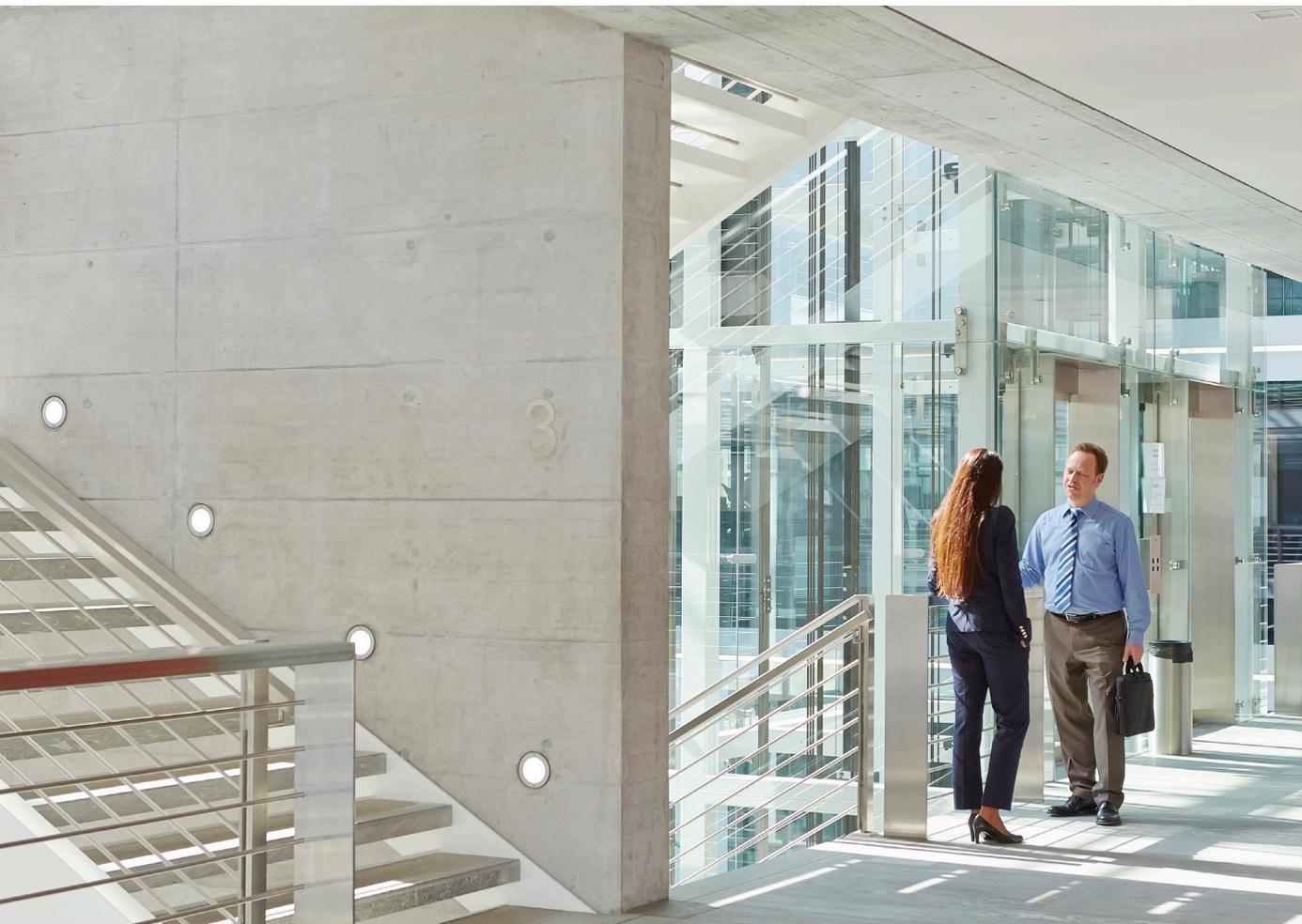


2015 – International Arbitration damages research



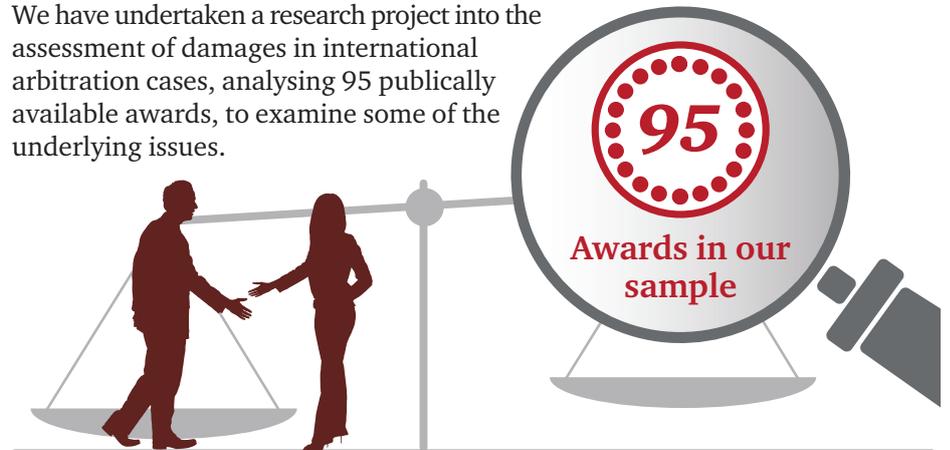
*Closing the gap between claimants
and respondents*



Arbitral awards in focus

International arbitration is the preferred means of resolving cross-border disputes. However, although it's a mature and effective dispute resolution mechanism, the assessment of damages in both commercial and investment arbitrations remains somewhat unpredictable and continues to provoke controversy.

We have undertaken a research project into the assessment of damages in international arbitration cases, analysing 95 publically available awards, to examine some of the underlying issues.



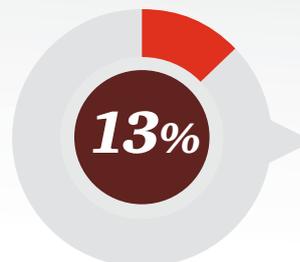
Mind the Gap

Given the huge disparity in the parties' relative positions, tribunals have a difficult job to determine an appropriate amount of damages to award. We found that there were few cases where the tribunal awarded zero damages or the full amount claimed. In the majority of cases tribunals award less than half of the amount claimed.

Tribunal awarded claims



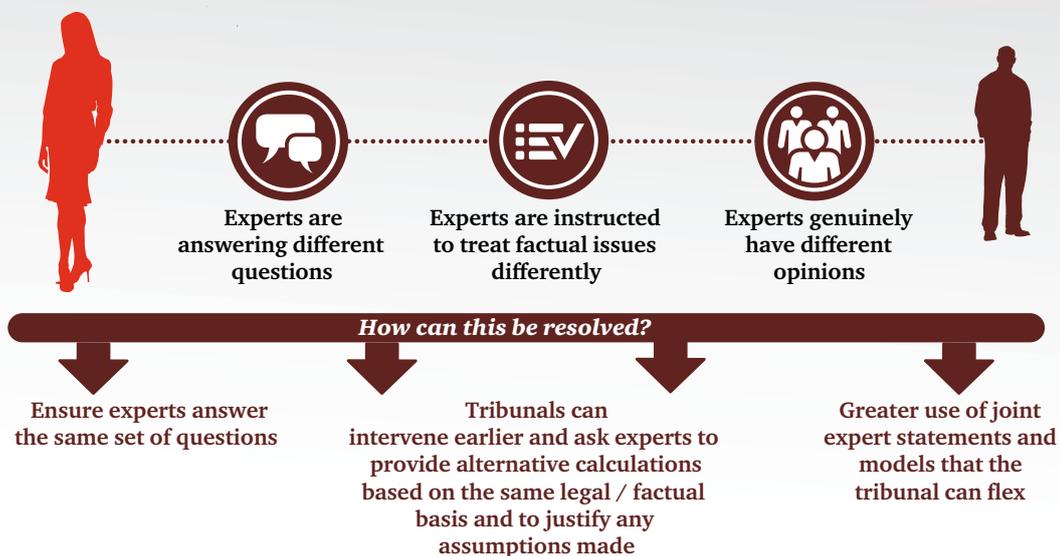
Tribunals award on average only **37%** of the amount claimed



Respondent expert vs. claimant
Respondent amount as a % of amount claimed (**13%**)

Closing the Gap between claimant and respondent experts

Why is the gulf so wide between experts?



Valuation approaches accepted by Tribunals

Increasing acceptance of income based approaches (such as DCF, comparable companies and transactions)

Pre-2000

17%

2011 - 2015

69%

Tribunals are increasingly willing to accept income based approaches such as DCF which capture future profits or returns (these approaches were used by Tribunals in 69% of cases from 2011 to 2015, compared to only 17% of cases pre-2000).

18/22

In 18 of the 22 cases where tribunals rejected DCF this related to new ventures that were considered speculative or too uncertain

49%

Where DCF is used, discount rates are a significant source of disagreement in 49% of cases

Size of Awards

Although blockbuster awards for multiple billions of dollars have grabbed the headlines recently, in the vast majority of cases, awards were for amounts below US\$ 100 million (inflation adjusted).

81% of awards under \$100m

8 pages

to

34 pages

Tribunals provide more in-depth explanations of their approach to damages now than ever before – the number of pages dedicated to damages in awards has increased from an average of 8 pages pre-2000 to 34 pages in the last five years.



Industry analysis – Number of awards, average value of award (inflation adjusted)

Financial services

5 Cases \$251m

Telecoms, media, technology

6 Cases \$90m

Hospitality

8 Cases \$133m

Others

16 Cases \$23m

Energy and natural resources

31 Cases \$196m

Capital projects

11 Cases \$65m

Manufacturing

9 Cases \$49m

Transport

8 Cases \$30m

Grand total
94 Cases

\$114m

(Excluding Yukos)

Introduction

We have undertaken a research project into the assessment of damages in International Arbitration cases, analysing 95 publicly available awards to examine, amongst other things, the following issues:

How far apart are the claim values quantified by claimant and respondent experts, and why?

What percentage of amounts claimed by claimants is actually awarded by Tribunals?

What are the common battle grounds between experts in assessing damages?

How transparent are tribunals in explaining the basis for the value of damages awarded?

What interest is added to the amount claimed and how is that justified by Tribunals?

Which methodologies are applied most frequently in assessing damages? What are the common reasons given by Tribunals for accepting or rejecting different methodologies?

Our sample includes only those awards for which an assessment of damages was performed by the Tribunal, and therefore excludes any award in which the Tribunal ruled in favour of the respondent on jurisdiction or liability.

The majority of the cases in our sample relate to investment treaty arbitration, reflecting the fact that these awards are more frequently made public than commercial arbitration awards. Whilst investment treaty cases present some unique issues, in our view the majority of our findings will be relevant to commercial international arbitration also.

Our research considers the overall population and trends over the 25 year period covered by our sample. We have identified quantitative findings with respect to each area, then analysed the awards further to assess the underlying issues with respect to those findings. This paper summarises our key findings, some of which will be explored in greater detail in subsequent articles.

Amounts awarded by Tribunals and quantified by experts

Respondents' experts typically value claims at a fraction of the value quantified by claimants' experts

The amount quantified by respondents' experts was, on average, 13% of the amount quantified by claimants' experts. Our percentage compares the experts' quantification of only the primary head of claim in each case, so as to ensure a like for like comparison can be made of the experts' positions.

Interestingly, our research shows a degree of correlation between a tribunal's award on damages and where the parties position themselves on damages. As respondents' positions move closer to the claim value, the tribunal's award does the same. This is by no means conclusive proof that parties are able to influence the outcome

of arbitrations by anchoring the tribunal's thinking on the numbers. However, recognising and dealing with cognitive biases, such as anchoring, is important given the complex decisions that arbitrators have to make on damages and necessary if tribunals are to render fair awards.

Perception

Party appointed experts are not providing objective opinions on the assessment of amounts lost.

Reality

Our detailed review of awards shows that in most cases there are a number of reasons that lead to the wide gap between each party's expert assessment:

- the experts are assessing loss on a different legal basis or answering different questions (e.g. one expert may be assessing fair market value on the basis that an expropriation is legal, whilst the other may be assessing fair market value on the basis that the expropriation is illegal);
- there are differences between the parties on questions of fact or assumptions which affect the assessment of loss (e.g. the claimant may have instructed its expert to assume its interest in a venture was 100% whilst the respondent may have instructed its expert to assume that the claimant's interest in a venture was 60%); and
- there are genuine differences of opinion between the experts.

It is not possible from the awards alone to determine how much each of the above factors contributes to the difference in amounts quantified by Claimant and Respondent experts (after all, reconciling the positions is not the goal of an award). Some may consider this wide gap an issue that may need to be resolved; for others this may be merely a normal outcome of such adversarial processes. The existence of such wide gaps leaves

arbitrators in a very difficult position when it comes to the assessment of damages; whilst they are often experts in law, they are not experts in financial matters and yet they have to determine a fair amount to award.

In our view, the wide gap between the parties' position on damages needs to be narrowed in order to assist tribunals in rendering fairer awards. To do so a variety of measures may be required, including:

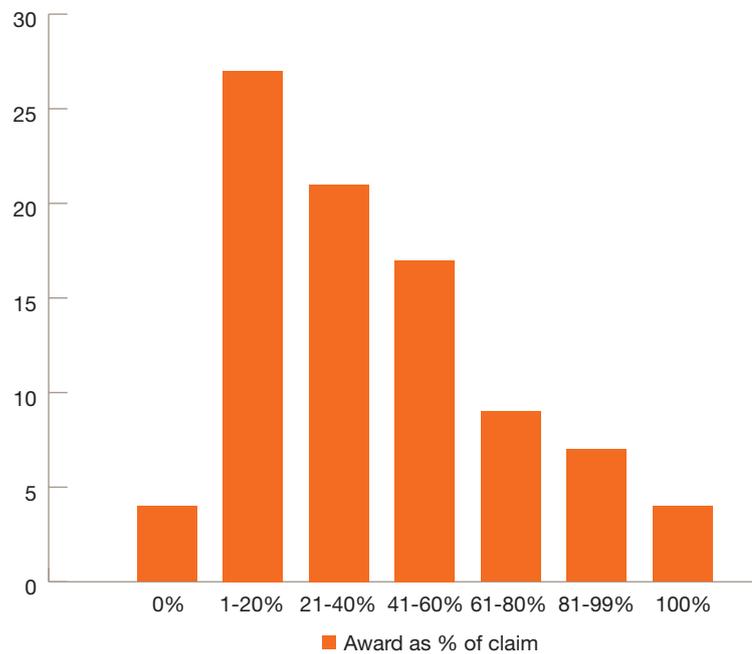
- ensuring that the experts are given the same set of instructions and exam questions (asking an expert to quantify the value of a company is not enough);
- where there are differences of opinion on the legal and factual issues that influence the assessment of damages, Tribunals can request experts to prepare their assessment on a number of different bases; and
- using joint statements to ensure there is clarity as to the key differences in opinion between the experts and how each affects the calculations.

In the awards that we reviewed there were no cases where tribunals criticised an expert's integrity or objectivity although in a small number of cases, the tribunals were critical of the expert's valuation. Where experts do not act with the degree of objectivity and independence required, censure by tribunals can provide a further deterrent to any expert that may be tempted to overstep the mark.

Tribunals award less than 40% of the amounts claimed

The amount awarded by Tribunals was, on average, 37% of the amount claimed. For each case this captures the total amount across all heads of claim proposed by claimants, and the total amount awarded by Tribunals excluding interest.

The amount awarded is rarely all or nothing, but there is no clear trend of tribunals landing in the middle



Perception

In determining the amount to be awarded Tribunals go for the middle ground between the parties.

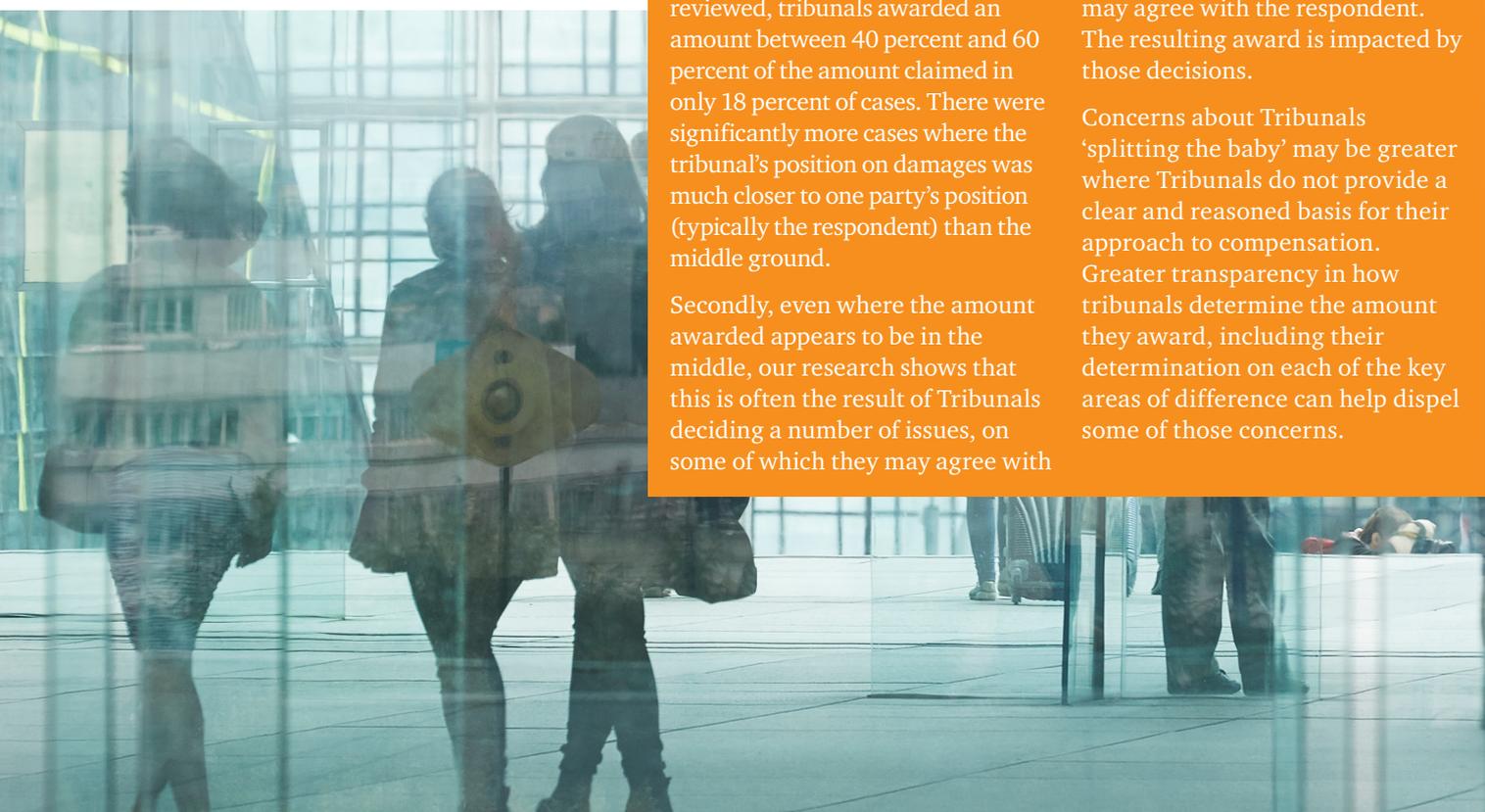
Reality

In the sample of awards that we reviewed, tribunals awarded an amount between 40 percent and 60 percent of the amount claimed in only 18 percent of cases. There were significantly more cases where the tribunal's position on damages was much closer to one party's position (typically the respondent) than the middle ground.

Secondly, even where the amount awarded appears to be in the middle, our research shows that this is often the result of Tribunals deciding a number of issues, on some of which they may agree with

the claimants, while on others they may agree with the respondent. The resulting award is impacted by those decisions.

Concerns about Tribunals 'splitting the baby' may be greater where Tribunals do not provide a clear and reasoned basis for their approach to compensation. Greater transparency in how tribunals determine the amount they award, including their determination on each of the key areas of difference can help dispel some of those concerns.



Tribunals are becoming more sophisticated in their assessment of damages

Anecdotally one hears of arbitrators becoming better versed with financial theories and methods used to assess damages. Our research findings support this.

	Pre-2000	2001-05	2006-10	2011-15
Average length of damages section (pages)	8	23	20	34
Damages section as a proportion of the total length of the Award (%)	15%	18%	14%	15%

At a very basic level, Tribunals dedicate more pages now than ever before to explaining the basis for their quantification of damages. That finding is in the context of longer arbitration awards generally, but our observation from reading the awards is that the increased page count reflects Tribunals explaining their approach to damages in more depth, and addressing more complex valuation issues, than was historically the case.

Secondly, Tribunals also appear to be increasingly willing to accept loss assessment methodologies that reflect expected future returns on investments.

Choice of methodologies

Our research shows that in awarding damages Tribunals adopt a range of different methodologies, which we have grouped for the purpose of our analysis as outlined below:

Income approaches

Which convert anticipated economic benefits into a single net present value at the valuation date. By far the most common form of this approach is the discounted cash flow ('DCF') methodology.

Market approaches

Which assess value by comparing the business or asset being valued to similar, comparable businesses or assets in the market.

Asset approaches

Which assess the current market or book value of assets, net of liabilities.

Historical cost/investment cost

We have grouped in this category a variety of approaches which assess compensation by reference to historic costs, cash flows or invested amount.

Other

Any approach in this category does not fit into any of the above categories.

An important distinction to make is between the 'backward looking' approaches based on historical cost or investment cost and the 'forward looking' income and market approaches. The forward looking approaches capture the value associated with future growth, with the trade-off of greater uncertainty as to the value to place on that future growth. The backward looking approaches offer greater certainty of value, but do not capture the expected investment returns and often therefore lead to a lower value of compensation.

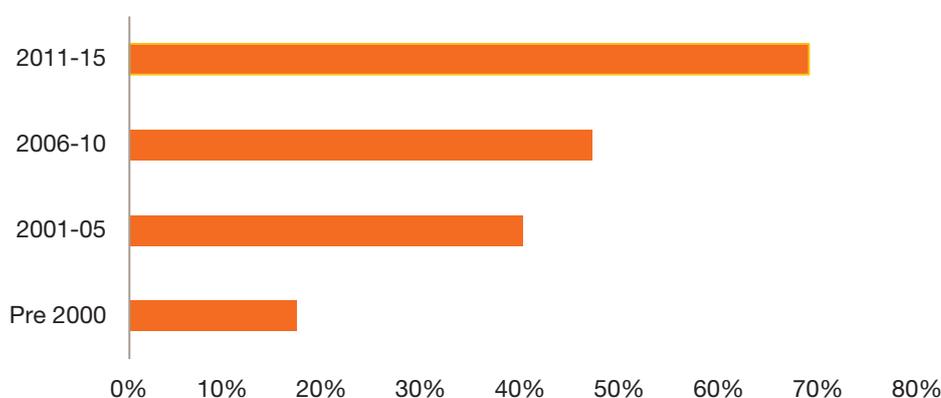
The increased use of forward looking approaches may be a reflection of tribunals becoming more conversant with these approaches, and therefore more willing to accept that, despite their inherent uncertainties, they can produce a reasonable result.

Our research told us the following about the approaches adopted by Tribunals:

A range of valuation methodologies are applied by Tribunals as their primary approach

Valuation methodology applied by Tribunals	
DCF and other income approaches	37
Historical cost/investment cost	33
Market approach	10
Asset approach	2
Other	13
Total	95

Number of awards where forward looking methods are adopted by tribunals as a percentage of total number of awards



Greater congruence with the real world...

This trend seems to point to greater congruence between arbitral awards and the real world, which in our view is a positive development. DCF and market based valuations are used routinely in the real world. In most M&A activity, one or a combination of these approaches are used by buyers and sellers to determine the price at which a company or asset may change hands.

...But still commonly rejected by Tribunals

Despite greater acceptance of DCF over time, it is still commonly rejected by Tribunals. Overall, in our sample the DCF methodology was rejected by the Tribunal on 22 of the 59 occasions it was proposed by an expert as the primary valuation methodology. The DCF method is sometimes rejected for evidential reasons, primarily where it is considered to be too uncertain and speculative, or where the company or asset in question is

a new venture or otherwise does not have a sufficient track record of profitable operations to be considered a 'going concern'. The DCF method has been accepted by Tribunals as a means of valuing a new venture where there is an established market, for example for ventures related to the oil, gas and mining industries. In simple terms, this is because a natural resources company with proven reserves may be considered less speculative or uncertain than, for example, a new tech start-up with an unproven business model.

In our view, the application of the methodology itself is as important as (if not more than) the choice of methodology itself. DCF is a tool and a DCF model that does not reflect properly the risks underpinning a particular venture at the date of valuation is of limited use. This is borne out by the fact that, even when both experts agree on the valuation methodology, the amount awarded by Tribunals is still, on average, only 44% of the amount claimed.

When DCF is used by Tribunals, a common source of disagreement between experts is the discount rate to be used – we saw this in 49% of cases where the DCF approach was adopted.

Market approach

Market approach is not widely used as the primary basis for assessing value but is often used to cross-check other methodologies, particularly DCF. It is often adopted where a DCF methodology is considered too uncertain or speculative.

Given the standard in investment cases is often market value or fair market value, one might expect market data to be more prominent in assessing compensation. However, typically the problem is an absence of truly comparable companies or transactions. Clearly, the best comparable would be an arm's length transaction in the same shares around the same time but this is rare. The less closely a transaction resembles the investment being valued, the more likely it is to be challenged and the less likely it is to be accepted as a suitable proxy for value.

Pre and post award interest

Our research tells us that:

Compound (rather than simple) interest is now applied in the vast majority of cases

Type of interest applied by tribunal	Pre-2000	2001-05	2006-10	2011-15
Simple	60%	54%	15%	14%
Compound	40%	46%	85%	86%

Tribunals award interest on a variety of different bases, frequently as a fixed percentage or by reference to an inter-bank rate

Basis for pre award interest	Frequency of cases
Benchmark rate	77%
Inter-bank rate	28%
Risk free rate	15%
Cost of debt	19%
Bank deposit rate	7%
Cost of capital	2%
Other	6%
Fixed percentage	21%
Unclear	2%
Grand total	100%

Tribunals rarely distinguish between the rate of interest in the pre and post award periods

Where both pre and post award interest is awarded Tribunals distinguish the rate of interest across the two cases in only 15% of cases.

In reviewing the awards we noted that interest generally appears to receive much less attention than discount rates which, particularly in recent cases such as Guaracachi America Inc and Rurelec PLC v Bolivia, were covered in much more detail in the tribunals' awards. The reality is that, depending on the timing of cash flows, the rate of interest awarded can be of similar impact on the assessment of damages as the discount rate.

We think that the award of interest merits greater consideration by parties and tribunals and will cover this issue in greater length in a subsequent article.

Increasing award size?

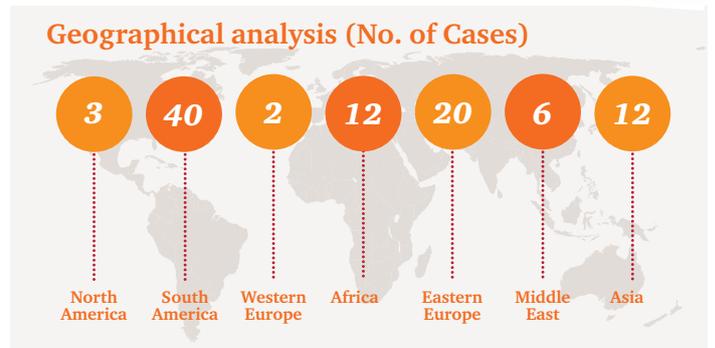
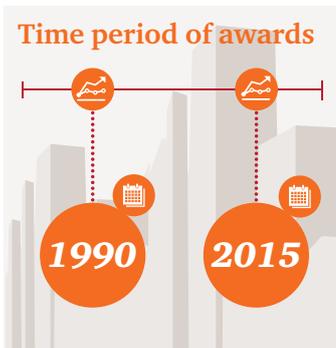
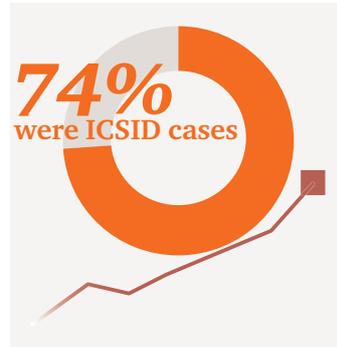
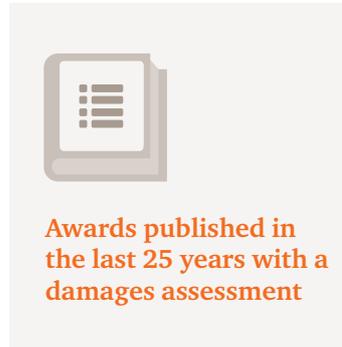
Much attention has been focused in recent times – both in the arbitration community and through headlines generated in the media – on a relatively small number of multiple billion dollar awards. These headlines could easily create a perception that the amounts at stake in arbitration are increasing across the board. This trend is examined by reference to our sample in the table below:

Value of awards US\$ (adjusted for inflation)	1990-2000	2001-05	2006-10	2011-15
Less than 100 million	100%	73%	81%	78%
Between 100 million and 1 billion	0%	20%	19%	14%
Greater than 1 billion	0%	7%	0%	8%
Total	12	15	32	36

Our research shows that, whilst the number of large awards has increased over the past 15 years, the overwhelming majority of awards continue to be for amounts below \$100 million. Despite the headlines, only three of the awards we reviewed in the past five years were for amounts in excess of \$1 billion, and five for amounts greater than \$100 million but less than \$1 billion.

Methodology

PwC Research – What did we do?



Our capabilities in international arbitration and other disputes

For over 30 years, we have been working with clients to establish facts, analyse issues and develop dispute resolution strategies. Our specialist team advises on the financial, economic and valuation aspects of claims. We assist clients throughout the dispute resolution process and provide independent expert testimony. We work on a wide range of disputes including litigation, arbitration, mediation, expert determination and regulatory matters.

The hallmarks of our approach:

- We have a team of expert forensic accountants, economists, valuers and engineers who specialise in disputes. Our experts are experienced in providing written and oral testimony in a range of forums. Our opinions on liability, causation and damages convey complex matters in plain English.
- We bring to bear the wide range of skills from across the PwC network. We regularly collaborate with specialists from our global network to provide insight on sector or geography specific issues.
- We are flexible in our approach to building teams, enabling us to act on a wide range of disputes. Our recent cases have involved amounts in dispute ranging from a few million to more than ten billion dollars.
- Our analysis is independent, objective and robust, helping to reduce uncertainty and increase confidence in the outcome of a dispute.

Our credentials in international arbitration:

- We have been involved in around 200 commercial and investment treaty arbitrations.
- Our experts have extensive experience of testifying, including under the rules of major dispute resolution institutions including the ICC, ICSID, LCIA, UNCITRAL, DIAC, AAA, SCC and others.
- Nine of our testifying experts are recognised in the Who's Who Legal listing of leading arbitration expert witnesses, including six based in London and others based in Frankfurt, Paris and Prague. We have further dispute specialists across our global network.
- We sponsor and contribute to studies conducted by the School of International Arbitration, Queen Mary, University of London. The most recent study was published in 2013, 'Corporate Choices in International Arbitration: Industry Perspectives'.
- We host an annual Investment Treaty Arbitration conference in Prague, aimed at bringing together state representatives and other interested parties to discuss trends in Investment Treaty arbitration.

Our broader disputes practice covers:

- Commercial disputes
- Construction related matters, including the use of delay analysis and quantum experts
- Contentious competition & regulatory matters
- Transaction and shareholder disputes, insurance claim services and matrimonial disputes
- Forensic technology in all types of dispute

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