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Investor-State vs. State-State Dispute Settlement

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INVESTOR-STATE VS. STATE-STATE DISPUTE SETTLEMENT

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Abstract

International investment agreements have provoked intense criticism in the policy debate during recent years. Particularly contentious has been their “ISDS” mechanisms, which enable investors to bring disputes against host countries. This paper examines whether host countries would be better off with state-state dispute settlement (SSDS), as often alleged, assuming that SSDS cause political/diplomatic arbitration costs that are not present with ISDS. Two separate reasons why host countries might benefit from SSDS are identified, but neither provides a convincing argument for host countries to move to SSDS. The paper concludes that host countries should reduce the stringency of their agreements, rather than introduce imperfections in the dispute settlement systems to reduce their bite.

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1 Introduction

The vices and virtues of *international investment agreements* have been intensively debated during recent years. Much of this critique concerns substantive undertakings in investment agreements, such as the commonly included obligations to provide "fair and equitable treatment", and to compensate in case of direct and indirect expropriation. Severe critique has also been directed against the dispute settlement mechanisms in the agreements, such as the possibility for investors to request arbitration outside host countries' legal systems, arbitrators' alleged partiality, the lack of appeal possibilities, the lack of transparency of the arbitration proceedings and outcomes, and the incoherence of the case law.¹ A particularly contentious feature of virtually all of these agreements is that they do not only allow contracting states to litigate—*State-State Dispute Settlement* (SSDS)—they also allow *private investors* to request arbitration, that is, they allow for *Investor-State Dispute Settlement* (ISDS).^{2,3} The possibility for private parties to litigate against foreign states is a rarity in International Law, since international agreements normally reserve the right to legally challenge the fulfillment of the obligations under the agreements to the contracting states. The ISDS mechanisms have been criticized on various grounds. Of most immediate relevance from an economic point of view is the claim that they cause excessive litigation relative to some (normally unspecified) benchmark.^{4,5}

Several high-profile disputes under investment agreements have fuelled the notion that ISDS causes undesirable litigations. Many of these disputes have concerned the energy sector. A well-known case is the threat by TransCanada Corporation to litigate against the US under NAFTA regarding the Obama administration's decision to disallow the construction of the Keystone XL pipeline. The company was in the process of requesting USD 15 billion in damages when the decision by the Obama administration was overturned by the current administration. It seems unlikely that the Canadian government would have been willing to pursue the case had there only been SSDS in NAFTA.

The by far most prominent agreement with regard to investment litigation in general, and the energy sector in particular, is the *Energy Charter Treaty* (ECT), an investment-cum-trade agreement

¹See e.g. Howse (2017) and Stiglitz (2008) for comprehensive overviews and discussions of the critique against investment agreements.

²See Dolzer and Schreuer (2012) for an introduction to International Investment Law, and Bernasconi-Osterwalder (2014) for a discussion of legal aspects of SSDS.

³Two remarks on terminology: First, for practical reasons we will use the term "litigation" to denote what more correctly should be denoted "request arbitration" (since litigation is normally used in the context of civil lawsuits). Second, the term "ISDS" is often used synonymously with "investment agreements", but we here use it in its literal sense, as referring to a particular type of dispute settlement.

⁴See e.g. Gertz (2017), Johnson et al. (2015), Menon (2018), Roberts (2014), Salacuse (2007), and Trevino (2013) for recent discussions of SSDS, and other non-ISDS mechanisms.

⁵Other observers who are highly critical of certain basic features of IIAs, do not perceive that the legal standing of private investors is problematic. For instance, Howse (2017), and over two hundred academics addressing President Trump concerning the NAFTA renegotiations, argued that the problem is not the legal standing of private investors, but rather that the agreement allows investors to by-pass the domestic legal system; the latter letter is available at https://www.citizen.org/system/files/case_documents/isds-law-economics-professors-letter-oct-2017_2.pdf.

covering the energy sector. The ECT has approximately 50 members, including all 27 EU countries (Italy recently withdrew), and a number of former socialist countries in Asia. Of the approximately 860 known investment disputes, 119 have taken place under the ECT. A number of high-profile ECT disputes seem to illustrate the importance of the ISDS mechanism. For instance, there have been more than 40 litigations against Spain regarding the removal of support to renewable energy. Only a few cases have yet been decided, but Spain has already been requested to pay over EUR 200 million in compensation. Italy and the Czech Republic have also been the targets for such litigations, albeit with fewer cases than Spain. Most of the litigants in these cases are European firms. It is hard to believe that European governments would have pursued these litigations on behalf of their investors, had the ECT only allowed for SSDS.

Another suggestive example is the litigation by the energy company Vattenfall AB against Germany regarding the decision in the wake of the Fukushima accident to speed up the phase-out of nuclear energy. Vattenfall AB is a private limited liability company, but it is fully owned by the Swedish state. The litigation has been ongoing with Social Democrats and the Green Party in a coalition government, parties have made repeated commitments in the past to phase out nuclear power in Sweden. As members of the government, these parties are now effectively litigating by proxy against Germany regarding the costs of its phasing out of nuclear power. It seems inconceivable that this government would have litigated directly against Germany if the ECT only allowed for SSDS.⁶

There have also been contentious disputes outside the energy sector that seem to illustrate the role of ISDS. A well-known example is the litigation by Phillip Morris against Australia regarding its tobacco plain packaging legislation, which Phillip Morris largely lost. It seems unlikely that the Obama Administration would have been willing to pursue the case on behalf of the tobacco company.

The mounting skepticism toward ISDS is also reflected in the fact that several countries have moved toward some form SSDS. For instance, the investment chapter of the US-Australia trade agreement of 2005, which includes investment protection, only allows for SSDS, and this only after investors have exhausted the possibilities to use local legal systems. South Africa is moving in the same direction.⁷ Brazil never had ISDS agreements, and its new model investment treaty is based on SSDS.⁸ In side letters to the Comprehensive and Progressive Trans-Pacific Partnership, New Zealand has excluded ISDS with Australia and Peru, and reduced the scope for ISDS with three

⁶ Adding to the political complexity of the case, Sweden compensated the German energy firm E.ON when Sweden in 1997 closed its Barsebäck nuclear reactor.

⁷ The requirement that investors must first take their cases to host country courts, can serve as a filter that protects both home and host country governments, since investors might be deterred from bringing disputes if these domestic legal processes are slow, unless having strong cases.

⁸ Another reason for the increasing focus on SSDS is that preferential trade agreements today routinely include investment undertakings. There is a tension in these agreements in that most other chapters allow solely for SSDS. One can perhaps also see the changes that the EU is undertaking with regard to the investment undertaking in their agreements, whereby the adjudication mechanism is taking a form that is similar to the dispute settlement mechanism in the WTO, as a step toward a convergence of ISDS and SSDS.

other partner countries. A further, and very recent example, is the recently concluded renegotiation of NAFTA. In a public testimony, the US Trade Representative Robert Lighthizer stated:

Why should a foreign national be able to come in and not have the rights of Americans in the American court system but have more rights than Americans have in the American court system? It strikes me as something that at least we ought to be skeptical of and analyze. So a US person goes into a court system, goes through the system and they're stuck with what they get. A foreign national can do that and then at the end of the day say "I want three guys in London to say we're going to overrule the entire US system."⁹

The revised version of the NAFTA has drastically reduced the scope for ISDS. Canada has completely withdrawn from ISDS, and the possibility to use ISDS in investment disputes between Mexico and the US has been substantially reduced.

The purpose of this paper is to throw some light on the difference between ISDS and SSSDS. To the best of our knowledge, there exist no economic analysis of the difference between ISDS and SSSDS. This largely reflects a more general lack of literature on investment agreements, and in particular on dispute settlement in IIAs. The main exception to this dearth of literature is the seminal analysis by Aisbett et al (2010) (see below). There is a recent small theory literature, but although it often purports to address "ISDS", it does not highlight differences between ISDS and SSSDS as modes of dispute settlement, but investment agreements more generally.¹⁰

The paper more specifically examines the common claim in the policy debate that host countries would benefit from switching from ISDS to SSSDS. The analysis captures the standard argument in the legal literature concerning the motive for ISDS, which holds that litigation by states tends to create political/diplomatic "enforcement costs" that do not arise when litigation is made by private parties on purely commercial grounds. On this view, the purpose of ISDS is hence to *depoliticize* investment disputes.¹¹

The model to be employed, which is laid out in Section 3, builds on the analysis by Horn and Tangerås (2017, "H-T") of the regulatory (or indirect) expropriation rules in investment agreements; H-T in turn borrows important features from Aisbett et al (2010).¹² Absent an agreement, the interaction takes place in three stages. In a representative industry, a firm first makes an irreversible investment. An exogenous regulatory shock that determines the welfare impact of the investment

⁹The testimony was on March 21, 2018, before the US House Ways and Means Committee.

¹⁰See the contributions by e.g. Janeba (2016), Kohler and Stähler (2016), Konrad (2017), Schjelderup and Stähler (2016), and Horn and Tangerås (2017).

¹¹See e.g. Vandevelde (2005, 174-175). Sykes (2005) points to additional advantages for investor; for instance, an investor might not have enough to offer its government to induce it to litigate on behalf of the investor, and retaliation by the home country need not lead to compensation for investors. Other possible sources of differences are that source country governments might put less value on compensation payments to do their investors, or that ISDS might allow for faster resolution of disputes.

¹²Aisbett et al (2010) also provide a useful overview over the regulatory takings literature, and an introduction to central legal features of IIAs.

for host country welfare is then realized. Finally, having observed the shock, the host country either allows production or it regulates, in the latter case effectively shutting down production. Two fundamental distortions interact to form the outcome. First, the host country interest in attracting foreign investments stems from the positive externalities they cause. But depending on the realization of the regulatory shock, investments may occasionally turn out also to have undesirable effects. When firms invest, they disregard these consequences for the host country. Second, when the host country decides on whether to regulate, it does not factor the effect of regulation for investors into its decision. There is thus a tendency toward overregulation. These distortions can interact in rather complex fashion, simple as they are when considered separately. But they can create a form of hold-up problem where there is too little investment, and too much regulation, from a joint welfare point of view. The role of the investment agreement is to partially or fully remedy these distortions.

An investment agreement is introduced in Section 4. The agreement is formed at the outset of the interaction, and it specifies *when* regulation is compensable, and by *how much*. The agreement requires the host country to fully compensate investors for foregone operating profits if regulation occurs when the regulatory shock is less severe than a specified level, here denoted the *level of investment protection*. But the agreement allows the host country to regulate without compensation for regulatory shocks that are more severe than this level. The level of investment protection is determined during the negotiation over an agreement. The novelty in this paper relative to H-T is that the agreement also specifies whether investors or the source country government *has legal standing* to litigate against the source country.

Section 5 characterizes the outcome with an investment agreement. The agreement will induce the host country to abstain from regulating for a range of shocks. But the host country might regulate despite having to pay compensation for a range of more severe shocks. In such instances litigation is required to enact the compensation payments. To capture the above-mentioned standard rationale for ISDS, it is assumed that litigation under SSDS exposes the source country government to political costs that are not borne by private investors when litigating. A shift from ISDS to SSDS will thus introduce a form of *enforcement costs*. The direct implication of these political litigation costs is that the source country government tends to litigate less frequently than private investors all else equal, along the lines suggested in the policy debate. The question is then: is the host country better off with SSDS than with ISDS?

The paper identifies two mechanisms through which host countries might benefit from switching from ISDS to SSDS. One possibility is that the tendency toward less litigation that comes with SSDS allows the host country to *escape its protection commitments in certain industries*. To capture this source of gain, which seems to be in line with what critics of ISDS have in mind, Section 6 assumes that the level of investment protection is exogenously determined, and unaffected by a shift from ISDS to SSDS. Such a shift will then have no effect for the host country in industries where the political litigation costs are small enough not to deter the source country from litigating in case of

compensable regulation. But when the litigation costs exceed this level, the direct effect of shifting from ISDS to SSDS will indeed be beneficial for the host country, since only a *subset* of all cases where the source country government could successfully litigate will then actually be brought to litigation. This reduces the frequency of instances where the host country has to compensate investors. Additionally, in situations where the source country abstains from litigating due to the litigation costs, the host country can regulate without cost whenever this is unilaterally optimal. Hence, SSDS allows more frequent uncompensated regulation, and it yields less frequent compensation payments, for given investments. It might thus appear as if SSDS is beneficial to the host country.

This argument fails to take into account however, that the shift to SSDS will tend to reduce firms' incentives to invest, and that this in turn will affect the incentives to regulate. The net effect of the shift to SSDS on host country welfare is therefore ambiguous. At the same time, the shift unambiguously reduces the welfare of the source country government, since it will be exposed to enforcement costs that its investors do not have to carry with ISDS, or alternatively have to at least partly give up on enforcing compensation for its investors.

The second mechanism through which a shift to SSDS might benefit the host country, is by *affecting the negotiations between the parties over the substantive provisions* in the agreement, here represented by the level of investment protection. For reasons to be explained in Section 7, the negotiations are likely to yield a too high level of protection from the host country's perspective with ISDS. Hence, *if* a shift to SSDS reduces the level of protection somewhat, it will tend to benefit the host country. This will come about through more frequent regulation, a reduced range of regulatory shocks for which there is litigation, and a reduced magnitude of compensation payments—changes that could all be seen as reflecting increased host country policy space.

Again there are counter-arguments to the claim that a shift to SSDS is beneficial for the host country. First, it is unclear whether the shift to SSDS will reduce or increase the level of investment protection—this will depend on the exact circumstances at hand, including the magnitude of the political litigation costs. Second, and more profoundly, if the host country is able to control the choice of dispute settlement system, it would be better off to use its bargaining power to negotiate less demanding substantive undertakings in the agreement, while maintaining ISDS. Put differently, *the problem with the investment agreement from a host country perspective is not the ISDS mechanism as such, but the substantive undertakings that are enforced using this mechanism.*

2 The Energy Charter Treaty

Before turning to the formal analysis, we first very briefly describe the ECT, in light of its importance for investment disputes. The negotiations over the ECT were initiated shortly after the fall of the Berlin Wall. Signed in 1994, the agreement entered into force in 1998. The general purpose of the ECT is to promote long-term cooperation in the energy field. An important political driving force behind the creation of the ECT was the desire to help former socialist countries to transition toward

becoming market economies, and members of the GATT/WTO. There were also EU interests in getting access to cheap, geographically close, sources of energy supply.

The ECT is an unusual agreement in several respects: It is one of very few investment agreements that covers a single industrial sector; it was one of the first agreements to include both trade and investment undertakings in the same agreement; and it is the only multilateral investment agreement to date, being open to accession by any country. The vast majority of the currently 49 Contracting Parties are European, or former transition, countries, and all members of EU 28 except for Italy (which recently withdrew) are signatories of the ECT, and the EU itself is independently a signatory.

The ECT includes the standard provisions in traditional bilateral investment treaties: it requests "fair and equitable treatment"; there are non-discrimination rules requesting both National Treatment, and Most-Favored Nation treatment; and it includes a standard form of expropriation provision. But the ECT imposes in certain respects a more stringent regime than the traditional investment agreements. For instance, Art. 10(1) requests:

Each Contracting Party shall ... encourage and create stable, equitable, favorable and transparent conditions for Investors of other Contracting Parties to make Investments in its Area. Investments shall also enjoy the most constant protection and security ...

But the ECT also includes carve-outs from the commitments. Art. 24 specifies general grounds for exceptions from the obligations in the ECT. Of most interest from a regulatory point of view is Art. 24(2), which stipulates that the agreement

... shall not preclude any Contracting Party from adopting or enforcing any measure (i) necessary to protect human, animal or plant life or health...

This language is borrowed from the General Exceptions clause in Art. XX GATT. Similarly to in the GATT, exceptions under Art. 24 ECT require that the measures do not constitute "disguised protection", or "arbitrary or unjustifiable discrimination". But the scope of the exceptions clause is restricted in the ECT by the requirement that the measures in question are

...duly motivated and shall not nullify or impair any benefit one or more other Contracting Parties may reasonably expect under this Treaty to an extent greater than is strictly necessary to the stated end.

There is also a further important restriction to the scope of the exceptions clause in Art. 24 in that it does not apply to the expropriation rules. Hence, the carve-outs for regulatory policies seem quite restricted.

As most investment agreements, the ECT contains rules concerning compulsory dispute settlement. It allows for ISDS regarding investment promotion and investment protection undertakings. Investors can bring disputes to either host country courts, to international arbitration, or to "... any

applicable, previously agreed dispute settlement procedure”. There are certain exceptions to this rule, however. For instance, some countries have reserved the right to refuse to have their disputes resubmitted to international arbitration after adjudication in a local court. As all investment agreements, the ECT also provides for SSDS.

The ECT is by far the investment agreement with the largest number of litigations. All 119 disputes that have been brought under the ECT involve ISDS.¹³ More than half of these disputes concern renewable energy measures in Spain (42), Italy (11), and the Czech Republic (6), respectively. Italy withdrew from the ECT in 2016, but investment in place at the time of withdrawal will be protected for a further 20 years. Of the 45 cases that have so far been concluded, 18 cases were decided in favor of the responding state, 14 in favor of the investor, and the remaining 13 cases were discontinued, settled, or decided in favor of neither party.

3 The setting absent an investment agreement

The setting absent an investment agreement is a special case of the framework used in H-T. Consider a country that is potential host to foreign direct investment from a source country in a number of industries. The industries might differ with regard to technology, demand, etc. To remove interactions that do not seem to be of first-hand importance to the issues at stake here, the industries are economically unrelated. In each industry there is a single, foreign, firm. We could alternatively have assumed that there is a large number of symmetric perfectly competitive investors, without qualitatively affecting the analysis below, as long as they would have to be treated identically by the host and the source country. The lack of domestic firms in these industries is potentially less innocuous, since there could be a role for a National Treatment if there are domestic firms. It seems reasonable to disregard such complications for a first analysis of the difference between the two types of dispute settlement systems, however. These assumptions also imply that we can omit industry and firm indices.

At the outset, the investor in the representative industry makes an irreversible investment $k \geq 0$ in the host country. The firm’s investment cost $R(k) \geq 0$ is a strictly increasing, weakly convex function of the investment k . The investor receives the operating profit $\Pi(k) \geq 0$ if production is allowed; $\Pi(k)$ is strictly increasing and strictly concave in k , and $\Pi(0) = 0$. For the host country, an investment creates benefits in terms of consumer surplus, employment, technological spill-overs, learning-by-doing in the work-force, and so forth—the exact nature of these benefits is immaterial for our purposes. After the investments have been committed, an industry-specific shock θ is realized that affects the net benefit to the host country of allowing production. High realizations of θ could represent the arrival of severely adverse information regarding environmental or health consequences of the production process or the goods produced, or other factors affecting the desirability of the

¹³Data on disputes are taken from UNCTAD Investment and from <http://investmentpolicyhub.unctad.org/isds> and from [https://energycharter.org/what-we-do/dispute-settlement/all-investment-dispute-settlement-cases/..](https://energycharter.org/what-we-do/dispute-settlement/all-investment-dispute-settlement-cases/)

investment. The shock is continuously distributed on $[\underline{\theta}, \bar{\theta}]$ with cumulative distribution function $F(\theta)$ and density $f(\theta)$.

Having observed this common-knowledge shock, the host country decides whether to permit production or to regulate the production facility. Regulation implies that production is effectively shut down, and thus deprives the firm of its operating profits: $\Pi(k) = 0$. This is the sole consequence of regulation for the source country. The host country welfare is $V(k, \theta)$ in case production allowed. $V(k, \theta)$ captures the net of the positive and negative effects of the investment. The higher the realization of θ , the smaller is the net effect of the investment: $V_\theta(k, \theta) < 0$ (subscripts on functional operators denote partial derivatives throughout). $V(k, \theta)$ can be either positive or negative in case of production, and it is zero if there is no production. The marginal net benefit of investment can also be positive or negative, $V_k(k, \theta) \geq 0$, but V is strictly concave in k .¹⁴ To ensure that there is a role to play for investment and regulation, we assume that there is a range of k for which the host country prefers production if the shock is sufficiently mild, $V(k, \underline{\theta}) > 0$, and prefers regulating if it is sufficiently severe, $V(k, \bar{\theta}) < 0$.

The interaction is solved for backwards in standard fashion. Absent an investment agreement, the last stage of the interaction is the decision by the host country of whether to regulate, given the investments and the realized regulatory shock θ . The host country is more prone to regulate, the higher is θ , since $V_\theta < 0$. Since regulation yields zero welfare level for the host country, the host country will allow production for a given k whenever $V(k, \theta) \geq 0$, and it will regulate if $V(k, \theta) < 0$. That is, it will regulate if and only if $\theta > \Theta(k)$, where $\Theta(k)$ is defined by

$$V(k, \Theta) \equiv 0 \tag{1}$$

if $\Theta(k) \in [\underline{\theta}, \bar{\theta}]$, $\Theta(k) \equiv \underline{\theta}$ if $V(k, \underline{\theta}) < 0$, and $\Theta(k) \equiv \bar{\theta}$ if $V(k, \bar{\theta}) > 0$.

In each industry, the investment is made prior to the realization of the regulatory shock θ , and prior to the regulatory decision. To capture the notion that investors are small relative to their respective markets, we assume that representative investor does not take into consideration how its investment affects the probability of regulation.¹⁵ If the investor expects regulation for $\theta > \theta'$, its expected profit is

$$\int_{\underline{\theta}}^{\theta'} \Pi(k) dF(\theta) - R(k)$$

and the optimal investment is

$$K(\theta') \equiv \arg \max_k F(\theta') \Pi(k) - R(k)$$

¹⁴Functions $\Pi(k)$, $R(k)$, and $V(k, \theta)$ are assumed to be twice continuously differentiable.

¹⁵We could e.g. have assumed that the industry is perfectly competitive, in which case it would have been natural to assume that each investor disregards the impact on the probability of regulation. H-T show the first-best outcome might actually be easier to implement through an investment agreement if firms invest strategically with regard to the host country regulation. But this requires agreements that are contractually more sophisticated than the type of agreement considered here.

with associated first-order condition (FOC)

$$F(\theta')\Pi_k(k) = R_k(k)$$

It follows from $F(\theta') > 0$, and $R_k > 0$, that $\Pi_k(K(\theta')) > 0$ in the relevant region, and from the second-order condition that $K_\theta > 0$. The expected profit is

$$\tilde{\Pi}(\theta') \equiv F(\theta')\Pi(K(\theta')) - R(K(\theta')),$$

which must be non-negative in order for the firm to invest.

The equilibrium absent an investment agreement (k^N, θ^N) will then be given by

$$k^N = K(\theta^N) \text{ and } \theta^N = \Theta(k^N)$$

θ^N is thus the cut-off value for regulation when investment is k^N , and the investment will be k^N when the investor foresees the cut-off level for regulation to be θ^N .

The equilibrium expected profit is

$$\tilde{\pi}^N \equiv F(\theta^N)\Pi(k^N) - R(k^N)$$

and the equilibrium expected host country welfare is

$$\tilde{v}^N \equiv \int_{\underline{\theta}}^{\theta^N} V(K(\theta^N), \theta) dF(\theta).$$

Note that there are two basic distortions at work. First, the investor disregards both the positive and the negative externalities from the investment for the host country. Second, when the host country makes its regulatory decision, it disregards the source country welfare that is generated through production, and that takes the form of operating profits. Each of these distortions is simple, but their interaction turns out to be less trivial. The outcome will typically entail distortions of both investment and regulation, however.

4 An investment agreement

To remedy the distortions to investment and regulatory decisions, the home and the host countries can enter into an investment agreement at the outset of the interaction, before investments are made.

4.1 The terms of an agreement

One should expect that the parties could achieve a first-best outcome if given sufficient freedom to design an investment agreement. A critical issue is therefore the constraints that we impose on the contracting. Actual investment agreements share a number of features that are central from a contractual point of view:

1. Agreements stipulate transfer payments to be made in certain situations in case host countries regulate;
2. There are no payments to or from outside parties;
3. There are occasionally carve-outs from compensation requirements for certain types of regulatory measures;
4. Any compensation equals foregone operating profits; and
5. The agreement specifies whether ISDS and/or SSSDS is allowed.

Investment agreement are hence highly incomplete in several regards. For instance, there is no direct contracting on investment levels or on regulation, investors and the host country instead retain unilateral discretion over these decisions. Also, there cannot be any direct subsidies, taxes on investors, or punitive damages.

To formally capture the above salient features, an investment agreement is assumed to consist of two components. The first is a *compensation function* T that stipulates when regulation is compensable, and the amount to be paid. To represent the features listed above, for each industry the requested compensation is

$$T = \begin{cases} \Pi(k) & \text{if } \theta \leq \theta' \\ 0 & \text{if } \theta > \theta'. \end{cases} \quad (2)$$

That is, compensation is required if the regulatory shock θ is weaker than a threshold value θ' , but not for shocks that are more severe than θ' . Furthermore, whenever regulation is compensable, the compensation should equal the foregone operating profits.¹⁶

Second, as discussed above, investment agreements normally allow both investors and states to litigate. But states hardly ever use this option in practice. To avoid introducing strategic interactions between the source country government and its investors regarding who should litigate, it is assumed that the agreement allow for *either investor-state or state-state dispute settlement*, that is, either ISDS or SSSDS.

The specification of the dispute settlement system applies to all industries in both countries, as is almost invariably the case in IIAs. But the substantive undertakings—the level of protection

¹⁶H-T show that the compensation scheme (2) has several desirable efficiency properties, simple as it is.

θ' that the agreement specify—is industry-specific. This is not a self-evident assumption. IIAs have few if any explicit industry specific obligations (the Energy Charter Treaty being a prominent exception). But as argued by H-T, it is conceptually hard to compare regulatory treatment across industries: what would it mean to say that an agreement gives the same degree of protection to investment in nuclear power, as to investment in the auto industry? The level of protection that an agreement imposes will thus in practice have to be determined for each industry separately. This is also reflected in treaty texts when stating that their substantive obligations should be interpreted in light of the specific circumstances at hand.

4.2 The sequence of events with an investment agreement

When the host and the source country have entered into an agreement specifying a level of investment protection θ' , and a dispute settlement mechanism (ISDS or SSDS), the sequence of events is as follows in each industry:

1. The firm invests;
2. An industry-specific shock θ is realized;
3. The host country decides whether:
 - to allow production;
 - to regulate with compensation; or
 - to regulate without compensation; and
4. The investor or the source country decide whether to litigate.

To capture the central notion that governments face political and/or diplomatic costs when initiating a litigation against foreign states that are not felt by private investors, we assume that SSDS gives rise to a political/diplomatic cost L for the source country government that private investors are not exposed to.¹⁷ This formalization of the difference between ISDS and SSDS is analytically very simple, but it does seem to capture the core aspect of the common perception of the difference between these dispute settlement systems. We will discuss alternative formulations in Section 9.¹⁸

In stage 3, the host country can choose to regulate, and then either pay, or not pay, compensation. There is no direct benefit in the model for the host country to defer paying compensation, face litigation and then be made to pay the compensation with certainty. But for political litigation

¹⁷This not intended to reflect litigation costs in the normal sense, since there is no reason to believe that they would be systematically different for firms and governments.

¹⁸Another possible difference between ISDS and SSDS is that with SSDS the government might litigate on behalf of a whole industry, or even investors in general, whereas with ISDS private investors typically litigate regarding their own compensation only. The ongoing ISDS litigations against Spain regarding renewable energy is an example of the latter.

costs to matter, there must at least potentially be litigation, and this requires in turn that the host country regulates without spontaneously paying compensation for compensable regulation in certain instances. It is not straightforward to explain why rational parties would end up in a symmetric information-setting as ours (in particular not if disputes are costly).¹⁹ At the same time we observe a large number of investment disputes in practice, despite the litigation costs that are involved. To avoid having to introduce elaborate asymmetric information reasons for the disputes, we assume that in the choice between regulating and paying compensation spontaneously, and regulating without compensation, the host country chooses the latter.²⁰ Intuitively, this could be explained by political gains for the host country government from being seen to resist challenges by foreign investors, or from discounting.^{21,22}

5 The equilibrium outcome with an investment agreement

The only difference between the setting with ISDS and with SSDS is the magnitude of the political litigation costs; $L = 0$ with ISDS and $L > 0$ with SSDS. We can therefore derive the outcome with both settings at the same time by solving for the equilibrium recursively with $L \geq 0$.

5.1 Litigation incentives

Consider a situation where the representative firm has invested k , and where an investment agreement requests compensation for regulation in case $\theta > \theta'$ where $\theta' > \theta^N$; the latter restriction ensures that the agreement offers protection for a range of situations where the host country would regulate absent an agreement (which is required for the agreement to be meaningful). If $\theta > \theta'$, there will clearly be no litigation, since regulation is not compensable. But regulation is compensable if $\theta \leq \theta'$. With ISDS, the investor always litigates when compensable regulation has occurred, since it yields compensation $\Pi(k)$, but does not give rise to any costs.²³

With SSDS, the source country government face political/diplomatic litigation costs. For there to be litigation, enough compensation must be at stake relative to the litigation costs, that is, it is required that $\Pi(k) \geq L$. There is thus a minimal investment level $\bar{K}(L) \equiv \Pi^{-1}(L)$ that is just enough to trigger litigation, with $\bar{K}(0) = 0$, and $\bar{K}_L(L) > 0$ for $L \geq 0$. Hence, the higher is L , the

¹⁹Most formal explanations of disputes assume asymmetrically informed parties, partly stochastic determinations, etc. Aisbett et al (2010) provide an interesting analysis of an investment agreement with less than perfectly informed arbitrators.

²⁰For instance, we could instead assume that the host country randomizes between regulating with and without spontaneously paying compensation when it knows that it will ultimately have to pay compensation. As long as there is some strictly positive probability for regulation to occur without compensation, the litigation costs would enter the picture in the same way as in what follows.

²¹See e.g. Salacuse (2007, pp.149) for a discussion of the political factors that might motivate governments to take disputes to formal arbitration.

²²A legal process might be necessary to verify both liability and the magnitude of compensation when the facts of the case (and perhaps also the law) are unclear.

²³Section 9 discusses the impact of private litigation costs.

larger the investment have to be to induce the source country government to litigate. We will refer to the constraint $k \geq \bar{K}(L)$ as the *enforcement constraint* for the industry.

Lemma 1 *With SSDS, there will be litigation if and only if $k \geq \bar{K}(L)$, $\theta < \theta'$, and uncompensated regulation has occurred.*

5.2 Regulation incentives

Consider next the host country's decision problem, when an agreement stipulates a level of investment protection θ' , and the investment level is $k \geq \bar{K}(L)$. The host country never regulates when $\theta \leq \Theta(k)$, since it then prefers production to regulation regardless of whether there is an agreement, and it will always regulate for $\Theta(k) \leq \theta' < \theta$, since this requires no compensation according to the agreement, and it is desirable from a unilateral perspective. But for θ in the intermediate range $(\Theta(k), \theta')$, regulation requires compensation, and the host country decision is less clear. Let $\Theta^C(k)$ be the level of the regulatory shock for which the host country is indifferent between allowing production, and regulating with a compensation payment,

$$V(k, \Theta^C(k)) \equiv -\Pi(k) < 0,$$

where the left-hand side is the welfare when allowing production, and the right-hand side is the welfare level when paying compensation. For a given level of investment, there will be less regulation under the agreement compared to the situation absent an agreement: $\Theta^C(k) > \Theta(k)$, since $V_\theta < 0$. The host country will hence regulate if $\theta > \max[\Theta(k), \theta']$ since it then unilaterally prefers regulation and there is no compensation requirement, or if $\theta > \Theta^C(k)$ so that the host country prefers regulation *regardless* of whether this requires compensation payments.

Taking into account the subsequent enforcement incentives of the source country or its investors, the host country's incentives with regard to regulation are thus as follows:

Lemma 2 *If the investment agreement stipulates the investment protection level θ' , and investment is k , the host country regulates in either of the following situations:*

- (i) $k < \bar{K}(L)$ and $\theta > \Theta(k)$;
- (ii) $k \geq \bar{K}(L)$ and $\theta' \leq \Theta(k) < \theta$;
- (iii) $k \geq \bar{K}(L)$, $\Theta(k) < \theta' < \Theta^C$ and $\theta > \theta'$; and
- (iv) $\Theta^C < \theta'$ and $\theta > \Theta^C(k)$.

In all four cases the regulatory shock is sufficiently severe that the host country would prefer to regulate as long as it does not have to pay compensation. In case (i), with $k < \bar{K}(L)$, there is no enforcement, so the host country regulates whenever this is unilaterally optimal, which is for $\theta > \Theta(k)$ by definition.

In case (ii), with $k \geq \bar{K}(L)$, there is enforcement for $\theta \leq \theta'$, but this is immaterial since the degree of protection with the agreement is so low that it will never constrain the host country. There will thus not be any violation of the agreement for $\theta < \Theta(k)$. There will be regulation for $\theta \geq \Theta(k)$, but the agreement does not request any compensation in this case.

In case (iii) the host country will not regulate for $\Theta(k) < \theta \leq \theta'$ since it will then be forced to pay compensation, and this makes it too costly to regulate. But it will regulate without compensation for $\theta > \theta'$. This case is illustrated in Figure 1a, where the horizontal axis measures the regulatory shock θ . The two lines at the bottom show the host country incentives to regulate depending on whether compensation is required or not. The next line depicts an agreement with a level of investment protection $\theta' < \Theta^C(k)$. The uppermost line shows the resulting optimal behavior. There will hence be regulation if and only if $\theta > \theta'$ in this case.

Case (iv) is where the host will regulate for $\theta > \Theta^C(k)$, even if this requires compensation payments for $\Theta^C(k) < \theta < \theta'$. As discussed in H-T, this implies that the simple compensation scheme in (2) induces the host country to *fully internalize* the externalities of its regulatory decision, absent litigation costs. It also means that there will be litigation in order to extract compensation. This scenario is illustrated in Figure 1b, which is constructed as Figure 1a, but for the case where $\theta' > \Theta^C(k)$. In what follows we concentrate on this case, since this is where compensable regulation occurs in equilibrium.

(Figure 1a and b about here)

5.3 Investment incentives

As discussed above, if the investor expects "industry" investment to fall short of the critical level for enforcement $\bar{K}(L)$, the investor expects there to be regulation without compensation for $\theta > \theta^N$.²⁴ The expected profit is then

$$F(\theta^N)\Pi(k) - R(k)$$

and the optimal investment volume is $k^N = K(\theta^N)$. Necessary for this to be an equilibrium is that $K(\theta^N) < \bar{K}(L)$.

If the expectation is instead that industry investment will exceed the critical level for enforcement $\bar{K}(L)$, there are two possibilities the investor to consider. One arises if $\theta' \leq \Theta^C(k)$, in which case the investor expects that there will be regulation without compensation for $\theta > \theta'$, and regulation with ultimate compensation for $\theta < \theta'$. The other case is where $\theta' > \Theta^C(k)$, and where thus there will be regulation with compensation for $\Theta^C(k) < \theta < \theta'$, and regulation without compensation for $\theta > \theta'$. Hence, the cut-off for effected compensation will be θ' in both cases, leading to the expected profit

$$F(\theta')\Pi(k) - R(k)$$

²⁴"Industry" since the investor is for expositional reasons the only firm in the industry.

and the optimal investment level is $K(\theta')$. For this to be an equilibrium it is required that $K(\theta') \geq \bar{K}(L)$.

In what follows it will be more convenient to express the enforcement constraint as $\theta' \geq \bar{\Theta}(L)$, where $\bar{\Theta}(L)$ is the level of investment protection that just suffices to trigger litigation in case of compensable regulation,

$$\Pi(K(\bar{\Theta})) \equiv \bar{K}(L),$$

rather than to use the equivalent expression $K(\theta') \geq \bar{K}(L)$. We can then express that equilibrium investment behavior as follows:

Lemma 3 *If the investment agreement stipulates investment protection level θ' , the investment will be:*

- (i) $K(\theta')$ if $\theta' \geq \bar{\Theta}(L)$; and
- (ii) k^N if $\theta' < \bar{\Theta}(L)$.

5.4 The equilibrium

Having derived the incentives regarding investment, regulation and litigation, we can now characterize the equilibrium outcome for a given agreement. To this end, and for future use, let θ^E be the level of investment protection for an agreement that it is just low enough that there will not be any compensation payments in equilibrium. It is given by²⁵

$$\theta^E \equiv \Theta^C(K(\theta^E))$$

To ensure that the increase in investment that would follow from an increase in the level of investment protection, does not trigger an increase in the regulatory threshold Θ^C that is larger than the increase in the level of investment protection, we assume that

$$\frac{d}{d\tilde{\theta}}[\tilde{\theta} - \Theta^C(K(\tilde{\theta}))] > 0 \text{ iff } \tilde{\theta} > \theta^E \quad (3)$$

Condition (3) is hence similar to "stability" conditions used in e.g. oligopoly theory.²⁶

²⁵ Alternatively, we could have defined θ^E by

$$V(K(\theta^E), \theta^E) \equiv -\Pi(K(\theta^E))$$

²⁶ Sufficient conditions for (3) to hold is that $\Theta_k^C < 0$, or that Θ_k^C is "small" if positive. To see what this would entail, note that the definition of the function Θ^C implies that

$$\Theta_k^C(k) = -\frac{[V_k(k, \theta) + \Pi_k(k)]}{V_\theta(k, \theta)}$$

The sign of Θ_k^C is generally speaking ambiguous, since $V_\theta < 0$ and $\Pi_k > 0$.

Lemmas 1-3 then yield the following characterization of the outcome for any given level of investment protection θ' :

Proposition 1 *Assume that there is an agreement with the investment protection level $\theta' > \theta^N$.*

(1) *If $\theta' \geq \bar{\Theta}(L)$ the agreement yields:*

- (i) *investment $K(\theta')$;*
- (ii) *regulation iff $\theta > \min[\theta', \theta^E]$; and*
- (iii) *litigation iff $\theta^E \leq \theta \leq \theta'$.*

(2) *If $\theta' < \bar{\Theta}(L)$ the agreement yields:*

- (i) *investment k^N ;*
- (ii) *regulation iff $\theta > \theta^N$; and*
- (iii) *no litigation.*

Proof: The Proposition follows immediately from the above: If $\theta' \geq \bar{\Theta}(L)$, the agreement will be enforced if compensable regulation occurs. The investment will hence be $K(\theta')$. If $\theta' \leq \theta^E$, $\theta' \leq \Theta^C(K(\theta'))$ by (3). There is then regulation iff $\theta \in (\Theta(K(\theta')), \theta')$, and there is then no requirement to compensate, so there will not be any litigation. If $\theta^E < \theta'$, $\Theta^C(K(\theta')) < \theta'$. There is then regulation for $\theta \in (\Theta(K(\theta')), \theta')$, and compensation is required for $\theta \in (\Theta^C(K(\theta')), \theta')$. It will be enforced through litigation since $\theta' \geq \bar{\Theta}(L)$. The second part of the Proposition follows from Lemma 3. ■

6 SSDS to escape protection commitments

Host countries often find that their investment agreements impose too far-reaching compensation requirements in certain sectors. Indeed, some countries have even terminated their agreements to escape the obligations they impose. But a less drastic alternative that has been suggested in the policy debate is to retain the agreements, but changing the dispute settlement system from ISDS to SSDS. This raises the question of *whether host countries benefit from shifting from ISDS to SSDS*, and in particular whether this is due to *increased host country "policy space"*? As will be shown in this and the ensuing Section, our framework captures two separate mechanisms through which a shift from ISDS to SSDS might give rise to the suggested types of benefits for the host country.

In this Section we consider an agreement that for some reason is requests too much investment protection in certain sectors for the host country to benefit from the agreement in these sectors. Intuitively, there are many plausible reasons why a host country might find itself in this position in practice. For instance, the host country might disagree with how arbitration panels have come to interpret the agreement, the agreement turns out not to generate as much investment inflow as the host countries expected, or the benefits from the inflows are not as large as expected. Or external factors have changed. For instance, the host country might have developed, and therefore become more concerned with regulation than when entering into the investment agreement. All of

these explanations seem plausible as descriptions of actuality. But they are hard to reconcile with a full-information, frictionless theory of bargaining. But for the purpose of this Section it is not essential to know the exact reason for why the agreement is too restrictive in certain sectors. We will therefore examine the implications of switching from ISDS to SSDS for given, arbitrary levels of investment protection across industries.

The following Proposition characterizes the effects of shifting to SSDS for a given level of investment protection θ' .

Proposition 2

- (1) *Switching from ISDS to SSDS in an industry with $\theta' \geq \bar{\Theta}(L)$:*
 - (i) *has no impact if $\theta' \leq \theta^E$;*
 - (ii) *only has the effect of imposing expected enforcement costs on the source country if $\theta' > \theta^E$.*
- (2) *Switching from ISDS to SSDS in an industry with $\theta' < \bar{\Theta}(L)$:*
 - (iii) *increases the frequency of regulation for $\theta^N < \theta' \leq \theta^E$;*
 - (iv) *has ambiguous implications for the frequency of regulation for $\theta^E < \theta'$;*
 - (v) *wipes out litigation and compensation payments for $\theta^E < \theta'$; and*
 - (vi) *reduces investment from $K(\theta')$ to $K(\theta^N)$.*

Proof:

- (i) Since there is no litigation in equilibrium, the outcome is identical with ISDS and SSDS.
- (ii) In case there is litigation in equilibrium, the source country will carry litigation costs for $\theta \in (\Theta^C(K(\theta')), \theta')$.
- (iii) With $\theta' \leq \theta^E$, there is regulation for $\theta > \theta'$ with ISDS. The frequency of regulation is thus $1 - F(\theta')$ in this case. It is $1 - F(\theta^N)$ with SSDS, since $\theta' < \bar{\Theta}(L)$. The claim follows from the fact that F is increasing, and $\theta' > \theta^N$.
- (iv) There is regulation for $\theta > \Theta^C(K(\theta'))$ with ISDS. The frequency of regulation is thus $1 - F(\Theta^C(K(\theta')))$ in case of ISDS, and it is $1 - F(\theta^N)$ with SSDS. While $\theta' > \theta^N$ implies that $K(\theta') > K(\theta^N)$, it is still possible that $\Theta^C(K(\theta')) < \theta^N$ since we allow for $\Theta_k^C < 0$.
- (v) Follows directly from the fact that there is no enforcement.
- (vi) With $K(\theta') < \bar{K}(L)$ there will be no enforcement in case of compensable regulation for $k \leq K(\theta')$, and the host will consequently regulate for such k whenever $\theta > \Theta(k)$. Hence, investment will fall to $K(\theta^N)$ and there will be regulation for $\theta > \Theta(K(\theta^N)) = \theta^N$. ■

The Proposition thus suggests that a switch to SSDS might indeed allow the host country more "policy space," as often suggested to be desirable. Such a switch can reduce litigation and compensation, and possibly also induce increased regulation. Hence, switching to SSDS might solve problems where agreements are sufficiently ill-designed for certain industries that it would be better with no agreement for these industries. A natural example of this scenario might be the tobacco industry: while investors have full incentives to litigate with ISDS, a source country government might be unwilling to litigate on behalf of the tobacco firms due to the bad reputation that this

will cause—that is, the political litigation costs are very high. Some recent agreements have also excluded tobacco from the protection.

There are thus beneficial aspects for a host country of switching from ISDS to SSDS. But these benefits do not come for free: the expectation of increased regulation will reduce investment in industries where the enforcement constraint is expected to be violated with SSDS, and this tends to hurt the host country. There is no guarantee that the effective unravelling of the agreement that is brought about through the switch to SSDS will occur only in industries where the host country would prefer no agreement. The switch to SSDS might also reduce investment in industries where the host country would be better off with the existing agreement than in the no-agreement situation. This will tend to be harm the host country from an ex ante point of view. That is, as long as the same dispute settlement system is to be used across all industries, the switch to SSDS must be desirable "on average", across industries, in order for it to benefit the host country.

Observation 1 *For given levels of investment protection across industries, a switch from ISDS to SSDS will be inconsequential for the host country in some industries, and cause effective unravelling of the agreement in other industries. For the switch to benefit the host country, the net effect of the unravelling across affected industries must be positive.*

It can also be noted that as long as a shift from ISDS to SSDS has any impact, the source country loses from being exposed to enforcement costs, and/or from being deprived of investment protection.²⁷

7 SSDS to reduce negotiated investment protection

The previous Section considered implications of shifting to SSDS for arbitrary and constant levels of investment protection. These assumptions served to create a situation where a host country finds itself bound by an agreement that is harmful as it applies to certain industries, and where the shift to SSDS becomes a means of escaping the commitments in sectors where there will not be enforcement with SSDS.

We now turn to the second mechanism through which a switch from the choice of dispute settlement system might affect the the host country: by affecting the negotiated level of investment protection that the agreement provides. To address this question, we need to introduce a bargaining stage at the outset of the interaction. The negotiations determines both the level of protection and the type of dispute settlement system that should be used. But to evaluate the argument regarding the desirability of shifting from ISDS to SSDS for the host country, we here examine whether the host country would benefit from such a shift through the impact on the negotiations over the level of investment protection. For simplicity, we now assume that the agreement covers a single industry,

²⁷With a violated enforcement constraint, the level of protection with ISDS is θ' regardless of whether there is compensable regulation or not in equilibrium, and it drops to θ^N with SSDS.

and since we have already highlighted the role of binding enforcement constraints, we focus on cases where it does not bind in the industry under consideration, sufficient for which is that $\bar{\Theta}(L) < \hat{\theta}$. Also, we assume that the negotiated level of protection with ISDS entails equilibrium litigation and compensation payments ($\theta^E < \hat{\theta}$), this being the most interesting case for our purposes.

To characterize the outcome of the negotiations we first derive welfare expressions for the parties to the negotiation.

7.1 Expected welfare

The expected welfare of the parties will depend on whether there are compensation payments in equilibrium, and whether the enforcement constraint binds. When the enforcement constraint is fulfilled ($\theta' \geq \bar{\Theta}(L)$), the host country expected welfare is

$$\tilde{V}(\theta') \equiv \begin{cases} \int_{\underline{\theta}}^{\theta'} V(K(\theta'), \theta) dF & \text{for } \theta' \leq \theta^E \\ \int_{\underline{\theta}}^{\Theta^C(K(\theta'))} V(K(\theta'), \theta) dF(\theta) - \tilde{C}(\theta') & \text{for } \theta' > \theta^E \end{cases} \quad (4)$$

where

$$\tilde{C}(\theta') \equiv [F(\theta') - F(\Theta^C(K(\theta')))]\Pi(K(\theta'))$$

is the expected compensation payment. The source country expected welfare is for $\theta' \geq \bar{\Theta}(L)$ given by

$$\tilde{Y}(\theta', L) \equiv \begin{cases} \tilde{\Pi}(\theta') & \text{for } \theta' \leq \theta^E \\ \tilde{\Pi}(\theta') - \tilde{M}(\theta', L) & \text{for } \theta' > \theta^E \end{cases} \quad (5)$$

where

$$\tilde{M}(\theta', L) \equiv [F(\theta') - F(\Theta^C(K(\theta')))]L$$

is the expected enforcement costs.²⁸ If the enforcement constraint is violated, that is $\theta' < \bar{\Theta}(L)$, the host country welfare is \tilde{v}^N , and the expected source country welfare is \tilde{y}^N , as defined above.

7.2 Negotiations

We will not employ any specific bargaining process, but instead assume that the bargaining maximizes the function $B(\tilde{V}, \tilde{Y})$ subject to certain constraints. B is assumed to be strictly increasing in both arguments, and strictly concave in θ' . This could be compatible with e.g. a Nash Bargaining problem, or maximization of joint welfare. If the negotiations were to give a level of investment protection for the agreement is not enforced ($\theta' < \bar{\Theta}(L)$), the outcome would be the same as if there

²⁸ $\tilde{Y}(\theta', L)$ is continuous in θ' , but has a kink at θ^E since with $\theta' > \theta^E$ the home faces expected enforcement costs.

were no agreement. Hence, for an outcome θ' to be relevant, it is required that $\theta' \geq \bar{\Theta}(L)$. Nor will the parties negotiate an outcome $\theta' < \theta^N$. The negotiated level θ' is also constrained by an upper bound θ_{\max} , which is the highest level of protection that the host country is willing to accept; θ_{\max} is the higher of the two solutions to $\tilde{V}(\theta_{\max}) = \tilde{v}^N$. The negotiated outcome $\Theta^{Neg}(L)$ is hence given by

$$\begin{aligned} \Theta^{Neg}(L) \equiv \max_{\theta'} B(\tilde{V}(\theta'), \tilde{Y}(\theta', L)) \\ \text{s. t. } \theta^N \leq \theta' \leq \theta_{\max} \\ \theta' \geq \bar{\Theta}(L) \end{aligned} \quad (6)$$

An interior solution $\Theta^*(L)$ to this maximization problem is given by the first-order condition

$$B_V(\tilde{V}, \tilde{Y})\tilde{V}_\theta(\theta') + B_Y(\tilde{V}, \tilde{Y})\tilde{Y}_\theta(\theta', L) = 0 \quad (7)$$

It implies that $\tilde{V}_\theta(\theta') < 0$, since

$$\tilde{Y}_\theta = f(\Theta^*(L))\Pi(K(\theta')) > 0$$

Hence, with an interior solution, the host country will prefer less protection, and the source country more protection, than the negotiated outcome. ²⁹

Figure 2 illustrates the setting with ISDS, where the enforcement constraint is irrelevant. In both graphs the horizontal axis gives the level of investment protection θ' . The upper graph shows the expected welfare of the source country, which is increasing in the level of investment protection from the level of θ^N . The lower graph gives the expected welfare of the host country, which by assumption increases at θ^N —if not there would be no scope for an agreement—and reaches a maximum at $\hat{\theta}$, after which it declines until hitting the reservation level for the host country, θ_{\max} . Hence, $\Theta^{Neg}(0) \in (\hat{\theta}, \theta_{\max}]$, since the negotiated solution will be strictly larger than $\hat{\theta}$, but can be equal to θ_{\max} .

(Figure 2 about here)

²⁹With a binding enforcement constraint it would formally be possible to have an interior solution with regard to the participation constraints where instead $\tilde{V}_\theta > 0$ and $\tilde{Y}_\theta < 0$. This follows from

$$\tilde{Y}_\theta = f(\theta')[\Pi(K(\theta')) - L] + f(\Theta^C(K(\theta')))\Theta_k^C K_\theta L$$

with $\theta' = \Theta^*(L)$. The first term captures the benefit to Home from investment protection for additional realizations of θ (albeit that the profits come in the form of compensation payments for these states). The second term reflects the fact that for some realizations of θ for which the source country already receives protection, it will now have to litigate (if $\Theta_k^C < 0$), or alternatively that there will be realization of θ for which it no longer has to litigate (if $\Theta_k^C > 0$). Whether the second effect dominates the first will partly depend on the magnitude of the enforcement costs.

7.3 The impact of shifting from ISDS to SSDS

The negotiated outcome with ISDS will always result in too much investment protection from the point of view of the host country. Consequently, the host country would benefit from a shift to SSDS *if* it reduces the level of protection to some $\Theta^{Neg}(L)$ for which $\tilde{V}(\Theta^{Neg}(L)) > \tilde{V}(\Theta^{Neg}(0))$. Such a reduction of the level of protection could have the type of implications for the host country regulatory regime that are suggested in the debate to be beneficial:

Proposition 3 *Assume that $\theta^E < \hat{\theta}$, so that there are equilibrium compensation payments with ISDS, and that the enforcement constraint is not binding with SSDS, that is, $\bar{\Theta}(L) \leq \Theta^*(L)$. A marginal reduction in the level of protection in an industry from $\Theta^*(0)$ would:*

- (i) *reduce the range of regulatory shocks for which there is litigation;*
- (ii) *reduce the magnitude of each compensation payment; and*
- (iii) *benefit the host country.*

Proof:

Part (i) follows from the fact that there is litigation for $\theta \in (\Theta^C(K(\theta')), \theta')$, and this range increases in θ' due to the stability condition (3).³⁰ Part (ii) stems from the fact that each compensation payment is $\Pi(K(\theta'))$, with $\Pi_k > 0$ and $K_{\theta'} > 0$. Part (iii) follows from the fact that $\tilde{V}_{\theta}(\Theta^*(0)) < 0$. ■

The case for shifting from ISDS to SSDS would be stronger with this mechanism than with the mechanism highlighted in the previous Section, in the sense that this shift would be beneficial in *any* industry where the enforcement constraint does not bind. But the mechanism hinges on a crucial assumption: that the shift to SSDS *reduces* the negotiated level of protection. Will this be the case? It is possible, but not necessary even in the context of this simple framework:

Proposition 4 *With $\theta^E < \hat{\theta}$, switching from ISDS to SSDS can, but need not, reduce the negotiated level of investment protection negotiations, that is, $\Theta^*(L) \geq \Theta^*(0)$.*

The reason why the shift to SSDS affects the negotiated outcome is that it *affects the source country's (marginal) benefit of investment protection*. As can be seen from the bargaining problem above, litigation costs L can affect both the level of expected welfare of the source country, $\tilde{Y}(\theta', L)$, and the marginal benefit of investment protection, $\tilde{Y}_{\theta}(\theta', L)$. Both these effects are likely to affect the bargaining outcome. The complicating factor is however, that the direction of change is unclear.

To illustrate the pervasiveness of this indeterminacy, consider the simple case where the bargaining process maximizes the aggregate welfare, $B(\tilde{V}, \tilde{Y}) \equiv \tilde{V} + \tilde{Y}$. This would be the case if the parties have access to side payments in their negotiations; these could for instance take the form of trade liberalization commitments by the source country if the investment agreement is part of a trade agreement. The agreement would also maximize joint welfare if the two partner countries

³⁰The frequency of regulation is $1 - F(\Theta^C(K(\theta')))$ with ISDS. While $K(\theta')$ would fall with a reduction in θ' , the effect on the regulatory cutoff $\Theta^C(K(\theta'))$ is ambiguous since $\Theta_k^C \geq 0$.

are mirror images of each other, and there are symmetric two-way investment flows between the parties that are covered by the agreement. This could capture a situation where the parties have side payments (perhaps in the form of trade liberalization commitments that are negotiated simultaneously with the investment agreement). Now consider a small step from ISDS toward SSDS, as captured by a marginal increase in L . The effect on the negotiated level of investment protection is then given by

$$\Theta_L^* = \frac{-\tilde{Y}_{\theta L}}{\tilde{V}_{\theta\theta} + \tilde{Y}_{\theta\theta}}$$

The denominator is negative by the second-order condition, so the sign of Θ_L^* is that of $\tilde{Y}_{\theta L}$:

$$\tilde{Y}_{\theta L} = -\tilde{M}_{\theta L} = -[f(\theta') - f(\Theta^C(K(\theta')))]\Theta_k^C K_\theta] \geq 0$$

The indeterminacy of the sign of this term stems from the ambiguous effect of the level of investment protection on the expected political litigation costs. As can be seen from (??), a higher level of investment protection will affect both the upper and the lower bound of the range of θ for which there is litigation. It would increase the upper limit, which would tend to make $\tilde{Y}_{\theta L}$ negative. But it would have unclear effects for the lower bound $\Theta^C(K(\theta'))$, due to the ambiguous sign of Θ_k^C . If $\Theta_k^C < 0$, the lower bound on the range would fall, and $\tilde{Y}_{\theta L}$ would be ambiguously negative, in which case the shift toward SSDS would reduce the negotiated level of protection. If $\Theta_k^C > 0$, the impact on \tilde{M} will depend on the marginal frequencies at both ends of the range.³¹ It is conceivable that $\tilde{M}_\theta < 0$ when the frequency of θ falls significantly over the range $(\Theta^C(K(\theta)), \theta')$, in which case $\tilde{Y}_{\theta L} > 0$. It is hence indeterminate whether the negotiated level of protection falls with SSDS even with joint welfare maximization.^{32,33}

³¹The stability condition (3) ensures that θ' grows faster than $\Theta^C(K(\theta'))$, as we increase θ' , but we here also have to take account of the marginal frequencies.

³²It would also be ambiguous with a Nash Bargaining solution. For instance, let the maximand for a Nash Bargaining problem with reservation utilities normalized to zero be

$$B(\tilde{V}(\theta'), \tilde{Y}(\theta', L)) \equiv \tilde{V}(\theta')\tilde{Y}(\theta', L)$$

From the FOC

$$B_\theta(\tilde{V}(\theta'), \tilde{Y}(\theta', L)) = \tilde{V}_\theta(\theta')\tilde{Y}(\theta', L) + \tilde{V}(\theta')\tilde{Y}_\theta(\theta', L) = 0$$

it follows that

$$\Theta_L^* = -\frac{1}{A}[\tilde{V}_\theta\tilde{Y}_L + \tilde{V}(\theta')\tilde{Y}_{\theta L}] \geq 0 \quad (8)$$

with $A < 0$ by the SOC. The first term in the brackets is non-negative since $\tilde{V}_\theta < 0$ and $\tilde{Y}_L = -\tilde{M}_L \leq 0$. It is hence in this sense even more unlikely that a shift to SSDS will reduce the level of investment protection with Nash Bargaining.

³³To see the issues involved, note first that $\Theta^C(K(\theta')) < \theta'$, this being the condition for equilibrium compensable regulation. Second, it follows from (3) that the upper bound on the range of θ for which there are compensable regulation (and thus enforcement costs with SSDS)—that is $(\Theta^C(K(\theta)), \theta')$ —increases faster in θ' than the lower bound. But it is still possible that $\tilde{M}_\theta < 0$ for certain $\theta' \in (\theta^E, \bar{\theta})$. The reason is that as θ' increases, the impact on \tilde{M} will also depend on the frequencies at both ends of the range. But since condition (3) implies that $\Theta_k^C K_\theta < 1$, it would suffice that $f(\cdot)$ is non-decreasing for $\tilde{Y}_{\theta L} < 0$. Similarly, $\Theta_k^* < 0$ would suffice, but there does not seem to be any reason why this should hold.

Figure 3 illustrates a case where the host country would benefit from switching from ISDS to SSDS, since the level of protection falls with the switch to SSDS, but not with too much. The dashed curves reproduce the ISDS setting. In the lower graph, the solid curve shows the expected welfare of the host country when the enforcement constraint is low enough so that the interior solution is unconstrained, $\Theta^*(L) > \bar{\Theta}(L)$. The upper graph shows how the expected source country welfare is lower with SSDS than with ISDS due to the litigation costs for $\theta' > \theta^E$; this is illustrated by the thinner curve, which has a kink at θ^E . Formally, this comes from the fact that $\tilde{Y}_L = -M_L < 0$ in this case, as can be seen from (5). But since the enforcement constraint implies that there will be no enforcement unless $\theta' \geq \bar{\Theta}(L)$, the relevant part with SSDS is the thicker drawn curve.

(Figure 3 about here)

Finally, the shift from ISDS to SSDS impacted the negotiated level of investment protection in the above setting by affecting the level of welfare of the source country as well as its marginal benefits of investment protection. A qualitatively different form of impact would arise when the litigation costs are sufficiently high that the unconstrained negotiated outcome would violate the enforcement constraint, $\Theta^*(L) < \bar{\Theta}(L)$. There could then be a corner solution to the bargaining problem in (6) with SSDS such that $\Theta^{Neg}(L) = \bar{\Theta}(L)$. That is, the parties might then with SSDS choose a higher level of investment protection than $\Theta^*(L)$, a level that *just ensures that the agreement is enforced*. The switch to SSDS might still benefit the host country provided that $\bar{\Theta}(L) < \Theta^*(0)$. But it does not seem to plausibly depict considerations that go into the formation of actual agreements, that the parties design the agreement such that it just induces enough investment for litigation to be worthwhile for the source country when taking into account litigation costs.

To conclude, despite our simple formalization of enforcement costs, the impact of shifting from ISDS to SSDS depends in a rather complex way on the profitability of the industry, and the magnitude of the political costs of enforcing the agreement in the industry, since these will determine whether the enforcement constraint binds. It will also depend on the nature of the bargaining process, which will determine how the negotiated level of investment protection responds to the enforcement costs imposed on the source country. A shift to SSDS can benefit the host country by reducing the level of investment protection. This is more likely to occur if the political litigation costs are small. But there does not appear to be any presumption that the level of investment protection will fall as a result of shifting from ISDS to SSDS.

8 The inefficiency of SSDS

As we have just seen, in industries where the enforcement constraint is fulfilled with both ISDS and SSDS, the only concern for the host country is that the level of investment protection is too high.

Therefore, if the host country can control the dispute settlement system, it can in some situations benefit from choosing SSDS rather than ISDS since this gives a lower level of investment protection. But the source country strictly prefers ISDS to SSDS for any level of protection that is agreed upon. Therefore, if the host country can control the type of dispute settlement system, it would be better off if it could induce the source country to accept a somewhat *lower* level of protection than would be negotiated with SSDS, against getting ISDS. Put differently, *SSDS is Pareto inefficient*. The reasoning can be seen in Figure 3, where it can be seen how ISDS and a level of protection somewhat below $\Theta^*(L)$ would be preferred by both parties to SSDS and the level of protection $\Theta^*(L)$.

Proposition 5 *In industries where the enforcement constraint is fulfilled with SSDS, the only concern for the host country is the level of investment protection. Both parties would benefit from the host country conditioning the choice of ISDS on a level of investment protection that is marginally lower than what would be negotiated with SSDS.*

Another source of inefficiency in the setting here is the lack of side payments. Consider therefore the case where the agreement maximizes the joint expected welfare of the parties; as noted above, this could also capture a setting with two symmetric countries that negotiate an investment agreement covering two-way investment. The joint expected surplus is

$$\tilde{W}(\theta', L) \equiv \tilde{Z}(\theta') - \tilde{M}(\theta', L)$$

with

$$\tilde{Z}(\theta') \equiv \tilde{V}(\theta') + \tilde{\Pi}(\theta')$$

The negotiated outcome is then

$$\begin{aligned} \Theta^{Neg}(L) &\equiv \arg \max_{\theta'} \tilde{W}(\theta', L) \\ \text{s. t. } &\theta' \geq \bar{\Theta}(L) \end{aligned}$$

The difference in aggregate welfare with ISDS and SSDS is then

$$\tilde{W}(\Theta^*(0), 0) - \tilde{W}(\Theta^{Neg}(L), L) = \tilde{M}(\Theta^{Neg}(L), L) + Z(\Theta^*(0)) - Z(\Theta^{Neg}(L))$$

There are thus two reasons why a shift to SSDS would reduce joint welfare: first, to the extent that there is compensable regulation in equilibrium with SSDS, a shift to SSDS will cause *a direct welfare loss from the litigation costs*; $M > 0$ in the above expression. Second, a shift to SSDS might *distort the negotiated level of investment protection*. This is represented in the expression above by the last two terms on the right-hand side, the sum of which is negative since

$$\Theta^*(0) \equiv \arg \max_{\theta'} Z(\theta')$$

Proposition 6 *An agreement that maximizes joint welfare will feature ISDS, and the level of investment protection $\Theta^*(0)$.*

9 Alternative formulations of the ISDS/SSDS distinction

We have formalized the standard explanation for the difference between SSDS and ISDS—political and/or diplomatic enforcement costs with SSDS—in an analytically very simple fashion. But simple as it is, it does appear to capture essential aspects of the issue. But there are of course alternative ways of modeling this difference, and there are alternative aspects of how the two dispute settlement systems differ.

First, a common claim in favor of ISDS is that it provides for speedier resolution of disputes, which saves costs for the investors. Another explanation for why SSDS differs from ISDS could be that source country governments put less weight on the profits of their investors, compared to the investors themselves. To illustrate, assume that both investors and the source country government face regular litigation costs C , such as legal fees. Assuming that no mistakes are made in arbitration, the investor will litigate in case of compensable regulation if $\Pi(k) > C$.³⁴ With SSDS, the source country government faces the same process costs, but also the political costs L . The source country government puts a smaller weight $\gamma < 1$ on the profits of the investor relative to the administrative costs, than do investors. Hence, the government will litigate if $\gamma\Pi(k) > C + L$.³⁵ The parameter γ could alternatively capture the loss of profits due to a slower litigation process with SSDS, γ reflecting the discounting of future compensation payments. As can be seen, since $C > (C + L)/\gamma$, these alternative explanations for the difference between ISDS and SSDS share the basic feature with the framework employed in the analysis above, in that there will be a range of disputes for which the source country will refrain from litigating, while private investors will litigate.

The approaches will also differ in certain respects, however.³⁶ The political enforcement costs L will only affect the outcome in situations where there is litigation, and the same is true for the discounting of the profit. But if the source country government puts less weight on the profit of an investor when deciding whether to litigate on behalf of the investor, the government will presumably also put less weight on the investor's profit when negotiating the agreement. This implies for instance that industries that are of less value to the source country government will have lower negotiated investment protection.

³⁴This assumes that the investor is perfectly informed regarding whether regulation is compensable. This is a strong assumption in light of the amorphous text of IIAs, and the disparate case law.

³⁵The judicial mechanism that is used to resolve state-state disputes is taken to work with the same precision as those used for investor-state disputes. This is again a strong assumption, since in practice agreements might provide for rather different mechanisms; for instance, state-state disputes might go to bodies like the International Court of Justice, while investor-state disputes are typically arbitrated by ad hoc panels.

³⁶There is thus a distinction between the case where a home government does not put as much weight on investor profits or compensation payments, as captured by $\gamma < 1$, and where it does not want to hold the axe when enforcing the payments, or at least not be seen to hold the axe, as captured by the cost L .

Second, it has been assumed above that the political/diplomatic enforcement are unrelated to the regulatory problem facing the host country, that is, that L and θ are uncorrelated. This implies that the decision regarding whether to enforce the agreement is unrelated to the severity of regulatory problem. Consequently, SSDS might cause the agreement to unravel in industries where it is desirable with production for the host country (and thus from a "global" point of view). But it seems plausible that the political enforcement costs and the severity of the regulatory problem often are positively correlated: it should be particularly costly politically for source countries to pursue cases in instances where the host country regulations are addressing severe regulatory problem. For instance, it would likely cause a government a substantial loss of political goodwill if it were to litigate on behalf of a tobacco producer regarding non-discriminatory host country health measures against smoking.

Finally, it has been assumed that the source country carries enforcement costs only when litigating in order to obtain compensation. An alternative would be to assume that enforcement efforts are required more generally to induce the host country to abide by the agreement whenever it would unilaterally prefer to regulate, that is, for all $\theta > \Theta(k)$. The source country expected welfare would then be

$$\tilde{Y}(\theta', L) \equiv \tilde{\Pi}(\theta') - [F(\theta') - F(\Theta(K(\theta')))]L \quad (9)$$

whenever the enforcement constraint is fulfilled. The qualitative properties of the model would be much the same as above.

10 Conclusions

There have been frequent calls in the policy debate for changes to the dispute settlement system in investment agreements. A common idea has been to restrict the possibilities for private investors to litigate against host countries. Some countries have also moved in this direction with regard to their agreements. This paper is to the best of our knowledge the first economic analysis of the usefulness for host countries to heed these calls.

The paper focuses on the standard explanation for why SSDS yields less litigation than ISDS — the political/diplomatic costs that source country governments face when enforcing agreements on behalf of their investors. We have identified two separate reasons why a host country might benefit from SSDS in this framework. The first is that a switch to SSDS essentially causes the agreement to unravel in certain industries, due to the source country government's unwillingness to enforce the agreement. This could be beneficial if the terms of the agreement are so demanding for the host country, that no agreement is better than the agreement with ISDS, and provided that the unravelling to a sufficient degree occurs in the right industries from the host country perspective. The second reason why a shift to SSDS might increase host country welfare is that it might cause a renegotiation of the investment protection to a somewhat lower level. This will trigger increased

regulation, reduced compensation payments, etc., along the lines proposed in the debate.

These mechanisms do not provide convincing support of the usefulness for host countries to try to change the dispute settlement systems in their agreements from ISDS to SSDS, however. First, when a shift from ISDS to SSDS leads to the unraveling of the agreement for a particular sector, there is no guarantee that this will occur in industries for which no protection is better than an agreement with ISDS, in particular not when the level of protection with ISDS forms part of a voluntary agreement. For instance, the enforcement costs that the source country government faces need not correlate with the undesirability of the industries from a host country point of view.

Second, our framework offers no compelling support for the notion that negotiations under SSDS are likely to yield lower levels of investment protection than with ISDS.

Third, the existence of the enforcement costs under SSDS is a source of inefficiency, both since they tend to directly reduce the expected welfare of the source country, and indirectly by affecting the negotiated level of protection away from the ISDS level. SSDS is therefore inefficient, and host country could therefore benefit from offering the source country ISDS, against concession with regard to the negotiated level of protection.

We thus conclude that if an agreement with ISDS stipulates too much investment protection from the host country's perspective, and the host country is able to determine the type of dispute settlement system, it should primarily aim to change the substantive undertakings in the agreements, rather than introduce imperfections in the functioning of the dispute settlement system in order to deliberately hamper the efficacy of the agreement.

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Figure 1a: Regulation incentives with $\theta' > \theta^C(k)$

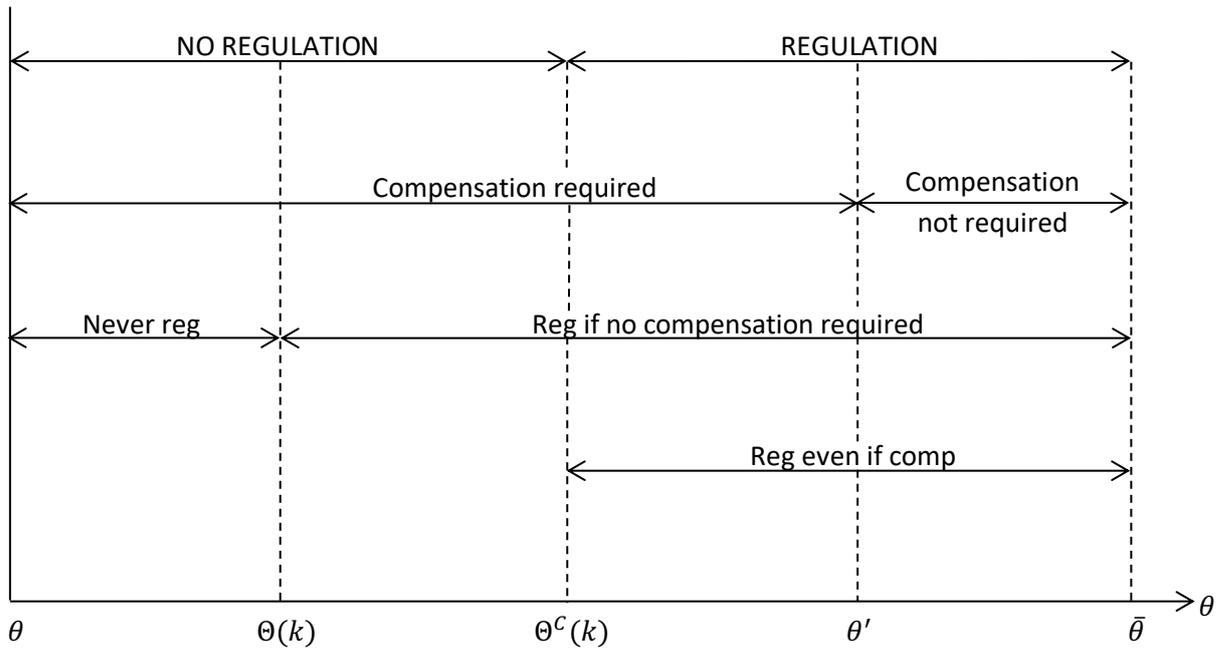


Figure 1b: Regulation incentives with $\theta' < \theta^C(k)$

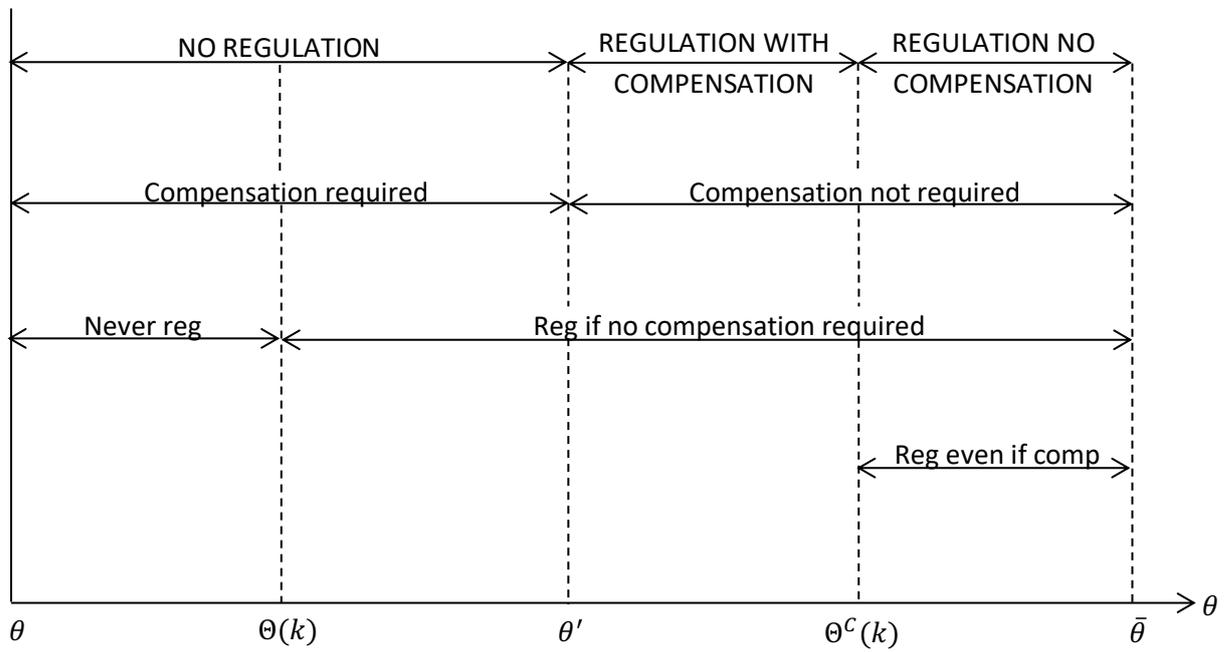


Figure 2: Negotiations with ISDS

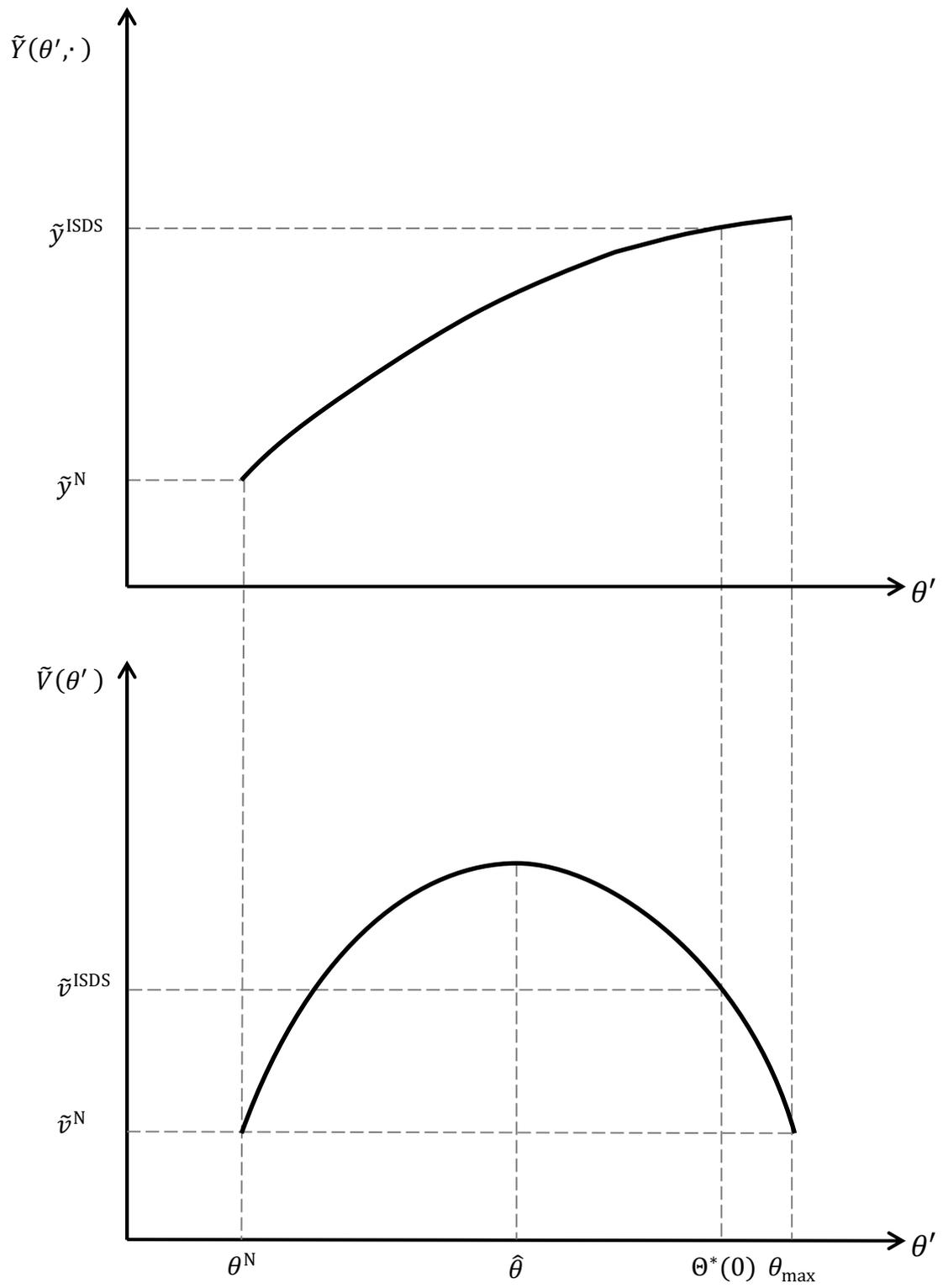


Figure 3: One Possible Outcome of Negotiations with SSDS

