the greater number of investments is protected and the more the other provisions become important. In order to calculate the 'BITSel Breadth Quality Indicator', one needs to extract from the BITSel the sum of the definition of investment, the temporal scope of application, and the umbrella clause. Because each of these codes is equal to 1 or 2, the sum can vary only between 3 and 6. A BITSel Breadth Quality Indicator close to 6 indicates that the BIT has a rather broad scope of application. Conversely, a result close to 3 indicates the BIT has a rather narrow scope of application.

An investor's investment decision is not made on the basis of the legal situation in a given host state at the time of the investment alone, but also on the expectation that he will be treated, in the future, fairly and equitably and will not suffer expropriation without compensation. The BITSel Regulatory Constraint Quality Indicator provides a precise view of the degree to which foreign investments are protected by IIAs by combining the score of expropriation and FET provisions into a single number. In order to calculate the BITSel Regulatory Constraint Quality Indicator, one has to extract and add the value given to FET and expropriation provisions. The result is the BITSel Regulatory Constraint Quality Indicator. The closer the result to 4, the greater the guard and protection offered to foreign investment. Conversely, the lower the result, the weaker is the guard.

Finally, the BITSel ISDS Quality Indicator represents the *Average across ISDS provisions for all IIAs of a particular country or country group in force.* An investor–state dispute mechanism is an incentive to invest because it provides, as an ultimate resort, access to international (neutral) jurisdiction. In the BITSel Index, if such a mechanism is included in the BIT, it can be expected to have a positive effect on FDI flows, but if it is subject to conditions, the effect is expected to be less.[60] In order to calculate the ISDS Quality indicator, one has to extract the value given to ISDS clause. Such a score is directly used without further calculation to reflect the ISDS Quality indicator. The closer the result is to 2, the greater is the access to ISA facilitated and offered to foreign investment. Conversely, the lower the result, the more cumbersome is the reliance on ISA, and, hence, the capability to seek the enforcement of the other IIA provisions.

### B. Agreement level indicator

The BITSel also allows researchers to re-analyse the huge volume of IIAs by comparing some indicators at the agreement level. In a nutshell, the idea is to identify a specific value attached to the investment treaty in order to compare two or many more agreements across countries, regions, level of economic development or even over

60 The ISDS procedures can however be subject to conditions. Possible condition: Foreign investors must refer the dispute to an administrative review procedure according to domestic law in the first place, and if the dispute still exists three months after the investor has brought the issue to the review procedure, he can submit the dispute to international arbitration. Possible condition: If the issue has been brought to a Chinese court, investors must be able to withdraw the case according to domestic law. Otherwise, they cannot submit the dispute to international arbitration. This rule of so-called 'fork in the road' requires the investor to make a choice between submission to a domestic court or to international arbitration, and where the choice once made becomes final and irreversible. See J. R. Weeramantry, 'Investor-State Dispute Settlement Provisions in China's Investment Treaties', 27 (1) ICSID Review 192 (2012).

the time. As examples, which do not exhaust the potential applications of the BITSel, we review in this section the BITSel quality indicator (Subsection IV.B.1), the indicator of heterogeneity (Subsection IV.B.2) and introduce the concept of modulation of coefficients as another refinement to allow a full flexibility in the analysis (Subsection IV.B.3).

### *1. BITSel quality indicator: Average*

The provision-level indicators provide a finer view of each IIA key components. It is however useful to also look at the broader picture and get a sense of the general degree to which a given IIA (or many countries' IIAs) regulate foreign investment. In order to address this need, the BITSel quality indicator has been created which provides an indicator representing the average protection provided by a BIT, i.e. the average value of all the eleven key provisions.[61] Such a general indicator allows the comparison of a great number of IIAs, for instance the IIAs of two countries, two groups of countries or even a series of IIAs by generation concluded by a single state.

We have applied this indicator to countries with a great number of IIAs in order to see whether China, Egypt, and India, three developing countries with a well-established practice of treaty negotiations, have had a comparable approach towards the drafting. In addition, we include two of the most advanced countries (USA, Germany) for comparison.

The BITSel quality indicator could be summarized as a powerful tool to promptly evaluate an IIA strength. In this sense, it might be an interesting indicator to apply to a great number of treaties or countries in order to identify pattern over time, regions or countries.

- Firstly, Table 5 reveals, that developed-developing, developing-developing and developed country pairs all appear across different levels of the BITSel quality indicator. This is equally true for the lowest, as well as for the highest level of the indicator.
- Secondly, for many questions, it makes more sense to classify countries by the quality of their BITs rather than just by the number of BITs: Do country pairs with more BITs achieve higher FDI inflows or country pairs with higher quality BITs? Does higher quality of BITs imply less risk for governments in pursuing policy changes? All these questions are generated by the reading of the data extracted and pave the way for further research.

### *2. Indicator of heterogeneity of IIAs*

The number itself expresses the relation of the standard deviation (a measure for the dispersion of the data) to their mean. It shows the extent of variability in relation to the mean of the population. If the indicator of variation is lower than 0.5, the mean

61 Of course, a certain number does not give information, whether two countries have the *same* provisions or *different* provisions, as different combinations could still lead to the same overall number.

**Table 5. BITSel quality indicator: India, Egypt, Argentina, USA, Germany**

| Country Pairs | BITSel Quality Indicator: Average |
|---|---|
| | High Quality Indicator = 2 or close to 2; Low Quality Indicator = 1 or close to 1 |
| Egypt–Belgium–Lux, Egypt–Bulgaria, Egypt–Canada, Egypt–Cyprus, Egypt–Macedonia, FYR, Egypt–Poland, Egypt–Sweden, Egypt–Turkey, Finland–Egypt, Germany–Congo, Democratic Republic of, Germany–Pakistan, Jordan–Egypt, Lebanon–Armenia, Rwanda–Germany | 1.55 |
| Argentina–Armenia, Argentina–Bulgaria, Argentina–Netherlands, Argentina–Philippines, Australia–Argentina, Canada–Argentina, Chile–Egypt, Croatia–Albania, Egypt–Australia, Egypt–Belarus, Egypt–Botswana, Egypt–Georgia, Egypt–Kazakhstan, Egypt–Pakistan, Egypt–Romania, Egypt–Turkmenistan, Egypt–Uganda, Egypt–Ukraine, El Salvador–USA, Germany–Cameroun, Germany–Bulgaria, Ghana–Egypt, Greece–Argentina, Greece–Germany, Iceland–India, Indonesia–Egypt, Jamaica–Argentina, Japan–Egypt, Jordan–USA, Malaysia–Egypt, Malaysia–Germany, Romania–USA, Rwanda–USA, Senegal–Germany, Singapore–Germany, Syria–Germany, USA–Armenia, USA–Bahrain, USA–Bulgaria, USA–Egypt, USA–Haiti, USA–Kazakhstan, USA–Mongolia, USA–Nicaragua, USA–Panama, USA–Poland, USA–Russia, Vietnam–Egypt, Zambia–Egypt | 1.64 |
| Argentina–New Zealand, Argentina–Romania, Benin–Germany, Croatia–USA, Czech Republic–India, Egypt–Albania, Egypt–Hungary, Egypt–Latvia, Egypt–Netherlands, Egypt–Nigeria, Egypt–Singapore, Egypt–Sri Lanka, Finland–Argentina, Germany–Bangladesh, Germany–Israel, Germany–Mali, Germany–Niger, Germany–Portugal, Germany–Togo, India–Brunei Darussalam, India–Jordan, Iran–Germany, Korea, Republic of–Germany, Lesotho–Germany, Liberia–Germany, Malaysia–India, Morocco–India, Papua New Guinea–Germany, Senegal–India, Sri Lanka–USA, | 1.73 |

(*Continued*)

**Table 5. (continued)**

| Country Pairs | BITSel Quality Indicator: Average |
|---|---|
| Tunisia–Germany, Uganda–Germany, UK–Egypt, USA–Azerbaijan, USA–Bangladesh, USA–Cameroon, USA–Congo, Democratic Republic of, USA–Czech, USA–Ecuador, USA–Estonia, USA–Georgia, USA–Grenada, USA–Honduras, USA–Jamaica, USA–Kyrgyzstan, USA–Latvia, USA–Lithuania, USA–Moldova, USA–Morocco, USA–Mozambique, USA–Trinidad and Tobago, USA–Tunisia, USA–Turkey, USA–Ukraine, USA–Uruguay, USA–Uzbekistan, Zambia–Germany | |
| Argentina–Croatia, Austria–India, Bangladesh–India, Central African Republic–Germany, Chile–Germany, China–Argentina, China–Egypt, Congo, Republic–Germany, Dominica–Germany, Egypt–Armenia, Egypt–Czech Republic, Egypt–Italy, Egypt–Portugal, Egypt–Serbia, Egypt–Slovakia, France–India, Germany–Burundi, Germany–Chad, Germany–Cote D'Ivoire, Germany–Mauritania, Germany–Saint Lucia, Germany–Sierra Leone, Germany–Somalia, Germany–Trinidad and Tobago, Germany–USSR/ Russia, Germany–Yemen, Greece–India, Haiti–Germany, India–Armenia, India–Australia, India–Bahrain, India–Belarus, India–Belgium, India–Bosnia & Herzegovina, India–China, India–Croatia, India–Egypt, India–Finland, India–Hungary, India–Israel, India–Kazakhstan, India–Latvia, India–Mexico, India–Mongolia, India–Mozambique, India–Oman, India–Qatar, India–Russian Federation, India–Saudi Arabia, India–Spain, India–Sweden, India–Switzerland, India–Syrian Arab Republic, India–Taiwan, India–Thailand, India–Trinidad and Tobago, India–Vietnam, India–Yemen, Indonesia–Germany, Indonesia–India, Iran–Germany, Korea–Argentina, Korea, Republic of–Egypt, Kuwait–India, Lao PDR–India, Libya–India, Macedonia–India, Malta–Germany, Mauritius–Germany, Mexico–Germany, Myanmar–India, Philippines–India, Poland–Germany, Poland–India, Russia–Egypt, Saint Vincent and the Grenadines–Germany, Serbia (Yugoslavia)–India, Slovak Republic–India, Sri Lanka–India, Sudan–Germany, Sudan–India, | 1.82 |

(*Continued*)

**Table 5. (continued)**

| Country Pairs | BITSel Quality Indicator: Average |
|---|---|
| Swaziland–Germany, Tanzania–Germany, Thailand–Egypt, Turkey–Germany, Turkey–India, Turkmenistan–India, Ukraine–India, USA–Albania, USA (X)–Bolivia, USA–Senegal, USA–Slovakia, Uzbekistan–India, Vietnam–Germany, Zimbabwe–Germany | |
| Algeria–Germany, Angola–Germany, Armenia–Germany, Azerbaijan–Germany, Bahrain–Germany, Barbados–Germany, Bolivia–Germany, Botswana–Germany, Burkina Faso–Germany, Cambodia–Germany, China–Germany, Costa Rica–Germany, Cuba–Germany, Cyprus–India, Czechoslovakia / Czech Republic–Germany, Czechoslovakia / Slovakia–Germany, Ecuador–Germany, Egypt–Denmark, Estonia–Germany, Ethiopia–Germany, Gabon–Germany, Germany–Afghanistan, Germany–Albania, Germany–Antigua and Barbuda, Germany–Argentina, Germany–Belarus, Germany–Bosnia and Herzegovina, Germany–Brazil, Germany–Brunei Darussalam, Germany–Cape Verde, Germany–Croatia, Germany–Egypt, Germany–El Salvador, Germany–Georgia, Germany–Guinea, Germany–Honduras, Germany–Hong Kong, SAR, Germany–India, Germany–Jordan, Germany–Kazakhstan, Germany–Latvia, Germany–Lebanon, Germany–Lithuania, Germany–Madagascar, Germany–Mongolia, Germany–Nepal, Germany–Philippines, Germany–Qatar, Germany–Romania, Germany–Tajikistan, Germany–Timor-Leste, Germany–Turkmenistan, Germany–Uzbekistan, Ghana–Germany, Greece–Egypt, Guatemala–Germany, Guyana–Germany, Hungary–Germany, India–Argentina, India–Bulgaria, India–Denmark, India–Kyrgyz Republic, India–Romania, India–South Korea, India–Tajikistan, India–UK, Indonesia–Germany, Italy–India, Jamaica–Germany, Kenya–Germany, Kuwait–Germany, Kyrgyzstan–Germany, Lao PDC–Germany, Libya–Germany, Macedonia, | 1.91 |

(*Continued*)

**Table 5. (continued)**

| Country Pairs | BITSel Quality Indicator: Average |
|---|---|
| FYR–Germany, Mauritius–India, Moldova–Germany, Morocco–Germany, Mozambique–Germany, Namibia–Germany, Netherlands–India, Nicaragua–Germany, Nigeria–Germany, Oman–Germany, Panama–Germany, Paraguay–Germany, Peru–Germany, Portugal–India, Saudi Arabia–Germany, Slovenia–Germany, South Africa–Germany, Sri Lanka–Germany, Thailand–Germany, Ukraine–Germany, United Arab Emirates–Germany, Uruguay–Germany, USA–Argentina, USA–Congo, Republic, Venezuela–Germany, Yemen–Germany, Yugoslavia/ Serbia–Germany | |

value is a good representation for all data. What does the indicator of variation say in comparison to other countries? While the sum for each country tells us how investor-friendly are the IIAs provisions, the indicator of variation tells us how heterogeneous they are. The key advantage of the indicator of variation is that it is directly comparable between countries. If we have an indicator of variation for country A, say 30%, and for country B, say 60%, we can say that the heterogeneity of country B is twice as large as that for country A.

Heterogeneity of IIAs has many sources: level of development of a country (low – transition – high), nature of partner country, timing of treaty conclusion etc. Therefore, we have selected countries, which are large and have either a large number of BITs (like China) or a small number of BITs (like Poland) and partly a long history of BIT-making, so that homogeneity can be excluded.

The indicator of variation that is extracted in Table 6 is probably the most puzzling BITSel indicator for most lawyers but it is also probably, by its very nature, the most interesting.

- Firstly, the coefficient of variation for all countries is lower than 0.5 and hence the mean value of the BITSel quality indicator is a good representation for all BITs of a country.
- Secondly, however, the difference between the lowest (where in the majority of cases, India is partner) and the highest indicator value (for country pairs, where exclusively China is partner) is strikingly large. This reflects obviously different patterns of two important Brazil, Russia, India, China and South Africa (BRICS), although both are also represented in all other categories. This may reflect the fast evolving approach of treaty making by China while India has remained less proactive. The USA is represented in the middle, showing a strong homogeneity (partly due to the existence and refinement of a US model BIT).

**Table 6. BITSel Heterogeneity: Poland, China, Egypt, India, USA**

| Country Pairs | Indicator of Heterogeneity of IIAs |
|---|---|
| | Coefficient of variance = S.D/Mean |
| Austria–India, Egypt–Denmark, Germany–India, Greece–Egypt, India–Belgium, India–Denmark, India–Qatar, India–Spain, India–Switzerland, India–Tajikistan, India–UK, Kuwait–India, Mauritius–India, Netherlands–India, Turkmenistan–India | **0.08** |
| China–Egypt, Cyprus–India, Czech Republic–India, Egypt–Armenia, Egypt–Czech Republic, Egypt–Italy, Egypt–Portugal, Egypt–Serbia, Egypt–Slovakia, France–India, Greece–India, India–Argentina, India–Armenia, India–Australia, India–Bahrain, India–Belarus, India–Bosnia & Herzegovina, India–Brunei Darussalam, India–Bulgaria, India–China, India–Croatia, India–Egypt, India–Finland, India–Hungary, India–Israel, India–Jordan, India–Kazakhstan, India–Kyrgyz Republic, India–Latvia, India–Mongolia, India–Mozambique, India–Oman, India–Romania, India–Saudi Arabia, India–Sweden, India–Taiwan, India–Thailand, India–Trinidad and Tobago, India–Vietnam, India–Yemen, Indonesia–India, Italy–India, Korea, Republic of–Egypt, Lao PDR–India, Libya–India, Macedonia–India, Malaysia–India, Morocco–India, Myanmar–India, Philippines–India, Poland–India, Portugal–India, Russia–Egypt, Senegal–India, Serbia (Yugoslavia)–India, Sri Lanka–India, Sudan–India, Thailand–Egypt, Ukraine–India, Uzbekistan–India | **0.15** |
| Belgium–China, Tunisia–China, USA–Argentina, USA–Congo, Republic | **0.16** |
| Bangladesh–India, Egypt–Albania, Egypt–Hungary, Egypt–Latvia, Egypt–Netherlands, Egypt–Nigeria, Egypt–Singapore, Egypt–Sri Lanka, Iceland–India, India–Russian Federation, India–South Korea, India–Syrian Arab Republic, Slovak Republic–India, Turkey–India, UK–Egypt | **0.20** |
| China–Korea, DPR, China–Netherlands, China–Sweden, USA–Albania, USA–Bolivia, USA–Senegal, USA–Slovakia | **0.22** |

(*Continued*)

**Table 6. (continued)**

| Country Pairs | Indicator of Heterogeneity of IIAs |
|---|---|
| Chile–Egypt, Egypt–Australia, Egypt–Belarus, Egypt–Botswana, Egypt–Georgia, Egypt–Kazakhstan, Egypt–Pakistan, Egypt–Romania, Egypt–Turkmenistan, Egypt–Uganda, Egypt–Ukraine, Ghana–Egypt, India–Mexico, Indonesia–Egypt, Japan–Egypt, Malaysia–Egypt, USA–Egypt, Vietnam–Egypt, Zambia–Egypt | **0.23** |
| Egypt–Belgium–Lux, Egypt–Bulgaria, Egypt–Canada, Egypt–Cyprus, Egypt–Macedonia, FYR, Egypt–Poland, Egypt–Sweden, Egypt–Turkey, Finland–Egypt, Jordan–Egypt | **0.25** |
| China–Albania, China–Benin, China–Denmark, China–Korea, Republic of, China–Lebanon, China–Switzerland, Croatia–USA, Czech Republic–China, Sri Lanka–USA, USA–Azerbaijan, USA–Bahrain, USA–Bangladesh, USA–Cameroon, USA–Congo, Democratic Republic of, USA–Czech, USA–Ecuador, USA–Estonia, USA–Georgia, USA–Grenada, USA–Honduras, USA–Jamaica, USA–Kyrgyzstan, USA–Latvia, USA–Lithuania, USA–Moldova, USA–Morocco, USA–Mozambique, USA–Trinidad and Tobago, USA–Tunisia, USA–Turkey, USA–Ukraine, USA–Uruguay, USA–Uzbekistan | **0.27** |
| Cambodia–China, Chile–China, China–Bolivia, China–Cote D'Ivoire, China–Germany, China–Guyana, China–Iran, China–Jamaica, China–Latvia, China–Mexico, China–Peru, China–Uganda, Croatia–China, El Salvador–USA, Jordan–China, Jordan–USA, Kuwait–China, Myanmar–China, New Zealand–China, Romania–USA, Rwanda–USA, USA–Armenia, USA–Bulgaria, USA–Haiti, USA–Kazakhstan, USA–Mongolia, USA–Nicaragua, USA–Panama, USA–Poland, USA–Russia, Vietnam–China | **0.31** |
| Belize–China, Brunei Darussalam–China, Cameroon–China, China–Cuba, China–Estonia, China–Ethiopia, China–Georgia, China–Ghana, China–Greece, China–Iceland, China–Japan, China–Lithuania, China–Norway, China–Pakistan, China–Poland, China–Qatar, China–Singapore, China–Uruguay, Hungary–China, Lao PDC–China, | **0.34** |

*(Continued)*

**Table 6. (continued)**

| Country Pairs | Indicator of Heterogeneity of IIAs |
|---|---|
| Madagascar–China, Morocco–China, Portugal–China, Romania–China, Slovenia–China, Spain–China, Swaziland–China, Thailand–China, UK–China, | |
| Bulgaria–China, China–Argentina, China–Bahrain, China–Colombia, China–Costa Rica, China–Djibouti, China–Ecuador, China–Egypt, China–Slovakia, France–China, Italy–China, Philippines–China, Sri Lanka–China | **0.36** |
| Bosnia & Herzegovina–China, China–Australia, China–Botswana, China–Turkey, Indonesia–China, Mongolia–China, Trinidad & Tobago–China | **0.37** |

- These preliminary observations further raise more fundamental issues. Is heterogeneity—with the exception of time—important for large countries which have high-negotiating power or is it just the result of different partner countries? Does heterogeneity of BITs lead to heterogeneity of FDI (in terms of investing industries, in terms of size etc.)?
- At an even more theoretical level, one could question whether the large heterogeneity in BITs may stand in the way of the possibility of regional (or in the extreme a multilateral) agreements. In a different way, one could also research how much heterogeneity contributes to legal complexity.

### *3. Modulation of indicators force*

The BITSel is not only an important tool to assess and analyse the impact of IIAs. The BITSel is also extremely flexible to answer the needs of future research as it allows us to modulate the importance; one can allocate it to various indicators. Indeed, when calculating the Quality Indicator (average), we rely on the score of 11 key provisions aggregated at cluster level. However, a concern may be that, for example, the same importance is given to the MFN clause and the duration of a treaty. Arguably, one could suggest that the MFN provision is far more important than a provision on the duration of the treaty. Indeed, the MFN clause, if broadly drafted and included in a treaty concluded by a country having a dense network of IIAs, can have a considerable impact on investment decisions or arbitration results. In this regard, it is true that the likely effect of an MFN clause can be assumed to be greater than a provision on the duration. Hence, the weight given to these two values should be different.[62] The BITSel and the indicators we have developed, do not ignore this reality. On the contrary, it remains possible for any researcher to adjust the

62 A similar concern can be raised in regard of the 'breadth quality indicator' and the 'guard quality indicator'. Perhaps the latter representing the combination of fair and equitable treatment and expropriation clause is more important than the 'breadth quality indicator'.

strength given to each score or Agreement-level indicator. Three applications are now described which could be of interest for negotiators, drafting new or considering adjustment of existing treaties, when dealing with the precise wording of the provisions based on existing treaties.

First, if one is to compare the relevance of certain provisions and for example takes the view that the MFN clause is a key feature of China's investment treaties (because it allows foreign investors to take benefit of any greater advantage that China would grant to any other foreigners), one can combine the number of the weak BITs with the numbers of the strong IIAs, i.e. multiply the number of the weak BITs with the percentage of strong IIAs of that country. For example, if the weak BIT gets the indicator number 1, and 99% of the IIAs of that country have broad MFN, we end up with 99. But if only 9% of the IIAs of that country have broad MFN, we end up with 9. This saves research from using weights which are totally arbitrary.

Second, this type of analysis will have its merits when variations *within certain provisions* should be introduced into an analysis: Consider, for example, the provision on indirect expropriation. In some treaties, the definition of what constitutes indirect expropriation will be formulated in a more rigorous way than in others (see Subsection III.D.1 above, especially FN 43). Grouping the treaties by similarity of definitions of indirect expropriation would enrich any analysis over just including the information whether indirect expropriation is included in a treaty or not. It may well be that indirect expropriation will be used more often by claimants, when certain criteria, such as those mentioned in FN 43, are listed in a treaty. Such indirect expropriation clauses in treaties could be given more weight. The weight for this grouping could be built on the fact, whether a government has been challenged on this provision before an arbitration court in the past.

Third, apart from the single provisions, it may be of interest, whether groups of provisions, when included together in treaties, are more powerful in attracting FDI than when included as single provisions without other provisions. For highly profitable firms in skill-intensive industries, it will not only be vital whether indirect expropriation is included, but whether free flow of capital is included as well; for environmentally intensive production, it may be crucial, whether there is more than one provision included in a treaty which may be used to challenge changes in environmental regulation; etc.

The modulation of the BITSel indicators' force should be seen as evidence of the Index's great flexibility but also of the capacity for lawyers to fine-tune the economic analysis. Over time, and depending on the case law, some provisions can develop as playing a more important role than others. For instance, the FET was largely ignored until the 2000s, which one has to assume would imply that no investor would take into account such a promise at the time of the investment. However, after many disputes the FET has been given a relatively strong effect. Some would argue that FET now has a greater role than do the expropriation clauses. The BITSel allows researchers to take into account these changes but also the future ones. However, because the weighting issue remains highly subjective, it is important to emphasize that there are a few methods which may provide more objective weights (e.g. weights derived from a principal components analysis).

## V. CONCLUSION: PAVING THE WAY FOR FURTHER RESEARCH

The IIAs provide a legal framework, and their proliferation during the past 50 years is the most striking phenomenon in the development of international investment law. With the number of BITs and PTAs including an investment chapter continuing to expand, different standards and disciplines are beginning to be exerted over foreign investments thereby giving substance to a complex universe of IIAs. The global regime for foreign investment is an expanding universe made up of a great diversity of agreements and an even greater diversity of rules and principles which the BITSel will help to investigate.

All of the stakeholders in this regime are actively developing new rules without being certain of their impacts and long-term effects. These *stakeholders* are: governments (including supra-national entities such as the EU), which ask what is the effect of IIAs on FDI; multinational enterprises, which ask whether the protection effect of IIAs is sufficient; lawyers, who ask whether the additional layer of bilateral agreements affects the scope and efficiency of international investment law; and economists, who ask whether efficiency can be raised by the current system of bilateralism via IIAs, should know the impact of IIAs on economic flows. The *common aspect* of all these questions relates to the contents and substance of the agreements. Here the BITSel comes in as it allows governments to assess the question of to which extent various types of BITs affect FDI differently; also, the BITSel allows multinational enterprises to directly compare IIAs across a large number of countries where they have affiliates; and, the BITSel allows lawyers to progress from the study of a single particular BIT towards a more universal and applied view of this part of international investment law; lastly, it allows economists to develop a view on which provisions of IIAs are most similar and thus could be regionalized/multilateralized at the least cost.

As has been explained above, treaty contents are reflected in great detail by the BITSel indicator. Take, for example, the BIT between Indonesia and Denmark compared to the BIT between Indonesia and Germany. While the former agreement contains an umbrella clause, the latter does not. The wider scope of the former agreement should have a larger impact on future FDI. The umbrella indicator of the BITSel Index could now be used as an explanatory variable in a regression analysis, explaining the growth of bilateral FDI. If the indicator on the umbrella clause is statistically significant and positive, one would conclude that *ceteris paribus* the growth of FDI between Indonesia and Denmark should be larger than the one between Indonesia and Germany. Besides the statistical significance, the size of the indicator would matter, because it provides information about the economic significance of the relationship between the IIAs' contents and FDI.

The economic empirical literature is just starting to explore to what extent *treaty content* matters. It is our hope that this article will help to generate new researches and questions to further improve the understanding of the international regime on foreign investment. In this regard, this article does not intend to close the discussion but on the contrary to leave colleagues researchers, and all stakeholders, free to use the BITSel Index, a flexible tool, in many innovative ways.