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Agenda

Advancing economics in business

Damages and customer portfolio valuation: a case on paper

The Court of Session in Edinburgh recently awarded damages in a commercial dispute between two paper manufacturers. Not only is this one of the rare damages cases to progress all the way to trial, but the judgment also contains an extensive discussion of the financial and economic methods used, and the way in which courts can use quantitative evidence when assessing damages

Many legal disputes between companies involving damages claims never see the light of day. Some are dealt with behind closed doors in arbitration proceedings. Others are taken to court but are then settled between the parties before the case reaches trial or judgment. While this may have benefits in terms of the efficiency of the justice system, it also has one major drawback: there are relatively few court judgments that discuss methods and best practice for the quantification of damages. A good deal of uncertainty therefore exists in jurisdictions across the world on how courts and parties should proceed when quantifying damages. This is true for several areas of law, including contract law, intellectual property law and competition law. In this last area, the European Commission published a report in 2010 by Oxera and a group of legal and academic experts that is intended to be a first step towards developing guidance to courts on quantifying damages.[1]

The judgment issued by the Court of Session in November 2010, in *Tullis Russell Papermakers Limited v Inveresk Limited*, constitutes a welcome addition to the body of case law.[2] The case involved two main producers of solid bleached sulphate (SBS) board in the UK, a product suitable for high-quality printing and typically used for greetings cards, catalogues, and packaging for cosmetics and pharmaceuticals. In June 2005, Tullis agreed to buy the Gemini brand of SBS board from Inveresk, together with the goodwill and customer information related to the brand. As part of this deal, it was agreed that for a transition period of five months (to November 2005) Inveresk would still manufacture and distribute Gemini board, on behalf of Tullis. In that period problems arose: the level of defective production increased by a factor of more than 3.5, and customer complaints were not dealt with satisfactorily.[3] At the end of the transition period, Tullis discovered that the value of the Gemini brand had been significantly affected. It sued for damages for breach of contract. The court awarded these claimed damages (almost) in full: a total of £4.25m.

The judgment contains an extensive discussion of the approaches that were used to quantify the damages. These included financial approaches to the valuation of the brand and customer portfolio, and econometric approaches to determine the counterfactual—ie, the sales and profits that Tullis would have made from the Gemini brand in the absence of the breach of contract. The judgment also makes a number of observations on how courts can deal with the inevitable complexity of the economic analysis that is used when quantifying damages in cases such as this.

The portfolio approach to customer valuation

Tullis had bought the Gemini brand because of its strength and associated goodwill.[4] The Gemini board was sold mainly to customers in Germany, the Netherlands, Belgium and the UK. Most customers were paper merchants, which act as distributors and sell the product on to printers and other users, although some Gemini sales were made directly to printers and publishers. The court found that, during the transition period, Inveresk had taken a 'deliberate policy decision to reject customer complaints whenever possible' and 'paid no attention whatsoever to the need to protect the brand and trademarks that they had sold to [Tullis]' (para 128).

The subsequent question was whether this breach of contract had caused a loss. The court stated that what Tullis had acquired was a brand—Gemini—and a portfolio of customers 'who where in the habit of

purchasing Gemini board' (para 129). There was substantive factual evidence that brands are important in the paper industry. The court found the reasoning of the economic expert for Tullis to be 'especially powerful' (para 168). A brand is an intangible asset, the value of which depends on the owner's ability to leverage this into additional sales, and therefore cash. The perception of customers can influence this ability, and the court accepted that it is reasonable to expect that the breach of contract by Inveresk had contributed to (and hence in part caused) the rapid and very significant decline in sales to the portfolio of customers acquired by Tullis.

There was significant disagreement between the two economic experts on how to approach the valuation of the lost sales to this customer portfolio. The expert for Tullis used a portfolio valuation approach, an accepted method in the valuation of intangible assets. The expert for Inveresk preferred an approach that would assess the effect of the breach on each individual customer within the portfolio (a 'bottom-up' approach). The court accepted the portfolio valuation approach because of its practical and methodological advantages, and because it better reflected commercial reality in the paper industry. In particular, this approach captured the links between different customers—for example, certain commercial decisions to increase the sales to one Gemini customer had a direct negative impact on the sales to another, and these effects would not be captured if both customers were considered separately. A conceptual advantage is that the uncertainty around the estimated value of the portfolio is lower than for each of the customers individually—ie, idiosyncratic uncertainties are diversified (a common principle in finance theory). The court also considered the customer-by-customer approach to be 'largely impractical' to implement (para 217).

The expert for Inveresk had pointed out that the damages valuation based on the portfolio approach was significantly influenced by one particular large customer. Removal of this customer (following a 'bottom-up' approach) would substantially reduce the damages. An argument for removing that customer was that, in the relevant period, it had been acquired by another paper manufacturer, and hence might have decided to purchase in-house rather than continue purchasing the Gemini brand. This, rather than the breach (so the Inveresk expert argued), would then have caused the fall in Gemini sales to that customer. The factual evidence showed, however, that the customer continued to purchase from third-party paper manufacturers, and that its new owner did not produce the full range of Gemini products. The court therefore dismissed the reasoning of the Inveresk expert as 'speculative at best and improbable in reality' (para 203).

Quantitative techniques and pooling

The expert for Tullis used a number of methods to determine the counterfactual (or 'but for') scenario—ie, how many tons of SBS board Tullis would have sold in the absence of the breach of contract by Inveresk. The judgment discusses these methods at length. Each method compared sales before and after the breach. The sales patterns before the breach were projected to the period after, and then compared with the actual sales after the breach so as to determine the lost sales. Various techniques were used for these projections, including simple interpolation and more sophisticated econometric analysis taking into account other factors that might have affected sales before and after the breach.

One of the methods used a difference-in-differences comparison.[5] Taking data both over time and across different markets, this approach is similar to that often used for evaluating clinical trials and the effect of policy choices, in that one group has a 'treatment' applied to it (the breach of contract) while another, which is not treated, is used as a control group. The difference-in-differences analysis then compares what happens to each group before, during and after the treatment. By making this two-dimensional comparison, the analysis can remove the impact of any common factors that affect both the treatment and control groups—such as broad trends in the paper industry. Such factors would have been more difficult to account for in the time-series-based damages estimate. With respect to the econometrics used, the judgment describes a number of technical points that were in dispute between the experts—for example, whether the large disparities in order volumes between customers in the portfolio could best be controlled for by using a mean-adjusted sample or by applying natural logarithms.

The judge also accepted the use of the 'forecast pooling' approach proposed by the Tullis expert. This is a technique whereby multiple methods—each looking at the same problem but from a different perspective, and offering unique benefits—are used by the expert (or experts) to estimate the harm done, and an average is taken to provide an overall result. In this case, three different methods were used in the final analysis.[6]

The alternative to pooling is to focus on one model that has been identified as being more accurate than the others, or to combine two or more models into a 'super' model that produces better results than any of the individual approaches. The output from this model is then taken to be the best estimate of the true harm. This single-model approach was favoured by the expert for Inveresk. In the absence of any individual method

providing a clear estimate, the expert concluded that the analysis was not sufficiently precise.

Forecast pooling is widely used in macroeconomic forecasting, and even weather forecasting, because it helps to identify the best estimate given the unavoidable uncertainties. The forecasts or estimates of the damage can be combined in a variety of ways, ranging from sophisticated methods that assign each estimate a weight depending on its informational value, to simply taking an average of the best forecasts. In this case a simple average was used.[7] To quote the judgment:

> It is accepted economic practice to use more than one benchmark, in order to reflect more of the underlying data and to reduce the effect of biases in individual approaches (para 183).

Until now, however, forecast pooling has received relatively little attention in court cases—which is another reason why the Court of Session ruling constitutes an important contribution to the debate on methodologies for quantifying damages.

Use of economic evidence in court cases

The *Tullis Russell v Inveresk* judgment illustrates how courts are able to rely on financial and economic evidence, not only for the quantification of damages but also for the question of the causal relationship between the breach of contract and the damage suffered. The judgment does not shy away from assessing the merits of complex pieces of econometric evidence, such as the difference-in-differences analysis used by the economic expert for Tullis.

The judgment makes some observations on the interaction between the two economic experts and the court. The issue of the role of experts in court cases has been subject to wider debate in jurisdictions across the world. In this case, the expert for Tullis had produced two expert reports—the first one was criticised by the expert for Inveresk; the second one took into account these criticisms and changed the calculations as appropriate. On this matter, the court noted the following.

> Nevertheless, this is a difficult and complex area, and I do not think it is surprising that [the expert for Inveresk] was able to point out a number of errors; peer review, if it is properly done, is usually a very beneficial experience. The fact that [the Tullis expert] took several of [the Inveresk expert's] criticisms into account tends, I think, to show an open mind. In giving evidence, too, he appeared to me to be undogmatic and fair-minded. (para 159)

In contrast, the expert for Inveresk had limited himself to criticising the other expert's analysis rather than providing a valuation of his own. He took the position that the quantification of damages in the present case was difficult, and that the analysis performed by the expert for Tullis was not robust. On this, the court observed the following.

> Overall, I formed the impression that [the Inveresk expert's] criticisms of [the Tullis expert] represented a counsel of perfection. On various occasions he criticized [the Tullis expert's] valuation on the ground that it was not certain or insufficiently exact. In court proceedings, however, evidence is rarely perfect. Witnesses are forced to do the best they can with information that is incomplete or approximate. In the economic and financial field, almost any calculation is bound to have an element of uncertainty, frequently to a considerable degree. The fact that total precision cannot be achieved must simply be accepted. [...] It seemed to me that [the Tullis expert's] second report and his evidence in court were generally impressive (para 162)

The question of how courts can deal with uncertainties around damages calculations is a topical one in Europe, in particular in the context of competition law (antitrust) damages. It features prominently in the Oxera et al. report for the European Commission on quantifying antitrust damages, referred to above.

Any damages assessment needs to strike a balance between two objectives: first, finding the most accurate answer possible—the aim to determine the real damage value as closely as possible, which is how an economist would naturally seek to approach quantification problems; and second, using approaches that are clear and easy to apply, that acknowledge the complexities of the case and that fit within the existing legal frameworks. All models are necessarily simplifications of the real world, and courts have long recognised that the counterfactual is 'unknowable'. This has not, however, deterred courts from setting damages awards, in both competition law and other fields of law, nor from relying on economic analysis. The Court of Session has further contributed in this case to a better understanding of how to quantify damages.

[1] Oxera and a multi-jurisdictional team of lawyers led by Dr A. Komninos (2009), 'Quantifying Antitrust Damages: Towards Non-binding Guidance for Courts', prepared for the European Commission Directorate General for Competition, December.
[2] 2010 CSOH 148. Oxera acted as economic experts for the pursuers (Tullis Russell) in this matter.
[3] Paras 2 and 128 of the Judgment.
[4] Para 25 of the Judgment.
[5] This was applied and extended using panel data econometric methods.
[6] Originally four methods were used, but one was excluded because it used very similar data and estimation techniques to one of the other three.
[7] See, for example, the following survey of the literature: Hendry, D.F. and Clements, M.P. (2004), 'Pooling of Forecasts', *Econometrics Journal*, **7**, pp. 1–31. This notes that 'simple rules for combining forecasts, such as averages (i.e. equal weights), often work as well as more elaborate rules.'