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Valuing a Loss: *Ex Ante* versus *Ex Post* Damages Analysis

Damages generally compensate plaintiffs for losses caused by the harmful acts of others. Damages also act as a deterrent to discourage the defendant—and other would-be defendants—from committing harmful acts in the future.

Restitution rarely occurs contemporaneously with a harmful act. If a pickpocket is caught stealing a person's lottery ticket and is forced to return it on the spot, the victim has essentially been made whole. But what if the pickpocket is not caught until later? Should the victim be compensated for the ticket's *ex ante* value, *i.e.,* the value that reflects its actual probability of winning? Should the valuation be fixed at $2, the purchase price? Or should the value reflect what became known a few days later—the purloined ticket matched the winning lottery numbers and, but for the pickpocket's actions, the victim would have received the jackpot winnings.

This classic lottery example[1] demonstrates how intervening information can change the potential valuation of a loss.[2] In most cases, there is a significant delay between the date of a loss and the date of compensation for that loss. Should a plaintiff's loss be valued at the moment the harmful act occurred or at some later date? Can information that becomes known after the harmful act—but before the trial—be considered in valuing the total loss to that plaintiff? What discounts and interest rates should be applied?

Experts use two approaches for analyzing damages: *ex ante* or *ex post*. The resulting values of these valuation methods tend to diverge because the *ex post* approach takes into consideration information that was not known on the date of the harmful act. The approaches also use different valuation dates and discounting methods.[3] This article discusses a few of the issues that arise in the two types of analysis.

The *Ex Ante* Approach

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[1] *See* Dunbar, Michael K., Elizabeth A. Evans, and Roman L. Weil, *Litigation Services Handbook: The Role of the Financial Expert.* Hoboken: John Wiley & Sons (2012) at p. 5.2 (presenting the lottery example with the potential valuations).

[2] There are many examples of how subsequent information might significantly impact a damages award. For example, a plaintiff whose intellectual property is stolen might be able to show how the theft impacted production or sales. Another example is the art investor who can show that a particular artist's works suddenly enjoyed dramatic appreciation.

[3] *See* Dunbar, Michael K., Elizabeth A. Evans, and Roman L. Weil, *Litigation Services Handbook: The Role of the Financial Expert.* Hoboken: John Wiley & Sons (2012) at p. 5.3 (Exhibit 5-1. Differences between Ex Ante and *Ex Post* Calculations).

The *ex ante* approach quantifies damages as of the date of loss. Under this analysis, projected damages are discounted to the date of the harmful act with a rate that takes into account applicable risks. Prejudgment interest is then added to that amount for the time period between that date and the date of judgment and the total constitutes the award.[4]

With an *ex ante* analysis, only information that was known or knowable as of the time of the harmful act is considered.[5] The approach calculates the discounted present value of expected income, taking into account the plaintiff's reasonably foreseeable risks and expectations at the time the harm occurred. Under this approach, the expert is applying the plaintiff's limited knowledge and understanding of the conditions at the time of the harm including foreseeable risks and rewards.

In the lottery example, the plaintiff spent $2, the fair market value of the ticket at the time of purchase, for a chance at winning the big lottery. The statistical probabilities are well known to the lottery ticket-buying public. On the date of the loss, the plaintiff's likelihood and expectation of winning, given what was known and knowable at that time, were exceedingly low—less than the $2 purchase price. This would be its *ex ante* value. Of course, a rational victim will not hire an attorney to recoup the $2 purchase price or lower *ex ante* value.

The *Ex Post* Approach

With *ex post* analysis, an expert will look backwards to the date the harmful act occurred to calculate the loss as of the date of the trial,[6] which typically occurs years after the alleged harmful act. This method goes beyond restoring the plaintiff to the loss as of the date of that act. An *ex post* valuation asks what the plaintiff would have had but for the defendant's harmful act and thus provides the plaintiff with an outcome certain rather than what the plaintiff held at the time--an investment that carried certain risks and limited expectations.

Under this type of analysis, the expert takes into account all known information up to the time of trial including economic data from that period such as interest rates and industry performance. The expert can also consider any mitigation during that period.[7] Because the valuation is being made as of the date of restitution, recent forecasts of economic conditions may be used.[8] For the

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[4] *Id.* Prejudgment interest not only compensates for the delay in payment but can also be a helpful check on delaying tactics. A party may try to delay proceedings to take advantage of other circumstances such as an appreciating stock market. *Id.* at p.5.9. With recent inflation, a defendant might try to delay the proceedings so that any judgment would be paid in inflated dollars.

[5] *See* Dunbar, Michael K., Elizabeth A. Evans, and Roman L. Weil, *Litigation Services Handbook: The Role of the Financial Expert.* Hoboken: John Wiley & Sons (2012) at p. 5.3 (Exhibit 5-1. Differences between Ex Ante and *Ex Post* Calculations).

[6] *Id.* at p. 5.7.

[7] *Id.* at p. 5.8. Mitigation is an after-the-fact action. In *ex ante* analysis, such post-event considerations are not taken into account.

[8] *Id.* at p. 5.7.

period of time between the harmful act and the trial, the award is adjusted to present value and future losses are discounted to the date of any judgment.

Looking at the lottery example, an expert using *ex post* analysis would incorporate the subsequent information concerning the winning lottery numbers and jackpot value. The valuation would reflect the fact that the plaintiff had the winning ticket and, but for the pickpocket's theft thereof, would have won that jackpot.

Some would argue that this approach unjustly enriches the plaintiff who, at the time of the ticket's purchase and subsequent theft, had no reasonable expectation of winning. As of the date of the theft, the plaintiff's loss was a chance to win the lottery and any compensation above the value of the ticket at that time essentially removes the plaintiff's risks.

But most would agree that the pickpocket should not be permitted to keep the ill-gotten gains. Further, given the relative equities, many would prefer that the plaintiff, rather than the defendant, be the beneficiary of any inequities occasioned by reallocation of risk in the valuation process.

Choosing the Right Expert

Choosing the right expert is key to determining which method to use in valuing loss. The expert will model the losses taking into consideration the applicable law in the jurisdiction and the evidence available. Vega Economics has extensive experience in valuing loss and works directly with attorneys to ensure that the proper law and information is incorporated into the analysis. Our experts have worked with both *ex ante* and *ex post* valuation analysis and can determine the best approach to use given the law and facts of each case.