
Dispute perspectives Discounting DCF?



Introduction

In January 2016, the tribunal in *Tenaris SA and Talta v Bolivarian Republic of Venezuela* issued an award in which it rejected the use of DCF even though both claimant and respondent had adopted DCF as their preferred approach and the entity that was expropriated had operated as a going concern for a number of years. The case illustrates some of the challenges that parties and tribunals face when adopting DCF as the basis for measuring fair market value in investment treaty cases. In this article, we focus on the way in which tribunals approach the use of DCF to value damages based on our analysis of nearly 100 tribunal awards over a 25 year period.¹



The key points

Tribunals recognise that discounted cash flow (DCF) analysis is a widely accepted and theoretically sound business tool for valuations. However, they remain cautious when applying DCF in practice, in some instances even when it is the preferred approach of both claimants and respondents.

The willingness of tribunals to engage with DCF varies. Some appear to be put off by the use of assumptions and the extent of the moving parts, though most seem to be increasingly comfortable to adjust assumptions and inputs and use DCF as a cross check on other valuation methodologies.

In the majority of cases where tribunals rejected DCF, they did so because they considered it too uncertain or speculative. Tribunals cited lack of a track record of revenue generation and profitable operations. In most of the cases reviewed, the claimants had traded for a period of less than four years.

Party appointed experts should be directed by tribunals to explain the impact of the assumptions made on the damages valuation and provide tribunals with the necessary tools to arrive at an award.

In large and complex cases, tribunal appointed experts have a role to play, both in explaining the choice of valuation methodologies and in helping the tribunal to engage in a more confident and informed discussion of the assumptions underlying the DCF analysis in the damages award.

¹ As explained in our original article (<http://bit.ly/IA damages>) these awards primarily relate to investment in treaty arbitration.

Use of DCF to quantify damages in Investor/State arbitration

Proposed vs. accepted use of DCF in arbitration

DCF was proposed as the primary damages quantification methodology on 59 occasions out of 95 cases reviewed and accepted by tribunals 37 times (62% of those cases where it was proposed). DCF was proposed by the claimant on 55 out of 59 occasions and by both the claimant and the State respondent in almost

one third of cases reviewed. DCF was not accepted by the tribunal in 3 of those cases, where it was proposed by both the claimant and the respondent.



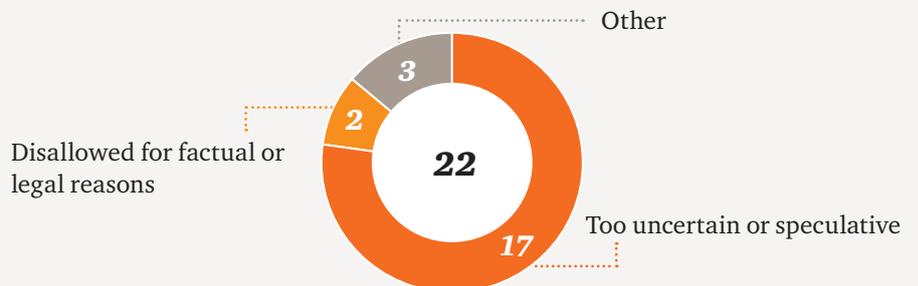
Our research shows that the DCF methodology was proposed as a primary valuation methodology in 59 of 95 cases



Of these tribunals accepted the DCF methodology in 37 cases

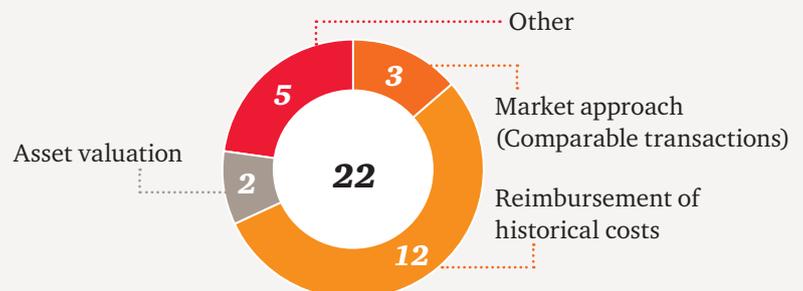
The reasons why tribunals reject DCF

DCF was rejected by tribunals on 22 occasions. The principal reason why DCF was rejected was because tribunals considered the approach to lead to a result that was too uncertain or speculative.



Cases where DCF was rejected – alternative approaches adopted

In the 22 cases where DCF was rejected, tribunals adopted the following alternative approaches to quantifying damages.



Acceptance of DCF as a business tool

Investor-State arbitration awards over the last 10 to 15 years show that tribunals appear to accept the validity of DCF as a relevant and theoretically sound business tool for valuation. In *Enron v Argentina* (2007) for example, the tribunal recognised that ‘...there is convincing evidence that DCF is a sound tool used internationally to value companies’² while in *El Paso Energy v Argentina* (2011) the tribunal described

DCF as being ‘...by far the most widely used as a primary valuation tool’³. Similarly, the tribunal in *CMS Transmission Co. v Argentina* noted that ‘...DCF techniques have been universally adopted, including by numerous arbitral tribunals, as an appropriate method for valuing business assets.’⁴

Increasingly, respondent States appear to accept that DCF is appropriate in principle, with experts for respondents

submitting their own DCF analyses in order to counter claimant valuations⁵.

However, DCF is simply a computational tool. Assuming the DCF model is built properly to produce accurate calculations, the resulting valuation is entirely dependent on the quality of the data and assumptions that are used as inputs to the model. The principle of ‘garbage in, garbage out’ applies.

Cautious approach to DCF in practice

Despite the theoretical acceptance of DCF, tribunals continue to approach the application of DCF with caution. DCF has been avoided for legal reasons where, for example, the tribunal finds that fair market value is not the appropriate compensation for non-expropriation cases.⁶ More frequently, arbitrators decide not to use DCF for evidential reasons, primarily where the quality of the inputs is considered unreliable to produce a sound valuation result. Tribunals have considered assumptions or data about potential revenues, expenses, growth rates and risks to be too uncertain and speculative. This is particularly so where the claimant does not have a sufficient track record of profitable operations to be considered a ‘going concern’ and there are no reliable comparators against which to benchmark the projections of revenues and profits in the DCF model. While there appears to be no hard and fast rule as to what constitutes a sufficient track record of profitable operations, in the majority of those cases where DCF was accepted, the claimants had operated for a period of at least three years or more.

Too much uncertainty

In *AIG Capital Partners Inc v Kazakhstan* (2003), the tribunal rejected DCF as there was too much uncertainty and significant further investment was required before any income generation could take place.

The tribunal commented, in the context of a real estate development project, that ‘The parameters of the DCF formula require that projected revenues (a vital element in the DCF computation) have to be based on some actual revenues earned. Not only is there no evidence of any revenues earned or profits derived from the project but there is not a single instance of an advance taken or an order registered for any unit proposed to be built.’⁷

A speculative outcome

The tribunal took into consideration previous awards where DCF was rejected for evidentiary reasons including *Metalclad v Mexico* (2000) where the tribunal concluded that because the business had never operated, ‘...any award based on future profits would be wholly speculative.’⁸ DCF was rejected for similar reasons in *Franck Charles Arif v Republic of Moldova* (2013) where the tribunal considered it inappropriate ‘...for a business that never operated and where a satisfactory basis for its projected revenues has not been demonstrated. Use of a DCF methodology in these circumstances gives an excessively speculative outcome.’⁹

The standard of evidence required

In *Compania de Aguas v Argentina* (2007), the claimant used DCF to value lost profits over a period of 27 years. The

tribunal held that the claimants ‘...failed to establish with a sufficient degree of certainty’ that the investment would be profitable.¹⁰ In commenting on the standard of evidence required, the tribunal pointed out that ‘...a claimant might be able to establish the likelihood of lost profits with sufficient certainty even in the absence of a genuine going concern. For example, a claimant might be able to establish clearly that an investment, such as a concession, would have been profitable by presenting sufficient evidence of its expertise and proven record of profitability of concessions it (or indeed others) had operated in similar circumstances.’¹¹

The sufficiency of evidence to support a reliable stream of cash flows appears to vary between tribunals. For example, in *Walter Bau AG v Thailand* (2009) in considering a claim for a failed toll way project, the tribunal endorsed the use of DCF and rejected the respondent’s argument that the claim was inherently speculative, stating that although the investment had not achieved its expected returns, the company remained in existence, retained the relevant concession and had been the subject of ‘...elaborate and sophisticated studies prepared by one or other Party or by lenders.’¹²

² *Enron v Argentina* – paragraph 385.

³ *El Paso Energy v Argentina* – paragraph 711.

⁴ *CMS v Argentina* paragraph 416.

⁵ *CMS v Argentina*, *Sempra v Argentina*, *CME v Czech Republic* are all examples where the respondent expert has provided an alternative DCF quantification on behalf of the State.

⁶ In *PSEG Global Inc v Turkey* the Tribunal stated the following: ‘The Tribunal accordingly finds that the fair market value shall not be retained as the measure for compensation for this case and hence it will also not discuss the many technical aspects raised by the parties in connection with the factors that were taken into account for assigning a value to the claim and the appropriate method for its calculation.’ (paragraph 309).

Comparable transactions

Tribunals have also appeared willing to reject DCF where they consider that a more reliable valuation can be arrived at based on reliable comparable transactions. In *BG Group plc v Argentina* (2007), the tribunal rejected the claimant's DCF approach as too *'...uncertain and speculative'*⁷, preferring to rely on comparable transactions. The tribunal didn't analyse or adjust the DCF to cross check the results given by the comparable transactions or explain why they considered DCF to be too uncertain. Contrast this with the approach in *CME Czech Republic BV v Czech Republic* (2003) where the tribunal selected comparable transactions as the most appropriate approach for quantifying damages used and, in a lengthy damages section of the award, used the DCF analysis prepared by both the claimant and respondent as a cross check on the results from an analysis of comparable transactions. It is apparent that the appetite of tribunals to engage with DCF and their level of confidence in adjusting the inputs and analysis to reflect their findings varies significantly.

Our review did identify recent exceptions to the general rule that tribunals will not accept the use of DCF where there is no established track record of operations and cash flow generation.

In *Ioaniss Kardassopoulos v Republic of Georgia* (2010) which concerned the expropriation of an oil pipeline, the claimant proposed the use of DCF with certain of the key inputs derived from an analysis of comparable transactions. The tribunal accepted this approach, considering that the use of comparable transactions supported the assumptions made in the DCF analysis.

In *Occidental Petroleum v Ecuador* (2012) and *Gold Reserve Inc v Bolivarian Republic of Venezuela* (2014) experts for both claimant and respondent agreed that DCF was the most appropriate methodology to determine the fair market value of the expropriated investment. The tribunal accepted this despite there being no history of profitable operations prior to expropriation. The tribunal appears to have been

reassured by the fact that objective market prices were available for the relevant commodities together with plans for their extraction. The tribunal commented as follows in *Gold Reserve Inc v Bolivarian Republic of Venezuela*: *'Although the Brisas project was never a functioning mine and therefore did not have a history of cash flow generation which would lend itself to the DCF model, the Tribunal accepts the explanation... that a DCF method can be reliably used in the instant case because of the commodity nature of the product and detailed mining cash flow analysis previously performed.'*¹⁴

The evidence differs in every case, however. While the tribunal in *Khan Resources v Mongolia* acknowledged that DCF is often an appropriate methodology for a mine with proven reserves, it rejected the methodology on the grounds that it was far from certain whether the mine would ever have reached production and, if so, whether the claimants would have remained involved.¹⁵

⁷ *AIG Capital Partners Inc v Kazakhstan* page 106.

⁸ *Metalclad v Mexico* paragraph 121.

⁹ *Franck Charles Arif v Republic of Moldova* paragraph 576.

¹⁰ *Compania de Aguas v Argentina* paragraph 8.3.5.

¹¹ *Compania de Aguas v Argentina* paragraph 8.3.4.

¹² *Walter Bau AG v Thailand* paragraph 14.21.

¹³ *BG Group plc v Argentina*, paragraph 439.

¹⁴ *Gold Reserve Inc v Bolivarian Republic of Venezuela*, paragraph 830.

¹⁵ *Khan Resources v Mongolia*, paragraph 392.

Use of tribunal appointed experts

In certain of the Argentinian ‘pesification’ cases¹⁶ where DCF was accepted as an appropriate valuation methodology, the tribunal appointed its own expert ‘...in view of the number and complexity of the accounting issues relating to the damages assessment as evidence by the diverging views given on many relevant questions by the Parties’ experts’.¹⁷

While the influence of these tribunal appointed experts cannot be readily ascertained from a reading of the Awards alone, it is apparent from El Paso Energy at least, that the view of its own expert was an important factor in the tribunal’s acceptance of DCF. ‘The Tribunal endorses the choice of the DCF method as being the most appropriate in the circumstances considering also its consistency with the [Tribunal appointed] Expert’s chosen valuation standard.’¹⁸

It also appears in these cases that the presence of a tribunal appointed expert coincides with a more detailed and sophisticated analysis of the assumptions underlying the DCF analysis in the award than we have seen in other cases.

Tribunal appointed experts may also have a role to play in bridging the gap between party-appointed experts when there is agreement between the parties as to the appropriate approach to valuing damages. In the January 2016 award in the Tenaris, Talta and Venezuela case,¹⁹ the tribunal rejected the use of DCF despite both claimant and respondent adopting DCF as their preferred approach. While the reasons given by the tribunal were familiar – too much uncertainty to enable a reliable forecast of cash flows – it is apparent that the extent of the difference between the claimants’ and respondent’s respective DCF calculations was also an

important factor in persuading the tribunal to adopt an alternative methodology. The tribunal stated the following:

“The tribunal recognises that parties in investment cases may be prone to adopt dramatically contrasting approaches to the presentation of quantum issues in order to maximise a position – or to minimise that of the opposing party. Such a conflict can result in little or no engagement between the methodological arguments and valuation theories advanced by the opposing parties. In consequence, tribunals have based their findings upon other evidence and argument in the record introduced by each party in an attempt to arrive at a quantum determination in which they consider that they can have the requisite degree of confidence”.

Conclusions

While tribunals accept the validity of DCF as a tool for many business valuations, they remain cautious when it comes to applying it in practice.

Tribunals have rejected DCF for legal reasons and, more commonly, for evidential reasons where the approach is considered too speculative and uncertain in the absence of a track record of profitable operations. Certain recent awards suggest that tribunals are becoming more comfortable with the application of DCF in start-up situations where the key inputs can be corroborated by alternative evidence such as market commodity prices and comparable transactions.

In the right circumstance, tribunal appointed experts have a role to play. As well as supporting the tribunal in the choice of damages quantification

methodology, there is some evidence to indicate that their presence enables the tribunal to engage more fully and confidently with the detail of the DCF analysis.

DCF is one of a number of tools available to an expert to value damages. If the available evidence permits, the results of the DCF should be cross checked for reasonableness against the results of other valuation methodologies such as a market based review of comparable transactions. Assuming the DCF model is mathematically sound, the reliability of the result rests on the quality and robustness of the underlying assumptions and the extent to which these can be supported by the evidence available in the case. If necessary, tribunals should direct party appointed experts to explain clearly the impact of their assumptions

and demonstrate the sensitivity of the resulting valuation to changes in these assumptions. Often tribunals are presented with only one party’s view of the DCF analysis (typically that of the claimant). While respondents may object to the use of DCF in principle, it may assist tribunals in arriving at a clearer understanding of the factors impacting the valuation of damages to be provided with an alternative DCF calculation based on assumptions considered reasonable by the respondent’s expert.

¹⁶ Sempra Energy v Argentina (2007), National Grid plc v Argentina (2008) and El Paso Energy v Argentina (2011).

¹⁷ El Paso Energy v Argentina paragraph 698.

¹⁸ El Paso Energy v Argentina paragraph 712.

¹⁹ Tenaris, Talta and the Bolivarian Republic of Venezuela, paragraph 523.

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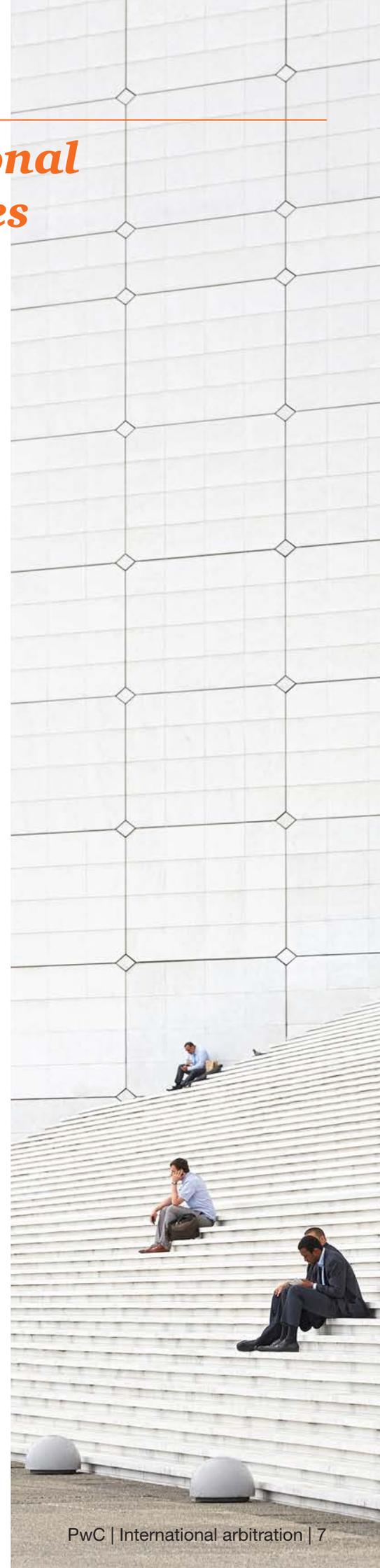
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