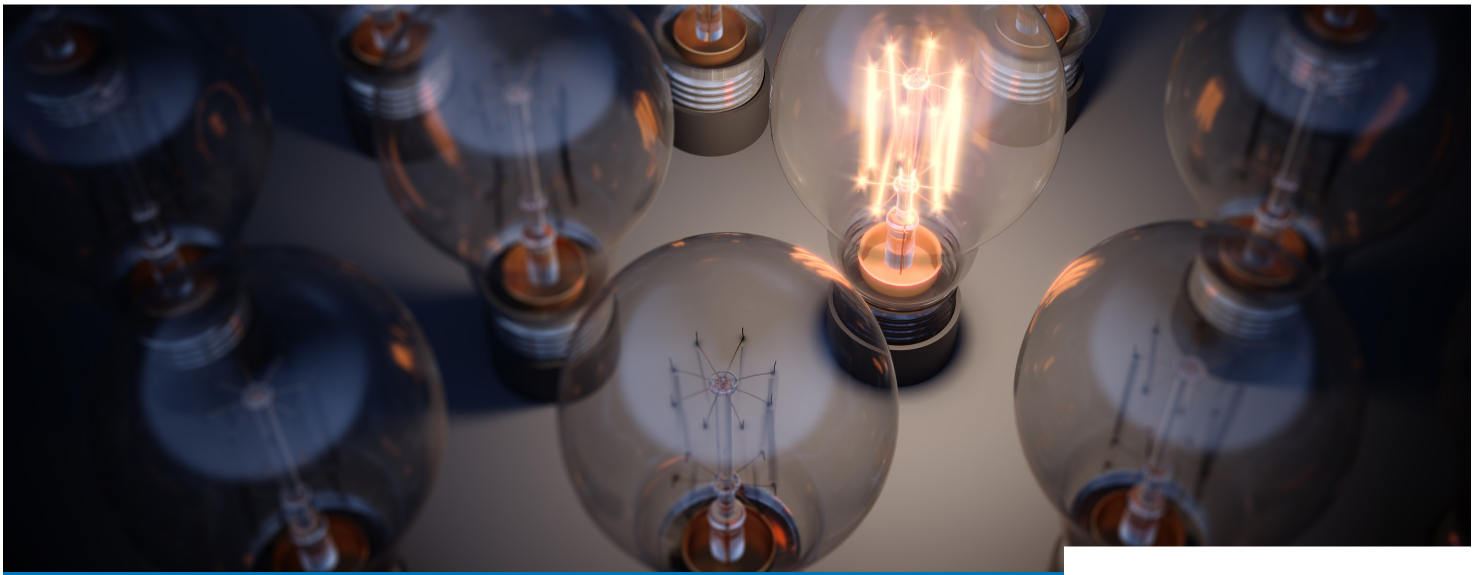

The Use and Misuse of Hindsight

There is much debate about whether losses should be assessed at the date of the alleged wrongful act or at the date of an award. However, there is less commentary on the practical challenges in assessing losses at either date – in particular with respect to the application of hindsight

When assessing losses at the date of the wrongful act, usually it is best to avoid using hindsight. However, when estimating what a reasonable projection might have been at that time, hindsight could be appropriate – but what factors should be considered when taking this approach?

When assessing losses at the date of the award, experts occasionally treat forecasts prepared prior to the date of the wrongful act as if they simply become certain with the passing of time. If there is no examination of whether those forecasts should be adjusted in the light of information that is available with hindsight, claimants may be over or under compensated.

The intersection of country risk and hindsight can create additional complexities – particularly when a country risk premium is added to the discount rate to take account of adverse outcomes that might affect the business being considered.

Hindsight and the Date of Assessment

Quantum experts are often instructed to provide evidence in a claim for lost profits or a claim for the lost value of an asset. In both cases, losses are calculated by comparing the financial position the claimant would have been in but-for the alleged wrongful acts, with the claimant's actual financial position. We usually refer to these two financial positions as the 'but-for position' and the 'actual position' respectively.

If damages were awarded instantly following the wrongful act, we would calculate expected profits in the but-for and actual positions using information and projections available on the date of the wrongful act. However, the legal process inevitably takes time and there is often a significant delay between the date of the wrongful act and the date of any hearing. Courts and tribunals must therefore consider a key question – on what date should losses be assessed?

The value of an asset depends on expectations of the future benefits from holding that asset. The choice of valuation date changes the information available for determining those expectations. By assessing losses at the date of award, experts can take account of all information to that date – they have the benefit of hindsight. Conversely, when assessing losses at the date of the wrongful act, the expert puts themselves in the shoes of someone at that date and takes into account only expectations and information available at that time.

The differences between assessments at the two dates can sometimes be stark. Changes in macroeconomic factors, or changes in factors specific to the particular entity subject to the dispute, can materially change the quantum of loss assessed. Consider the value of an oilfield asset before and after the 2014 fall in oil prices, or a hotel before, during and after the Covid-19 pandemic.

There is much debate about whether losses should be assessed at the date of the alleged wrongful act or at the date of an award. Ultimately, the choice of the date of assessment is a matter of law, rather than economics and finance. The quantum expert is downstream of that choice and our role is to assess losses at the date of the wrongful act or the date of award – either taking account of or ignoring events since the date of the wrongful act. In either case, practical challenges can emerge in considering how to deal with hindsight.

Assessments of Loss at the Date of the Wrongful Act

The value of an asset as at a particular date is often understood as the price for which the asset would have been exchanged on that date between a buyer and seller. Information about actual events after the date in question is irrelevant to the question of value at that date. In practice, however, information about subsequent events may be helpful to make reliable assumptions about what might have been known by buyers and sellers as at the relevant date. The extent to which it is helpful will depend very much on the circumstances as at and following the date of valuation – in particular on assessments of the nature and extent of uncertainty present as at that date.

An assessment of losses at the date of the wrongful act seeks to restore the claimant to the financial position it would have been in, but-for the alleged actions of the respondent, as at the date of the wrongful act. In the case of a claim for future lost profits, this requires a projection of the expected future profits on that date, making use only of information available at that time. The value of the expected future profits is calculated at the date of the wrongful act by applying a discount rate to convert uncertain future profits to a present value. The greater the amount of relevant risk attaching to the projections, the higher the discount rate.

Similarly, in a claim for the lost value of an asset, a valuation at the date of the wrongful act takes account of expectations of the future performance of the business at that point in time, without regard to subsequent actual performance. Because the valuation is performed as at the date of the wrongful act, only information available at that date can be taken into account, and hindsight must not be used. If the discounted cash flow method is used to value the asset, the projected future cash flows are discounted to a present value as at the date of the wrongful act at an appropriate discount rate, reflecting the relevant risks of the projected cash flows.

In both cases, pre-award interest is then usually applied to compensate the claimant for the passing of time between the date of the wrongful act and the date of the award.

Can Hindsight Ever be Used in an Assessment at the Date of the Wrongful Act?

As a general rule, it is inappropriate to use hindsight when making an assessment at the date of the wrongful act, but are there any circumstances where it is appropriate to consider information only available after that date? Valuation in disputes is a practical matter constrained by the information available to the valuer. Any option needs to be considered against the available alternatives. Ultimately, if contemplating using hindsight, one must also consider what the alternative is.

In many cases, contemporaneous business plans and forecasts of factors such as wages, commodity prices and benchmarks allow an expert to assess losses at the date of the wrongful act using only information available at the time. However, sometimes this is not the case. How should an expert proceed when no reliable contemporaneous forecasts are available?

There are different circumstances when this can arise. Perhaps the nature of the wrongful act requires examination of a question that was not addressed at the time. As a result, there may be no forecast for the expert to consider. Alternatively, it might be that the claimant did not regularly forecast performance, or a venture was relatively new.

In those circumstances, experts sometimes use actual outturns of performance after the date of the wrongful act as a proxy for projected performance. In effect, the expert assumes that the actual outturn is the best available guide to what a projection of performance would have been, had it been produced at the time of the wrongful act. Three factors are helpful to consider when contemplating such an approach.

- **Distribution of possible outcomes:** If the distribution of possible outcomes is relatively small, then the actual outturn is likely to be a reasonable approximation of a forecast. For example, the cost of building a wall is likely to fall within a narrow band, with some variation due to the cost of labour and materials. If no existing forecast is available for that cost, the outturn is a reasonable proxy for the projection that might have been made. For something more complex, such as the success or failure of a start-up technology business, observing the actual outturn – be that failure or success – does not provide a reliable indication as to projections of performance at an earlier date.

— **Stability of the relevant economic market:** To take the example of building a wall, if labour costs rapidly and unexpectedly increased between the date of the wrongful act and the date at which the wall was in fact built, then it is unlikely that actual costs provide a reasonable approximation to a forecast. Alternatively, looking at the performance of a hotel, outturn occupancy levels might be a reasonable basis for estimating projected occupancy levels in a stable market. If the hotel is faced with volatile market conditions, for example as occurred during the Covid-19 pandemic, then the outturn is unlikely to be a good guide to projections made prior to the emergence of that instability.

— **Specific characteristics:** It is important to not take into account changes in the specific characteristics of the asset or the resolution of uncertainty about the specific characteristics that occurred after the date of the wrongful act. For instance, it would be wrong to rely on actual production levels from an oilfield while ignoring that it was uncertain whether any oil existed at the date of the wrongful act.

A potential misuse of hindsight is in failing to properly consider these factors when deciding whether it is appropriate to use hindsight in assessing losses at the date of the wrongful act. While there are no hard and fast rules governing when it is appropriate to rely upon outturns as a basis for estimating what a reasonable projection might have been, the above factors can be a useful way of considering such an approach.

Assessment of Loss at the Date of Award

There are two key differences that distinguish a valuation at the date of award from one at the date of the wrongful act:

— **Discounting and interest:** Losses between the date of the wrongful act and the date of award are no longer discounted to a present value at the date of the wrongful act. Instead, interest is applied to calculate a present value of those profits at the date of award. Lost profits after the date of award are now discounted to the date of award.

— **Available information:** Information available at the date of award should be used in determining historical lost profits and assessing the current value of future lost profits. That is, hindsight is now available in assessing losses.

Though different, these two differences in the calculation are related. Future cash flows are discounted to a present value, in part to take account of the uncertainty associated with projected future cash flows. If information about the actual levels of cash flows becomes available as time passes, then that uncertainty is eliminated and the need to discount the cash flows for uncertainty or risk falls away.

Risk and Discount Rates

In a discounted cash flow valuation of a business or other asset, cash flows generated by the business are projected into the future and then converted to a present value by applying an appropriate discount rate. The discount rate is estimated by considering the expected rate of return that investors require for investing their capital in projects with similar, relevant characteristics to the business being valued.

Two factors affect this rate of return, and therefore the discount rate. The first factor is the time value of money; put simply, cash in the future is worth less than cash today. The second factor is risk. The term ‘risk’ can have different meanings, but in the context of finance theory, risk is defined as the variability of future cash flows around anticipated returns. Investors are observed to be risk averse. This means that the greater the variability around the anticipated returns from an investment, the greater return an investor will require.

An implication of this definition is that risk includes variability relating to both ‘out performance’ as well as ‘under performance’, relative to some ‘central’ estimate of expected performance. This can be contrasted with references to risk in everyday language, which tend to only be associated with adverse outcomes, relative to a point of reference that is not necessarily a central estimate.

At least in theory, the cash flows projected in discounted cash flow models should be based on their expected value, with each possible outcome weighted by the probability that it will occur. In estimating expected cash flows it is necessary to take into account possible outcomes, and their probability of occurring, that are both specific to the business (likely success or failure of a new product launch) and related to the market (expectations of economic growth).

When considering the discount rate to be applied to these projections, the relevant question is how risky the projections are. More precisely, what is the variability of anticipated returns around the expected return? All else equal, the greater the variability, the higher an investor's required return and the greater the discount rate. Importantly, only certain risks are relevant, and finance theory distinguishes between diversifiable risk and non-diversifiable risk.

Diversifiable risks can be eliminated easily by the investor holding a diversified portfolio of investments. These are risks that are specific or unique to the subject investment, but that are not perfectly correlated with the performance of other investments. Because some investments will perform better than expected, while others will perform worse than expected, over a large enough portfolio of assets this type of risk can be diversified away.

Other risks cannot be eliminated through diversification. These risks are often called market risks, as they relate to the wider economy. These risks affect all businesses – although businesses have different levels of exposure to market risks – and cannot be diversified away. These are the relevant risks for which investors therefore require compensation.

As a result, all outcomes, whether specific to the business or related to the overall market, should be taken into account when projecting expected cash flows, but only variability around those expectations relating to market risk should be taken into account when estimating an appropriate discount rate.

How can Hindsight Affect Date of Award Calculations?

Suppose an investor builds a hotel:

It starts operation in January 2018. The hotel operates successfully.

In January 2019, the land and hotel are expropriated by the state in which the hotel is situated. The state retains the existing management and continues to operate the hotel successfully.

The investor brings an expropriation claim against the state. The hearing date is January 2024. The tribunal makes an award of damages based on the value of the hotel.

Suppose that a quantum expert has been instructed to assess losses at both the date of expropriation (January 2019) and the date of award (January 2024).

Taking the date of expropriation first, the quantum expert should have regard to forecasts as at 2019, and value the hotel on that basis. No hindsight as at the date of assessment should be deployed. The forecasts should represent a central estimate of the expected cash flows, and the discount rate should take account of the relevant market risks that the cash flows of the hotel were exposed to as perceived in 2019.

Moving to the date of award, the expert now has information about the financial performance of the hotel over the period between 2019 and 2024, and forecasts as at 2024. The central estimate of cash flows between 2019 and 2024 is replaced by actual performance, and

forecasts beyond 2024 are replaced with more up-to-date forecasts. There is no requirement to discount historical cash flows for risk, because those cash flows are known with certainty – there is no market risk associated with them. Market risk still exists after 2024, and so a discount rate continues to be applied to those forecast cash flows.

Now we change the example slightly, and assume that, on expropriation, the state demolished the hotel and used the land for a different purpose.

The assessment of loss at the date of expropriation remains essentially unchanged.

However, the assessment of loss at the date of award becomes more complicated. Since the hotel did not operate from the date of expropriation onwards, the expert cannot examine the actual post-expropriation performance of the hotel to assess performance in the but-for position. But information about the market in which the hotel would have operated is available to the expert. This is likely to consist of data relating to the performance of other hotels, as well as evidence of wider macroeconomic factors. These outturns can be used to adjust forecasts made prior to the expropriation. The expert can identify the most likely outturn performance in light of that additional information. As a result, there is no longer market risk associated with the cash flows as the actual market outturn is known, so there is no need to discount the historical cash flows to take account of risk.

Occasionally experts do not properly take account of the availability of hindsight in such circumstances. Despite assessing losses at the date of the award, the expert treats contemporaneous forecasts of profits between the date of the wrongful act and date of award, prepared prior to the date of the wrongful act, as if they simply became certain with the passing of time. There is no examination of whether those forecasts should be adjusted in the light of trends in the market in which the company would have operated, or other relevant information that is available with hindsight. This has the effect of treating uncertain, projected cash flows as if they were certain. A ‘red flag’ for this approach is that the only changes in an expert’s opinion when moving from a date of the wrongful act assessment, to a date of award assessment, are changes to the discounting and interest, but not changes to the cash flows to which that discounting and interest are applied.

Country Risk and Hindsight

International arbitration often requires the valuation of assets in less developed economic markets. These valuations commonly involve significant ‘country risk’. ‘Country risk’ encompasses both adverse outcomes that are less prevalent in developed economic markets – such as the chance of labour disruption, or weaker governance – and increased variability of future cash flows around anticipated returns – such as greater macroeconomic volatility. Valuers can take different approaches to incorporating these factors in their valuations.

Some valuers take the effect of adverse outcomes associated with investments in the relevant country into account in forecasts of expected cash flows. Having adjusted the cash flow forecasts for these adverse outcomes, they may then also adjust the discount rate by adding a country risk premium to account for the increased variability of future cash flows which they consider cannot be diversified away.

In contrast, rather than making adjustments to the cashflow forecasts, other valuers sometimes add a country risk premium to the discount rate to reduce the overall valuation for adverse outcomes that they do not consider are reflected in the projected cash flows – which might be prepared on a ‘business as usual’ basis – as well as for any additional market risk that they consider exists in the relevant country.

Whether a valuer adjusts the cash flows and/or the discount rate for the chance of ‘adverse outcomes’ may seem like a technical distinction, but it can have significant effects when moving from a calculation of loss at the date of the wrongful act to the date of award. Returning to our hotel example, suppose the hotel is in a less developed, unstable market. The projected cash flows are on a ‘business as usual’ basis – they do not take account of the possible ‘adverse outcomes’ that exist because of the hotel’s location – and are therefore not a true central estimate of the expected performance of the hotel.

Suppose also that a valuer adopts a discount rate of 18% for the purposes of calculating losses as at the date of the wrongful act. This includes an 8% country risk premium. Embedded within that premium is a downwards adjustment to the valuation to take account of country-specific ‘adverse outcomes’ associated with the performance of the hotel that would not otherwise be reflected in the valuation. Suppose that 4% of the country risk premium is for such adverse outcomes with the remaining 4% being for additional market risk in the country.

Consider the projected cash flows for the year 2023 and suppose the projected cash flows from the hotel are $5 million in that year. The date of expropriation is January

2019, so in the calculation at the date of the wrongful act, the discount rate of 18% would reduce these cash flows by approximately 55% to $2.2 million.

If the valuer had instead adjusted the cash flows for adverse outcomes, and not added a premium to the discount rate, they could have arrived at the same result by applying a 14% discount rate (i.e. a discount rate that only reflects the market risks) to a lower cash flow of $4.2 million, instead of $5 million. Applying five years' discounting at a 14% discount rate to $4.2 million also results in $2.2 million.

The valuer now turns to the assessment at the date of award. The projected cash flows between the date of the wrongful act and date of award are adjusted to take account of changes in the market after the projections were prepared. The valuer might consider that, with hindsight, the projections for 2023 should be adjusted upwards, perhaps from $5 million to $5.5 million. Because the date of assessment is the date of award, no discounting is applied to the 2023 cash flows.

This is where a problem may emerge and where hindsight can be misused. The question the valuer needs to consider is does the availability of hindsight mean that the possibility of 'adverse outcomes' is eliminated from the cash flows? Our view is that this is not necessarily the case. Since the hotel was never built, hindsight provides no, or limited, additional evidence of whether certain adverse outcomes specific to the hotel would have taken place or not.

In the date of expropriation calculation, premiums were added to the discount rate to take account of possible adverse outcomes. If the expert simply removes the discounting, then they are implicitly assuming that there was no chance of those adverse outcomes taking place. However, hindsight provides no basis for this assumption. The chance of the adverse outcomes remains as uncertain at the date of award as it did at the date of expropriation.

The expert can proceed by adjusting the cash flows for the chances of these adverse outcomes. As explained above, in this example an additional 4% premium to the discount rate is equivalent, in 2023, to a reduction in cash flows from $5 million to $4.2 million. The figure of $4.2 million should therefore be the basis of the date of award lost profits in 2023, adjusted for hindsight as appropriate. In other words, the valuer can probability-weight the cash flows so that the uncertain adverse outcomes are taken into account.

In practice, making the type of adjustments described above is challenging. Depending on how country risk premiums are calculated, it is not straightforward to identify what part of the country risk premium is attributable to 'adverse outcomes' and what is attributable to additional market risk. Additionally, hindsight might allow for the identification of only some 'adverse outcomes' – it will be clear if the country in question has suffered from natural disasters or civil unrest.

Final Thoughts

We have identified three situations in which the use of hindsight can present potential challenges.

In an assessment at the date of the wrongful act, experts sometimes rely on actual outturns as a proxy for a reasonable forecast at the date of the wrongful act. When considering this approach, the expert should bear in mind: The the range of outcomes for the cost or revenue that is the subject of the forecast; the volatility in the relevant economic market; and the extent of changes in the specific characteristics of the asset following the date of the wrongful act, and whether actual outturns reflect the resolution of uncertainty about the specific characteristics of the asset.

In a date of award assessment, experts should ensure that they use hindsight to adjust forecasts made at an earlier date. It should not be assumed that the passing of time renders prior projections as certain outcomes, without investigating whether those projections should be adjusted in the light of available market data. This underuse of hindsight may either over- or undercompensate a claimant.

Experts sometimes make adjustments to the discount rate to take account of adverse outcomes that are specific to the projected cash flows. If that is the case, then a date of award calculation that simply starts with a projection made at the date of the wrongful act and removes the effect of discounting may overstate the claimant's losses. The benefits of hindsight do not necessarily extend to demonstrating that the claimant would have avoided those adverse outcomes.

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