



The Economics of Contracts in International Disputes¹

Introduction

This paper is about the role of economic analysis in the context of International Disputes. Based on first-hand experience, and as one would expect, law practitioners are prone to base their cases for breach of contract or harmful acts on legal grounds while limiting economic arguments to the damages part of a case. This approach may not be the most fruitful. In my view, commercial and investment-state disputes are like a 3-legged stool based on facts, law and economics. Focusing only on the first two increases the chances that the stool/case may topple since it will be unbalanced. Many, if not most, disputes revolve around a contract. Analyzing contracts with an economic eye is the foundation of a well-balanced claim or defense. In addition, and again based on first-hand experience, the use of economics complements and, in some cases, expands the usual legal analysis of liability and helps to inform the tribunal. Finally, I believe some lawyers are of the view that the relevant economic principles differ in commercial or investment state disputes. However, in my experience

this is wrong. The economic principles are the same even though the heads of claim and the legal rules may be different.

In addition to this introduction, this paper contains 3 more sections. The following section addresses the economics of contracts in the context of international disputes. Next, I present a group of case studies based on actual arbitrations and demonstrate how economic principles have been applied to enhance legal analysis. Finally, the last section presents some concluding remarks.

The Economics of Contracts

Contracts are the heart of any commercial relationship. They define the terms and conditions for the provision of goods and services as well as the responsibilities of the parties to the contract. Contracts – whether between commercial businesses or states and international investors - are legal documents but more fundamentally they are a codification of a commercial relationship between parties. Contracts memorialize

¹ This paper is an expanded and more detailed version of “The use of Economics in International Arbitrations” at <http://arbitrationblog.kluwerarbitration.com/2017/06/05/use-economics-international-arbitrations/>, June 4, 2017 and has been published by the Young Arbitration Review, Edition 29, April 2018.

in (hopefully) proper legal form the economic and financial arrangements that the parties involved have agreed upon to undertake a business venture. But, as I discuss next, economic principles underpin the commercial relationships and so, contracts are economic documents.

For market economies to work and do so efficiently they need to be able to contract reliably. That means that contracts need to be enforceable and be stable, i.e., they are subject to the rule of law². Economic agents (States and enterprises) must be able to rely on these principles otherwise the basic framework for successful market economies will not develop effectively. Since States and investors compete for limited financial resources and the success of their enterprises depend upon their ability to attract capital and attract it in a financially feasible manner, the reliability of contracts become a paramount building block of any commercial relationship.

Contract-based economies display three key factors. First, contracts need to be sacrosanct in the legal and commercial systems in order for these systems to be economically efficient. This means that absent clearly defined conditions parties will abide by the terms and conditions as agreed in the contract. Under this principle, changes or modifications to the contract should only take place according to the terms of the contract or under the exceptional conditions, e.g., contract infeasibility³. By the same token, if one party wishes to alter the economics of a deal then the agreement must be modified to maintain the economic balance originally agreed to in the contract. The basic idea is that “a deal is a deal” for both parties and that “deal” is captured in the respective rights and obligations spelled out in the original contract.

² This is what is known in the literature as the “economic legality.” See “Legality and Market Reform in Soviet-Type Economies” John M. Litwack, *Journal of Economic Perspective*, vol 5, Number 4 – Fall 1991 – pages 77-89.

³ A contract becomes infeasible when it is economically impossible to fulfill. Judge Posner for instance uses words like “extreme hardship” to characterize such a situation. See,

In the context of international arbitrations, as I will attempt to show in the next section, it is my opinion that the decision of a tribunal that effectively interprets a contract in a way that differs from that of one or both parties risk changing the commercial balance of the underlying agreement. Such a decision needs to balance the economic benefits of the sanctity of contracts that may be lost due to the tribunals changing the contract absent the conditions for contract reform. The decision also needs to be sensitive to the risk of changing the economic balance between the parties. Such decision could undermine that balance to the detriment of one party.

Second, as just described, contracts are an economically efficient way to allocate a given set of risks, rewards and obligations between the parties. This is because each party presumptively accepts the risks that it is best suited to bear typically reflected in a set of mutual obligations. Similarly, each party agrees on the expected rewards under the contract that compensates for the risks and obligations accepted. This is an efficient outcome from an economic perspective. If that balance is upset, either because one of the parties sees an opportunity to maximize its gain or there is an event that disrupts the anticipated gain for one or both parties, then economic efficiency is at risk⁴.

Third, one needs to understand that reliable contracts are crucial instruments that facilitate large and long-lived projects. While relevant in all economic segments, this is particular important in the infrastructure sector where once an investment is committed, the investor accepts the risk of a substantial, long term and immobile investment and the other party for the reliability of the investors and

“Impossibility and Related Doctrines in Contract Law: An Economic Analysis”, Richard Posner and Andrew Rosenfield, Vol. 6, *Journal of Legal Studies* 83-118, 1977, (Posner).

⁴ Posner addressed this point by noting that if that allocation was not the most efficient, parties would reallocate those risks and rewards until a balance is reached. See Posner, p. 98.

the contracted service. Without reliable contracts, hydro plants, pipelines or roads could not be developed in market economies because there would not be an enforceable contractual relationship to rely upon demanded by investors to funds such projects.

Therefore, since economic principles underlie the contracting structure in either a basic agreement or any further modifications to a contract, economics principles must be used to interpret and understand contracts⁵. Such economic analysis must reflect the commercial and economic objectives and expectations of the parties when the contract was signed.

In the context of international disputes, this requires an analysis to see if an attempt to alter the economics of a contract by one party (because of alleged contract breach or infeasibility for instance) is inconsistent with the initial commercial and economic principles explicitly or effectively agreed to by the parties. In addition, it requires analyzing whether the balance of risks and rewards inherent in the contract has been maintained or has been altered, and the economic repercussions of any possible modification by the arbitrators⁶.

So, analyzing investment or commercial contracts from an economic perspective is a fundamental input in international arbitration settings not only for damages determination purposes but also to understand and assess the principles surrounding a commercial relationship. By using economics as a tool, practitioners can formulate a well-structured case from the beginning; not limiting themselves to the breach of legal clauses but more importantly assessing the state of a commercial relationship and how it has

been affected by an event or how it might be altered by a proposed award.

The following section presents some case studies that illustrate how an economic reading of contracts in the context of international arbitrations complements and supports the legal analysis and informs tribunals⁷.

Case Studies

Contract Modification Request

The first case study refers to a request for contract modification by an investor. Investor 's integrated gas/electricity project consisted of the monetization of natural gas reserves (and associated sub-products) by generating and transmitting the commodity to the country's electricity market. Investor argued that due to changes in market conditions of its commodity, the level of royalties agreed to by contract should be reduced. It also claimed that it was not treated fairly in comparison to other investors and that one of its integrated activates had been harmed due to paying high royalties.

The economic and commercial analysis of the case was based on the analysis of the claim as well as of the concession agreement between the investor and the granting authority. The analysis was divided in two parts: the qualitative and the quantitative part.

On the quantitative part, the economic analysis focused on the assessment of the royalty's adjustment clauses, the analysis of the gas and electricity market arguments, and on arguments raised on infeasibility. Regarding the assessment of the royalty's adjustment

⁵ Professor Joskow is an important scholar on the economics of contracts amongst other topics. He analyzes the concept of commercial impossibility as well in great detail and how courts have dealt with this issue from an economic perspective. See "Commercial Impossibility, the Uranium Market and the Westinghouse Case", Paul L. Joskow, Vol. 6, Journal of Legal Studies, p 119-176, 1977 (Joskow).

⁶ If the balance of rights and obligations is altered by one party in its favor and the other is not adequately compensated, the economic efficiency of the contract is lost. If the former is awarded a favorable change but without an offsetting benefit to the latter, then it is a windfall.

⁷ The author was a consulting expert in each of the case studies presented here.

clauses, the economic analysis showed that the investor had failed to link contract modification requests with the plain language terms agreed to in the contract. While the contract established adjustments to changes to the prices in a basket of predefined fuels, investor was asking for changes in prices of its own products. In addition, the analysis showed that the request for contract modification was focused on the wrong market. The investor developed arguments regarding the decoupling of the relationship between oil and natural gas and the development of local markets for natural gas as triggering factors for contract reform. In reality, a plain language reading of the contract terms showed that it only allowed for changes in the reference markets defined in the contract. Finally, the economic analysis also demonstrated that had the proposed changes been granted, it would have likely upended the balance of benefits and obligations initially agreed by the parties. Decreases in royalties were not accompanied by any benefits for the counterparty.

The investor also put forward arguments regarding the nature of natural gas and electricity market in the region. Economic analysis showed that arguments on the isolated nature of investor's reserves and the asserted competitiveness with other regional markets were unfounded because of the integrated nature of the project and the lack of available infrastructure that would link investor's projects with other markets. Furthermore, the investor put forward an "indirect competition" argument by noting that its generation business was not competitive because of the high royalties being paid. This argument failed as well because it ignored again the integrated nature of the project, the transfer price for the commodity set administratively by the project, and the fact that other segments of the business were producing profits.

⁸ See Posner, p. 86, fn 9.

⁹ See Joskow p. 160.

¹⁰ Though it is a valid commercial strategy, it is not a sound basis to claim financial harm. Marginal costs are determined by O&M costs plus fuel costs. Data showed investor's marginal costs were higher suggesting it had signed bilateral contracts to

Finally, the investor raised infeasibility arguments. Again, economic analysis showed the weakness of this argument because the investor did not prove that it had been financially at risk. As Judge Posner and Prof. Joskow have put it: "hardship is not enough"⁸ ... performance [must be] extremely burdensome."⁹

From a quantitative perspective, the analysis revealed the fallacy of the investor's arguments that its lack of competitiveness in the electricity market was a result of the high royalty payments. By reviewing bidding costs in the electricity market, economic analysis showed that investor's commercial strategy was to bid with high margins in the local electricity spot market¹⁰. Also, the fact that dividend payments were able to be made to the holding company by the other segments of the integrated project (generation and transmission) suggested that the investor was not placed in a disadvantageous position financially.

Essentially, the economic analysis showed that the claim had no valid basis and that any contract modification should only be based on the terms of the contract as agreed by both parties since there was no economic support for contract infeasibility. Granting the claimant's requested remedy would reform the contract even though there was no proof of contract infeasibility and contrary to the specific trigger mechanisms in the contract. This would ignore contract sanctity.

Power and Desalinization Plan

The second case study is an international commercial arbitration that involved the purchase of a power and desalinization plant. The claim basically focused on a breach of warranties when the plant became nonoperational after the asset was acquired.

deliver electricity at higher prices than those it could have obtained in the spot market and was using its market power to permit it to accept higher transfer prices for its commodity from its supply arm.

The economic and commercial analysis of the claim was based on the reading of the contracts signed by the parties, the assessment of the financial information of the project, and the analysis of the contracts signed with third parties and electricity off-takers. The analysis showed basically two things: first, the need to compensate Claimant due to the breach of warranties by respondent, and second, the indirect effects of revenue lost due to the prolonged plant shutdowns.

Regarding compensation, an economic assessment of Claimants' historical and projected future financials was used to quantify the magnitude of the harm. With this purpose, two different methodologies to assess damages were applied: lost profits and direct costs. For the assessment of lost profits, the use of economic and financial principles and the commercial reading of the facts of the case allowed the development of real world and but-for-word scenarios to assess the financial implications of the plant's shutdown. Different alternative-scenarios were analyzed to value the damages caused by the nonoperational asset. For the direct cost analysis, a detailed review of expenditures was undertaken in order to determine the investments by Claimant up to the moment the claim was filed. Lost profits and direct costs were presented to the tribunal as a measure of harm.

Concerning the indirect effects of the plant shutdowns, the economic and financial analysis showed that the lack of operation of the plant had prevented Claimant's from complying with its commercial and financial obligations. Expected revenues for the sale of electric power and desalinized water were not realized compromising the financial health of the project as well as the anticipated project upgrades and normal maintenance operations. In addition, the inability to operate the asset impacted negatively the commercial relationship with 3rd parties and off-takers. Lack of revenues inhibited the project for making payment to vendors. Obligations to deliver power and desalinized water under power purchase

and water supply agreements could not be fulfilled. Claimant was not only suffering a reputational damage but also financial harm because of its inability to comply with obligations acquired under the assumption that the plant would be operational.

Essentially by using economic principles the tribunal was made aware of the economic and commercial implications that the breach of warranties had brought upon to the investors and the need for compensation for the harm caused.

Distribution Concessionaire

The third case study refers to a presumed breach of contract in a South Asian electricity market. A State government gave a concession for the exploitation of an electricity distribution company to an international private investor. This was part of the power sector reform that the State implemented with the purpose of improving service provision, introducing efficiency to the sector, and bringing needed private investment to upgrade the physical and human capital of the money-losing enterprises, among others.

The heart of the complaint centered on the belief of the granting authority (the State) that a "financial comfort letter" committed the international investor to fund power costs owed to an energy supplier. The economic and commercial analysis of the case was based on the assessment of the claim, the concession agreement between the State and the private investor, and the application of economic utility regulation and market reform principles. The analysis showed three main issues: the weakness in the implementation of the power sector reform, the default of Claimant's obligations to the sector, and the unwarranted claim for financial damages.

Regarding the weakness in the implementation of the power sector reform, the economic analysis noted the misunderstanding and misapplication by government authorities of the fundamentals of the sector reform. As mentioned above, the power sector was in the

process of being restructured with the goal of introducing economic efficiency to a sector characterized by dependency on public funding, huge electricity losses, low quality service, non-compensatory tariffs, outdated equipment and de minimis capital investment, amongst others. However, the state failed to realize that this model “necessarily relies on private investment, first to purchase the state-owned firms and then to upgrade the physical and human capital of the money-losing enterprises.”¹¹ And to attract the private investment utilities needed to meet their service obligations. This necessarily means the implementation of compensatory tariffs which allow the opportunity to earn adequate return on investment. This leads inexorably to “tariffs [that] must be capable of providing revenues that cover operation and maintenance costs including fuel, and that provide a return of and an adequate return on [the] investment.”¹² The State failed to do this and by doing so it jeopardized the “voluntary” participation of private investment which is key in any privatization-based market reform.

Concerning the default of Claimant’s responsibility to the power sector, the economic analysis also showed that the government and the regulatory agency failed to meet their institutional obligations. The former not only failed to provide compensatory tariffs but also to pay its own bills. In addition, the government was unsuccessful in using the state’s police powers against electricity theft and intimidation against the concessionaire’s employees which were common practices in this south Asian country. With regard to the regulator, another key piece of any restructuring effort, it also failed by denying collection enforcement and helping to structure power theft reduction

programs. The lack of inaction by these two entities made almost impossible the implementation of a sustainable restructuring effort.

Finally, a commercial analysis of the concession and the corporate structure of the concessionaire demonstrated the frailty of the claim that investor’s “financial comfort letter” compelled it to cover power costs expenses with equity contributions. Therefore, no damages had been incurred.

In any commercial firm, operating costs are near-term expenses and are distinguishable from long-term investment expenses. Financial principles dictate that these costs be met with revenues of comparable tenors. Clearly, the latter are funded by investors in the form of debt and equity. And in a viable commercial venture, operating revenues must cover operating costs. So, asking an investor to fund operating costs from its own resources (i.e., equity contributions) because tariffs, which must cover operating and maintenance expense including fuel, were not at the appropriate level is financially nonsensical and also violates basic principles of utility regulation¹³. In addition, it was commercial nonsense to believe that an investor had agreed to fund operating losses through equity contributions since it defeated the rationale for investor’s corporate structure since the holding company had been structured to shield itself from such claims. In financial terms, the claim essentially would pierce the corporate veil.

Effectively, by using economic principles of corporate finance, utility regulation and market restructuring, it was demonstrated to the tribunal that the claim was baseless and that failure to comply with economic

utility must be allowed the opportunity to earn a return that is sufficient ...and adequate ... to maintain and support its credit and enable it to raise money necessary for the proper discharge of its public duties.” See EJ, p. 18, and *Bluefield Waterworks & Improvement Co. v. Public Service Commission*, 262 U.S. 679, at 692–695.

¹¹ See “Power Sector Reform – Experiences from the Road,” Michael Rosenzweig, Sarah Voll and Carlos Pabon-Agudelo; *Electricity Journal*, (EJ) November 2004, page 18.

¹² Op. cit.

¹³ As many commentators have point out, “regulated utilities are expected to provide “safe and adequate service at just and reasonable rates,” and to achieve that goal, investors in the

fundamentals and basic utility regulation principles had financially encumbered the investor.

Conclusion

In my view, commercial and investment-state disputes are like a 3-legged stool based on facts, law and economics. Focusing only on the first two increases the chances that the stool/case may topple since it will be unbalanced. In general, disputes revolve around an economic construct, the contract. So, analyzing contracts from an economic perspective is the foundation of a well-balanced claim or defense.

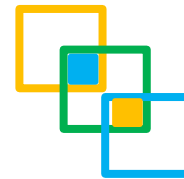
As the case studies illustrate, in free-market economies, contracts are the heart of any commercial relationship between economic agents. Economic principles underpin the commercial relationships and so, contracts are economic documents. Reliability of contracts is essential for any market economy to work and is a paramount building block of any commercial relationship. This reliability is reflected by three fundamental characteristics -- sanctity of contracts, efficient allocation of risks and rewards, and facilitation of large, immobile long-lived projects. If they are not present most probably relevant investment for development may not take place or are prone to be disputed.

Based in my experience, economic analysis is a very important and valuable tool in the context of international disputes settings. Economic analysis can be used not only to assess damages but also as a tool to understand the underlying principles of a commercial relationship and assessing whether the allocation of responsibilities and rewards that originally was agreed by the parties has been upset. It also helps to determine alternatives to rebalance a contract if such a balance has been altered.

Contrary to some views, the economic principles in the context of either commercial or investment-state

arbitrations are not different as one can infer from the case studies above. The principles are the same. The difference basically just reflects the applicable legal framework and the specific heads of claim. The economic expert and counsel need to work together to develop robust arguments within the applicable law to make stronger cases.

Finally, as the case stories show, economic analysis is a tool that not only informs tribunals but most importantly allows them to become aware of the tradeoffs between the economic benefits of providing relief via contract modification with the economic harm from disturbing the allocation of rights and obligations agreed by the parties in a contract.



Carlos Pabon-Agudelo is the Managing Director of Infrastructure Economic Consulting, LLC (InfraEcon), a consulting boutique specializing in regulatory economics and quantum matters in International Arbitrations for a variety of industries. Details about our expertise can be found at www.infraecon.com