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Economic Analysis of Damages under the Foreign Corrupt Practices Act

By **Dr. Patrick Conroy**
and **Dr. Graeme Hunter**

Introduction

The Foreign Corrupt Practices Act (FCPA) "was enacted for the purpose of making it unlawful … to make payments to foreign government officials to assist in obtaining or retaining business."[1] As it should be, bribery is illegal. But unlike the situation for other illegal acts, to date there has been little consideration of the true benefit of the bribe. Economic analysis sheds light on how to evaluate the effect of a bribe and what the appropriate fines, if any, should be.

Fines (including disgorgement) are based on the "benefit received" from a bribe. With fines in the hundreds of millions of dollars and increasing enforcement,[2] it is necessary to clearly understand what effect a bribe had on profits and to carefully establish what the but-for profits would have been without the bribe. While a bribe may have led to very high gains, the but-for profits could have been high (and the gain from the bribe low) if the bribe would have little effect on the probability of winning the work or if alternative projects were similarly profitable. Outside of government enforcement, claims by competitors and customers are similarly important to carefully analyze and can often be lower than disgorgement amounts. The lack of follow-on securities litigation stemming from FCPA violations may provide some valuable clues as to the true value of bribery.

Analysis to Determine the Value of the "Benefit Received" for Disgorgement Penalties

Two concepts are important in thinking about the benefit received from a bribe. One is what effect the bribe has in securing the project. The smaller this effect, the less of a project's profits can be ascribed to the bribe.[3] The other relevant concept is what are the true economic profits of a project, including opportunity cost (defined as the expected profits

for the next-best alternative). The full economic cost of undertaking project A includes the incremental profit that would be earned on another project B that would be performed instead of A. The gain from project A is the profit from A minus the opportunity cost of A. If the next best alternative is doing nothing, i.e. there is no project B, then there is no opportunity cost and the gain from project A is simply the profits of project A.

If a company pays a bribe to secure a project, what is the gain to the company from the bribe? While one answer might be the profits earned by the project, we outline below a number of considerations based on the incremental probability of winning generated by the bribe and the opportunity cost of the project won that will lead to a more realistic, and sometimes lower, calculation of the true economic profits from the bribe.

The More Likely the Project, the Lower the Gain from a Bribe

The fact that a bribe is offered or paid presumably implies that winning the project was not certain without the bribe and that the bribe is expected to increase the probability of winning. One component of the value of a bribe can be thought of as the relative increase in the probability of winning the project. For example, if there would be a 40-percent chance of winning the project without a bribe and a 50-percent chance of winning with the bribe, then the bribe accounts for 20 percent [(50-40)/50 = 20 percent] of the post-bribe probability of winning. To see why the relative increase in probability is important, consider a case where a company has no chance of winning the project without a bribe. If a bribe increases the chance of winning to 10 percent, this is only a 10-percentage-point increase in the probability of winning, but if the project is won, the bribe is responsible for all of the project profits. To figure this out in practice, it would be necessary to estimate both the probability of winning with the bribe and the probability of winning without the bribe. This might be feasible with win/loss data from the company on projects including information about when bribes were paid or offered.

The probabilities may be complicated by potential coordinated bidding patterns. If competitors also bribe, that might be expected to increase the incremental gain from a bribe. For example, if you are the only company not offering a bribe, your probability of winning may be close to zero, implying a relatively high incremental value from offering a bribe. On the other hand, if you are the only company to offer a bribe, you are likely starting from a higher base probability, implying a lower incremental effect.[4] Thus, "competitive" bribing may increase the relative gain from any bribe.

Finally, as discussed below, if the bribe is one that maintains a relationship but is not linked directly to a specific project, then calculating opportunity cost and the benefits of a bribe become more complex.

Company Capacity Constraints May Reduce the Gain from a Bribe

If a company has capacity constraints, a successful bid (regardless of whether a bribe is paid) for a project in one location may prevent the company from successfully bidding on a project in a second location.[5] In a case like this, the expected profits from the opportunity to bid in the second location serve as the opportunity cost of the project in the first location. If a bribe in the first location increases the probability of winning that bid, it will also reduce the expected profits on the project in the second location. This reduction in expected profits for the second location would have to be subtracted from the profits for the first location to calculate the true economic profit of the project allegedly won with the use of a bribe.

For example, suppose that a company is at full output. If it pays a bribe to win a project (Project A), it will earn profits from that project. If it does not pay a bribe and loses the project, it might perform another project (Project B) in another location, potentially remaining at full capacity. The gain from the bribe would be the increase in expected profits of project A (i.e., with versus without the bribe) minus the expected profits (in the absence of the bribe for Project A) of Project B. In calculating the profits of either project for this purpose, all incremental costs would be included. For example, if equipment is already at location A, any costs to move it to location B would have to be removed from the profits of project B, and vice versa.

Can a Bribe Be Larger Than the Gain from the Bribe: the Principal-Agent Problem

While a company would presumably not want to pay a bribe that renders less incremental profit than the amount of the bribe, such calculations may not be obvious and may be ignored by company employees affected by other incentives. For example, an employee who gets a commission for landing a project may misrepresent the probability of winning a project to get approval to pay a bribe. Because the bribe may cost the employee nothing, the employee does not have the same incentives as the company. If the employee receives a commission based on the size of Project A but would not get a commission for Project B, he may have an incentive to pay a bribe to secure Project A that is larger than the incremental value of Project A.

One aspect that could complicate matters may be the role of maintaining a relationship. For example, if a project won with a bribe generates little incremental profit for the company, it is possible that the bribe and the project performance maintains a relationship with the customer that increases the probability of winning future and more profitable projects. This longer-term "reputational effect" of a bribe would necessitate further analysis to estimate the gain from a bribe.

Examples of "Benefit Received" for Disgorgement Penalties

Based on the propositions outlined above, we walk through several examples where the profits earned on a project are apportioned to the bribe and the company based on probabilities and opportunity cost.

Alleged Bribery by a Drill Rig Operator in 2007

Some of the countries with the largest reserves of oil are also among those considered most corrupt.[6] In places like these, bribery may be more likely, possibly casting suspicion on the companies operating there. Indeed, several drilling rig operators have settled charges with the DOJ and SEC related to FCPA claims in Nigeria and Venezuela.[7]

Drilling rigs provide an interesting setting for a hypothetical analysis of disgorgement fines due to the tight supply of rigs in 2007. As described above, when firms are capacity-constrained, the gain from a bribe may be greatly reduced if alternative options to the project are profitable and readily available. In 2007, there was a general shortage of drilling rigs, which led to projects being delayed.[8] Such an imbalance in supply and demand would imply two things. First, the bribe is likely to have less of an incremental impact on the probability of winning (because competitors are capacity-constrained and are less likely to be bidding). Second, even if the project would have been lost without the bribe, the incremental gain from the bribe would be constrained by the profits that could have been earned on other projects (because the bribing company is capacity-constrained).

In a period of high demand and capacity constraints, the alternative to awarding a project may be a delay in project implementation. With oil and gas exploration, this can lead to significant lost revenues to the government. In such cases, one would expect the likelihood of the award to be high (regardless of the bid) and the incremental effect of a bribe to be small. That would imply that only a small portion of the incremental profits of the project could be claimed in a disgorgement fine. For example, if the supplier is the most qualified, and would likely win the project in any case, the probability of winning the project even without the bribe may be 60 percent (what we will refer to as the "no-bribe probability"). This could be the case if other bidders have less appropriate equipment or cannot guarantee performance due to the capacity constraints or other reasons. Given the somewhat uncertain prospects, the company might be willing to increase its chances to 70 percent with a bribe (the "bribe probability"). In a situation like this, the bribe is responsible for only 10/70 or about 14 percent of the incremental project profits.

One method to estimate the no-bribe probability could be to use win-loss data from other bidding opportunities not implicated in any corruption setting. This establishes an upper bound on the incremental probability of winning from the bribe.[9] A similar method could be used to estimate the bribe probability if there have been instances of bribes paid on lost projects.

Possibly more important, with tight supply, a rig operator could quickly replace a lost project with another given that exploration projects were being delayed due to rig shortages. From the perspective of the rig operator, the incremental profits of the project would then be the difference in profits from performing the project in one location compared to another. If rental rates for the rig are similar for alternative projects, then there may be little difference in profit. One complicating factor would be the logistics of moving the rig from one location to another. If the alternative project was significantly further than the first project, then the incremental cost of moving the rig would lower the profits of the alternative project and increase the gain from the first project.

For a stylized example, if a rig operator can charge $500,000 per day for a project in country A and the rig will be in operation for 60 days at this location if the project is won, then the project will generate $30 million in revenues. If the project were not performed, an alternative project in country B could be performed. If the length of the project were the same, the rental rate were $450,000 per day, and all costs were the same, then the incremental profits from the project in country A would be $50,000 per day for 60 days, or $3 million, i.e. only 10 percent of the "value" of the project in country A. However, not all of this would be due to the bribe given the small incremental increase in the probability of winning due to the bribe. As discussed above, we would only assign 14 percent of the incremental gain, or $420,000, to the bribe (so only 1.4 percent of the "value" of the project in country A).[10]

Bribery in Financial Markets: Sovereign Wealth Funds
The underwriting, sale, and purchase of securities is an intensely regulated and a highly relationship-driven industry. Electronic communications and the access to securities markets by developing countries have expanded, and with that the potential for bribery becomes greater.

Within the US, investigations have dealt with payments made to gain an advantage in securities underwriting and trading related to government enterprises. For example, the DOJ "is investigating sewer financing by Jefferson County, Alabama, in a nationwide probe of a

conspiracy by Wall Street banks to rig bids and fix prices on derivatives sold to municipalities, according to court papers."[11]

In the international context, this past January the SEC requested documents from US financial firms doing business with sovereign wealth funds, government-owned funds that invest in private enterprises. For example, China Investment Corporation has over $300 billion in assets under management and has overseas investments "mainly composed of equity, fixed income and alternative assets, in both developed and emerging markets. Our alternative investments include hedge funds, private equity, commodities and real estates, etc."

Assuming an employee of a sovereign wealth fund is a government representative, payments made to secure investments may be considered bribes under the FCPA. How does bribery related to financial products translate into additional incremental profits due to the bribe?

Consider a hypothetical "Country Fund," a sovereign wealth fund that regularly invests in publicly traded companies around the world. Country Fund is seeking to invest in the energy sector. Investment Bank A meets with Country Fund's energy analyst and presents an energy company investment. If the analyst recommends the investment, the analyst will also receive an undisclosed payment from Investment Bank A. Investment Bank B proposes that Country Fund invest in a substantially similar energy company with similar expected returns, but Investment Bank B does not offer a bribe. What are the incremental profits to Investment Bank A due to the bribe?

As with the other examples, it would be necessary to examine the options available to Investment Bank A and how it would have performed in the but-for world. It is possible that the only gain from the bribe would be to the analyst at Country Fund and the Investment Bank A employee who receives additional compensation. Country Fund may have received the same (expected) return regardless if it had chosen the other energy company and both energy companies may have ultimately had the same impact on their weighted average costs of capital. The energy company recommended by Investment Company B may have secured alternative financing at the same cost.

If Investment Bank A could find an alternative investor in Energy Company A, this is an additional example of a principal-agent problem. Assuming the bribe was paid out of company funds, Investment Bank A may be the only party to experience a loss from the transaction.

Insider Trading: Determining the Value of Information Received for a Bribe
In financial markets, availability of either non-public information or premature access to private information may be obtained through bribery. If that information ultimately turns out to be of little value, what are the damages? Insider trading is an example that often results in high profile domestic prosecutions, such as the current Galleon action in the United States, where the defense has made the materiality of the information an important aspect of the case.

In an international context, suppose that a bond trader in the US pays to receive information from a representative of a foreign government on soon-to-be-announced macroeconomic data that may affect the price of the country's government debt. Based on this information, a trader in the US purchases protection against default on the government's bonds through a credit default swap (CDS). After the announcement of the macroeconomic news, the CDS spread (the

cost of buying protection) increases and the trader realizes a profit. Such a scenario might fall under the FCPA, and disgorgement of all profits related by the trade might be requested.

Suppose, however, that further review shows that the information supplied by the government informant was largely unrelated to other negative news that was the primary cause for the price movement. While the bribe itself is a criminal offence, and the action caused by the (irrelevant) information secured with the bribe led to significant profits, the value of the information is zero. In such a case, it is not clear that the bribe itself can be the source of any value. Furthermore, one might discover that the movement of the CDS spread on that day was not distinguishable from a random market movement in a statistically significant way, possibly indicating no value of any information on that day.

Analysis of Follow-on Damages

Potential damages based on FCPA actions expand beyond payments to regulators. Below we outline analysis that may apply to claims of follow-on damages, from either competitor claims or customer claims.

Claims by Competitors

Competitors have a potential claim against a company that wins business based on a bribe. For example, a competitor may claim that but-for the bribe it would have won Project A and earned profits that it did not otherwise earn. As with claims for disgorgement, if the bribe only increases the probability of winning, then a competitor's claim has to be discounted consistent with the relative change in probability secured by the bribe. For example, if a competitor in the absence of bribery would have had a 30-percent chance of winning, then the loss from not winning would have to be discounted by at least 70 percent and possibly more. If, for instance, the bribery lowered the probability of the competitor winning to 10 percent from 30 percent, then the competitor would only be entitled to no more than 20 percent of the potential profits had it won the project. Note that a competitor's chances of winning in the but-for world are also reduced by the presence of any other bidders who may have won the contract for Project A. For example, suppose that one company has a 50-percent chance of winning the bid for Project A, but pays a bribe that increases its chances of success to 60 percent. If only one other company is bidding, then this company sees its chances of success fall from 50 percent to 40 percent. If instead four other companies, all similar, were bidding, then the average chance of success falls from 12.5 percent (=50/4) to 10 percent (=40/4).

Ascertaining the lost profits for the competitor requires knowledge of both the prices that would have been bid/charged and the costs that the competitor would have faced on Project A. If there are data on bid prices and other criteria for contract awards, as well as cost data from similar projects, it may be possible to closely approximate the competitor's hypothetical profits on Project A. However, the profits a competitor would earn on Project A would generally be a cap on lost profits. If the competitor would have had to give up an alternative project to run Project A, the actual lost profits would be reduced. For example, if the competitor would have to redeploy resources from another project to Project A, then any reduction in expected profits on that alternative project would have to be deducted from the profits on Project A to determine lost profits.

It is even possible for a competitor to be better off if the loss of project A creates a more profitable opportunity later on that would not have been possible if the competitor was tied up with Project A. For example, assume Project A would have tied up the competitor's rig for 60 days, preventing the competitor from bidding on another project that came up a week later. If the other project would have had higher rental rates (e.g. $600,000 per day) and similar costs, the competitor may have actually gained from having lost Project A. An ex-post analysis of the competitor's behavior and performance will reveal how the competitor deployed their assets and thus provide a fairly strong basis for calculating its opportunity cost and but-for loss. Note that this same ex-post look is less relevant for assessing disgorgement claims for projects won by a company because we would not have a direct picture of how those assets would have been used in a but-for world.

Claims by Governments (Customers)

Bribery does not imply harm to a government or other customer. While a customer could be harmed if a lower quality vendor is chosen, possibly resulting in slower project implementation, lower yields, increased costs, or environmental harm, these claims would have to be carefully analyzed. Indeed, customers may actually benefit from bribery. In the case of a sealed bid auction, where the bribing party would not have a competitive bid, the bribe may be paid to reveal the price that the company would have to bid to win the project. In a case like this, the company would lower its bid and offer a bid lower than any other bidder, potentially reducing the costs to the customer.[12] It is also possible that the terms of the contract or contract performance are not affected by the bribe, and the only effect is on who is performing the project, resulting in no effect on the customer.

Bribes may also result in non-financial benefits to a customer, such as speed to market. If the bribe skirts difficult import controls on equipment, it may result in faster deployment by the company and quicker payment of royalties to the government.

Follow-on Claims by Investors

To date there have been a small number of follow-on actions based on securities fraud regulations in the US, usually based on a material omission. The omission is that the company was paying bribes to secure business that was the basis for expected future earnings estimates. Current shareholders and investors who purchased newly issued securities relying on an offering document while the bribery occurred may have a claim, though there is a lively legal debate about whether the failure to disclose illegal practices falls within the scope of US securities laws. Recently, there was a proposed class of investors who purchased after the bribery had been revealed. The claim was that investors were damaged because the company did not update its earnings guidance. However, if there was full information about the profits that would have been forgone as a result of revealing the bribe (based on, e.g., disclosure statements from the SEC and DOJ), it is not clear that a change in earnings guidance would be necessary for investors to be fully informed. Analysts and investors could likely forecast the change in earnings based on the change in profits, if any, due to the bribery.

A test of statistical significance of a securities price reaction is used as a measure (among others) of the materiality of a fraud announcement (or subsequent announcement related to the fraud). A statistically significant price reaction is a signal to lawyers specializing in securities class actions that the share price was inflated and that securities holders may be entitled to damages. A derivative lawsuit may also be a source of litigation even without a significant price reaction.

Interestingly, there has been a general lack of significance in the price reaction to announcements of FCPA violations. One reason might be that, given the size of the companies involved, the penalty and disgorgement are considered de minimis by the market.[13] A second reason, and closely aligned with the theme of this paper, is that, to date, the revelation of FCPA actions has had little impact on either current or future expected profits. While the disgorgement of hundreds of millions of dollars certainly grabs headlines, investors care about expected future profits. Similar to an accounting restatement by a corporation, an FCPA-related payment that does not alter future profits (and that led to little gain) would be expected to have a minimal impact on current securities prices.

Conclusion

International bribery has become a regulatory enforcement priority based on the FCPA in the US and the soon-to-be-implemented Anti-Bribery Act in the UK. Applying greater precision to the financial benefits of bribery is necessary given increasing enforcement.

For individuals involved in alleged bribery schemes, penalties in civil proceedings and sentencing in criminal actions are based on the benefit of the bribe. At some point corporations will find that the (increasing) size of the penalties and disgorgement of profits calculated in a rudimentary way may greatly exceed the true benefits of the bribes. Due to sentencing guidelines, individual defendants may already have reason to improve their precision in calculating the benefit of the bribe. In addition, follow-on litigation may become more prevalent if the FCPA and UK Bribery Act begin to affect expected corporate earnings to a greater degree.

End Notes

1 http://www.justice.gov/criminal/fraud/fcpa/

2 http://www.gibsondunn.com/publications/pages/2010Year-EndFCPAUpdate.aspx

3 While a bribe may be thought of as securing a project, and so responsible for all project profits, in reality, there may have been some probability of winning the project without the bribe, and the bribe may not have made winning the project a certainty. Thus, as described below, the impact of the bribe in securing the project is measured from the change in relative probabilities.

4 If you are the only company to offer a bribe, and there are four firms bidding with equal chances of winning, your chance of winning without a bribe is 25 percent. If offering a bribe increases your probability of winning to 50 percent (an increase of 25 percentage points), then half of your profits would be due to the bribe. If, on the other hand, you are the only company not offering a bribe, your probability of winning may be zero but may increase to 25 percent when the bribe is offered. While the bribe in the second case would similarly increase the probability of winning by 25 percentage points, it would actually represent 100 percent of profits if you were to win with the bribe.

5 For example, if equipment that would be needed for the second location would be tied up at the first location, winning the first bid would prevent the submitting (or require the withdrawal) of the second bid. Alternatively, if the costs of the second project would rise if the first project is also being done—perhaps due to overtime pay for employees or the need to shift to less-efficient equipment if the better equipment is already being used—the bid price for the second project would increase, thereby reducing the probability of winning the second bid.

6 For example, Nigeria, Venezuela, Russia, Iraq, Iran, and Libya are all oil-rich and score lower than 3 out of 10 in a corruption index, where higher numbers indicate higher perceptions of transparency or lower perceptions of corruption. See http://www.transparency.org/policy_research/surveys_indices/cpi/2010/results

7 In November 2010, Panalpina World Transport, Shell, Pride International, Transocean, Noble, and Tidewater settled a DOJ investigation related to alleged bribery to deal with customs issues for drilling equipment. See http://www.justice.gov/opa/pr/2010/November/10-crm-1251.html.

8 See, e.g., http://www.rigzone.com/news/article.asp?a_id=49832

9 As discussed above, the higher the no-bribe probability, the lower the possible incremental gain from a bribe.

10 A real world case would become more complex if, for example: the timing of the projects were different; there were direct and time costs of moving the equipment from one location to the other; operating costs differ from maintenance costs and these depend on the operating environment; etc. Essentially, the requirement is to compare profits of one project to the change in expected profits for a different project that would not be performed, or would be performed differently given the first project.

11 http://www.bloomberg.com/news/2011-03-24/u-s-investigating-jefferson-county-sewer-deals-lawyer-says.html

12 In a first-price sealed bid auction any reduction in the winning bidder's bid lowers the cost to the procuring agent. In contrast, if the bribing party would have made a low bid that would have won the project without the bribe, the bribe would allow the company to raise its bid to a level just below that of any other competitors and impose a cost on the customer.

13 http://www.streetinsider.com. "Following an announcement that the maker of baby oil, Lactaid, and Concerta, will pay a smidge over $70 million to settle a Foreign Corrupt Practices Act (FCPA) investigation with the U.S. Securities and Exchange Commission, the stock dropped from $59.73 to $59.55, about a 0.3 percent drop. Johnson & Johnson boasts a market cap that currently exceeds $162 billion dollars, making the $70 million equivalent to about 0.004%."

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Contacts

For further information and questions, please contact:

Dr. Patrick Conroy
Senior Vice President
Chair of NERA's Securities and Finance Practice
+1 212 345 1466
patrick.conroy@nera.com

Dr. Graeme Hunter
Vice President
+1 212 345 7724
graeme.hunter@nera.com