The impact of corporate settlements on incentives for international cooperation in multijurisdictional bribery cases

Renato Capanema

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Signature: _Renato de Oliveira Capanema_   Date: _10/04/2018_

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Abstract

The purpose of this thesis is to analyze the impact of corporate settlements on incentives for international cooperation in transnational bribery cases involving multiple jurisdictions. A corporate settlement is a deal between a national enforcement authority and a company that aims at collecting key evidence of a bribery scheme in exchange for a reduction or a waiver of penalties. International cooperation is the exchange of information between countries to mutually support investigations and prosecutions. In an isolated context, both institutes have been pivotal for countries to solve transnational bribery schemes, as demonstrated by an extensive literature. Few studies, however, have focused on how these institutes impact one another, and on how their use could be maximized by countries. To this end, insights from Game Theory will be applied to compare two different scenarios. In the first, no restrictions will be imposed on the use of the corporate settlement's information. In the second, conversely, restrictions will be imposed. A theoretical model will be developed to anticipate the game results and understand the incentives for international cooperation in both scenarios. The theory will indicate that, in the long-term, the game with restrictions leads to cooperation. A massive and unparalleled transnational bribery scheme – the Odebrecht case – will be used to illustrate and test the theory. This research will provide valuable information for public decision-makers to better understand and deal with complex contemporary dilemmas, offering a useful framework for making decisions and fighting corruption.

Keywords: corporate settlement, international cooperation, transnational bribery, Game Theory, incentives, restrictions, Odebrecht case

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Introduction

Bribery schemes are no longer limited to one place or jurisdiction. Frequently, one single scheme has repercussions on several countries, harming a great number of public entities, citizens, and potential competitors. Additionally, schemes commonly implicate various perpetrators, from private and public sides, such as corporate executives, entrepreneurs, intermediaries, financial operators, government officials, and politicians. In other words, a transnational bribery case embraces, as a rule, multiple countries, victims, and wrongdoers.

Companies are typically key perpetrators in grand transnational bribery cases. Large corporations, although based in one country, recurrently participate in international biddings and conduct business in multiple jurisdictions. Not rarely, their representatives offer bribes to foreign public authorities in exchange for securing contracts, using sophisticated methods to forward and disguise the illicit payments.

Transnational bribery schemes impose great challenges for enforcement authorities worldwide, as perpetrators usually have high incentives to maintain secrecy and help each other, and clear-cut evidence is rarely left to be found. Moreover, as proof of corruption is wontedly hidden and spread throughout different countries, investigations tend to be extremely lengthy and costly, requiring countries to work together and find innovative solutions to deal with this permanent threat.

To overcome these obstacles, cooperation, either with foreign jurisdictions or with some of the perpetrators, emerges as a viable solution for countries. In this context, two cooperative institutes deserve special attention for their current relevance in enforcing transnational bribery cases: corporate settlements and international cooperation. Thus far, most of the successful transnational investigations and

prosecutions carried out by countries' enforcement authorities have relied on either one of these two institutes.

Notwithstanding the importance of corporate settlements and international cooperation in an isolated context, the manner in which they interact is crucial and will be further investigated in this thesis. Separately analyzed, both institutes enhance countries' enforcement capabilities, allowing public authorities to access key and otherwise unattainable evidence to punish wrongdoers. When the two institutes are comprehensively analyzed, though, some questions come to light. What happens, for instance, when one country settles with a company involved in a transnational bribery scheme? Are there incentives for this country to share the information obtained under the settlement with foreign jurisdictions? In other words: what is the impact of corporate settlements on the incentives for international cooperation?

The ultimate goal of this thesis is to deeply analyze countries' strategies when dealing with a transnational corporate bribery case and propose an answer to the aforementioned question. To this end, the dissertation will be structured in four complementary chapters. The first one will provide a comprehensive contextualization of the multiple-jurisdictions dilemma and elucidate the role of corporate settlements and international cooperation in the fight against transnational bribery. The second chapter will describe the research's methodology and present a theoretical model to explain the impact of corporate settlements on the incentives for international cooperation. In the following chapter, two different scenarios will be analyzed: in the first one, restrictions will not be imposed on international cooperation; in the second, international cooperation will depend on certain conditions to be respected by one of the countries. The incentives for countries to cooperate and the expected results of their interactions will be predicted using insights from Game Theory. The fourth and last chapter will expose the details of one

of the most remarkable transnational corporate bribery cases in history – the Odebrecht case – as to show the hypothetical game being played in practice and illustrate the theory previously developed.

The relevance of this theoretical research is to better understand the complex and contemporary phenomenon of several countries striving to enforce the same transnational corporate bribery case. By challenging the mainstream assumption that international cooperation is always welcome, this dissertation promotes a dialogue between two of the most important enforcement tools currently available for countries and provides a rational framework for practitioners and anticorruption authorities to make strategic decisions.

Literature review

The issue of multiple jurisdictions

Transnational bribery schemes involving companies are becoming more and more frequent over the years (OECD, 2017). If, in the past, countries could fight corruption within their boundaries, this is no longer possible. Countries now have to deal with complex bribery cases involving corporations from different nations. As a result, multiple jurisdictions from various countries are compelled to investigate the scheme:

> Laws prohibiting foreign bribery are extraterritorial by nature, aiming to regulate conduct that occurs abroad, within a foreign country's borders. Such laws thus invite multijurisdictional enforcement, as at least two (if not more) sovereign nations will typically have some interest in the alleged crime. At the same time, virtually all countries have domestic bribery laws prohibiting bribery of local officials (Holtmeier, 2015, p.5).

On the one hand, an increasing number of legislations allows for countries to investigate and prosecute their own companies for acts committed overseas. The adoption of extraterritorial anticorruption laws may be perceived as important for countries that follow the rule of law; the existence of these laws can be a necessary condition of a country's right to participate or to be seriously considered in the international community. The Organization for Economic Cooperation and Development (OECD) Convention on Combating Bribery, for instance, requires that all its members pass legislation to internally criminalize the bribe offered by domestic legal persons to foreign public officials in international business transactions. Thus far, 43 countries have signed the OECD Convention. Forty out of the 43 OECD Convention signatory countries have overseas jurisdiction over their legal entities for bribery of foreign public officials, including Argentina, Brazil, Chile, Colombia, France, Germany, Italy, Switzerland, the United Kingdom, and the United States (OECD, 2017).

On the other hand, companies targeted by extraterritorial legislations are also normally susceptible to anticorruption laws of the country where corruption takes

place. Many countries, including all OECD signatories, have some procedural mechanisms for holding legal persons liable for bribing domestic public officials. Moreover, countries directly affected by bribery schemes are commonly interested in prosecuting legal entities, as a feasible way to recover the ill-gotten money and receive compensation for damages and losses.

Transnational corporate bribery, therefore, leads to a situation in which the company can be targeted by at least two international players: the country where the bribery takes place and the country from where the corporation belongs. According to Holtmeier (2015, p.2), by its nature, any given instance of foreign bribery involves at least two countries, representing the supply and demand-side jurisdictions: the bribe-giver's home country and the bribe-receiver's home country.

Additionally, a transnational corporate bribery scheme certainly involves other wrongdoers, at least a bribe-receiver (public official), who is held liable for passive bribery in his domestic jurisdiction, and the natural person who gave the bribe, for instance a manager or one of the companies' employees. Moreover, complex bribery cases commonly embrace multiple legal entities and third parties, such as consultants and intermediaries, as layering is a usual strategy to conceal the origin of the crime:

> Grand corruption bribery schemes are often structured with complex creative accounting, subsidiaries, consultants, foreign agents, and the requisite money laundering maneuvers, involving wire transfers, altered check routing numbers, shell corporations, shell or private banks, blind trusts, fake charities, and so forth (Spahn, 2012, p.44).

As a consequence, one piece of evidence can initiate several liability procedures under a given country or group of countries against several natural and legal persons. This snowball effect is particularly important for understanding the incentive structure for cooperation that is going to be discussed in further chapters.

Given the nature and complexity of transnational bribery schemes, one could reasonably argue that it would be extremely difficult for one country, without the cooperation of external parties, to build solid prosecution cases against corporations.

This seems to be accurate, as rarely one country alone is capable of revealing the complete structure of complex transnational bribery cases. Hence, cooperation strategies either with other countries or with the companies themselves are proving to be a solution for enforcement agencies to move forward with corporate corruption investigations. The mutual cooperation among enforcement agencies from two or more countries is also known as international cooperation. Agreements between national agencies and corporations can be also called corporate settlements. Due to their relevance to the present research, both institutes will be further explained and detailed.

International cooperation: definition and relevance

Considering the *modus operandi* of transnational corporate bribery schemes, enforcement agencies worldwide need to be in close contact to put together the intricate elements that constitute corruption. Not rarely, the wrongdoing itself happens in country A, wrongdoers are based in country B, and key evidence can be encountered in countries C and D. Hence, isolated investigations carried out by domestic enforcement authorities tend to lead nowhere; they need to join forces and exchange information in order to build robust cases and move forward. International cooperation, therefore, is more than desirable; it is required for the success of this complex global enforcement system (Holtmeier, 2015).

In the antibribery field, international cooperation can indeed open new avenues for investigations and facilitate countries' law enforcement actions. To unravel transnational bribery schemes, countries can exchange all kinds of information, either in a formal or informal manner. Formal cooperation, on the one hand, is normally required for enforcement agencies to use information as evidence in prosecutions, and typically needs to be intermediated by countries' international cooperation central authorities. Informal cooperation, on the other hand, is directly conducted by

countries' enforcement agencies, and has a pivotal role in better defining the information to be further provided, avoiding speculative and contra productive vague formal requests (MacLean, 2012).

For the purpose of this thesis, international cooperation will embrace all kinds of information exchange to strengthen countries' law enforcement actions related to transnational corporate bribery schemes, including formal and informal contacts, discussions on general orientations regarding investigations, and assistance to collect evidence and conduct interviews of witnesses on behalf of the foreign agency (Capobianco and Nagy, 2016, p. 571).

This definition is similar to the one established in the United Nations Convention Against Corruption - UNCAC (United Nations Office on Drugs and Crime, 2004), ratified by 186 of the 193 countries in the world. The UNCAC, in article 43, describes international cooperation as the "cooperation between State Parties to assist each other in investigations of and procedures in administrative, civil and criminal matters relating to corruption". According to UNCAC's article 48, the following measures could be taken by State Parties to enhance international cooperation: I) establishment of channels of communication between authorities and agencies to facilitate the secure and rapid exchange of information; II) cooperation in conducting inquiries; III) provision of necessary items or quantities of substances for analytical or investigative purposes; IV) exchanging of information regarding specific means and methods used to commit offences; and VI) exchanging of information and administrative coordination of measures for the purpose of early identification of the offences.

From an economic perspective, the gains for international cooperation arise from the fact that actions taken by one state have implications in the well-being of citizens in others, generating what Posner and Sykes (2013) define as *positive externalities*. As a consequence, by helping one another, states can address such externalities and

maximize their own preferences. As stated by Posner and Sykes (2013, pp.18-19), without cooperation, inefficiency would prevail:

> Beyond the assumption that states behave as if they have preferences, the only further key assumption is that states "care" primarily or exclusively about their own welfare or interests (or those of their own citizens) and less or not at all about the welfare or interests of other states and their citizens. The result is a divergence between the national interest and the global interest that will produce inefficiency in the absence of international cooperation. By inefficiency here, we mean that a state of affairs will arise without cooperation whereby all nations are worse off (in terms of their own preferences) than they could be if the externality problem were addressed through cooperation.

It is relevant to say that countries have low incentives to help one another without a fair retribution to their own welfare. Cooperation occurs when players adjust their behavior to the actual or anticipated preferences of others to achieve common objectives (Paulo, 2014, p.3). Stated simply, all players must feel they are receiving some sort of benefit from the cooperation, either in the short or long-run.

In the antibribery enforcement environment, cooperation normally brings benefits for all countries, as clear-cut evidence is extremely difficult to be obtained. Wrongdoers normally leave no trace, and when they do, evidence is diffused in several places and disguised as regular and licit transactions.

Holtmeier (2015, p.501) brings an interesting example of how intricate transnational bribery investigations can be. In 2014, the Department of Justice (DOJ) of the United States (US) settled allegations that executives at ZAO Hewlett-Packard A.O. created a secret slush fund to bribe Russian government officials. During the investigations, it was identified that the company was already under investigation in Germany and that its parent company (Hewlett-Packard, Inc.) had already been investigated by another US enforcement agency, the Securities and Exchange Commission (SEC). All investigations were connected to each other, and none of the agencies had, at that time, all the evidence to build a strong case against the company. This is not even to mention that the crime took place in Russia, bringing an additional challenge for

foreign enforcement agencies. Eventually the case was solved through a corporate settlement, which is a topic that is going to be discussed in the next section.

The aforementioned case shows exactly the situation that Posner and Sykes (2013) explained: the role that cooperation could take in addressing positive externalities. Enforcement agencies would be better off cooperating, considering that none of them had all the information needed to move forward with the investigations. In an ideal scenario where countries had sufficient information to successfully prosecute a legal person, it would be better for them to move forward alone, as multiple jurisdictions can affect companies' ability to pay, as well as allow for duplicate counterproductive penalties by different agencies (Holtmeier, 2015). Conversely, the real scenario is quite different: the enforcement agencies alone cannot proceed. If they refuse to cooperate their payoff tends to be zero. While adverse effects of international cooperation exist, countries would be worseoff without it (Posner and Sykes, 2013).

Another important feature that needs to be highlighted is that international cooperation in the antibribery field cannot be seen as an isolated act. In the context of repeated large-scale corruption cases, a long-term strategy of mutual support is required. A permanent network among specialized enforcement agencies is necessary to exchange practical information and strengthen investigation techniques, opening new avenues for countries to properly deal with reiterated complex transnational bribery schemes. According to the OECD (2016), networks allow enforcement authorities to permanently discuss practical and legal challenges, including emerging trends on techniques used by bribers, and then share best practices. Stated in another way, the decision to cooperate must consider additional long-term benefits, such as mutual learning and the expectation of future gains (marginal benefits of building a trustworthy relationship).

As stated by Posner and Sykes (2013), the forms of cooperation can vary a lot, depending on its scope and goals, not to mention the frequency and speed of interactions. Countries can either choose to cooperate in a structured manner, establishing the boundaries of their interaction in treaties, or proceed to cooperate without following normative procedures, reflected in custom or simply in oral promises or in promises that are written down but not formally designated as law.

International cooperation can also take different forms depending on the specific features of the bribery scheme and the stage of the investigative proceedings in different countries. To illustrate this, we can take a hypothetical situation where countries A and B have jurisdiction over a corporate bribery case. If both countries are in an early stage of investigations and have a similar level of interest in prosecuting the legal person, they could consider conducting a joint investigation, thereby amplifying resources and avoiding duplicated work. If, for any reason, there is an unbalanced level of interest in prosecuting the legal person (country A, for instance, is more engaged in spending resources on the case), country B could assist country A (conducting inquiries or providing additional information), considering the rational expectation that country B has to be further helped in return. If both countries are interested in prosecuting the legal person and joint investigations, for whatever reason are not possible, they could help each other to build cases and adjust their penalties in order to minimize the adverse effects of overlapping enforcement actions. In other words, international cooperation can be operationalized in multiple forms, as long as both countries perceive it as a gain.

One could argue, though, that international cooperation is more beneficial for countries with limited enforcement resources, as powerful countries could be betteroff enforcing antibribery laws by themselves. To analyze this argument, we shall take the US as a parameter, considering it is one of the most powerful countries in

the world and has long been recognized as a world leader in its efforts to combat foreign bribery and corruption (Mendelsohn, 2017). If international cooperation is useful to the US, it might very well be so to other countries.

According to Holtmeier (2015), Brewster (2017) and Vianna (2018) there is a positive correlation between international cooperation and the enforcement of the Foreign Corrupt Practices Act (FCPA) in the US.

Brewster (2017) argues that, as a result of the OECD Convention on Combating Bribery, more countries were able to play the enforcement game, opening multiple avenues for international cooperation that significantly affect FCPA enforcement results. According to Brewster, by using formal and informal channels, the OECD convention has increased transnational cooperation, resulting in countries more open to conducting investigations and sharing evidence. "This expanded cooperation has been critical to a spike in successful American prosecutions" (Brewster, 2017, p.1167).

As per Holtmeier (2015, p.2), there is no shortage of evidence to support the observation that cooperation and information sharing with other countries is pivotal to the effectiveness of US anticorruption strategy:

> In 2013 and 2014 alone, the Department of Justice (DOJ) and Securities and Exchange Commission (SEC) recognized the cooperation and assistance of foreign law enforcement authorities in at least twenty-three actions brought under the U.S. Foreign Corrupt Practices Act (FCPA or "the Act"). U.S. enforcement authorities—once the world's primary anticorruption enforcers—increasingly can and do rely on the help of their international counterparts and are pursuing more investigations that run concurrently with, or in the wake of, investigations initiated by foreign authorities.

Similarly, Vianna (2018) conducted a detailed research, cataloging the number of FCPA resolutions that benefited from international cooperation from 2006 to 2017. The numbers, displayed in the figure below, show an increasing relevance of international cooperation for FCPA enforcement actions:
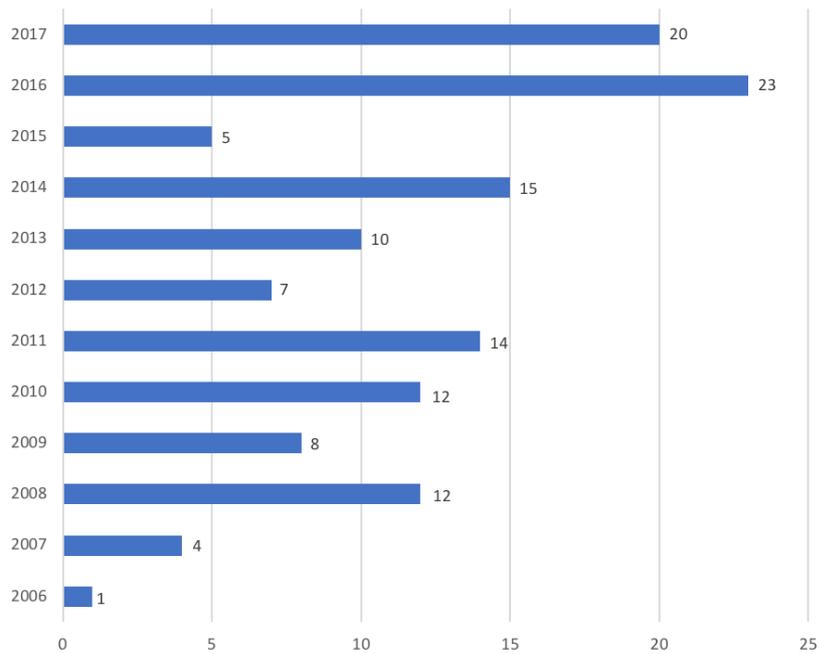
Source: Vianna, 2018, p.17

Figure 1 – FCPA enforcement actions with foreign agency assistance by year

The compelling arguments brought by the aforementioned authors show that international cooperation plays a central role in explaining the results achieved by the US in the foreign bribery field. More than that, they indicate that international cooperation can be beneficial to all players – including the powerful ones. Under normal conditions, when capable of addressing international externalities, cooperation is a win-win game. There is no doubt that this is an interesting avenue to maximize countries' enforcement results.

Corporate settlements: definition and relevance

A corporate settlement is another cooperation tool that has been effectively used by many countries to combat foreign bribery. Basically, a settlement is a deal between an enforcement agency and the company involved in the bribery scheme that aims to help public authorities in moving forward with investigations in exchange for a reduction or a waiver of penalties. A settlement can only be reached if the company agrees to cooperate with the investigation. Often the company is also required to accept responsibility for its illicit conduct and develop compliance programs to

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prevent future wrongdoings. From the government's side, enforcement agencies recognize the cooperation provided, accelerate the investigations, get a compensation for damages (applying fines and recovering the money diverted), and let the company continue its activities.

According to Yockey (2012, p.698), corporate settlements can provide benefits to both legal entities and enforcement agencies. Legal entities are benefited by receiving lenient penalties (in some jurisdictions it is even possible to avoid a formal prosecution) and avoiding the hazards and uncertainties of litigation. Enforcement agencies are benefited by gathering evidence to expose the scheme and unveil additional perpetrators, not to mention the fast return of diverted money to public coffers.

As per Alexander and Lee (2018), the ultimate goal of corporate settlements is to expedite the investigation and allow the identification of culpable individuals within the corporation. Normally, the degree to which leniency is provided depends on the level of the cooperation. The avenues for cooperation are myriad: the company may report the offense in advance (self-reporting), allow access to witnesses or documents, and conduct internal investigations, all of which will help enforcement authorities to collect evidence about the known offense (Alexander and Lee, 2018, p.871).

As one can see, from the enforcement authorities' perspective, corporate settlements can be a practical solution to avoid endless and costly bribery investigations. As stated by Torres and Vainer (2017), corruption is especially sensitive to settlements, as it is extremely difficult – and costly – for enforcement agencies to reveal sophisticated schemes. Besides, bribery investigations are extremely costly, and often produce poor results. According to Becker (1974, p.43), optimal decisions made by governments are the ones that minimize the social loss, and that can be understood as the sum of

damages and costs of detection, conviction and carrying out the punishment imposed. Therefore, from an economic point of view, corporate settlements can be used to reduce all the aforementioned costs, timely placing otherwise unattainable information into the hands of enforcement agencies.

For companies, settlements are the fastest path to resume business activities, and an effective tool to prevent extra reputational harm. In some jurisdictions, such as the US, legal advisors even recommend settlements as a strategic defense:

> Both inside and outside counsel generally advise firms facing an FCPA investigation to work to maximize their chances of obtaining a settlement on the best possible terms rather than pursue litigation and a possible trial on the merits. The negative collateral consequences arising from an indictment—let alone conviction—are too great for some firms to risk adopting any strategy other than settlement. Even the announcement that a firm is the subject of an FCPA investigation can produce significant reputational harm. (Yockey, 2012, p.696).

Although the general aspects and goals of settlements are more or less the same worldwide, it is relevant to say that their scope and *modus operandi* vary a lot depending on the jurisdiction.

In the US, where corporate settlements to solve foreign bribery cases were first introduced, negotiations between enforcement agencies and companies can result in either Deferred Prosecution Agreements (DPAs) or Non-Prosecution Agreements (NPAs). In a DPA, the prosecutor submits a complaint to the court but defers actual prosecution if the corporation agrees to take certain actions, such as paying a dissuasive fine, disgorging profits and implementing compliance programs. If the company timely fulfills its obligations under the settlement, the prosecutor dismisses the charges. NPAs, in turn, are similar to DPAs, but do not presuppose filling a formal charge. Under the NPA, prosecutors reserve the right to file charges but refrain from doing so as long as the defendant firm maintains compliance with the terms required by regulators (Yockey, 2012, p.697). According to Alexander and Lee (2018, p.871), under both DPAs and NPAs, the company is released from the obligations of the settlement after a specified period of time, as long as it implements measures to

mitigate corruption and agrees to facilitate future investigations if wrongdoing continues.

The role of DPAs and NPAs in US foreign enforcement results is remarkable and it has been significantly increasing since the enactment of the Sarbanes-Oxley Act in 2002, encouraging companies to self-report misconducts:

> FCPA settlements accelerated when U.S. authorities received even more powerful means of prosecuting cases in 2002 with the passage of the Sarbanes-Oxley Act, which was designed to prevent corporate fraud (as experienced in the Enron and WorldCom scandals). Although it was not aimed specifically at increasing anti-bribery enforcement, it provided prosecutors with yet more tools to investigate FCPA violations and arguably led to the explosion of cases in the late 2000s (Brewster, 2017, p.1618).

Corporate settlements are, by no doubt, one of the pillars of the US foreign bribery enforcement strategy, as most of the cases are solved through the use of DPAs and NPAs (Yockey, 2012). More than once, both the DOJ and SEC have recognized the policy of offering deals as a best practice under the FCPA (Alexander and Lee, 2018). In order to exemplify the effectiveness of settlements, in 2017 approximately 94% percent of all corporate enforcement actions were resolved through DPAs and NPAs, according to the data provided in the Stanford Law School website (2018). Moreover, from 2000 to 2018, DPAs and NPAs were responsible for recovering roughly US$ 60 billion to US public funds (Dunn & Crutcher, 2018).

The success of American agencies in enforcing the FCPA through the use of corporate settlements encouraged other countries to follow the same path. Argentina, Australia, Brazil, Chile, Italy, Israel, France, Netherlands, Norway, Mexico, Spain, Switzerland, and the United Kingdom (UK) are examples of countries that have recently introduced corporate settlements in their anti-foreign bribery legal framework (Lewis, 2018; and Ang, 2018). Of these countries, UK, Brazil and France deserve special attention.

In 2014 the UK amended its existing foreign bribery legislation by introducing the Deferred Prosecution Agreement (DPA) framework. As stated by Lewis (2018), the British DPA is similar to the American institute, although dissimilarities can be

noticed, such as the role of the judiciary in the settlement's negotiation. In the US, prosecutors have great discretion negotiating DPAs, with little involvement of the judiciary. In the UK, conversely, the negotiations conducted by the Serious Fraud Office (SFO) are systematically subjected to the courts' approval (Ang, 2018). Judicial approval is required to initiate negotiations, enter into a DPA, and modify its terms. (Lewis, 2018). To date, the UK enforcement authorities have settled four DPAs, totaling over £667 million (Ang, 2018). The highlight was the record-setting £497 million DPA with Rolls-Royce in 2017, January:

> Rolls-Royce, the UK engineering giant, made corrupt payments to local agents to secure contracts across seven countries, over three decades and in three of its business streams. In Indonesia and Thailand, it paid cash bribes and gave a luxury Rolls-Royce car to intermediaries, to secure contracts for the provision of aircraft engines to Garuda Indonesia and Thai Airways. To facilitate its business in India, Rolls-Royce used sham contracts and falsely recorded the bribes to local agents as legitimate consultancy fees…The case was by far the largest foreign bribery case in UK history, and the investigation was the largest ever carried out by the Serious Fraud Office (Cheung, 2018, p.12).

In Brazil, corporate settlements were established by Law No. 12.846, also known as the Clean Companies Act (CCA), which came into effect in 2014. Unlike the DPAs in the US and the UK, the Brazilian CCA does not allow for total remission of the legal entities' penalties under a corporate settlement (Mendelsohn, 2017). When a settlement is reached, the company may receive, among others, a reduction in fines (by up to two-thirds) and immunity from debarment. To date, of all the ongoing corporate foreign bribery cases, only one has been concluded, and in the form of a settlement. In 2016, Odebrecht S.A., a global construction conglomerate based in Brazil, agreed to pay a combined total penalty of approximately US$3.5 billion to settle charges with Brazil, the US and Switzerland, as a consequence for having paid millions of dollars in bribes to government officials around the world (Zagaris, 2017).

France adopted, in 2016, a new anticorruption legislation, also known as "Sapin II" (named after, Mr. Michel Sapin, former France's Finance and Economy Minister, who championed the bill). A key provision of the law is the prerogative of anticorruption enforcement agencies to negotiate settlements with legal entities, subject to the

court's homologation. An interesting feature of the French corporate settlement is that, although companies are required to implement several obligations, including paying fines and adopting compliance programs, they are not required to admit guilt (Miller & Chevalier, 2016). In 2017, the first settlement was announced by French authorities: the HSBC Private Bank Swiss agreed to pay €300 million in exchange for not facing charges, without admission of guilt. As per Davis (2017), the €300 million penalty is one of the highest amounts ever imposed by French criminal justice, being comprised of a €158 million fine and an amount of €142 million to be returned to tax authorities.

Corporate settlements, therefore, became a pivotal tool for countries to move forward with foreign bribery investigations and hold legal persons liable for corruption. The aforementioned non-extensive list of countries that have corporate settlement frameworks at their disposal can misleadingly suggest that the impact of settlements on the global antibribery enforcement is not significant. On the contrary. For several years the US was the only player in corporate foreign bribery enforcement (Brewster, 2017), and its success, as previously explained, is closely related to the intense use of DPAs and NPAs. Additionally, key players that now adhere to corporate foreign bribery legislations, such as UK, France and Brazil, rely on settlements to increase their enforcement results. In other words, the use of corporate settlements is highly representative and seems to be a pattern in the foreign bribery enforcement community.

Correlation between corporate settlements and international cooperation

As previously indicated, corporate settlements and international cooperation play a relevant role in helping countries to reveal transnational corporate bribery schemes. Analyzed separately, both institutes positively impact countries' enforcement

capabilities, opening concrete avenues for countries to access key evidence that otherwise they would not be able to obtain.

What happens, though, when both institutes interact with each other?

Assuming the country from where the legal person belongs (Country A) has a corporate settlement framework, it can either deal with a foreign corporate bribery case by cooperating with the country where the offense was committed (Country B) or settle with the company involved in the scheme. On the other side, Country B can benefit from cooperating with Country A, and theoretically is in a better position to gather evidence about the wrongdoing, as the offense was committed in its territory. In this scenario three kinds of relations between countries can unfold.

In the first scene, Country A could decline to settle with the company and both countries could cooperate to move forward with the investigations and file charges against wrongdoers. In the second scene, Countries A and B could cooperate and, afterwards, Country A could decide to settle with the company, possibly extending a pre-determined amount of the monetary repercussions of the settlement to Country B. In both situations, international cooperation was not limited, as it could provide benefits to both countries and did not prevent Country A from using corporate settlements.

The third scene, however, is more complex, and will be deeply studied and analyzed throughout this dissertation. Country A could first decide to settle with the company and later be asked to share with country B the information obtained under the settlement. In this situation, should country A cooperate with B? In other words, what is the impact of corporate settlements on the incentives for international cooperation in multijurisdictional bribery cases?

Before proceeding, it is relevant to explain that there is a difference between the information collected by enforcement authorities under the settlements (for instance, spreadsheets, e-mails, bank account information, detailed testimonies of companies' representatives, investigators' work papers) and the official terms of the settlements (official document with both parties' signatures) that, in some jurisdictions, are made available to the public. When published, the official terms of the settlements expose the general aspects of the corrupt offense, avoiding entering in details about the involvement of natural persons and the *modus operandi* of the scheme, not to mention the lack of documental support. For the purpose of this dissertation, the information that countries are asked to share is the non-published one, in the hands of the public authorities in charge of negotiating and signing the corporate settlements.

Methodology

Game theory as a tool for predicting strategy

Under normal circumstances, international cooperation in the anticorruption field tends to be mutually desirable, as typically none of the countries are privy to the entire picture of the corruption scheme. Joining forces is normally beneficial to all countries, as they raise their chances of revealing the scheme and, consequently, become more likely to punish wrongdoers. Stated differently, cooperation among countries in anticorruption matters is commonly a strategic behavior for all players.

According to Baird, Gertner and Picker (1998, p.1), strategic behavior arises when two or more players interact and each one bases their decision on what they expect others to do. As stated by Posner and Sykes (2013), the same idea can be applied to the international arena, where states mutually interact and base their decisions (whether or not to cooperate, for instance) on what they expect other states to do. Simply stated, countries have incentives to cooperate if they feel cooperation has the potential to bring them more benefits than costs:

> Trivially, agreement can arise only if some agreement lies in what economists term the core of the bargain—each state that becomes party to an agreement must perceive itself better off than by refusing to participate (or by breaking off with others into a smaller numbers agreement in the multilateral case). We also sometimes refer to this concept as the state's participation constraint (Posner and Sykes, 2013, pp.20-21).

As briefly discussed in the previous chapter, corporate settlements seem to alter what Posner and Sykes (2013) call the core of the bargain, posing some obstacles to international cooperation, as the benefits of cooperation become less obvious for the country that decided to settle with the company involved in the scheme. The reasons for that are twofold.

First, when corporate settlements are reached, countries significantly increase their knowledge about the corruption scheme (because in theory companies disclose most of the relevant information about the case) and tend to consider that the information

to be provided by the other country is less valuable than the information that they already have. In other words, the country that reached a corporate settlement tends to perceive that incentives for international cooperation are unbalanced. This is so because, taking into consideration only that specific case, the country perceives that it is giving more than it is receiving.

Secondly, corporate settlements are basically a path for companies to self-report in exchange for a reduction in penalties and for a fast resolution for the case. As a consequence, the company trusts that enforcement authorities who signed the settlement would not allow third parties (outside the settlement) to use the information provided to punish the company yet again for the same wrongdoing. In the absence of such commitment, the incentives for the companies to cooperate with enforcement agencies would be lower, as the uncertainty created by self-reporting would exceed the benefits perceived in collaborating. Moreover, if the information is even once unconditionally disclosed to third parties, future corporate settlements would be directly impacted, considering that companies would not rely anymore on enforcement agencies to close deals. Therefore, the credibility of the entire institute of corporate settlements could be held under suspicion, as the trust needed to proceed with negotiations would by be seriously affected.

Thus, it is worth pointing out that cooperation can still benefit the country that closed the deal, either in the short or the long-run. In the short-run, the country could obtain additional information to go after other wrongdoers (frequently bribery schemes involve multiple natural and legal persons) and could even use the information provided to ratify the terms of the corporate settlement (the company could have omitted some relevant information, for instance, to protect certain senior managers or employees). In the long-term, keeping a trustworthy relationship with enforcement

agencies from a foreign country could help solve future transnational corporate bribery cases, especially if both countries are close business partners.

Therefore, although an impact of corporate settlements in international cooperation can be noticed, neither its extent nor its ultimate repercussion on countries' decision to cooperate is clear. As a consequence, the incentives that countries have, to make this collective decision, must be deeply investigated in order to indicate when international cooperation is potentially valuable (Posner and Sykes, 2013).

One feasible way to achieve this ambitious goal is to develop a theoretical model that captures the essential features of the aforementioned decision-making process, in order to predict the moves that rational players would take under certain circumstances. To this end, insights from game theory could be extremely useful; the relationship between countries would be portrayed as games, and the solution could be indicated beforehand by analyzing the strategies available to all players.

As stated by Baird, Gertner and Picker (1998), the result of a given game can be anticipated by deeply understanding the goals and strategies available for players and how rational parties are likely to make decisions. Solving a game, therefore, is the process of identifying in advance which strategies players are propense to adopt.

The shortcomings and challenges of using game theory to predict final decisions made by countries, however, must be acknowledged.

To begin with, game theory modeling is a simplification of reality. In order to provide a clear picture about the interaction under investigation, the games extract relevant elements from reality and eliminate several details that are deemed not relevant to the problem:

> Game theory, like all economic modeling, works by simplifying a given social interaction and stepping back from the many details that are irrelevant to the problem at hand. The test of a model is whether it can hone our intuition by illuminating the basic forces that are at work but not plainly visible when we look at an actual case in all its details. The spirit of the enterprise is to write down the game with the fewest elements that capture the essence of the problem. The use

of the world game is appropriate because it can reduce the basic elements of complicated social and economic interactions to forms that resemble parlor games (Baird, Gertner and Picker, 1998, p.7).

Two potential challenges arise from this simplification strategy. The first one concerns the aptitude of the modeling to actually capture the essence of the interaction. If the modeling is truly capable of outlining the main aspects of the interaction, it can be advocated that it properly explains the reality and, consequently, that the conclusions extracted from this modeling are reliable. Conversely, if important elements of the interaction are not considered, the modeling is not a proper representation of reality, providing nothing but misleading solutions. The second challenge regards the inherent nature of models of any kind. Models are conceived based on assumptions that need to be disclosed and explained to the reader. The decision to use models depends upon assumptions; they are justifiable in that they allow the examination of complex and dynamic situations. Problems can come to light when the assumptions are not properly disclosed, as conclusions that would only be possible under some circumstances could be taken as universal truths. Hence, in order to avoid these sorts of problems, the elements and assumptions of the game must be carefully exposed when the details of the economic modeling are explained later in this dissertation.

An additional challenge of using game theory is that the modeler frequently fails to understand the context in which a particular set of interactions takes place, choosing a small part of the game instead of the larger one that could have captured the interaction much better. As a consequence, it is easy to misidentify the game being played. According to Baird, Gertner and Picker (1998, p. 189), very often, the small, free-standing game is considered as the game being played, when actually the small game is embedded in a much larger game, in which results would be substantially different. This indicates that one needs to be careful when choosing a simple game to explain a given decision-making process. For example, it is necessary to make sure that game is not embedded in a larger decision-making problem. In other words,

before moving forward, one must try to isolate the game from the broader context, and analyze if, doing so, the game is still capable of capturing the dynamics and features of the interactions among players. If the answer is no, the game is not a proper representation of the collective action problem.

Moreover, understanding the information available for players to make decisions is pivotal to construct the game. Although certain types of games allow different models to be used, others require a specific one, otherwise the results will not properly reflect reality. According to Baird, Gertner and Picker (1998), games can be framed by either using normal and extensive form game models. If players have to decide without knowing what the others are doing, then the game is better portrayed in a model called *normal form game*. The authors (1998, p.6) use the example of an accident involving a motorist and a pedestrian to illustrate such a situation. As they explain, although the likelihood of an accident is determined by their joint amount of care, each one of them must decide how much care to exercise without knowing how careful the other is. Conversely, when the sequence of the actions matters and the players can decide what to do knowing the other's moves, the *extensive form game* is more advisable. As stated by Baird, Gertner and Picker (1998, p.50):

> Because of its emphasis on actions, the sequence in which those actions are taken, and the information available to the players at each move, the extensive game form is often the appropriate way to model interactions between parties that take place over time.

One last consideration about game theory is that the adequate selection of the model does not assure that the expected results will materialize. In the game, players are expected to act rationally, adapting their behavior to the anticipated preferences of others (Paulo, 2014). In reality, though, players can either make poor decisions or act not rationally. Simply stated, even though all indicators may point to a certain direction, the result of the game may not be the one actually observed. This is so because people are not always necessary as rational as we would like to believe. As stated by Posner and Sykes (2013, p.12), the assumption that individuals invariably

act in their rational self-interest is obviously a simplification, taking into consideration the complexity of human behavior.

The aforementioned limitations and challenges, however, do not lessen the merits of game theory in explaining players' interactions. Designed to include important aspects of the interaction and exclude unimportant ones, games can indeed provide powerful insights to understand strategic behavior, predicting what rational players would do in a given situation. According to Hirsch (2009, p.503), game theoretical models provide a useful tool for analyzing cooperation. By the same token, Baird, Gertner and Picker (1998), and Posner and Sykes (2003) recommend that researchers more frequently take advantage of the tools of game theory to indicate and predict results.

Henceforth, this dissertation will focus on developing and analyzing games to examine the impact of corporate settlements on the incentives for international cooperation. The first stage, therefore, is to construct the game, indicating its elements, assumptions, and payoff structure (Hirsch, 2009, p.504). The following step is to meticulously analyze the games under consideration, determining their solution and formulating a theory that explains the incentives for international cooperation in different scenarios.

Structuring the game

Elements of the game

As previously indicated, the scope of this research is to study the incentives for countries to cooperate to solve a transnational corporate bribery scheme, considering that one of the countries had already settled an agreement with Company X, one of the key participants of the scheme. Solving a transnational corporate bribery scheme means revealing all the details about the scheme and gathering evidence to prosecute all those involved, from both private and public sides.

Although multiple countries can potentially have jurisdiction over the same corporate wrongdoing, this dissertation will focus on only two countries: the country from where the company belongs (hereinafter designated as Country A) and the country where the offense was committed (hereinafter named Country B). Country A and country B, therefore, are the only players in the game, no other country being involved.

In our game, Country A is a state with advanced foreign bribery laws, including a framework on the liability of legal persons that allows enforcement authorities to use corporate settlements as a tool to move forward with foreign bribery investigations. Furthermore, the country has ratified the OECD Convention on Combating Bribery and has been encouraged by the OECD Working Group on Bribery (responsible for monitoring the implementation of the Convention) to elucidate foreign corporate bribery cases.

Country B, in turn, is a state under development that relies on foreign investments to leverage its economy. As part of a development program, the country opened competitive biddings to build modern railroads and highways, attracting several foreign construction companies. Company X won one of the largest construction biddings.

Six-months after the public works started, an anonymous whistleblower reported to Country B's enforcement authorities that domestic public officials and politicians had been bribed by foreign companies to facilitate being awarded the construction contracts. Company X was one of the alleged bribe-givers. Based on the whistleblower's report, Country B conducted multiple investigations and seized documents and computers owned by several of the alleged wrongdoers. The consequences of the bribery scheme were tremendously harmful to the country, considering that public contracts were canceled and the public works, interrupted.

When details about the investigations conducted by Country B became open to the public (press reports), it immediately came to the attention of the enforcement authorities from Country A that one of its companies – Company X - was involved in a foreign bribery scheme. After initial inquiries, Company X and Country A decided to settle an agreement in order to timely resolve the case. As a consequence, the company admitted the offense and collaborated with the investigation procedures, providing key evidence about the *modus operandi* of the wrongdoing. The company paid fines and disgorgements in the amount of US$100 million dollars. In exchange, Country A's enforcement authorities dismissed the charge against the company.

After the corporate agreement was settled, Country B sent a formal request to Country A to obtain the information provided by Company X under the settlement. In exchange, Country B would share with A all the information thus far collected in domestic investigations.

To properly analyze the incentives for cooperation in the situation that we have briefly presented, some additional elements of the game must be disclosed.

In this game, players have initially two strategies available: to cooperate or not. As a consequence, they only have a binary choice; there is no option to partially cooperate. Players can either fully cooperate or not. Baird, Gertner and Picker (1998, p.8) use the term strategic space to define the options available in a given game. As one can see, in our game a player cooperates when it agrees to share with the others all the evidence it has accessed about the transnational bribery scheme. Conversely, a player refuses to cooperate when at least a part of the information is denied.

In our game, Country A has, in theory, all the information about the offense committed by Company X. The corporate settlement has put Country A in a comfortable position, as core features of the foreign bribery scheme already have been disclosed by the company. There is no guarantee, though, that all wrongdoers

– including intermediaries and company's managers and employees – in the scheme were identified. Besides, the bribery scheme involving Company X could be only a part of a larger one, considering there is already a suspicion that politicians from Country B were implicated. In this hypothetical situation, even other companies from Country A could be involved. As one can see, although Country A has already settled with Company X, new avenues for enforcement may open. Stated differently, depending on the facts, international cooperation can benefit Country A.

Country B, in contrast, can largely benefit from the information to be provided by Country A. Although Country B has opened multiple investigative proceedings against potential wrongdoers, it is extremely difficult to find clear-cut proof of corruption. The information held by Country A could provide a robust evidence framework for Country B to move forward with investigations and prosecutions. In other words, cooperation could help Country B to file complaints against multiple wrongdoers, minimizing the harmful consequences of the bribery scheme.

Based on the aforementioned arguments, two conclusions that affect the game's payoffs can be drawn. The first is that, although players do not know the exact content of the information that each one possesses, that fact that Country A has already settled with Company X suggests that Country A has more relevant information to offer than Country B has. The cooperation payoffs, therefore, are higher for Country B. The second is that, even though acknowledging that payoffs are not the same, cooperation can be, under certain conditions, beneficial to Country A. In other words, the information to be provided by Country B can indeed generate positive payoffs for Country A.

Another feature that impacts players' payoffs relates to the fact that collaborating with other countries produces side effects to the country that provides the information. When multiple countries are able to proceed with prosecutions against

the same wrongdoers, there is a chance of duplicative penalties, not to mention the potential implications on their ability to pay, as imposing additional penalties can negatively affect their capability to respect previous obligations. As stated by Holtmeier (2015, p.495), the more countries enter the anticorruption enforcement arena, the more likely it is that one single wrongdoing face years of parallel or successive enforcement actions; this can result in an unfair, unpredictable, and excessively punitive international system.

All the aforementioned aspects of the game, including the side effects of cooperation and the fact that Country A has more relevant information to offer, will be taken into consideration when the payoffs of the game are further defined.

Furthermore, this game aims at reflecting the real dynamic of a cooperation process: one player moves first and the other acts subsequently, bearing in mind the action previously taken by the player that started the process. If none of the players starts the process, the end result will surely be no cooperation. As previously explained, the model that systematically exposes the actions taken by players is called extensive form game. As per Turocy and Stengel (2001, p.7):

> The extensive form, also called a game tree, is more detailed than the strategic form of a game. It is a complete description of how the game is played over time. This includes the order in which players take actions, the information that players have at the time they must take those actions, and the times at which any uncertainty in the situation is resolved. A game in extensive form may be analyzed directly, or can be converted into an equivalent strategic form.

Another important feature of the proposed game is that different rounds will be played in sequence, with no determined end. Stated differently, both countries will play the cooperation game over and over again with no fixed final play (Posner and Sykes, 2013). Therefore, it is imperative to bear in mind that the payoffs of one round cannot be taken into account in an isolated manner; the forthcoming payoffs, that can be anticipated, also have implications on countries' decision whether or not to cooperate. Sequential games with no determined end are particularly representative in the antibribery field. No matter how strongly one fights corruption, there are always

those who will take any opportunity to breach the system and obtain otherwise unattainable private gains. As a consequence, there is no foreseeable end to the enforcement work that needs to be performed by countries. Cooperating with foreign jurisdictions in transnational bribery schemes, therefore, is a permanent game.

To add some complexity to the discussion, one variation of the game will allow players to establish certain restrictions on the use of the information by the other player. In such a case, players can agree to cooperate under certain conditions, and the player that established the conditions needs to trust that the other player will keep its commitment afterwards.

Finally, players cannot rely on third parties, such as international tribunals, to oblige the others to comply with commitments, as such tribunals do not exist. This is the major difference between international and domestic law, where it is common to assume that any player can rely on government to enforce contracts and rules:

> In the domestic legal system, third-party enforcers exist to compel the performance of legal obligations. If a party to a contract refuses to perform, for example, the other party may bring an action for damages or specific performance depending on the circumstances. If that party is successful, the state can seize the assets of the breaching party to satisfy a damages judgment or to issue an injunction requiring performance backed by a threat of imprisonment should the breaching party ignore the injunction… In contrast, international law must usually be "self-enforcing," meaning that its enforcement relies on the parties subject to international law rather than on third parties (Posner and Sykes, 2013, p.127).

This game, therefore, must be self-enforcing. If one player refuses to follow what was previously agreed upon, there is no supra entity capable of retaliating the player for that breach. In this context, cooperation can only prevail if players either find a self-solution to punish breaches or trust one another, perceiving cooperation as mutually beneficial.

Assumptions of the game

One important assumption that needs to be made is about how players make decisions: they are rational, consistently preferring outcomes with higher payoffs to those with lower payoffs. Put differently, players do whatever is possible to maximize

their gains, and make the best decision they can, given their expectations about what others will do (Baird, Gertner and Picker, 1998, p.11). As per Posner and Sykes (2013, p.14), similarly to individuals, countries can also act rationally:

> We have so far spoken of individuals, but rational-choice models can be applied to collective bodies as well. Corporations, for example, are groups of people but are so constructed that they frequently act approximately as though they were single agents. A manager is placed at the helm and given contractual incentives to cause the corporation to maximize profits. In this book, our main focus is the state, which is the primary agent in international law.

Besides acting rationally, it is assumed that each player has in its hands all the information regarding the functioning of the game. Hence, they are aware of all elements of the game pointed out in the previous section. No element of the game is hidden from the players.

Another important assumption of this game is that the decision whether to cooperate or not is exclusively made by countries' anticorruption enforcement authorities, neither being impacted by the countries' relationship in other fields nor by diplomatic and political matters. Enforcement authorities are free to make the best rational decision available to them, taking into consideration the positive or negative impacts of international cooperation on their capability to solve transnational bribery schemes. It does not matter, for instance, if solving a specific case goes against the interest of an important politician, or even against the interest of the country's president. Moreover, for the purpose of this game, political and diplomatic issues among countries do not affect enforcement authorities' rational judgement. Stated clearly, cooperating or not are options available for enforcement authorities, and following either path is their decision to make.

Additionally, it is assumed that enforcement authorities' decisions are based on what is better for their countries' anticorruption strategy, either in the short or the long-run, and not for their own personal interests. In the real world, depending on the situation, enforcement authorities could prefer to handle a case alone and egoistically ignore future impacts of current decisions, in order to be viewed as protagonists and

take all the credit for a specific result. This does not apply to our game, as enforcement authorities are assumed to act on behalf of their permanent agencies, pursuing strategies that maximize their countries' anticorruption enforcement results.

The basic structure of the game is now fully described. To give a clear picture of what has been explained so far, refer to following table which contains all the elements and assumptions of the game:

Elements	Assumptions
The game is played by two countries only (A and B).	Players are assumed to be rational.
By the time the game is played, Country A has already settled an agreement with Company X.	It is assumed that players are aware of all elements of the game.
There are initially two basic strategies available to players, either to cooperate or not.	The decision whether to cooperate is exclusively made by countries' anticorruption enforcement authorities.
Both players have access to information about the transnational bribery scheme. It is perceived, though, that Country A has more relevant information to offer.	The decision whether to cooperate is exclusively made by countries' anticorruption enforcement authorities, neither being impacted by the countries' relationship in other fields nor by diplomatic and political matters.

Cooperating with another country produces side effects to the country that provides the information.	Enforcement authorities' decisions are based on what is better for their countries' anticorruption strategy, not for their own personal interests.
Players move in sequence, aware of the action previously taken by the other.	
The game will be played in successive rounds, with no determined end.	
Players cannot rely on supra authorities to enforce what was agreed upon.	

Table 1 – Elements and assumptions of the game

In the following sections, the payoff structure of the game will be specified and the incentives for players to cooperate will be analyzed under two different scenarios. In the first, no restrictions will be imposed on players regarding the use of the information obtained. If countries cooperate, one player could freely use the information provided by the other, with no restriction to go after any wrongdoer. In the second scenario, Country B only receives the information from Country A if the latter promises to refrain from using the information collected under the settlement to prosecute Company X. The corporate settlement's information, however, could be used by Country B to prosecute any individual or legal person other than Company X.

The payoff structure

Before comparing both scenarios, the payoff structure must be established. As already previously explained, this game aims at representing, as best as possible, the reality of international cooperation, and will try to embrace all the relevant aspects of

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countries' interactions, taking into consideration, among other elements, that one of the countries – Country A – has already settled with Company X.

It is important to acknowledge that, to a certain extent, attributing values to countries' interactions is an arbitrary activity. Nonetheless, once a parameter is established, other measures are expected to follow the rationality of the game and its features. Stated differently, the ultimate goal of assigning weights to countries' interactions is to compare the different strategies that could be considered by each one of the players, and to elucidate the game identifying the best joint solution.

With that established, we can proceed by attributing values to countries' interactions within the two scenarios. A reminder: in the first scenario, there are no restrictions for countries to use the information provided. In the second, there are.

For the first scenario, we can assume Country B will gain **10 points** every time Country A shares information about the bribery scheme. As already explained, choosing 10 points as a parameter is arbitrary. The other measures, however, must be proportional to the established parameter and coherent as to the features of the game.

According to the proposed game, the information Country B has to offer to Country A is less valuable than the information Country A has to offer to Country B. As a consequence, Country A should receive fewer points every time Country B shares information with it. To that extent, **5 points** seems appropriate.

Moreover, every time countries share information, they put themselves in a position to potentially lose something, taking into consideration the previously explained inherent side effects of cooperation. As international cooperation can theoretically bring more benefits than disadvantages to countries, it seems plausible to withdraw **2 points** every time a Country shares information with another. Moreover, cooperating with Country B costs an extra **15 points** to Country A**,** as sharing the

information obtained under the settlement has multiple short and long-term side effects. As previously explained, not only the current corporate settlement with Company X will be harmed, but also the entire institute of corporate settlements could be held under suspicion.

At first glance, the second scenario resembles the first one. Similar to the first scenario, in the second one when Country B shares information with Country A, the latter gains **5 points.** Another common ground is what happens when one of the players shares information with another: it costs **2 points**.

Both scenarios, nonetheless, present two major differences. In the second one, Country B is theoretically prohibited from using the information provided by Country A to prosecute Company X. This impacts the value of the information received by Country B, as one of the main wrongdoers (the company that collaborated with Country A) cannot be touched. Considering that the above referred information is now less valuable to Country B, it seems reasonable to attribute **5 points** to it. Additionally, Country A does not automatically lose **15 points**, as Country B at this point promises not to use the information to punish the company once again.

The second distinction is also extremely relevant. Notwithstanding Country B's agreement not to use the information against Company X, there are no guarantees that Country B will keep its promise. As a matter of fact, once Country B receives the information, a new course of action unfolds, that is to either keep or break its promise. It is worth remembering there are no supra entities to enforce players' commitments; countries make their decisions exclusively based on the gains they perceive will be generated, either in the short or the long-term.

Hence, in our game, Country B can indeed break its commitment, and if this happens both players will be highly impacted. Country B will recover the **5 points** that were taken from it in the first place. Country A, in turn, will lose significantly, considering

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the short and long-term side effects of how Country B misuses the information of the settlement. It is possible to establish that in our game, under this hypothesis, Country A would lose **15 points**, similar to what would happen if there were no restrictions as to the use of the information. Conversely, if Country B keeps its commitment, both countries would neither gain nor lose.

The payoff structure of both scenarios of the game can be summarized as follows:

Game with no restrictions	Game with restrictions
If Country A shares information with B, it will cost A 17 points and B will gain 10 points.	If Country A shares information with B, it will cost A 2 points and B will gain 5 points.
If Country B shares information with A, it will cost B 2 points and A will gain 5 points.	If Country B shares information with A, it will cost B 2 points and A will gain 5 points.
	If Country B keeps its commitment, none of the players will be affected. Conversely, if Country B breaks its promise, Country B will gain 5 points and Country A will lose 15.

Table 2 – Game with no restrictions and Game with restriction

Findings

Game with no restrictions

The first scenario of the game to be analyzed is the one which Country B can unconditionally use the information provided by Country A to go after any of the wrongdoers, including Company X (hereinafter called "game with no restrictions").

As previously stated, Country B has formally requested that Country A share the information obtained through the corporate settlement. In exchange, Country B would share with Country A all the information thus far collected regarding the transnational bribery scheme. Hence, the expected sequence of the actions in this game would be for Country A to move first and then B. When representing the game, therefore, we are going to establish Country A as the first-mover. Nonetheless, it is relevant to say that the payoffs of the game would not change if, conversely, Country B were assigned to move first. In this hypothetical situation, Country A would proceed in sequence and be aware of Country B's action. Our decision to start the game with Country A is merely a didactic strategy, as one of the players needs to be the starter in the sequence of events that follow.

As explained, after one of the players moves, the other takes it into consideration in order to perform the next move. This situation is designated by scholars as an extensive form game with perfect information. As explained by Turocy and Stengel (2001, p.22), in an extensive game with perfect information, only one player moves at a time and all of them are aware of others' previous choices.

According to Baird, Gertner and Picker (1998), extensive form games can be either illustrated through inverted tree diagrams or bimatrixes. Inverted tree diagrams would be the natural choice for representing our game, considering this method was developed to better explain the course of actions within a sequential game. In certain

situations, though, it may be easier to capture the sequence of interactions as simultaneous decision-making problems and analyze them using bimatrixes.

In a bimatrix, each cell has the players' payoffs for any given combination of strategies. By convention, in a two-player game, the first payoff in the cell is the payoff of the row player, and the second belongs to the column player.

Inverted tree diagrams, in turn, highlight the choice available to a player in the moment that player can act. As Baird, Gertner and Picker (1998, pp.51-52) explain:

> By convention, the initial node is represented by a hollow circle, and subsequent nodes are shown as filled circles. The branches leading away from the node represent different actions available for that player. Each branch leads in turn to another node. If no branches lead away from that node, then no further actions can be taken should the game reached that point. At such a terminal node, there is a payoff for both players. Alternately, the new node may be another decision node, at which a different player or the same player must again choose an action. Branches leading away from this node once again identify the different actions that are available to a player.

Returning to our game, Country A needs to decide whether to cooperate or not, in a scenario where there is no restriction for Country B to use the information provided. On what grounds can Country A make this decision? What are the elements available to determine the expected result for this game?

Firs of all, it is worth remembering the consequences of players' actions, already demonstrated in the previous section:

- When Country A shares information with Country B, cooperation costs 17 points to Country A and Country B is benefited with 10 points;
- When Country B shares information with Country A, cooperation costs 2 points do Country B and Country A is benefited with 5 points.

Bearing this in mind, we will now try to anticipate the results of this game in order to understand countries' incentives to cooperate. As already mentioned, the nature of the game is to be played repeatedly, with no determined end. However, to get to that point, we first need to understand what would happen if countries had to play this game one single time.

To proceed with this analysis, we must determine the payoffs of the game. The payoffs are the numbers that reflect how beneficial an outcome is to a player. The absolute weight of numbers, however, is not relevant; what matters is their relative weight, that is, how numbers compare with each other. Comparing numbers allows us to indicate the most and less desirable outcomes. As clearly explained by Turocy and Stengel (2001, p.2), "a payoff is a number, also called utility, that reflects the desirability of an outcome to a player, for whatever reason".

In our game, the payoffs can be determined by sequentially adding the values attributed to the consequences of the players' actions, taking into account the multiple decisions that in theory could be taken. As a consequence, if both players do not cooperate, the payoffs would be zero. If Country A cooperates and Country B does not, the payoffs would be -17 for the former and 10 for the latter. If Country B cooperates and Country A does not, the payoffs would be 5 for the former and -2 for the latter. Finally, if both cooperate, the payoffs for countries A and B would be, respectively, -12 and 8.

The game and the payoffs can be illustrated by using a bimatrix, as follows:

	Country B	
	Cooperates	Does not cooperate
Cooperates	-12,8	-17,10
Does not cooperate	5,-2	0,0

Country A (row label)

Payoffs: A, B

Figure 2 – Bimatrix, Game with no restrictions

An alternative to predict countries' behavior and solve this game is identifying which strategies players are most likely to adopt. In other words, one can anticipate the most rational behavior that could be taken by players, considering what others are

also expected to do. As per Baird, Gertner and Picker (1998), one feasible way to anticipate the results of the games is by using solution concepts, which are general precepts about the decisions rational players are most likely to make, considering the characteristics of the game, the strategies available, and the goals of each player.

As one can see in the figure above, there is no obvious course of action for Country B, considering that it could be betteroff either by cooperating or not, depending on what Country A does. Conversely, when we focus on the options available for Country A, it is easy to predict the strategy that it is likely to choose. No matter what Country B does, Country A will be always in a better situation deciding not to cooperate. If Country A does not cooperate, depending on how Country B moves, the payoffs are 5 and 0, significantly higher than the payoffs observed if Country A had decided to cooperate, -12 and -17. Stated differently, it does not seem reasonable that a rational player would pick a strategy – in this case, cooperation - that would go blatantly against its own interests. Country A always does better by not cooperating.

According to Baird, Gertner and Picker (1998, p.11), when one strategy is always better than another, the former can be called *strictly dominant* whereas the latter, *strictly dominated.* The author explains:

> This brings us to our first solution concept: A player will choose a strictly dominant strategy whenever possible and will not choose any strategy that is strictly dominated by another. This is the most compelling precept of all game theory. Few would take issue with the idea that individuals are likely to choose a particular strategy when they can always do better in their own eyes by choosing that strategy than choosing any other.

Country A, therefore, is expected to follow its strictly dominant strategy, that is not cooperating. This expectation, in turn, affects Country B's rational choice, since once it is clear that Country A would decline cooperating, the best move to deal with that decision is not cooperating as well. As stated by Baird, Gertner and Picker (1998, p.12):

> This brings us to our second solution concept, that of iterated dominance: A player believes that other players will avoid strictly dominated strategies and acts on that assumption. Moreover, a

player believes that other players similarly think that the first player will not play strictly dominated strategies and that they act on this belief. A player also acts on the belief that others assume that the first player believe that others will not play strictly dominated strategies, and so forth ad infinitum.

The result of the game – based on the aforementioned solution concepts - is pretty clear: the most strategic behavior for both countries is to not cooperate. Stated differently, there are no incentives for cooperation in the game with no restrictions being played one single time.

To confirm this statement, we can once more analyze the situation using a tree inverted diagram, as one can see in the figure below:
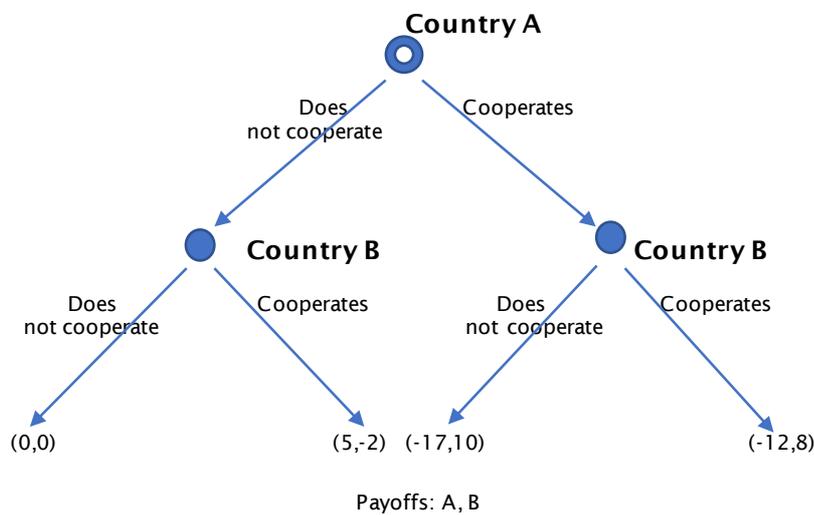

Country A

Does not cooperate   Cooperates

    Country B   **Country B**

Does not cooperate   Cooperates   Does not cooperate   Cooperates

(0,0)   (5,-2)   (-17,10)   (-12,8)

Payoffs: A, B

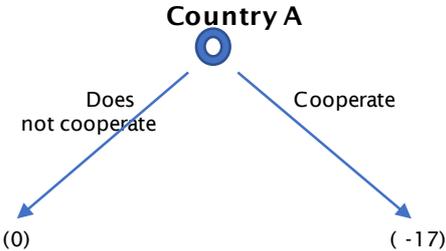*Figure 3 – Inverted diagram, Game with no restrictions*

We can again solve this game, this time using a technique called backwards inductions. The backwards induction approach is explained by Turocy and Stengel (2001, p.2):

> It first considers the moves that are the last in the game and determines the best move for the player in each case. Then, taking these as given future actions, it proceeds backwards in time, again determining the best move for the respective player, until the beginning of the game is reached.

In other words, we compare the possible actions to be taken by the last-mover and determine which action a rational player would have chosen. As a consequence, the best possible decision prevails and the others, non-rational, are excluded. The other

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player then decides what action to take based on the payoffs that still remain in the game.

In our game, the last actions are taken by Country B. If Country A does not cooperate, the most rational decision for Country B would be not to cooperate as well (0 is greater than -2). By the same token, If Country A cooperates, the most rational decision for B would be again non-cooperation (10 is greater than 8). Consequently, the game would be reduced as seen below:

Figure 4 – Inverted diagram, reduced form of Game with no restrictions

Considering the options now available, the most rational decision to be made by Country A is to not cooperate (0 is greater than -17). Therefore, the previous result extracted from the bimatrix is ratified: if the game with no restrictions is played a single time, there are no incentives for countries to cooperate.

To determine if this result would be the same in a repetitive sequence of games, though, we need to investigate a bit more. As previously explained, international cooperation in the antibribery field is indeed a reiterated game with no determined end. So, what would happen if the game with no restrictions was played repeatedly for an undetermined time? Would the incentives for cooperation change?

To answer this question, we will analyze once again the game using the tree inverted diagram (Figure 2) in order to identify if Country B could make a different decision

that, although less desirable in one single game, could provide better results in the long-term.

To this end, let us assume that Country B would decide against its own interest, by cooperating. Even if it so proceeded, the incentives for Country A to cooperate would not change, as the payoff of cooperating (-7) would still be lower than the payoff observed when not cooperating (zero). That is to say, there are no different actions that could be taken by Country B that could alter Country A incentives to cooperate in one single game. Consequently, no matter how many times this game is played the strategic behavior will always the same: to not cooperate.

This conclusion was foreseeable considering a singular feature of Country A's strategy that had been already touched upon in this dissertation: one path, not cooperating, strictly dominates the other. Country A is always worse off cooperating, either in the short or long-term. Country B cannot change this categorical result, even if it decides to increase Country A's payoffs by making poorer decisions.

Therefore, there are no incentives for cooperation in the scenario where Country B can use the information provided by Country A to punish Company X once again. The expected result of the game with no restrictions is non-cooperation, whether the game is played a single time or repeatedly.

Game with restrictions

A second scenario that henceforth will be analyzed is the one where Country A only shares the information obtained under the corporate settlement if Country B promises not to use said information against Company X. That is to say, Country B could use the information against any of the wrongdoers, except against Company X.

This scenario is more complex than the previous one, largely because there is no guarantee that Country B would keep its promise. In an ideal world, we could expect

that countries would respect what is commonly agreed upon, even if keeping a promise would represent lowering their payoffs. Contrarily, we assume that players in this game - resembling the real world - are rational and would never prefer to gain less if it is possible to gain more. Stated differently, players would always choose the best rational strategy available, even if they had committed themselves to act otherwise. The only parameter that countries have to guide decisions, therefore, is choosing between payoffs. Choosing higher payoffs, in this game, will consistently prevail.

Additionally, it is relevant to remember that in our game, similarly to what happens in international relations, the rules must be self-enforcing, as none of the players can rely on supra entities to oblige others to respect previous commitments.

With that being established, in a scenario where Country B promises not to use the information against Company X (hereinafter called "game with restrictions"), a new course of action opens up for Country B the moment it receives the information, either to keep or break its promise. This additional decision to be made by Country B amplifies the payoffs observed in the first scenario. Instead of simply deciding whether or not to cooperate, B also needs to choose whether or not to keep its promise. Consequently, depending on what Country B decides, four outcomes are possible: Country B can refuse to cooperate and break its promise; it can refuse to cooperate and keep its promise; it can cooperate and break its promise; and it can cooperate and keep its promise.

Similar to what was put forth in the game with no restrictions, we will first analyze the game being played one single time and then simulate the same game being played repeatedly, with no determined end.

Before proceeding with the analysis, it is important to once again remind us of the consequences of players' actions in the game with restrictions:

- When Country A shares information with B, cooperation costs 2 points to A and B is benefited with 5 points;

- When Country B shares information with A, cooperation costs 2 points to B and A is benefited with 5 points;

- If Country B keeps its promise, none of the players will be affected. Inversely, if Country B breaks its promise, B is benefited with 5 points and A loses 15.

With this in mind, we can now determine the payoffs of the game with restrictions being played one single time.

If Country A refuses to cooperate, the payoffs will be exactly the same as observed in the first scenario. If Country B decides to cooperate, the payoffs would be -2 for B and 5 for A, whereas if Country B also refuses to cooperate, both payoffs would be zero.

Conversely, if Country A decides to cooperate, the payoffs significantly differ from the first scenario. If Country B refuses to cooperate and breaks its promise, the payoffs will be -17 for A and 10 for B; if Country B refuses to cooperate and keeps its promise, - 2 for A and 5 for B; if Country B cooperates and breaks its promise, -12 for A and 8 for B; and finally, if Country B cooperates and keeps its promise, the payoff will be 3 for both of them.

The game with restrictions and its payoffs can be illustrated by using an inverted tree diagram, as follows:
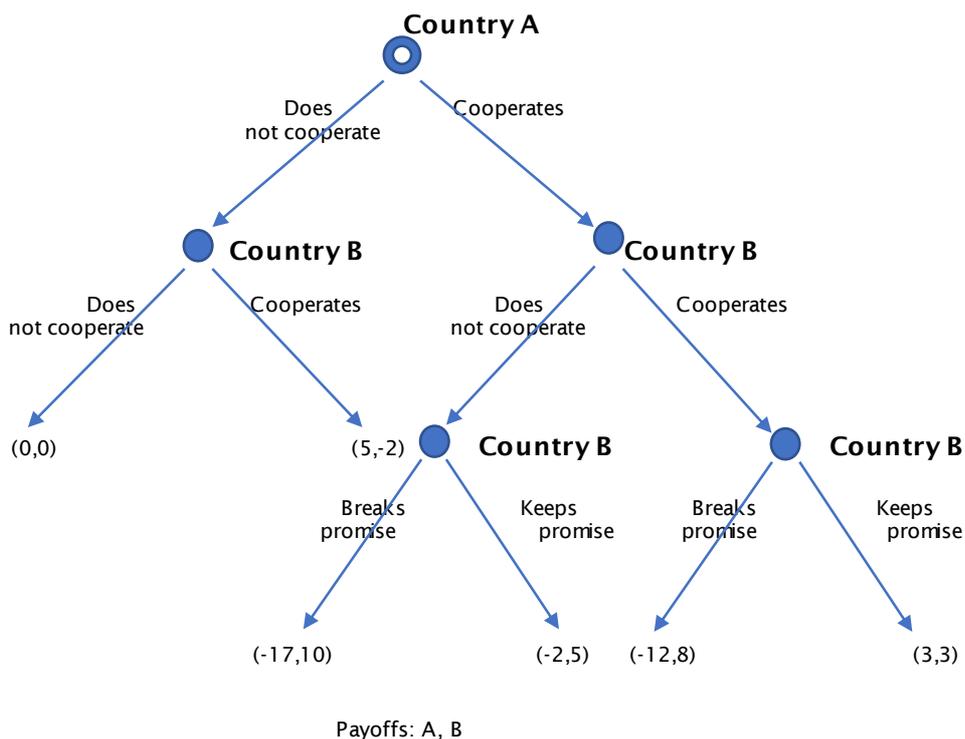
Figure 5 – Inverted diagram, Game with restrictions

As one can see, unlike the first scenario, cooperation can now be beneficial to Country A if Country B cooperates and keeps its promise. Nonetheless, nothing can be yet concluded regarding the result of the game or the incentives for cooperation. In other words, the fact that Country A can, under certain circumstances, benefit from cooperation does not necessarily mean that, in the game with restrictions, there are incentives for countries to cooperate.

This analysis must continue, therefore, in order to predict the countries' strategic behavior. One way to do this is using once again the backwards inductions technique, already explained in the previous session.

As shown in figure above, the last actions in the game with restrictions must be taken by Country B. If countries A and B decide to cooperate, the payoffs for B could be 8 or 3 depending on whether it breaks or keeps its promise. If Country A cooperates and B does not, the payoffs for B could be 10 or 5 depending on whether it breaks or

keeps its promise. As a consequence, in both cases, the most rational decision for Country B would be to break its promise (8 is greater than 3 and 10 is greater than 5). The game, therefore, would be reduced as seen below:
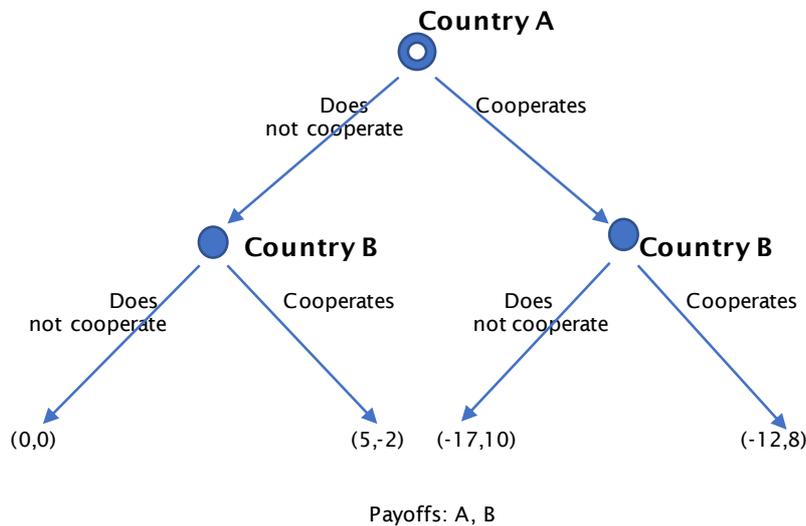
Country A

Does
not cooperate — Cooperates

Country B — **Country B**

Does
not cooperate — Cooperates — Does
not cooperate — Cooperates

(0,0) — (5,-2) — (-17,10) — (-12,8)

Payoffs: A, B

Figure 6 – Inverted diagram, first reduced form of Game with restriction

In this reduced game, the most rational decision to be made by Country B would be not to cooperate, regardless of Country A deciding to cooperate (10 is greater than 8) or not (0 is greater than -2). Consequently, the game could be once again downsized, as follows:
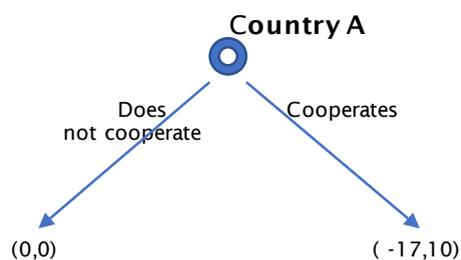
Country A

Does
not cooperate — Cooperates

(0,0) — (-17,10)

Figure 7 – Inverted diagram, second reduced form of Game with restrictions

Finally, as one can see above, Country A would have to choose between cooperating (payoff -17) or not (payoff 0). Once again, the rational choice would be not to cooperate, as the payoff for not cooperating is greater. Therefore, the result of the

game, that is to say, the strategic behavior for countries A and B, is not to cooperate. Surprisingly, compared to the first scenario, even though the game was played differently, the result is pretty much the same. Stated differently, the game with restrictions played one single time leads to non-cooperation, similar to the results observed in the game with no restrictions.

What would happen, though, if the game with restrictions were played repeatedly for an undetermined time? Would the incentives for cooperation change?

To answer this question, we must compare the different strategies that players could take in the long-run and once again determine the strategic behavior for the game. Cooperation will prevail if both players perceive they could be better off in the future. This means that cooperation will only be achieved if it could put both players in a better situation than they were in before.

For Country A, the rationale for cooperation is simple: cooperation is desirable if and only if Country B cumulatively decides to cooperate and keeps its promise (not to use the information against Company X). Exclusively under these circumstances cooperation is valuable for Country A, as the country will be benefited with 3 points for every round played. All other strategies will put Country A in a worse situation. Stated differently, Country A will only cooperate if it believes Country B will also cooperate and respect what was agreed upon.

Country A, of course, cannot make decisions based on naïve and non-enforceable promises. As a rational player, Country A will only cooperate if it perceives cooperation is the best rational choice for Country B as well. Nonetheless, as already demonstrated, cooperation is not the best strategy for Country B in a single game, considering it would win 10 points if it refuses to cooperate and breaks its promise, a much higher payoff than it would obtain if it had decided to cooperate and keep its commitment (3 points). The key question, therefore, is the following: can the benefits

of cooperating in the long-run compensate the losses of not choosing the best strategy available in a single game?

To this end, we will compare the aggregate payoffs that two different strategies could offer to Country B when the game with restrictions is played repeatedly.

The first strategy that Country B could take is to defect in the initial round (refuse to cooperate and break its promise) in order to maximize the gains that could be achieved in that round of the game. However, defecting in one round would bring consequences to Country B's long-term strategy. If additional rounds of the game were played, Country A would certainly decide not to cooperate, as the trust needed for keeping a cooperative relationship would certainly be broken. As stated by Posner and Sykes (2013), if one player defects, the other player will defect in the next round and so on and so forth. That is to say, "if one player defects in one round, the other can punish the first player by defecting rather than cooperating in the next round" (Posner and Sykes, 2013, p.29). As a consequence, although Country B could largely benefit with 10 points in the first round, the following payoffs would be permanently zero.

Conversely, Country B could try a different strategy, anticipating the long-term benefits of keeping Country A as a partner, and calculating the aggregate gains of repeatedly playing in accordance to Country A's interests. Although the gains would be lower in the first round, the following rounds would also provide benefits that, from a rational perspective, could surpass the gains observed in the previous strategy.

As one can see in Figure 5, in a single game, there is only one strategy that could simultaneously benefit countries A and B: when A cooperates and Country B cumulatively cooperates and keeps its promise (both players would gain 3 points). Considering that the nature of this game is to be played over and over, from the fourth round on the benefits accumulated by Country B (12 points at least) would overcome

the benefits of not cooperating and breaking its promise in the first round (10 points).

Hence, the most rational decision to be made by Country B, from a long-term perspective, is cooperating and keeping its promise. Country A, in turn, can anticipate Country B's strategic behavior and act accordingly, creating an environment where cooperation is perceived by both players as the best choice.

According to Axelrod (2000), in reiterated games, players can sustain cooperation under less favorable circumstances if no other option for cooperation is available. Players, as a consequence, tacitly agree to play what scholars call the grim strategy, which is the strategy that allows trusting other players in the beginning, but never again trusting a player when the trust is once abused (Axelrod, 2010, p.11).

Posner and Sykes (2013, p.29) explain how the threat of retaliation can deter players from breaking their promises and thus promote mutual cooperation:

> To see why, imagine that each player decides to play the grim strategy, which provides that a player cooperates in the first round and then cooperates in every later round unless the other player cheated in the immediately preceding round. If defection occurs, the first player defects in the next round and permanently thereafter. If player 2 plays this strategy, then player 1 faces the following payoffs if she also plays the grim strategy: 3, 3, 3, 3,… Compare now another possible strategy—cheat in every round. If player 1 plays this strategy when player 2 plays the grim strategy, she receives payoffs of 4, 2, 2, 2,…, because player 2 will retaliate by cheating in every round after the first… Sustained cooperation, with each player playing the grim strategy, turns out to be a noncooperative (Nash) equilibrium of the infinitely repeated game.

By the same token, McAdams (2015) and Horner and Olszewski (2009) agree that cooperative behavior can be sustained as an equilibrium in repeated settings. According to McAdams (2015, p.30), mutual cooperation is one of the possible outcomes when each player threatens to retaliate against defections with future defections.

All the above arguments indicate that if the game with restrictions is played repeatedly, incentives for cooperation will arise. Unlike all the other games thus far investigated, the reiterated game with restrictions offers a feasible strategy for both players to prosper from. Furthermore, considering there is no supra agency to enforce

the game, the permanent threat of retaliation works as a self-enforcing mechanism. As pointed out by Buskens and Weesie (2000), threatening with eternal punishment is one of the most effective ways of enforcing a game, as one player's loss is maximized when trust is abused even once.

In this context, the restriction on the use of the information influences the result of the game, driving countries' attention in a way to coordinate and channeling their behavior to this end (McAdams, 2015).

As stated by Posner and Sykes (2013), the analysis of two-player repeated games suggest that countries can cooperate successfully over time. Insights from game theory, therefore, indicate that helping each other could indeed represent the most rational path that countries could take to maximize their own gains and potentialize their enforcement actions, strengthening investigations and prosecutions related to the transnational corporate bribery scheme.

Thus, the mutual play of this grim strategy is the most rational solution for the repeated game with restrictions. By acknowledging the aforesaid limitations of game theory, we cannot guarantee cooperation; however, there are certainly incentives for its occurrence. As per Posner and Sykes (2013, p. 29):

> Game theory simply suggests that cooperation is possible as long as the game has no fixed ending (otherwise, defection would become a dominant strategy in the last period and cooperation would unravel from there) and that the players have low enough discount rates that the current gains from defection do not loom too large in relation to the long-term gains from cooperation.

Hence, a repeated game with restrictions generates minimal conditions for countries to cooperate. In this scenario, both players can maximize their own gains in the long-run and benefit from a sustainable and trustworthy relationship. Therefore, establishing restrictions seems to be a solution for potentializing the joint use of corporate settlements and international cooperation to solve transnational corporate bribery schemes.

Illustrating the theory: the Odebrecht case

From theory to practice

To illustrate the theory detailed in the previous chapter, we will hereinafter describe the sequence of actions related to a massive transnational corporate bribery scheme involving Odebrecht S.A. (Odebrecht), a global construction company based in Brazil. According to an official document released in 2016 by the United States Department of Justice (DOJ), for more than a decade Odebrecht paid millions of dollars in bribes to government officials and politicians to secure business in several countries in Latin America and Africa.

The Odebrecht case resembles the features of the game earlier studied: a company, based in one country, commits offenses in foreign countries, thus being legally liable in multiple jurisdictions. Similar to our hypothetical game, countries with more sophisticated antibribery laws made quicker advances in their enforcement efforts, encouraging other countries – highly affected by the corruption scheme - to follow the same path. This provoked a snow-ball effect in terms of global enforcement, challenging countries to jointly find a solution to dismantle the scheme and punish wrongdoers.

In the Odebrecht case, as in the hypothetical game, some countries effectively took advantage of the corporate settlements to facilitate the investigations and were able to apply dissuasive fines against the company and return the money diverted to public coffers. Conversely, most of the countries directly harmed by the bribery scheme – places where the offense was committed – were unable to collect sufficient information to move forward with the investigations about the bribery scheme and had no option other than to request that foreign jurisdictions share the information obtained under the settlements.

Despite the relevant role played by other jurisdictions, especially the US, in revealing and enforcing this transnational case, the narrative here will predominantly focus on the perspective of the countries directly affected by the bribery scheme, either from a national or a territorial criterion. Therefore, we will concentrate the analysis of this case on two different angles. The first is to understand the incentives for cooperation from the perspective of Brazil, the country where Odebrecht is headquartered and a relevant part of the offenses was committed. The second highlights the point of view of the countries where public officials and politicians were also bribed by Odebrecht, such as Argentina, Dominican Republic, Mozambique, Panama, and Peru.

The bribery scheme

General information

According to the DOJ (2016), Odebrecht engaged, from 2001 to 2016, in a bribery and bid-rigging transnational scheme of huge proportions, affecting multiple jurisdictions worldwide. Odebrecht paid approximately US$788 million to government officials, political parties, political party officials and political candidates to win more than a hundred contracts in several countries, including Angola, Argentina, Brazil, Colombia, Dominican Republic, Ecuador, Guatemala, Mexico, Mozambique, Panama, Peru, and Venezuela, with accumulated ill-gotten benefits of approximately US$3.336 billion. These bribes were directed by senior staff members of the company through a complex network of shell companies, off-book transactions, and off-shore bank accounts.

The official document (DOJ, 2016) shows that the foreign countries most affected by the bribery scheme were Brazil (more than US$439 million in corrupt payments), Venezuela (approximately US$98 million), Dominican Republic (more than US$92 million), Panama (more than US$59 million), Angola (more than US$50 million), and Argentina (more than US$35 million). In some of the countries, such as Angola,

Guatemala, and Peru, the payments were made directly to public officials and politicians in order to secure public works contracts. In others, such as Argentina, Ecuador, Dominican Republic, and Venezuela, bribes were paid through intermediaries responsible for interfacing with the government, with the understanding that the intermediary would pass the money, in part, to public authorities. The DOJ (2016, p.18) provides an example of the use of intermediaries to further the bribes:

> For example, in or about and between 2007 and 2008, ODEBRECHT experienced a number of problems related to a construction contract, and agreed with an intermediary to an Ecuadorian government official with control over public contracts to make corrupt payments to the government official to solve the problems. ODEBRECHT later delivered these payments in cash to the government official.

In Brazil, according to the DOJ (2016), the bribery scheme was extremely sophisticated, involving other construction companies, politicians and senior officials from Petrobras, the country's largest Stated-Owned Enterprise (SOE). With the allowance of senior officials (nominated by politicians or political parties), Petrobras' largest contracts were granted a pre-defined number of constructions companies, and fake competitive bidding processes were thus conducted to disguise the unlawful agreements. The collusion between Odebrecht and the other constructions companies to secure contracts in Petrobras is detailed by the DOJ (2016, p.12):

> As part of the scheme, ODEBRECHT participated in a series of meetings with other construction companies to evaluate and divide up future contracts for Petrobras projects among the companies (together, the "Cartel Companies"). Once it was determined which company or companies should be responsible for a certain project, as well as the price that Petrobras felt was appropriate for the particular project, it was agreed that only the predetermined company would present a qualifying bid, and that the other Cartel Companies would present proposals that would surpass the predetermined company's winning bid. In this manner, the Cartel Companies rotated the available Petrobras contracts between them.

In exchange for securing contracts, Odebrecht distributed payments to government officials, politicians, and political parties in all the aforementioned countries. For this purpose, the company used a clandestine structure especially created to support the bribery scheme, internally called "The Division of Structured Operations".

The Division of Structured Operations

To successfully operationalize the scheme, senior staff members of Odebrecht developed a secret financial structure within the company. The purpose of developing such a structure was twofold. Its first goal was to conceal the origin of the money that would be further disbursed as bribe payments to government officials and political parties. The second reason for having this disguised structure was to keep the information about the illicit activity restricted to certain perpetrators, who freely conducted the bribe payments protected from other departments' oversight and interference. As stated by the DOJ (2016), the Division of Structured Operations effectively functioned as a secret stand-alone department within Odebrecht, unconnected and independent from the company's formal and visible structure.

According to the DOJ (2016), until 2009, the head of the Division of Structured Operations of Odebrecht reported to the top managers of company, including to its Chief Officer Executive (CEO), to obtain authorization to approve bribe payments. In other words, at that time, all the bribes needed to be expressly endorsed by the highest officials of the company. After 2009, with the escalation of the bribery scheme worldwide, this traditional hierarchy became more fluid and dynamic, and the responsibility for approving payments was delegated to several company leaders in Brazil and other jurisdictions.

The budget of the Division of Structured Operations was totally independent from Odebrecht's official budget and its finances were never officially accounted for. To make this possible, the company took advantage of undeclared funds related to either regular transactions or overrated charges and fees imposed on commercial partners. As stated by the DOJ (2016, pp.9-10), the unrecorded funds were generated through a variety of methods, including but not limited to (i) regular overhead charges collected from subsidiaries; (ii) charges and fees that were presented as legitimate to

service providers and subcontractors but actually were not included in the official budget; (iii) undeclared success fees for the purchase of company assets; and (iv) self-insurance and self-guarantee transactions.

The official document (DOJ, 2016) shows that, in order to effectively manage and operate this shadow budget, members of the Division of Structured Operations benefited from two sophisticated computer systems, specifically created to facilitate the scheme.

The first one was called "MyWebDay", functioning as a second and unofficial payment system, and helped wrongdoers register and organize the bribes being paid. Through the MyWebDay system, wrongdoers could request and process bribe payments, as well as internally track all financial operations related to the shadow budget. That is to say, although hidden from other departments and employees, corrupt payments could be easily traced and monitored by all members of the Division of Structured Operations.

The second one was called the "Drousys" system, and its main purpose was to allow wrongdoers to secretly communicate with one another. By using Drousys, members of the Division of Structured Operations could easily and secretly interact with outside financial operators and other members of the company - including leaders responsible for approving the payments - using secure emails and instant messages. According to the DOJ (2016, p.9), to conceal their corrupt activities, codenames were used to disguise the identity of those operating the Drousys system. They used to refer to bribe recipients and intermediaries using additional codes and passwords as well.

The Division of Structured Operations, therefore, astonishingly worked for more than a decade in parallel to Odebrecht's official structure, using highly developed computer systems to keep its obscure records and conduct its illicit activities, and

silently helped the company accumulate undue profits and secure otherwise unattainable contracts with governments.

The layering process

Once generated, the unrecorded funds were forwarded by the Division of Structured Operations to a series of offshores that were not reported on Odebrecht's balance sheet as related entities (DOJ, 2016). By definition, an offshore is an entity located in foreign jurisdictions, outside the country where its stakeholders reside (Matusevich, 2018).

According to the DOJ (2016), these entities were controlled by the Division of Structured Operations. The beneficial owners of the offshores were closely connected to staff members of Odebrecht, receiving a periodical remuneration for opening and sometimes even operating these entities. Odebrecht could therefore use these offshores as a multiple-layered financial structure to conceal and disguise corrupt payments made to government officials and political parties. As per the DOJ (2016, p.10):

> Many of the transactions were layered through multiple levels of offshore entities and bank accounts throughout the world, often transferring the illicit funds through up to four levels of offshore bank accounts before reaching the final recipient. In this regard, members of the conspiracy sought to distance the origin of the funds from the final beneficiaries.

The funds were then transferred, under the Division of Structured Operations' direction, to the recipients of the bribe, either natural (intermediaries, government officials, politicians) or legal persons (political parties). According to the DOJ (2016), in order to disburse the money to bribe recipients, Odebrecht used two different strategies. The first one was to rely on financial operators – often the final beneficiaries of the offshore entities – to physically transport the money and deliver the payments in cash both inside and outside Brazil. The second one was to distribute the money through wire transfers, using small banks worldwide – also engaged in the scheme – to conceal the origin of the money.

The first strategy was riskier, but frequently necessary. Disbursements were made through financial operators – also called "doleiros"- acting on behalf of Odebrecht. These financial operators were responsible for delivering payments in cash, using packages or suitcases left at locations predetermined by the beneficiary of the funds (DOJ, 2016).

The second strategy was more sophisticated. Odebrecht used different banks with distinct features as a final layer before sending the money to bribe recipients. For this purpose, small banks based in countries with rigid laws regarding the protection of bank secrecy were chosen, hampering law enforcement authorities to access the accounts. To keep these banks under Odebrecht's control, remuneration fees were paid to the institutions and part of the illicit transactions were appropriated by bank executive cronies. As stated by the DOJ (2016, p.11):

> The Division of Structured Operations counted on the collusion of the favored banks and their executives to conduct the transfers between accounts, largely relying on the use of fictitious contracts to backstop the transactions and bypass compliance inquiries.

The corrupt activity became so profitable that, in or about 2010 or 2011, wrongdoers decided to purchase their own bank - the Antiguan branch of an Austrian bank – to facilitate the movement of illicit funds (DOJ, 2016). As a consequence, public officials and politicians from multiple countries opened bank accounts in this bank, directly receiving the corrupt transfers without the risk of leaving traces.

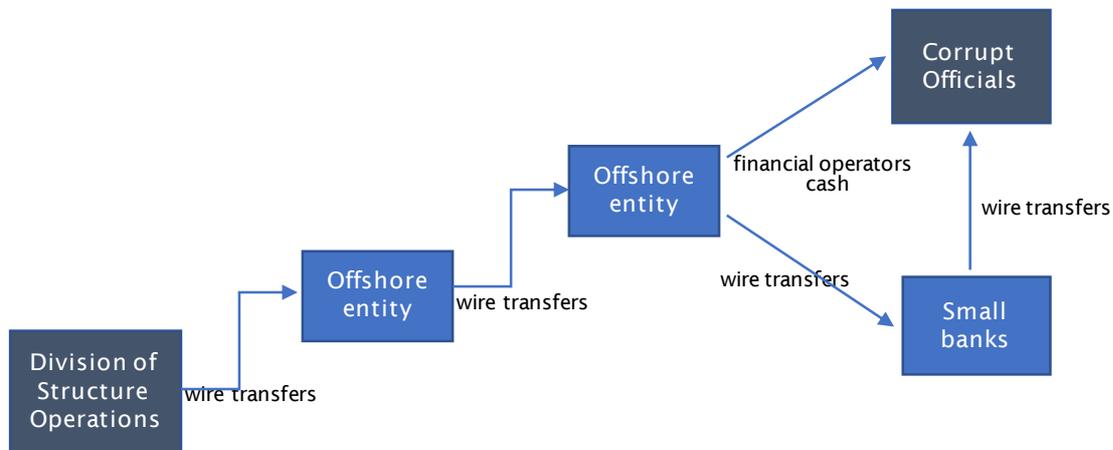The entire layering process to further the bribes, therefore, can be depicted as follows:

Figure 8 – The layering process in the Odebrecht case

The corporate settlement between Odebrecht and Brazilian enforcement authorities

In the end of 2016, Odebrecht reached a settlement with enforcement authorities from Brazil, the United States, and Switzerland, agreeing to pay US$2.6 billion in disgorgements and fines, in what is known as the biggest anticorruption corporate settlement in history (Reid, 2017). Brazil received the biggest share of this amount, more than 80 percent, and the US and Switzerland received approximately 10 percent each (DOJ, 2016).

Although the settlement with Odebrecht was reported worldwide as a multilateral settlement, in fact the countries worked together exclusively in coordinating and adjusting the penalties to be imposed, in order to avoid duplicated efforts and respect the company's ability to pay. Technically, the three countries conducted separate liability proceedings against Odebrecht under their own jurisdictions. Two of them resulted in settlements (Brazil and US), and one of them resulted in a criminal conviction (Switzerland) for not taking reasonable measures to prevent the offences

of bribing foreign public officials and money laundering (Swiss Federal Council, 2016). Even the terms of the corporate settlements in Brazil and US were different, respecting the internal rules applicable to each country (DOJ, 2016, Swiss Federal Council, 2016 and Federal Prosecution Service, 2016).

It is also relevant to mention that neither the US nor Switzerland were directly affected by the transnational bribery scheme perpetrated by Odebrecht. Nonetheless, both countries' foreign bribery laws allow, under certain circumstances, for prosecuting foreign companies for acts committed abroad. With regard to the US, the FCPA embraces the acts committed in preparation for the offense (meetings, sharing of e-mails), as well as the corrupt payments made through its financial system. Indeed, numerous illicit wire transfers were made through US bank accounts, not to mention that some of the meetings organized by wrongdoers took place in the US (DOJ, 2016). By the same token, the Swiss legislation was triggered by the use of Swiss bank accounts for illicit transactions and money laundering (Swiss Federal Council, 2016).

Conversely, Brazil was deeply impacted by Odebrecht's wrongdoings, as a significant part of the scheme occurred in its territory, not to mention the fact that the company is based in Brazil. As previously stated, this narrative will focus on Brazil and on the several countries from Latin America and Africa where the bribes took place. No doubt these countries were most harmed by the scheme. Henceforth, the analysis of the case will concentrate on these countries' efforts and perspectives.

In Brazil, a corporate settlement was signed in December 2016 by Odebrecht and the Federal Prosecution Service (FPS), the Brazilian agency responsible for bringing civil and criminal charges against natural and legal persons that harm the public interest. According to the official document related to the settlement (FPS, 2016), Odebrecht agreed to pay approximately US$2 billion dollars to Brazil, in exchange for the FPS's commitment to dismiss all charges against the company and refrain from imposing

additional ones. Of this amount, 97.5% was designed to compensate public entities for the pecuniary and non-pecuniary damages caused by the unlawful conduct, and 2.5% were in fines, in accordance with the Money Laundering Law.

As stated by the FPS (2016), the deal with Odebrecht covered criminal offenses and civil damages related to the company's wrongdoings, embracing all the offenses contained in domestic anticorruption and money laundering laws, with the exception of the administrative offenses established under the Clean Company Act. Under Brazilian law, settlements made in connection with the Clean Company Act can only be made by the Ministry of Transparency and Office of the Comptroller-General (MTO). Accordingly, a complementary settlement of US$ 675 million between the MTO and Odebrecht was made on July 9, 2018 (MTO, 2018).

According to the FPS (2016, p.1), the benefits of the settlement were multiple, such as the preservation of the company and the continuity of its activities, and the expansion of the investigations of corruption in Brazil and abroad. Additionally, the FPS (2016) acknowledged the company's total collaboration for disclosure, in good faith, of the information related to the scheme.

Another positive externality of the settlement is that Odebrecht committed itself to develop and implement a robust compliance program, in order to prevent similar offenses to occur in the future. The implementation of the compliance program is being monitored by Brazilian enforcement authorities, and the settlement can be rescinded if the company fails to comply with this obligation.

As per the FPS (2016), Odebrecht presented the detailed description of the wrongdoings, identifying the key participants of the scheme in several countries (including politicians, public officials, members, directors, and employees of other companies that were involved), and describing the specific roles of the wrongdoers. Moreover, the FPS collected thousands of pieces of evidence that strongly proved the

offenses committed by the company, including electronic systems, databases, e-mails, computers, cellphones, contracts, and spreadsheets.

As one can see, the evidence collected by the FPS is relevant not only for Brazil, but also for all countries where Odebrecht bribed public authorities to secure contracts, such as Argentina, Angola, Peru, and Dominican Republic. These countries can benefit from the information obtained under the settlement, using the evidence to move forward with investigations and prosecutions related to the transnational bribery case. In the next session we will analyze the international repercussions of the settlement, describing the sequence of events that followed its celebration.

Before proceeding, however, it is relevant to mention that in the corporate settlement Odebrecht and the FPS agreed upon some rules with regard to information sharing. First of all, the corporate settlement established a six-month period of confidentiality, in which the FPS was not allowed to disclose any information related to illicit activities conducted by Odebrecht in foreign jurisdictions (FPS, 2016, p.21). In other words, until June 2017, all the information, testimony, and evidence related to the offenses committed abroad was protected by a non-disclosure clause agreed upon with Odebrecht. After that deadline, according to the FPS (2016, p. 23), the settlement's information could be shared with foreign authorities if the requesting state restricts its use solely and exclusively in relation to investigations, prosecutions and criminal proceedings against third parties other than Odebrecht.

International cooperation in light of the Brazilian settlement

According to a report released by the FPS's International Cooperation Secretariat (2017), from December 2016 to June 2017, Brazil received 36 requests for mutual legal assistance related to the Odebrecht's case. Fourteen countries requested that Brazil share the information obtained under the corporate settlement. Among them, one can find most of the countries that intensely suffered the consequences of the

corruption scheme, including Argentina, Colombia, Ecuador, Dominican Republic, Mexico, Panama, Peru, and Venezuela. All of these countries were struggling to collect evidence to internally prosecute the wrongdoers involved in the Odebrecht's scheme, especially after the DOJ nominated the countries involved in the scheme and disclosed the approximate amount of bribes that Odebrecht paid in each of these countries (DOJ, 2016).

Within this period, Brazil's standard response to foreign countries' requests was to indicate the impossibility of sharing any information until the expiration of the confidentiality period of six months established in the settlement, as explained by the FPS in a clarification note released in 2017. The information was granted in only one case, to the Dominican Republic; this Caribbean country had also reached a settlement with Odebrecht, a situation that exceptionally allowed both countries to mutually share the information collected under both settlements. In all other cases, cooperation was denied by Brazil (FPS, 2017).

Meanwhile, preliminary investigations conducted by enforcement authorities in some of the aforementioned Latin America countries suggested involvement of high-profile politicians in the scheme, intensifying the political crisis in the region. The presidents of Peru and Colombia, as well as the vice-president of Ecuador, were among the politicians being accused of involvement in the Odebrecht case (EL PAIS, 2017, and O GLOBO, 2017).

After the confidentiality clause expired, in June 2016, the Brazilian authorities expressly stated they could cooperate if and only if the requesting state consented to make a formal commitment abdicating from using the settlement's information against Odebrecht (FPS, 2017).

Some of the countries immediately accepted the restrictions imposed by Brazil, and signed a document committing themselves to exclusively use the information for the

purposes formally indicated in the request, declining from using, under any circumstances the evidence provided to prosecute Odebrecht. Ecuador, Panama, Peru, and Mexico are examples of countries within this group (FPS, 2017 and EXAME, 2017).

The game with no restrictions, portrayed in the previous chapter, helps us understand Brazil's decision to only cooperate with foreign jurisdictions if they promise not to use the information against Odebrecht. If countries could freely use the information, as they do in the game with no restrictions, non-cooperation would be a strictly dominating strategy for Brazil. After all, regardless of what other countries decide, Brazil would be consistently worseoff cooperating. Conversely, the game with restrictions helps us understand why Brazil changed its position and agreed to cooperate when restrictions on the use of the information were imposed. When the game is played repeatedly, incentives for Brazilian authorities to cooperate appear. As a consequence, cooperation can flourish if foreign jurisdictions accept the conditions demanded by Brazil. The acceptance of Ecuador, Panama, Peru, and Mexico in following these conditions corroborates the theory proposed in the previous chapter, and shows that, under certain circumstances, cooperation can indeed be heightened.

Returning to the Odebrecht case, it is important to state that, unlike the aforementioned countries, other nations did not welcome the restrictions, either because they consider that it would be incompatible with their legal framework or because they believe that domestic investigations alone could bring better enforcement results. In this group, the situation of Argentina and Colombia deserves special attention.

Local enforcement authorities in Argentina, from the start, were against the restriction on the use of the information imposed by Brazil, claiming that such a limitation could not be allowed under their legal framework. Nevertheless, after more than one year

of intense negotiations with Brazilian authorities, Argentina revised its initial position, and a legal solution to allow cooperation, based on international treaties, was developed (FPS, 2018 and LA NACION, 2018). Even though Odebrecht was off-limits, Argentina used the information to move forward with prosecutions against multiple wrongdoers, such as the company's executives, local partners, and government officials. Furthermore, the information was very helpful to Argentinean enforcement authorities to deeply understand the *modus operandi* of the scheme, as well as the insidious connections between Odebrecht and the country's politicians and political parties (LA NACION, 2018 and Clarin, 2018).

Colombia, in contrast, kept its initial position of not accepting the conditions demanded by Brazil for the sharing of the settlement's information. According to the country's Prosecutor General, Nestor Martínez (La Prensa, 2018), Colombia is capable of investigating the case itself and prosecuting all wrongdoers, including Odebrecht. Thus far, the personal assets of three Brazilian Odebrecht's executives have been seized and forfeited by Colombian enforcement authorities, and several domestic government officials have gone to jail for receiving bribes, including one former politician (ex-senator) and the country's Vice Minister of Transports (G1, 2017 and La Prensa, 2018). Additionally, even though Odebrecht has not been yet prosecuted, its contracts were cancelled, and the company was temporarily suspended from participating in public tenders in the country (La Prensa, 2018).

Colombia's decision not to accept the conditions established by Brazil challenges the theory developed in the previous chapter; after all, cooperation was not achieved. Since the Odebrecht case is ongoing, Colombia may eventually change its position, like Argentina did. Nonetheless, the fact that Colombia was capable of keeping its position for so long suggests that cooperation is not a rule when the game with

restrictions is played, and indicates that other factors, not included in the game, may also influence rational decision-makers.

Lastly, the peaks and valleys of cooperation with Peru are also worth mentioning. Peru was one of the first countries that accepted the restrictions imposed by Brazil (La Republica, 2017). However, the cooperation was suspended by Brazil in July 2018, after Odebrecht´s representatives had filed a formal complaint against Peruvian enforcement authorities about the misuse of the settlement's information (RPP, 2018, La Republica, 2018). According to Odebrecht's representatives, Peruvian authorities had seized the company's assets and were compelling the company to pay a fine, disrespecting the non-prosecution clause agreed upon with Brazilian authorities (Reuters, 2018 and RPP, 2018). Brazil's decision to freeze cooperation worried Peruvian authorities, as key evidence about the scheme, indispensable to prosecute domestic government officials, was still forthcoming (RPP, 2018). In August 2018, Peru decided to withdraw the measures taken against Odebrecht, and the cooperation with Brazilian authorities was resumed as a consequence (El Comercio, 2018).

The cooperation between Brazil and Peru is an interesting example of how ephemeral promises in the international arena can be. Although the game with restrictions suggests that countries have low incentives to break their promises, this example shows that players can indeed abuse each other's trust. Despite Peru's unexpected change of course, Brazil's threat to retaliate against Peru proved to be an effective self-enforcing mechanism, corroborating the theoretical conclusion that when the game with restrictions is played repeatedly countries tend to cooperate.

The Odebrecht case and all the aforementioned examples involving Brazil, Argentina, Colombia, Ecuador, Panama, Peru, and Mexico, show that, although countries could decide otherwise, the door for cooperation is open when restrictions are imposed on the use of the corporate settlement's information. On the one hand, even with

restrictions, countries that receive the information can be benefitted. This is so because multiple wrongdoers, unlike Odebrecht, can still be targeted. On the other hand, the restrictions are indispensable for Brazil to cooperate, as the corporate settlement as an institute will therefore be preserved.

Conclusion

After having thoroughly analyzed the impact of corporate settlements on the incentives for international cooperation, we are now in a position to draw some conclusions.

First of all, if one country settles with a company involved in a transnational bribery scheme, the incentives for unconditionally sharing the information with others are extremely low. As shown in the game with no restrictions, non-cooperation is a strictly dominant strategy for the country that reached the settlement. Once it is clear that this particular country would decline to cooperate, the other countries' best move, as rational decision-makers, would be not cooperating as well. As a consequence, the theoretical model indicates that incentives for international cooperation are scant when no restrictions are imposed on the use of the corporate settlement's information. The Odebrecht case reinforces this conclusion, as Brazil firmly refused to share the information obtained under the corporate settlement with countries that did not accept the restrictions regarding its use against Odebrecht.

Second, and most importantly, incentives for cooperation arise when there are restrictions in the game and one of the countries promises not to use the information against the company that reached the corporate settlement. Although in a one-shot game the incentives for this country to break its promise are high, when the game is played repeatedly the incentives for doing so are significantly reduced, as defections in one round can be punished by the other country by defecting rather than cooperating in the next one. To put it differently, in the long-run, rational players tend to perceive cooperation as the best strategy available. The theoretical model, therefore, evidences that international cooperation is achievable when restrictions are imposed on the use of the settlement's information. The Odebrecht case illustrates the theory by demonstrating that cooperation between Brazil and some of the

countries that accepted the limitations on the use of the information was indeed attainable, as observed in the examples of Ecuador, Mexico, Panama, and Peru.

Third, although the aforementioned conclusion is supported by a solid framework, there is no guarantee that international cooperation will be observed in practice. The reasons for that are twofold. The first is that the theoretical model itself has its own limitations, as does any attempt to simplify complex decisions. The second is that the theory is based on strict assumptions regarding how players make decisions. If one of these assumptions – that all decisions made by players are rational, for example - is incorrect in a given situation, then the conclusion reached is also incorrect. In the Odebrecht case, the position taken by Colombia is a clear example that imposing restrictions on the use of the corporate settlement's information is not a sufficient condition to create a perfect environment for international cooperation.

Finally, this thesis suggests that Game Theory can play an important role in helping enforcement authorities and practitioners to better understand and deal with intricate dilemmas related to transnational bribery schemes. Although it may present several challenges, in the long-run Game Theory is an effective tool to use in facing corruption. In the Odebrecht case specifically, it was firmly established that the theoretical model presented in this study helped understand the incentives for countries to cooperate or not. Additionally, these strategies can be used by countries in future cases to potentialize the positive effects of corporate settlements and international cooperation. Game Theory, therefore, opens an avenue for looking at multi-jurisdictional problems from a different angle, thus offering a useful framework for countries to move forward with investigations and prosecutions.

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