PERSPECTIVES AND BEST PRACTICES IN QUANTIFYING DAMAGES, BUSINESS VALUATIONS AND EXPERT WITNESSES

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Abstract

The article brings into spotlight the nuances of quantifying damages, expert witnesses and business valuations. Statistics from some of the leading International Arbitration institutions echo the thought of arbitration being favoured over litigation. With respect to determining damages, the type of damages that can be claimed and the elements of what must constitute a robust valuation framework are important. Fundamental to the concept of valuation is also the approach one adopts to calculate the same as computing quantum of damages is not always simple. Another significant trend that has emerged over the recent years is the use of damage experts, consequent to an increase in international arbitration. There are, however, certain considerations to be borne in mind before one selects an expert; which range from evaluating the technical expertise of the expert, prior experience in providing expert reports and testimony before an arbitration tribunal etc. However, one must also be well aware of the challenges associated with the use of quantum experts. To realise maximum value of appointing damage experts, they must retain independence and not find a middle ground owing to counsel or client demands. With respect to the overall arbitration landscape, the trend of increasing number of corporations using international arbitration is anticipated in the future as well. It is critical to make certain that with time the process advances and the associated challenges are restrained to the maximum extent possible.

I. Introduction

A. Current state of Arbitration: Rising domestically and internationally

Over the years, arbitration has emerged as a preferred mode of resolving international disputes. Its acceptance has risen over the years across domains including cross-border disputes, construction sector, commercial and investment treaty disputes etc. As the process is regarded flexible and consensual for resolving business disputes in a binding, enforceable manner, a majority of companies have started using arbitration over litigation. This general trend has continued to pick up, despite the challenges that ensue. The recently promulgated Arbitration and Conciliation (Amendment) Act, 2015 ["**the Act**"] is another positive trend in the changing landscape of arbitration in India.

The 2015 Queen Mary's International Arbitration survey which considers improvements and innovations in the arbitral process points out views on international arbitration as below: [1]

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a. 90% of respondents indicate international arbitration as their preferred dispute resolution mechanism, either as a stand-alone method (56%) or together with other forms of ADR (34%).
b. "Enforceability of awards" is seen as arbitration's most valuable characteristic, and "avoiding specific legal systems," "flexibility" and "selection of arbitrators" followed.
c. "Cost" is seen as arbitration's worst feature. This was followed by "lack of effective sanctions during the arbitral process", "lack of insight into arbitrators' efficiency" and "lack of speed".
d. While the five most preferred and widely used seats are London, Paris, Hong Kong, Singapore and Geneva, the five most preferred arbitral institutions are the ICC, LCIA, HKIAC, SIAC and SCC.

B. Statistics in International Arbitration

When opting for institutional arbitration, parties can select from amongst several local as well as reputed international arbitral institutions. With the increase in the number of disputes filed, as well as their size, there is also a corresponding rise witnessed in the number of awards. However, due to the confidential nature of arbitration proceedings, statistics on the awards are limited.

In Asia, for instance, Singapore International Arbitration Centre ["**SIAC**"] has witnessed a significant rise in the total number of new cases handled with the figure being 64 in 2001 to 235 in 2012.[2] In 2013, India ranked the first amongst the top ten nationalities by number of new cases filed. While in 2014, the number of new cases handled was 222, as of 2015, the active caseload at SIAC is about 600 cases.[3]

SIAC's efforts and initiatives to promote Singapore as a preferred destination for international arbitration, including, expedited procedures and its attempt to incorporate the latest global best practices in international arbitration aligned to the recent changes in Singapore arbitration law have resulted in this rise.[4]

(SIAC), United Nations Commission on Trade Law (UNCITRAL) Arbitration Rules and the International Centre for Settlement of Investment Disputes (ICSID), as well as before several ad hoc arbitrations in the United States and India.

1 *International Arbitration Survey: Improvements and Innovations in International Arbitration 2015,* WWW.ARBITRATION.QMUL.AC.UK *available at* http://www.arbitration.qmul.ac.uk/docs/164761.pdf.

2 *Why SIAC*, WWW.SIAC.ORG.SG, *available at* http://siac.org.sg/64-why-siac.

3 *Id.*

4 *Singapore International Arbitration Centre Annual Report 2013*, WWW.SIAC.ORG.SG, *available at* http://www.siac.org.sg/images/stories/articles/annual_report/SIAC_Annual_Report_2013.pdf.

Statistics from the International Court of Arbitration (International Chamber of Commerce) suggest that 801 requests were filed, with the place of arbitration located in 56 countries throughout the world. While the amount in dispute was under U.S. dollars ["**USD**"] one million in 23.2% of new cases, 498 awards were rendered in total.[5]

Arbitration case filings from some of the leading institutions globally are given below:

International Arbitration Institution	**2009**	**2010**	**2011**	**2012**	**2013**
Singapore International Arbitration Centre ["**SIAC**"][6]	160	198	188	235	259
The London Court of International Arbitration ["**LCIA**"][7]	272	246	224	265	290
International Chamber of Commerce ["**ICC**"][8]	817	793	796	759	767
International Centre for Dispute Resolution ["**AAA-ICDR**"][9]	800	888	994	996	1165

With respect to monetary awards in international arbitration, statistics from the 2015 Arbitration Scorecard[10] suggest:

- The number of billion-dollar global disputes remains at a high level, rising to 128 during 2013-2014 from 121 during 2011-2012.
- Of the 12 top awards, eight involved energy, and four were against Venezuela.
- The reporting captured 69 contract disputes and 59 treaty disputes active during the last two years with an amount in controversy of at least USD 1 billion—including 10 cases with stakes of at least USD 15 billion.[11]

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5 *Introduction to ICC*, WWW.ICCWBO.ORG, *available at* http://www.iccwbo.org/Products-and-Services/Arbitration-and-ADR/Arbitration/Introduction-to-ICC-Arbitration/Statistics/.

6 *SIAC Statistics*, WWW.SIAC.ORG.SG, *available at* http://www.siac.org.sg/2014-11-03-13-33-43/facts-figures/statistics.

7 Annual Reports for respective years published by the LCIA and available at http://www.lcia.org/LCIA/reports.aspx

8 *ICC* Statistics, WWW.ICCWBO.ORG, http://www.iccwbo.org/Products-and-Services/Arbitration-and-ADR/Arbitration/Introduction-to-ICC-Arbitration/Statistics/.

9 International filings at ICDR published annually for the respective years by AAA-ICDR, *available at* https://www.adr.org.

10 Michael D. Goldhaber**,** *2015 Arbitration Scorecard: Deciding the Worlds Biggest Disputes*, WWW.AMERICANLAWYER.COM, *available at* http://www.international.law.com/id=1202731078679/2015-Arbitration-Scorecard-Deciding-the-Worlds-Biggest-Disputes.

C. Effective arbitration in India: The Arbitration and Conciliation (Amendment) Act 2015 [the "**Amendment Act**"]

With respect to the arbitration scenario in India, there has been a major initiative to take the existing framework a notch above. The Government of India cleared two legislations for settling commercial disputes speedily as the Parliament approved one ordinance for constitution of commercial courts and another to amend the Arbitration and Conciliation Act, 1996.

It is clear that the government with this initiative endeavours to create a responsive environment for arbitration in the country and specifically to encourage foreign investors. The erstwhile framework had been a deterrent to foreign firms as arbitration could possibly take more time than litigation creating a remarkable paradox to the whole concept of alternate dispute resolution. The amendments pave the way to stimulate ease of doing business as some of the changes are in line with international norms.

Key highlights of the proposed amendments include speedy appointment of arbitrators, issuance of an arbitral award within 12 months from commencement of domestic arbitrations, interim relief, strict and limited challenges to an arbitral award and costs that can be awarded by the arbitration tribunal.

While the Amendment Act attempts to introduce significant changes to address issues plaguing the arbitration landscape, the actual implementation of these changes is some way off. However, it is clear that India is well on its way to using arbitration as an effective alternative dispute resolution mechanism in the future.

D. International Arbitration: Future outlook

The reliance of businesses on international arbitration has increased over the years as it is being regarded as a leading method of resolving disputes. Rise in the number of cases handled by arbitration institutions also reflects the impetus being placed on this mode of dispute resolution.

With this trend, a further rise in the number of corporations using international arbitration is anticipated in the future. However, it is important to ensure the process advances with time and the challenges are restrained to the maximum extent possible.

An interesting aspect pointed out with respect to the appointment of arbitrators is that arbitrators must pass routine periodic examinations known as Cognitive Reflection Test

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[11] *Id.* ¶ 6.

["**CRT**"] developed by Shane Frederick in 2005. It is a three-item measure shown to predict susceptibility to decision-making biases; in order to retain the minimum score accreditation that qualifies them to arbitrate. This accreditation system would gauge arbitrators by their skills rather than simply relying on their profile, which is the prevailing trend at the moment.[12] One should note that the CRT is a tool (among many others) that arbitral institutions can adopt to assess or evaluate arbitrators.

In order to increase the effectiveness of the process, it is critical to establish guidelines with respect to the cost and accelerate timelines to expedite the process. Limited pool of arbitrators, the element of bias, difficulties in enforcing awards have been some of the other frequently raised concerns. While the need for more specialised practitioners is put forward as the first step towards increasing the pool of experienced arbitrators, driving a change in these procedures is imperative which can be brought about by arbitral institutions.

Some of these include introducing time saving features like summary judgement and declarations of availability by arbitrators. Though the global institutions vary owing to the different cost structure, language and cultures etc. in geographies, however, as standardised institutional rules are being imparted, it would allow imparting best practices in the space.[13]

II. Determining Damages

A. Types of damages that can be claimed

The Oxford English Dictionary defines damages as "a sum of money claimed or awarded in compensation for a loss or an injury". According to Black's Law Dictionary, damages mean "Money claimed by, or ordered to be paid to, a person as compensation for loss or injury".

Simply put, damages represent the sum of money an aggrieved party or a person harmed is entitled to receive as compensation from the other party.

In international or domestic arbitration, the contract or agreement typically specifies the damages that can be claimed. In some contracts, the method of determining damages or specific formulae is included in the contract. Also, contracts may have certain exclusions by ruling out certain types of damages, (i.e., consequential or punitive damages) and may also limit the amount of damages that can be claimed.

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12 *Singapore Institute of Arbitrators Newsletter*, WWW.SIARB.ORG.SG, *available at* http://www.siarb.org.sg/pdf/S024-93693-SIARB Jun2014 Newsletter-v3-jc.pdf.

13 International Bar Association Arb 40 Subcommittee, *The Current State and Future of International Arbitration: Regional Perspectives* (2015), WWW.IBANET.ORG, *available at* http://www.ibanet.org/Document/Default.aspx?DocumentUid=2102ca46-3d4a-48e5-aa20-3f784be214ca.

Finally, the governing law of the contract can also provide guidance as to the type of remedies available in case of breach of contract, business interruption claims etc.

In investment treaty arbitration (i.e., arbitration between a private party and a State), the concession agreement typically contains a forecast of revenues, costs, profits and expected investments in a specific project.[14] The agreement may also contain a financial model using an internal rate of return that is agreed between the parties.

Generally, the following types of damages can be claimed:

a. **Loss of profits**: An aggrieved party can claim recovery of all losses, including loss of profits, suffered by the aggrieved party as a result of the other party's breach. Article 74 of the United Nations Convention on the International Sale of Goods states that "Damages for breach of contract by one party consist of a sum equal to the loss, including loss of profit, suffered by the other party as a consequence of the breach. Such damages may not exceed the loss which the party in breach foresaw or ought to have foreseen at the time of the conclusion of the contract, in the light of the facts and matters of which he then knew or ought to have known, as a possible consequence of the breach of contract". However, such loss of profits needs to be determined in accordance with the governing law and contractual requirements.

b. **Loss of business value:** A claim for loss in business value e.g., loss of shareholder value, diminution of interest etc. can be quantified using one or more business valuation approaches (e.g., market or income/Discounted Cash Flow approach).[15] In general, these approaches quantify value before the date of harm and after the date of harm, with the difference being lost business value.

c. **Losses arising from damage to property**: Any loss arising from damage to property or physical assets can be claimed, separate from and in addition to loss of profits. However, these losses (including incremental costs to bring the asset to the required condition) must be quantified separately and the effect of such damage to physical assets on lost production and consequently, lost revenues and profits must be factored in the loss of profits claim.

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14 *See* sample concession agreement issued by the World Bank *available at* http://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/documents/port%20concession%201.pdf.

15 These approaches have been explained in detail subsequently.

d. **Losses arising from damage to goodwill or reputation**: These losses can be fairly subjective and difficult to quantify empirically. In addition, there are contradictory views on whether loss of reputation or goodwill is an allowable or permissible claim.

e. **Losses arising from change in value of money or currency fluctuations**: These losses are subject to contractual terms and can be a significant element of damages especially in international arbitrations. Given the current volatility in currency rates, it is imperative that currency fluctuations are considered appropriately in the contract since arbitral tribunals have diverging views on whether to award damages under this category.[16]

f. **Expenses incurred by the aggrieved party**: Expenses incurred by the aggrieved party to mitigate damages, restore physical assets to their required working condition, performance of contract etc. can be claimed as a separate category. However, these losses must be reasonable, actually incurred (in other words, cannot be hypothetical or speculative) and properly supported by contemporaneous documentation including accounting and financial records.

g. **Liquidated damages:** These are generally specified in a commercial contract and the sum of liquidated damages are fixed in advance and written in the contract. Section 74 of the Indian Contract Act, 1872 deals with liquidated damages and reads as follows: "When a contract has been broken, if a sum is named in the contract as the amount to be paid in case of such breach, or if the contract contains any other stipulation by way of penalty, the party complaining of the breach is entitled, whether or not actual damage or loss is proved to have been caused thereby, to receive from the other party who has broken the contract, reasonable compensation not exceeding the amount so named or, as the case may be, the penalty stipulated for." A liquidated damages clause is generally seen in construction contracts, long term development contracts (IT, construction, projects etc.) and outsourcing contracts. The existence of a liquidated damages clause in a contract will eliminate a claim on actual damages. Thus, a liquidated damages clause (and the sum of such liquidated damages) must be evaluated carefully while drafting the contract.

h. **Special damages:** These include consequential or punitive damages. In arbitration, the question of whether an arbitral tribunal has the authority or power to award special damages will depend on the governing law of the arbitration and the specific terms of the contract.

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16 *See* Sempra Energy International v. The Argentine Republic ICSID Case No. ARB/02/16, Award (Sep. 28, 2007).

In addition (to the above damages), parties in arbitration can also claim the following:

a. **Interest:** Arbitral tribunals have the authority and power to award interest. Generally, an award of interest covers two distinct time periods (a) the period up to the date of issue of the award; (b) the period between the issue of the award and the date of payment.
b. **Costs:** The general principle is that costs follow the event or in other words, the party who is successful is entitled to costs. The Act introduced a new regime for costs wherein arbitral tribunals can award costs to either the unsuccessful party or provide different order with reasons in writing.

B. How do you quantify damages? - the approaches involved

Computation and determination of loss or quantum of damages is not always simple and it is critical that an expert is used to quantify and support damage calculation, especially in complex cases. Further, an expert will also bring forth two crucial characteristics - independence and technical expertise.

This in essence defines, both, the need for, and the role of, an expert in dispute resolution or litigation and is captured succinctly in *G. L. Sultania v. Securities and Exchange Board of India*:[17]

"It appears to us that the appellant expects this Court to act as an expert itself. This, we are forbidden from doing […] *As noticed in Miheer H. Mafatlal* [*v. Mafatlal Industries Limited*[18]][…]*, valuation of shares is a technical and complex problem which can be appropriately left to the consideration of experts in the field of accountancy. So many imponderables enter the exercise of valuation of shares."*

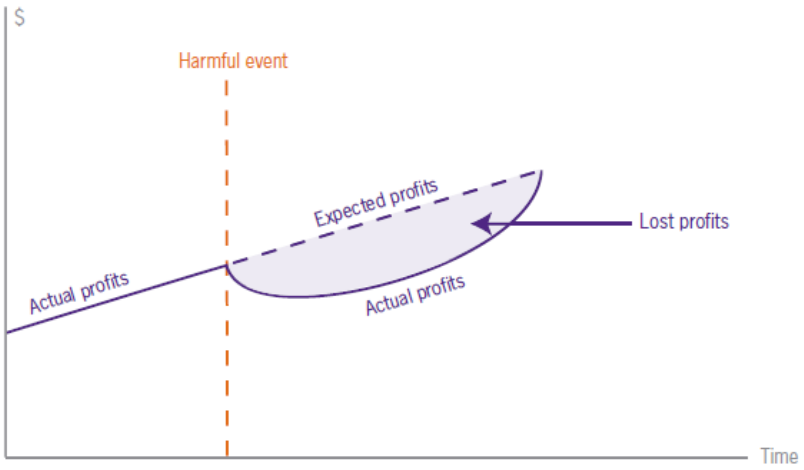
While quantifying damages, one must decide on the appropriate measure of damages that can be claimed specific to the case in question. A question that arises frequently is whether to claim lost profits or lost business value.

A claim for lost profits is generally used to determine damages in breach of contract, intellectual property and commercial litigation cases whereas a claim for lost business value is commonly used to determine damages due to business destruction, diminution or loss of shareholder value etc.

17 A.I.R. 2007 S.C. 2172 (India).
18 A.I.R. 1997 S.C. 506 (India).

i. Claim for lost profits

Figure 1: Lost Profits



When the damage to the aggrieved party is for a defined period of time and relates to a specific stream of cash flows, a lost profits approach may be considered to determine damages. In its simplest form, this approach represents the difference between sales, margins or net profits that an aggrieved party would have attained 'but for' the actions of the other party and the actual sales, margins or net profits achieved.

There are five generally accepted methods of determining lost profits as outlined below:

a. **Sales projection method**: In this method, an expert would compare forecasted sales (or other financial parameters such as margins, net profits etc.) before the event that caused the breach with actual data post the event.
b. **Accounting for profits method**: This method is based on incremental sales, margins or net profits achieved by the other party as a result of the event that caused the breach. One must be reasonably certain that the aggrieved party would have achieved the same result as that of the other party, 'but for' the event that caused the breach.
c. **Yardstick method**: In this method, sales, margins or profits of a benchmark period is compared with similar parameters in the before-and-after period.
d. **Market share method**: This method is based on the market share that the aggrieved party would have achieved 'but for' the event that caused the breach.
e. **Before-and-after method**: The before and after is perhaps, the most reliable method for determining lost profits and includes:

- Identification and selection of a financial parameter such as sales, gross margin or profit, net profit etc.;
- Identification of the two or three time periods that are relevant i.e., (i) benchmark period prior to the loss period when the aggrieved party is unaffected by the other party's actions, (ii) a loss period or damages period when the aggrieved party is affected by the other party's actions and finally, (iii) a base period when the aggrieved party's actions were no longer affected by the other party's actions;
- Determination of the performance of the selected parameter in each of these periods i.e., benchmark period, loss period and base period;
- Computation of difference between performance in loss period and base period is the claim.

Although simplistic in nature, the before-and-after method requires the expert to make certain assumptions and apply judgements with respect to selection of a proper benchmark period and appropriate length of the benchmark period as well as growth rates used to forecast sales etc. post the loss period.

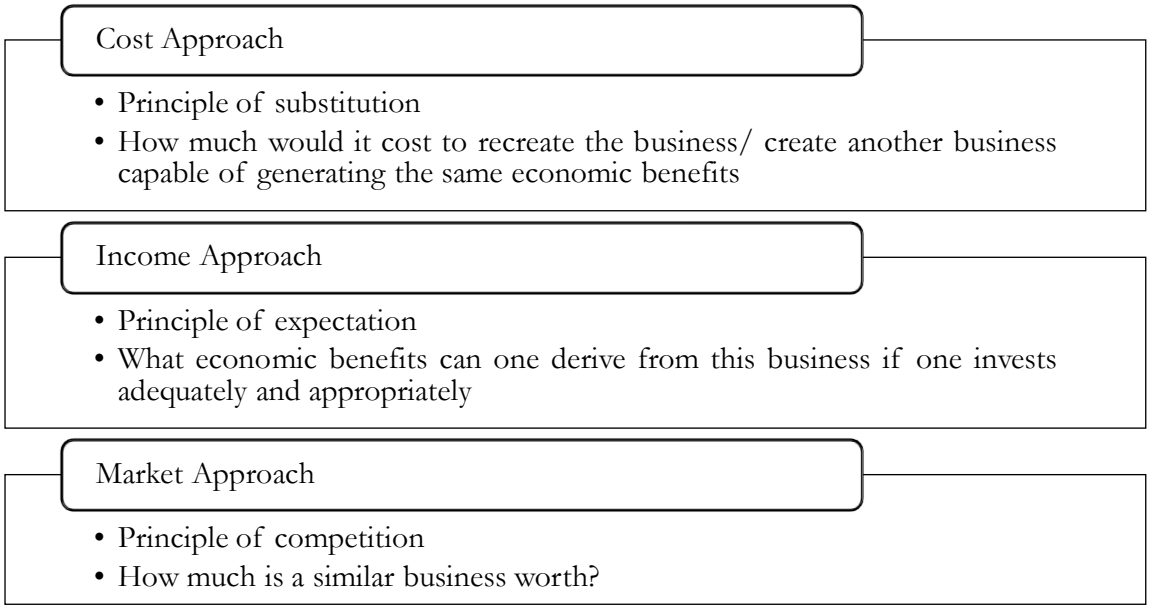
ii. Lost business value

In circumstances where loss to the earning capacity of the aggrieved party is permanent or perpetual or where a business is destroyed completely, a lost business value approach may be considered to quantify damages.

There exist three basic or over-arching approaches to valuation – Cost, Income and Market,[19] which are represented in the graphic below:

[19] While this article uses the term 'business', note that many of these concepts are equally applicable to a specific asset/ asset bundle/ business division.

Figure 2: Approaches to valuation: Cost, Income and Market Approach



While these approaches are relatively straightforward, the territory beyond is fraught with complexities ranging from lack of reliable (or any) data points, industry dynamics to subjective assumptions which eventually complicate valuations.

a. The Cost Approach

The value arrived at under this approach is based on the latest available audited/ provisional financial statements of the business. Since it is the assets and liabilities that constitute a business, the excess of assets over liabilities, defined as Shareholders' Funds in accounting parlance, can be used to determine the 'net asset value' attributable to equity owners of that business.[20]

When it works, the pros:

- Certain businesses, by their very nature, are 'asset – heavy'. Consider real estate, where a primary component of value is the land and building parcels owned/ being developed by the company.
- Businesses with high investments in fixed, tangible assets (ports, manufacturing plants) and in their early stage of lifecycle may be better represented by their net asset values when the assets have not reached optimum level of utilisation to be reflected in incomes, or when such incomes cannot be reliably predicted.

[20] In the event that a particular asset is being valued under this approach, certain methods exist that use the same philosophy – examples include Reproduction Cost method (i.e., cost of manufacturing or creating an exact replica of the asset) and Replacement Value method (i.e., cost of replacing an asset with one of similar usage and functionality).

- Loss - making businesses and liquidation scenarios.

When it does not work, the cons:

- It ignores the future return assets produce and is calculated using historical accounting data that does not reflect the worth of business to someone who may buy or invest in the business as a going concern, when, in actuality, contracting parties in a dispute will have invested to reap future returns which are not captured by this valuation approach.
- Owing to inter-asset synergies and intangible assets such as brand name, market standing, management team strength, etc., the 'whole is greater than the sum of the parts'. This implies that since none of the crucial synergies and intangibles is captured on a balance sheet, the business may be under-valued.
- Under many accounting standards (including the ones currently followed in India), assets and liabilities are not held at 'fair value', which indicates that the value that could be realised/ paid for assets/ liabilities could differ from that recorded on the balance sheet.
- Specifically, and most crucially, in the case of disputes, the *nature* and *values* of assets and liabilities constituting a business are often unclear and contested, rendering this method unusable. To exemplify, in case of a dispute involving a particular enterprise, a fall-out between the co-investors may result in no financial statements being finalised for the business. As a result, as on the date of valuation, financial statements either do not exist or may depict absurd results - e.g., respective borrowings *estimated* at INR 490 million and INR 33 billion.

In a nutshell, while valuation under this approach is likely to involve the least subjectivity, there also runs a risk of being distant from reality in as much that asset and liability values making up the business are concerned.

b. The Market Approach

This approach assumes that markets are efficient in discovering value and a 'fair value' for a business is what is visibly transacted in the market for the business itself, or for 'comparable' entities. Three specific methods commonly used under the Market Approach are tabulated below:

Table 1: Market Approach - methodologies

Methodology	**Associated description**
Stock Exchange Quotation or Market	Reflects the price that the market at a point in time is prepared to pay for shares of the business.

Price Method	
Comparable Company Market Multiple Method	Market multiples of comparable listed companies are computed and applied to the business being valued in order to arrive at a multiple based valuation. A market multiple is simply a metric or measure of comparable companies operating under same or similar circumstances. This is based on the idea that similar assets sell at similar prices. This method assumes that performance of other comparable companies in the same industry or market can be used to determine value. Such comparison can be either sales, earnings, cash flow, earnings per share etc.
Comparable Transaction Multiple Method	Similar to the above Market Multiple Method, with the only exception that the companies used as guidelines are those that have been recently acquired. Acquisitions or divestitures involving similar companies are identified, and the multiples implied by their purchase prices are used to assess the subject company's value.

When it works, the pros:

- By benchmarking value to what is actually being transacted, this approach is perhaps the closest to reality and largely eliminates subjectivity.
- Macro-economic factors, including investor sentiment, global risk perception and the like which cannot be de-linked from the valuation of a business are best captured by this method.
- Market prices are also believed to reflect the investor's view of the management's ability to deliver a return on the capital being used and the role played by off-balance sheet intangible assets and liabilities, if any.

When it does not work, the cons:

- For listed companies, stock price can be construed as fair value only if the stock is frequently traded – disputes, however, seldom revolve around frequently traded stocks with efficient price discovery.

- The criterion of 'comparability' is an unyielding one. In order to state that the value accorded to a business should be the same as implied in the price of another listed company(ies), it is imperative that the 'comparable' company not only operates in the same industry and geography, but also sells similar products/ services, works on comparable operational and financial models, is in a comparable stage of lifecycle, targets similar customers, employs similar business strategies and accounting practices, etc.

  If these criteria are not satisfied, the multiples have to be disregarded or adjusted for incomparability, often based on judgment.

c. The Income Approach

This approach looks at the future returns or economic benefits that the business is capable of generating, in conjunction with the associated cost of time, delay in achieving such returns in the future. The most commonly used method under the Income Approach is the Discounted Cash Flow ["**DCF**"] method, which uses the future 'free' cash flows available, after consideration of financing and investing needs, to the business, discounted by the cost of capital/ equity to arrive at the present value.

Any DCF, at its core, comprises of two components, cash flows expected to accrue in the future, and a 'discount' rate used to estimate what these future cash flows are worth today.

When it works, the pros:

- It is a robust and widely accepted valuation tool, as it concentrates on cash generation potential of a business. Ultimately, the cash generated for distribution to stakeholders is the truest estimate of economic returns that investors look for.
- Disputes often involve fairly unique businesses; by allowing the forecasting of business specific cash flows, the DCF method recognises this uniqueness.

When it does not work, the cons:

- The DCF method is the most subjective valuation method – making any DCF valuation *only as good as the assumptions it is based upon*. Assumptions range from growth rates and profit margins that lead to cash flows, to investments needed and returns capable on such investments, to perceived risk inherent in these cash flows (which in turn affects the discount rate).
- Any robust DCF should primarily rely on the cash flows to represent a true (or, at the least, a reasonable) picture of the future, rather than the commonly seen practice of using

the discount rate as a goal-seeking panacea.[21] However, and particularly in case of disputes, such cash flow projections are primarily supplied by the defendant/ claimant, thereby greatly increasing the probability of bias, often inadequately adjusted for in the valuation.

- In the contentious circumstances of disputes, the cash flow projections are themselves very hard to forecast. While scenarios and sophisticated option pricing models can be built to incorporate possible variations, this brings with it increased assumptions and subjectivity.

The above issues notwithstanding, the DCF method, to summarise, is a relatively robust valuation method since it offers the flexibility that the unique circumstances of a dispute demands. Independence, expertise and experience of the expert valuer can go a long way in mitigating the weaknesses of the DCF method. Testimony to this is the fact that most dispute valuations continue to be performed using the DCF method.

Finally, DCF techniques have been universally adopted, including by numerous arbitral tribunals, as an appropriate method for valuing business assets. Arbitral tribunals have relied on and used the DCF method to determine damages. In some instances, tribunals have appointed experts to calculate damages using DCF but with the Tribunal's logic, assumptions and data.[22]

C. Determining the elements of a robust valuation

We revert to our initial stand in this regard. The courts usually rely on the expert to arrive at company valuations. Grounds for interfering with valuations of experts mainly pertain to overall approaches rather than the specific (and numerous!) nuances of valuation:[23]

Conducting a robust valuation

- ✓ Departure from well accepted principle of valuation without any reason
- ✓ Adoption of a patently erroneous approach
- ✓ Non consideration of relevant factors
- ✓ Valuation made on fundamentally erroneous basis
- ✓ Adoption of a demonstrably wrong approach
- ✓ Fundamental error going to the root of the matter.

21 All other things being equal, a higher discount rate decreases value and vice-versa.

22 *See* CMS Gas Transmission Company v. The Argentine Republic, ICSID Case No. ARB/01/08, Award (May 12, 2005).

23 G.L. Sultania v. Securities Exchange Board of India, A.I.R. 2007 S.C. 2172 (India).

The specific valuation approach adopted will evidently rely on the circumstances of the case and it is common to use more than one method, and the ability of the expert to develop detailed and accurate valuation models is as crucial as their ability to convey their conclusions clearly and succinctly, in a form that can be appreciated by the presiding judge/arbitrator.

Any valuation must always therefore, rest upon the pillars of independence, research, robustness of assumption, reasonableness and expertise.

D. Challenges or pitfalls in determining or calculating damages

It is clear that determining damages is more art than science. There are several elements that require judgement, and subjectivity in certain key assumptions may lead to absurd results. Some of the challenges or pitfalls in calculating damages are outlined in this section.

a. **Lack of reliable data:** Both the lost profits approach and the loss in business value approach is dependent on availability of empirical and reliable data in terms of historical performance over a reasonable time frame, trend in growth rates etc. Such data may not be available in all circumstances e.g., emerging markets, closely held entities, start-up ventures etc.
b. **Definitional issues**: There is no common or universal definition of profits (as used in lost profits). Accounting definition of profit varies from country to country based on the applicable generally accepted accounting principles in each country. In addition, tax rules and regulations would determine taxable profit or profit after tax which can vary substantially from profit before tax. Further, non-cash items under generally accepted accounting principles can significantly impact 'net' profit. Hence, it may be better to use cash flows that are not impacted by accounting definition of profit while determining lost profits.
c. **Assumptions in the DCF method**: The DCF method is only as good as the underlying assumptions. There is considerable subjectivity and judgment in determining growth rates for projected cash flows, determination of terminal value, treatment of capital expenditure, use and application of discount rate, treatment of country risk etc.
d. **Assumptions in the Market approach**: Selection of an appropriate or meaningful comparable is a tricky one and highly subjective. In some instances, one cannot identify a true comparable and experts may tend to 'cherry-pick' from a pre-determined group of comparables that can result in a larger claim.

Given the above challenges, it is best to determine damages using more than one method. However, different methods may yield different values for damages in practice, although in theory, these methods should yield similar or same values for damages. Robert L. Dunn may have summarized it best in his book *Recovery of Damages for Lost Profits* when he said that "if all other things are equal, using the same methodology should produce the same results for lost business value and lost profits. But all other things are rarely equal."[24]

Therefore, an expert should test the sensitivity of a quantum or damages claim to key assumptions and perform a sensitivity or scenario analysis that can indicate if the quantum or damages claim is overly dependent on one or two assumptions. Finally, the determination of damages must be well reasoned, well supported and not speculative in nature.

III. Expert Witnesses

Use of damage or quantum expert is on the rise consequent with the increase in international arbitration. However, one must evaluate the technical expertise of the expert, prior experience in providing expert reports and more importantly, testimony before an arbitration tribunal before selecting an expert.

A. Need for and proper use of a damage or quantum expert

Given the complexity of damage calculations and the amounts at stake, parties may view retention of damages experts as indispensable. However, this is clearly not the case since each case must be assessed on a stand-alone basis and an assessment of whether a damages expert is needed must be made early and in conjunction with counsel.

Cases that require fairly complex valuation methodologies or financial modelling such as the DCF method, internal rate of return etc. would benefit from an expert who is well versed with such techniques.

Similarly, cases that revolve around interpretation and application of complex accounting principles as in the case of revenue recognition under long term contracts, valuation of financial instruments etc. would benefit from an expert who has substantial experience in these fields.

The client and counsel should jointly assess the facts and legal basis of their claims and involve damages experts early so that the appropriate documents needed to prove damages (assuming

[24] ROBERT L. DUNN, RECOVERY OF DAMAGES FOR LOST PROFITS (6th ed. 2005).

liability) and the amount of possible damages can be estimated reliably. Such estimate of damages can greatly benefit the client and counsel in developing their legal case.

B. Expert Determination

Expert determination is a procedure in which a dispute or a difference between the parties is submitted, by agreement of the parties, to one or more experts who make a determination on the matter referred to them. Such determination is binding, unless the parties agree otherwise. Expert determinations are governed by their own body of law that is separate, distinct, and different from the law of arbitration.

In an expert determination, the authority granted to the expert (by the parties) is limited to deciding a specific factual dispute concerning a matter that is within the expertise of the expert. Such matters include a specific issue of valuation, selection and application of generally accepted accounting standards etc. The expert is selected by the parties for such expertise and is also expected to use his or her specialised knowledge to resolve the specified fact issue. For example, in a purchase price dispute, there may be differences in treatment of revenue on complex, long-term contracts etc. and the expert chosen to settle this dispute will need to use his or her expertise in resolving the dispute.

Since the issue referred to expert determination is narrow, expert determinations can be much faster, more focused and substantially less expensive than arbitration.

Expert determination clauses are frequently used in M&A transactions that govern the purchase and sale of companies. In these transactions, parties usually agree on a purchase price that can vary substantially between the signing of the purchase agreement and the closing of these transactions. Any adjustment to purchase price generally is contentious and parties usually agree that any dispute regarding adjustment or allocation of purchase price is to be submitted to an independent accounting firm or expert for a final and binding determination.

The expert may make the determination on the basis of (i) any information presented by the parties; (ii) the expert's expertise; (iii) any other information which the expert considers to be relevant. Further, the determination shall, unless otherwise agreed by the parties (i) be in writing; (ii) include a description of the matter referred to expert determination; (iii) state the reasons on which it is based; (iv) indicate the date on which it was made; and (v) be signed by the expert.[25]

[25] World Intellectual Property Organization (WIPO) Expert Determination Rules, art. 17 (effective January 1, 2016) *available at* http://www.wipo.int/amc/en/expert-determination/rules.

C. Guidelines on selection and appointment of experts

In May 2010, the International Bar Association ["**IBA**"] issued the IBA Rules on the Taking of Evidence in International Arbitration.[26] These rules provide guidance on use of party-appointed experts and tribunal appointed experts.

Further, the rules specify the nature of disclosures that must be contained in an expert report (whether appointed by the parties or the Tribunal) including:

a. Statement regarding the expert's past relationship, if any, with any of the parties, their legal advisors and the arbitral tribunal;
b. Statement of the expert's independence from the parties, their legal advisors and the arbitral tribunal;
c. Description of the expert's background, qualification, training and experience;
d. Statement of the facts on which the expert is basing his or her opinions and conclusions; and
e. The expert's opinions and conclusions including a description of the methods, evidence and information used in arriving at such opinions and conclusions.

Professional organisations that govern accountants, surveyors, appraisers, engineers etc. may also have rules that govern provision of expert reports and expert testimony in litigation and arbitration.[27] These rules place emphasis on independence, integrity and objectivity, credibility and qualifications of an expert. In addition, these rules provide guidance on selection of an appropriate methodology that may be used to compute damages in certain instances and the factors that must be considered while selecting and applying the said methodology based on the relevant facts and circumstances.

D. Challenges with damages or quantum experts

Damages experts should be used carefully and their remit and mandate should be clearly codified in a retention letter. It is important that clients or counsel be aware of the risks in using damages experts improperly.

Damages experts should be independent, objective and credible in their methodology, assumptions, conclusions and opinions. Damages experts should be wary of the following traps:

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26 *IBA Rules on the Taking of Evidence in International Arbitration adopted by a resolution of the IBA Council* (May 29, 2010), www.IBANET.ORG, *available at* http://www.ibanet.org/ENews_Archive/IBA_30June_2010_Enews_Taking_of_Evidence_new_rules.aspx.

27 *For example*, the American Institute of Certified Public Accountants (AICPA) *Professional Standards,* vol. 1, AT secs. 9101.34.39 that governs expert witness services by its members in the United States of America.

a. An expert should not be used to evidence facts or cure the facts of the case. This aspect is best handled by counsel or fact witnesses.
b. An expert should not be an advocate for the client. Advocacy is the prerogative of counsel and is best done by counsel. An expert should be independent, objective and open minded to the methodology used to compute damages, the assumptions used and the sensitivity of such assumptions on the damages computed.
c. An expert should not defend facts and should be willing to change the quantum of damages if the underlying facts or assumptions change. This will lend credibility to the experts' damages quantification and the tribunal is more likely to consider such expert's views rather than an expert who is wedded to the facts and is unwilling to consider facts that have been successfully challenged by the counter-party or proven wrong during the arbitration hearings.
d. An expert should not be retained simply because the counter-party has an expert. Counsel may often advise clients to retain experts in this instance but it is worth exploring whether an expert is needed at all and for a purpose other than to counteract an expert from the other side.
e. An expert should not be retained to undertake fairly simple mathematical calculations or to summarise amounts stated in various fact witness statements even if such calculations require fairly laborious evaluation of numerous documents and fact witness statements. In this instance, an expert's work is to merely compute or 'add up' the various amounts 'presenting' or 'simplifying' information contained in several pleadings, submissions and fact witness statements in a form that is easily understood by either counsel or the arbitration tribunal.
f. Experts should be wary of being perceived as 'hired guns" or "experts for sale". Simply put, "hired guns" refer to an expert who does not appear to be impartial. In other words, these are experts with a bias and adapt their expert evidence to the requirements of the party that has instructed them.

To conclude, damages experts retained (early) and used properly, can add tremendous value to the arbitral tribunal, counsel and clients. Damages experts can provide an independent, objective and credible determination of the damages due and this can only be achieved if the damages expert retains his or her independence from the counsel, client and facts of the case. In summary, damages experts should not trade independence for advocacy and acquiescence to counsel or client demands.

IV. Conclusion

International arbitration being flexible, confidential and appointing knowledge experts, it would continue to be witnessed as a preferred mode of resolving disputes. As the number of filings rise in international arbitration institutions, the trend of the approach preferred by corporates for dispute resolution is anticipated in the future as well. With respect to determining damages, deciding the appropriate measures is a critical aspect. Finally, one must also always be cautious of the associated pitfalls and not let subjectivity, speculation or judgement deter the process.