

Calculating Monetary Remedies in Intellectual Property Cases in Canada

A REFERENCE BOOK OF
PRINCIPLES AND CASE LAW

2018 EDITION

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THE **Brattle** GROUP



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CONTENTS

1. INTRODUCTION.....	8
2. PRINCIPLES OF MONETARY REMEDIES.....	14
2.1. Causation and the But-For Test.....	21
2.2. Remoteness.....	36
2.3. Apportionment.....	38
2.4. Nominal Damages.....	47
2.5. Statutory Damages in Copyright.....	56
2.6. Punitive Damages (also known as Exemplary Damages).....	64
3. OPERATING REALITY AND THE BUT-FOR WORLD.....	79
3.1. Pre-Grant or Laid Open Period.....	82
3.2. Plaintiff Is Regular Licensor.....	85
3.3. What Sales Did The Plaintiff Lose?.....	86
3.4. Non-Infringing Alternatives.....	93
3.5. First Mover's Advantage and Springboard.....	116
3.6. Future Losses	127
3.7. Consequential Damages - Convoyed Sales.....	130
3.8. Consequential Damages - Price Erosion and Price Suppression.....	134
3.9. Consequential Damages - Indirect Lost Profits.....	138
3.10. Sales Outside of Canada.....	147
3.11. Subsidiary Companies.....	151
3.12. Plaintiff's Mitigation	153

4. LOST PROFITS	169
4.1. Plaintiff's Capacity Utilization	174
4.2. Differential Costs Under the Direct Method	180
4.3. PM(NOC) Section 8	184
5. ACCOUNTING OF PROFITS	199
5.1. Non-Infringing Alternatives in Accounting of Profits	206
5.2. Expenses To Be Deducted From Revenues	227
6. REASONABLE ROYALTY	253
6.1. Date of the Negotiation	264
6.2. Position of the Negotiating Parties on the Date of the Negotiation	273
6.3. The Royalty Base	281
6.4. The Royalty Rate	293
6.5. Established Royalty Rates and Comparable Licenses	306
6.6. Anticipated Profits and Economic Approaches	325
6.7. Analytical Approach	338
6.8. Reasonable Royalty for Pre-Grant Period	346
6.9. Standard Essential Patents and Licenses on Fair, Reasonable and Non-Discriminatory Terms	354
7. COMMON CONSIDERATIONS	365
7.1. Currency	366
7.2. Hindsight	373
7.3. Income Taxes	391
7.4. Pre-Judgment Interest – Damages	395
7.5. Pre-Judgment Interest – Accounting of Profits	404
8. LISTING AND CITATIONS OF REFERENCED CASS	415

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ABOUT THE BRATTLE GROUP

The Brattle Group provides consulting and expert testimony in economics, finance, and regulation to corporations, law firms, and governments around the world with more than 350 staff located in nine offices in six countries.

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1



SECTION

Introduction

In *Meters Ltd. v. Metropolitan Gas Meters Ltd.*, Lord Buckley stated that the valuation of a claim is “one that is not capable of being mathematically ascertained by any exact figure.”¹ However, to compensate a plaintiff with a monetary remedy, it is ultimately necessary for the court to arrive at a figure that fairly represents the compensation due to the plaintiff. Accordingly, courts have developed a number of “practical working rules which have seemed helpful to judges in arriving at a true estimate of the compensation which ought to be awarded against an infringer to a patentee.”²

The purpose of the book is to summarize those “practical working rules” as supported by the most recent Canadian case law as they relate to the calculation of monetary remedies in intellectual property cases in Canada. We have also made reference to international case law where we believe it to be helpful. Note that the list of cited cases is not exhaustive, but the cases have been selected on the basis of relevance and currency in the views of the authors.

While most case law is patent related, the same principles are generally applied in other types of intellectual property cases, and where they are different, we have attempted to specifically indicate those differences.

For ease of reference, the book is divided into chapters, which are grouped into the following sections:

- Section 1 provides an introduction and discusses the terminology used throughout the book;
- Section 2 addresses general principles of monetary remedies that apply in all situations;

1 [1] *Meters v. Metropolitan Gas Meters* (1911 Court of Appeal of England and Wales), at page 166.

2 [86] *Apotex v. Merck* (2008 FC 1185 alendronate, aff'd 2009 FCA 187), at paragraph 94. Note that the second quote is from Lord Shaw, in [2] *Watson, Laidlaw v. Pott* (1914 House of Lords).

- Section 3 sets out the factors to consider when assessing what would have occurred absent the infringement – generally referred to as the “but-for world”;
- Section 4 addresses the computation of damages in the context where the plaintiff can prove it has lost unit sales;
- Section 5 discusses the equitable remedy of an accounting of the profits of the infringing defendant;
- Section 6 sets out the steps involved in a computation of reasonable royalties;
- Section 7 lists other factors that may be relevant to lost profits, an accounting of profits or a reasonable royalty; and
- Section 8 provides a listing and full citation of each of the cases cited elsewhere within the book.

Other than with respect to the computation of reasonable royalties in Section 6, each chapter is freestanding and intended to be a quick reference resource. However, we have indicated when we believe that the reader should refer to another chapter for related information. With regard to reasonable royalty, while each chapter addresses a different topic, many, if not all, chapters may be relevant to a computation due to the inter-relationships between, for example, the date of negotiation, the position of the negotiating parties, the royalty base and the royalty rate. Accordingly, for reasonable royalty, we suggest that the reader read the entire section.

Within the text of the book we have made abbreviated references to citations for ease of reference. For example, “[25] *Merck v. Apotex* (2006 FC 524 lisinopril, aff’d 2006 FCA 323).” The [25] refers to the sequential number assigned to the case in Section 8 of the book, where we provide a full citation. To facilitate the association of decisions of lower courts with the decisions of appellate courts, we have cited the name of the

plaintiff first, regardless of whether, on appeal, the appellant may have been the original defendant. Further, to assist the reader, the “2006 FC 524” makes reference to the judgment having been issued in 2006 by the Federal Court of Canada or its predecessors, and where the relevant issues from the case have been affirmed by an appellate court, this fact is also noted. Also, where the case involves a pharmaceutical product, we have indicated the product at issue in the case.

To be consistent, throughout the book we will use the following abbreviations for the courts:

BCSC	Supreme Court of British Columbia
FC	Federal Court of Canada, or its predecessor, the Federal Court – Trial Division
FCA	Federal Court of Appeal of Canada, or its predecessor, the Federal Court – Appeal Division
SCC	Supreme Court of Canada

References to rulings from other courts will be noted in each instance.

Throughout the book we have attempted to use the same terminology as used by each court in past rulings. Where different terminology is used in different cases, we have used both.

To ensure some consistency, we summarize below some of the main terms used or avoided, as the case may be:

But-for world – this represents the notional world that would have existed had the defendant not infringed. It contemplates all actions that could and would likely have been undertaken by all industry participants following the date of first infringement. For all actions prior to the date of first infringement, the but-for world equates to the actual world and generally is a matter of

fact. It is only after the date of first infringement that the but-for world diverges from the actual world.

But-for test – this is a comparison of what actually occurred in the real world to what would have occurred in the but-for world. The test occurs in both damages and an accounting of profits, but in damages, the focus is on the plaintiff, and in an accounting of profits, the focus is on the defendant. This is the modern approach to assessing causation.

Damages – this is a remedy calculated to place the plaintiff in the position it would have been in had the defendant not infringed. It comprises lost profits and compensatory licensing royalties (note that courts sometimes describe pre-grant royalties and compensatory royalties as damages).

Lost profits – this includes, but is not limited to, lost profits on lost unit sales (i.e., lost sales on goods directly sold by the patentee), lost profits on convoyed or consequential sales, and lost profits due to price suppression or erosion, net of profits, if any, on mitigating sales. For purposes of this book, we reflect what the courts have awarded, and recognize that there may be circumstances where a business/economic/financial expert concludes that a plaintiff has incurred a loss but the court determines that loss to be too remote and has excluded this in its awards.

Royalties – courts have awarded royalties to the plaintiff in the following situations:

- **Licensing royalties** – Where the plaintiff is in the business of commonly licensing, and either:
 - the infringement has caused the defendant to capture sales from a legitimate licensee of the plaintiff. Note that in many cases, the plaintiff and the licensee would be co-plaintiffs, in

which case the licensee would be awarded lost profits and the royalty payable to the patentee would be incorporated in the overall award of damages; or

- the plaintiff would have licensed the defendant had it been approached;
- **Compensatory royalties** – Where the defendant has made infringing sales but the plaintiff (or the plaintiff's licensee) would not have, or has not been able to prove it would have, captured those sales even in the absence of infringement; and
- **Pre-grant royalties** – For compensation during the pre-grant or laid open period.

Accounting of profits – this is sometimes referred to as “an Accounting” and refers to a remedy calculated to place the defendant in the position it would have been in had it not infringed, which results in the defendant surrendering the profits unlawfully made.

NIA – Non-infringing alternative, which is referred to throughout this book in the context of lost profit damages, reasonable royalties and accounting of profits.

Disgorgement – as a general matter, this remedy refers to the defendant's ill-gotten profits, but this term can be confusing, as it is also used to describe a separate remedy from an accounting of profits. Accordingly, we do not use this term.

Profits – this term is sometimes used as an abbreviated form for accounting of profits, and sometimes as an abbreviated form of lost profits. As a result, to avoid confusion, we do not use the term Profits in our descriptions or in our commentary. Where the term profits is used by the court, we suggest that this be read in the overall context of the decision.

2



SECTION

Principles of Monetary Remedies

Speaking broadly, courts measure the amount of monetary remedy in one of two ways – either as a measure of the harm to the plaintiff (i.e., placing the plaintiff back in the position in which it would have been if the infringement had not occurred) or as a measure of the gains made by the defendant (i.e., placing the defendant back in the position in which it would have been if the infringement had not occurred).

Damages – the measure of harm to the plaintiff – is the legal remedy and the default remedy in the sense that the court has an obligation to award damages, or a substitute, to a successful plaintiff.³

An **accounting of profits** has been described as being “based on the premise that the defendant, by reason of its wrongful conduct, has improperly received profits which belong to the plaintiff. The objective of the award is to restore those actual profits to their rightful owner, the plaintiff, thereby eliminating whatever unjust enrichment has been procured by the defendant.”⁴ It is an equitable remedy available under Canadian law (but not under U.S. law for utility patents⁵) and does not have to be awarded by a court, and is only awarded if the court is convinced that it would be “fair” or “equitable” to do so⁶ and if the plaintiff seeks an accounting of profits.⁷ Generally, an accounting of

3 “If a patentee does not seek an election as between damages and an accounting of the infringer’s profits, the Court, pursuant to subsection 55(1), must determine and award the damages suffered by the patentee.” [120] *Bayer v. Apotex* (2018 FCA 32 drosiprenone), at paragraph 34.

4 [65] *ADIR v. Apotex* (2008 FC 825, aff’d 2009 FCA 222 perindopril), at paragraph 504.

5 For example, see Lanham Act, 15 U.S.C. § 1117(a). See also (Thomas F. Cotter, *Comparative Patent Remedies: A Legal and Economic Analysis* (New York: Oxford University Press, 2013) at pages 189 to 190), at page 149.

6 “There is no presumption that the patentee is entitled to an election—rather a trial Judge has complete discretion in deciding whether or not to grant this equitable remedy.... [and] because the courts have not settled conclusively on the factors that must be taken into account and because a trial judge has considerable discretion in determining whether an accounting of profits should be awarded.” [26] *Merck v. Apotex* (2006 FCA 323 lisinopril), at paragraphs 127 and 133.

7 “If a patentee does not seek an election as between damages and an accounting of the infringer’s profits, the Court, pursuant to subsection 55(1), must determine and award the damages suffered by the patentee. In other words, the Court cannot force an aggrieved patentee to choose an accounting of profits over its damages, unless it is willing to seek such a remedy.” [120] *Bayer v. Apotex* (2018 FCA 32 drosiprenone), at paragraph 34.

profits is a substitute for damages, and a court does not award both remedies for the same wrongful effect.⁸

Over the past decade, courts have emphasized the central role that causation plays in both the justification for remedies and the practical determination of the amount of monetary remedies. A plaintiff should collect only those damages or only the defendant's profits that were proven to have been caused by the defendant's infringement. Furthermore, the plaintiff's damages or defendant's profits at issue must not be too "remote," as discussed further in Chapter 2.2.

The principles discussed above are generally seen in monetary remedies for torts, and the UK Court of Appeal noted that "infringement of a patent is a statutory tort ... the elementary rules [are] (i) that the overriding principle is that the victim should be restored to the position he would have been in if no wrong had been done, and (2) that the victim can recover loss which was (i) foreseeable, (ii) caused by the wrong, and (iii) not excluded from recovery by public or social policy. The requirement of causation is sometimes confused with foreseeability, which is remoteness."⁹

Each of the above aspects is separately addressed below: causation in Chapter 2.1, and foreseeability, remoteness and intervening acts in Chapter 2.2.

In both the damages and accounting of profits remedies, causation

8 "When, as here, the patentee is granted the option of an accounting of profits, the plaintiff must elect one of the remedies: either its damages or an accounting of the infringer's profits." [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), at paragraph 14. (emphasis added). Also, "The Patent Act permits two alternative types of remedy: damages and an accounting of profits." [64] *Monsanto v. Schmeiser* (2004 SCC 34), at paragraph 100. (emphasis added) But note that the *Copyright Act* states "35(1) where a person infringes copyright, the person is liable to pay such damages to the owner of the copyright as the owner has suffered due to the infringement and, in addition to those damages, such part of the profits that the infringer has made from the infringement and that were not taken into account in calculating the damages as the court considers just."

9 [22] *Gerber v. Lectra* (1997 UK Court of Appeal), at page 452.

is usually applied by the courts through the but-for test. The but-for test is a comparison of what actually occurred in the real world to what would have occurred in the but-for world had the defendant not infringed. The but-for test is described in Chapter 2.1.

The but-for test is the current approach to assessing causation, but causation has also been dealt with through apportionment, which is discussed in Chapter 2.3.

With respect to the degree of precision expected of the court, numerous cases make reference to the concept of the “broad axe” in computing financial damages,¹⁰ referencing the term introduced by Lord Shaw in 1914:¹¹ (emphasis added and paragraph breaks inserted)

In my opinion, the case does raise sharply an important question as to the assessment of damages in patent cases, and with that question I proceed to deal.

It is probably a mistake in language to treat the methods usually adopted in ascertaining the measure of damages in patent cases as principles. They are the practical working rules which have seemed helpful to Judges in arriving at a true estimate of the compensation which ought to be awarded against an infringer to a patentee.

In the case of damages in general, there is one principle which does underlie the assessment. It is

10 See, for example, [5] *Colonial Fastener v. Lightning Fastener* (1937SCC), at page 44; [90] *Apotex v. Merck* (2012 FC 1418 alendronate), at paragraph 8; [53] *Janssen v. Teva* (2016 FC 593 levofloxacin), at paragraphs 69 and 112; [93] *Apotex v. Takeda* (2013 FC 1237 pantoprazole), at paragraph 116; and [95] *Apotex Inc. v. Sanofi-Aventis* (2014 FCA 68 ramipril, aff'd 2015 SCC 20), at paragraph 137.

11 [2] *Watson, Laidlaw v. Pott* (1914 House of Lords), at pages 117 to 118.

what may be called that of restoration. The idea is to restore the person who has sustained injury and loss to the condition in which he would have been had he not so sustained it. In the cases of financial loss, injury to trade, and the like, caused either by breach of contract or by tort, the loss is capable of correct appreciation in stated figures. [paragraph break inserted]

In a second class of cases, restoration being in point of fact difficult, as in the case of loss of reputation, or impossible, as in the case of loss of life, faculty, or limb, the task of restoration under the name of compensation calls into play inference, conjecture, and the like. This is necessarily accompanied by those deficiencies which attach to the conversion into money of certain elements which are very real, which go to make up the happiness and usefulness of life, but which were never so converted or measured. The restoration by way of compensation is therefore accomplished to a large extent by the exercise of a sound imagination and the practice of the broad axe. [paragraph break inserted]

It is in such cases, my Lords, whether the result has been attained by the verdict of a jury or the finding of a single Judge, that the greatest weight attaches to the decision of the Court of first instance. The reasons for this are not far to seek—such as the value of testimony at firsthand, down to even the nuances of its expression, and they include, of course, the attitude and demeanour of the witnesses themselves. In all these cases, however, the attempt which justice makes is to get back to the status quo ante

in fact, or to reach imaginatively, by the process of compensation, a result in which the same principle is followed. [paragraph break inserted]

In Patent cases the principle of restoration is in all instances to some extent, and in many instances to the entire extent dependent upon the same principle of restoration.

Lord Buckley, in [1] *Meters v. Metropolitan Gas Meters* (1911 Court of Appeal of England and Wales), expressed a similar sentiment:¹²

Therefore, in a case such as the present, where licences are not granted to anyone who asks for them for a fixed sum, it is a matter which is to be dealt with in the rough-doing the best one can, not attempting or professing to be minutely accurate-having regard to all the circumstances of the case, and saying what upon the whole is the fair thing to be done.

The tension between the broad axe and perfect compensation was addressed by the Federal Court of Appeal in [56] *Teva v. Janssens* (2018 FCA 33 levofloxacin), where the Court stated:¹³

[33] The admonition to apply sound imagination and brandish a broad axe is said to be contrary to the decision of this Court in *Apotex Inc. v. Merck & Co., Inc.*, 2015 FCA 171, [2016] 2 F.C.R. 202 (Lovastatin) where, at paragraph 42, the Court noted that because “over-compensation of an inventor chills potential competition” “perfect compensation” is required.

12 [1] *Meters v. Metropolitan Gas Meters* (1911 Court of Appeal of England and Wales), at page 161.

13 [56] *Teva v. Janssens* (2018 FCA 33 levofloxacin), at paragraphs 33 to 36.

[34] In my view, Teva takes this Court's comments in Lovastatin out of context. The Court's comment about "perfect compensation" was made in the context of discussing the purpose of an award of damages for patent infringement — compensation. The Court noted that the concept of compensation rejects both under-compensation and over-compensation. In the circumstances then before the Court, this required consideration of both: (i) what, if any, non-infringing product the defendant or any other competitors could and would have sold "but for" the infringement; and, (ii) the extent lawful competition would have reduced the patentee's sales.

[35] The Court then went on to note at paragraph 55 the hypothetical and theoretical nature of the exercise of quantifying damages for patent infringement:

... a patentee claiming damages is required to reconstruct the market to project economic results that did not occur. This is a hypothetical enterprise. To "prevent the hypothetical from lapsing into pure speculation" courts require sound economic proof of the nature of the market and the likely outcomes with infringement factored out of the economic picture. Within this framework, patentees are permitted to present market reconstruction theories showing all of the ways in which they would have been better off in the "but for" world. A fair and accurate reconstruction of the "but

for” world must also take into account relevant, alternative actions an infringer foreseeably could and would have undertaken had he not infringed.

(underlining added)

[36] The “but for” world is of necessity a hypothetical and theoretical construct. It is not a world where, in the words of Lord Shaw, “the loss is capable of correct appreciation in stated figures.” It follows that the Federal Court did not err in principle by quoting Lord Shaw or by referring in its reasons to a “broad axe”. On a fair reading of its reasons, the Federal Court did not proceed on the basis that what was required was “rough justice”. The Court looked to economic proof of the nature of the levofloxacin market and the likely outcomes in that market when Teva’s infringement was factored out.

2.1

CAUSATION AND THE BUT-FOR TEST

Causation is often referred to as causation in fact to distinguish it from remoteness (discussed in Chapter 2.2), which is referred to as causation in law. Causation in fact is addressed by the but-for test: But for the defendant’s infringement, would the plaintiff have suffered the loss (in the case of damages) or would the defendant have experienced the gain (in the case of an accounting of profits)?

Reflecting the emphasis on causation in fact, the modern approach to both damages and an accounting of profits is to compare what actually occurred to the hypothetical situation where the defendant did not infringe, with the difference being the measure of the monetary reward. Specifically, in a damages calculation, if the plaintiff can prove that

it would have made the sale, the actual profits made by the plaintiff are compared to the profits the plaintiff hypothetically would have made if the defendant had not infringed. The difference is the damages caused by the infringement. In an accounting of profits calculation, the profits that the defendant actually made are compared to the profits the defendant hypothetically would have made if the defendant had not infringed. The difference is the profits caused by the infringement.

As a result, the general principles applicable to an accounting of profits and damages should, at a high level, be identical. Accordingly, in this chapter, we discuss accounting of profits and damages case law interchangeably. In a specific case, there may be differences that arise from the specific facts of the case, or as a matter of legal rulings based on factors other than those set out here that result in differences between an accounting of profits and damages.

The principle of causation means that, even if the defendant had made an infringing sale, if the plaintiff would not have made that sale in the absence of infringement, then the plaintiff is not entitled to lost profits on that sale. Rather, it is entitled to a reasonable royalty.

Similarly, if the defendant would have made the same sale and would have earned the same profits from a non-infringing sale as it in fact made from the infringing sale, then those profits were not caused by the infringement and should not be part of an accounting of profits award.¹⁴ This was set out in [64] *Monsanto v. Schmeiser* (2004 SCC), where the Supreme Court of Canada stated:¹⁵

[103] The difficulty with the trial judge's award is that it does not identify any causal connection between

¹⁴ If the defendant would have made the sale but would have earned less profit on that sale, then the difference in profits is appropriately included in an accounting of profits.

¹⁵ [64] *Monsanto v. Schmeiser* (2004 SCC 34), at paragraphs 103 to 105.

the profits the appellants were found to have earned through growing Roundup Ready Canola and the invention. On the facts found, the appellants made no profits as a result of the invention.

[104] Their profits were precisely what they would have been had they planted and harvested ordinary canola. They sold the Roundup Ready Canola they grew in 1998 for feed, and thus obtained no premium for the fact that it was Roundup Ready Canola. Nor did they gain any agricultural advantage from the herbicide resistant nature of the canola, since no finding was made that they sprayed with Roundup herbicide to reduce weeds. The appellants' profits arose solely from qualities of their crop that cannot be attributed to the invention.

[105] On this evidence, the appellants earned no profit from the invention and Monsanto is entitled to nothing on their claim of account.

In [67] *Monsanto v. Rivett* (2010 FCA 207) the Federal Court of Appeal further considered this issue, stating:¹⁶

[36] Also, the Supreme Court's statement in *Schmeiser* is unambiguous: the preferred means of calculating an accounting of profits [in French « la méthode privilégiée de calcul des profits »] is the differential profit approach [emphasis added]. The fact that the award of profits in *Schmeiser* is zero does not, in my opinion, taint that principle or narrow its application. It is simply the result of the non-existence of "any

¹⁶ [67] *Monsanto v. Rivett* (2010 FCA 170), at paragraph 36.

causal connection between the profits [Mr. Schmeiser was] found to have earned through growing [RR] Canola and the invention” (Schmeiser, at paragraph 103). Because Mr. Schmeiser had not sprayed the crops, no profits were causally attributable to the invention. As a result, an apportionment was neither necessary nor possible as there were no profits from the infringement to oppose to those that were not caused by the infringement.

In an accounting of profits context, if it is proven that the defendant was only able to make the sale or earn the associated profits because of its infringement, then the total incremental profits from that sale are properly included in an accounting of profits award. This was set out in [64] *Monsanto v. Schmeiser* (2004 SCC 34):¹⁷

[101] It is settled law that the inventor is only entitled to that portion of the infringer’s profit which is causally attributable to the invention: *Lubrizol Corp. v. Imperial Oil Ltd.*, [1997] 2 F.C. 3 (C.A.); *Celanese International Corp. v. BP Chemicals Ltd.*, [1999] R.P.C. 203 (Pat. Ct.), at para. 37. This is consistent with the general law on awarding non-punitive remedies: “[I]t is essential that the losses made good are only those which, on a common sense view of causation, were caused by the breach” (*Canson Enterprises Ltd. v. Boughton & Co.*, [1991] 3 S.C.R. 534, at p. 556, per McLachlin J. (as she then was), quoted with approval by Binnie J. for the Court in *Cadbury Schweppes Inc. v. FBI Foods Ltd.*, [1999] 1 S.C.R. 142, at para. 93).

¹⁷ [64] *Monsanto v. Schmeiser* (2004 SCC 34), at paragraph 101.

This issue was further considered in [67] *Monsanto v. Rivett* (2010 FCA 207), in which the Federal Court of Appeal reiterated this finding stating, “The profit to be disgorged is the difference between the revenues and the costs. Of course, at times an apportionment will be required as the patentee is only entitled to that portion of the infringer’s profit which is causally attributable to the invention.”¹⁸

Under the same causation principle, in a damages context, if the plaintiff would have made the sale instead of the defendant had the defendant not infringed, then the plaintiff can include the total incremental profits of that lost sale in the computation of damages.

While causation appears intuitive, the application of the principle in real cases can be anything but straightforward. The but-for test requires the construction of a hypothetical world, which is necessarily less certain than the actual world.

To construct the hypothetical world, courts have had to address issues such as: the date at which the but-for world deviates from the real world; the information available to the parties (and to third parties) in making their hypothetical decisions; what business decisions would have been made in those circumstances; and whether some hypothetical possibilities should be discounted for policy reasons. Section 3 below discusses how the courts have addressed these and similar questions.

In the past, courts have also approached causation by apportioning the profits lost by the plaintiff or the profits made the defendant to reflect only those profits specifically caused by the infringement. In this approach, courts have primarily had to address how to decide on the basis under which to determine the apportionment.

18 [67] *Monsanto v. Rivett* (2010 FCA 170), at paragraph 7.

Under the ideal but-for test, such an apportionment should not be necessary.

For example, in [44] *Varco v. Pason* (2013 FC 750), the Federal Court found that, regardless of the existence of other factors necessary for the sale (that may have been appropriately considered in an apportionment) in that case, an apportionment was not necessary because “[t]he weight of the evidence is that ‘but for’ the infringing qualities of the Pason AutoDriller, Pason would have earned nothing.”¹⁹

However, in [29] *Jay-Lor v. Penta* (2007 FC 358), the Court found that:

[While an] [a]pportionment is generally not available to limit the damages payable by the defendant²⁰ ... if the Defendants are able to prove that sales of the infringing vertical feed mixers were solely attributable to the improvements that were made to the JAY-LOR invention, their argument of apportionment could succeed. In this task, the onus is on the Defendants to prove that the demand for their product arose from circumstances other than the patented features.²¹

This apparent inconsistency as to whether an apportionment is available or not in the context of a but-for analysis may be reconciled by considering “saleability,” i.e., customers’ reasons for making a purchase, as described in [58] *Beloit v. Valmet* (1994 FC 78), where the Court stated that:²²

19 [44] *Varco v. Pason* (2013 FC 750), at paragraph 422.

20 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraph 123.

21 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraph 196.

22 [58] *Beloit v. Valmet* (1994 FC 78), at paragraphs 76 and 77.

[76] The test in determining if there should be an apportionment is based on the saleability, as a whole, of the product which contains the patented invention. The question for the court is whether the market demand for the defendant's product arose because of the infringed patent or whether it arose by virtue of the product's additional features. In other words, the inquiry is directed to "the value of the patented part to the machine as a whole," to use the words of Lord Shaw in *Watson Laidlaw*.

[77] This determination is a factual one to be made on the basis of all the evidence. The answer depends entirely on the particular circumstances of each case. The onus is on the defendant to adduce sufficient evidence to satisfy the court that consumer demand for its product arose by virtue of features other than the plaintiff's infringed patent. If the defendant's evidence in this regard is inadequate, the court will not make an apportionment.

A similar consideration arose in *AlliedSignal*, where the Court found that some of the defendant's infringing sales would not have been made by the plaintiff for reasons of business reputation notwithstanding the patented features.²³

Thus, it appears from *Jay-Lor* that the Court believes, if there is a causation factor relating to saleability that has not been taken into account in the but-for analysis, the Court may, as an exception to the normal course, consider an apportionment. However, the use of this exception should consider the statement of the Supreme Court in [103] *Athey v. Leonati* (1996 SCC S.C.R.3 458) that "[i]f the law

23 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraphs 85 to 96.

permitted apportionment between tortious causes and non-tortious causes, a plaintiff could recover 100% of his or her loss only when the defendant's negligence was the sole cause of the injuries. [...] This would be contrary to established principles and the essential purpose of tort law, which is to restore the plaintiff to the position he or she would have enjoyed but for the negligence of the defendant.”²⁴

Further statements from the courts discussing causation include those in [101] *Snell v. Farrell* (1990 SCC S.C.R. 311):²⁵

Both the trial judge and the Court of Appeal relied on *McGhee*, which (subject to its re-interpretation in the House of Lords in *Wilsher*) purports to depart from traditional principles in the law of torts that the plaintiff must prove on a balance of probabilities that, but for the tortious conduct of the defendant, the plaintiff would not have sustained the injury complained of. In view of the fact that *McGhee* has been applied by a number of courts in Canada to reverse the ordinary burden of proof with respect to causation, it is important to examine recent developments in the law relating to causation and to determine whether a departure from well-established principles is necessary for the resolution of this appeal.²⁶

The traditional approach to causation has come under attack in a number of cases in which there is concern that due to the complexities of proof, the probable

²⁴ [103] *Athey v. Leonati*, at paragraph 20.

²⁵ Where we have taken quotes from multiple pages, as in this case, each paragraph is cited directly.

²⁶ [101] *Snell v. Farrell* (1990 SCC S.C.R. 311), at page 319.

victim of tortious conduct will be deprived of relief. This concern is strongest in circumstances in which, on the basis of some percentage of statistical probability, the plaintiff is the likely victim of the combined tortious conduct of a number of defendants, but cannot prove causation against a specific defendant or defendants on the basis of particularized evidence in accordance with traditional principles. The challenge to the traditional approach has manifested itself in cases dealing with non-traumatic injuries such as man-made diseases resulting from the widespread diffusion of chemical products, including product liability cases in which a product which can cause injury is widely manufactured and marketed by a large number of corporations.²⁷

Although, to date, these developments have had little impact in other common law countries, it has long been recognized that the allocation of the burden of proof is not immutable. The legal or ultimate burden of proof is determined by the substantive law “upon broad reasons of experience and fairness”: *Wigmore on Evidence*, § 2486, at p. 292. In a civil case, the two broad principles are:²⁸

1. that the onus is on the party who asserts a proposition, usually the plaintiff;
2. that where the subject matter of the allegation lies particularly within the knowledge of one party, that party may be required to prove it.

27 [101] *Snell v. Farrell* (1990 SCC S.C.R. 311), at page 320.

28 [101] *Snell v. Farrell* (1990 SCC S.C.R. 311), at page 321.

Causation is an expression of the relationship that must be found to exist between the tortious act of the wrongdoer and the injury to the victim in order to justify compensation of the latter out of the pocket of the former. Is the requirement that the plaintiff prove that the defendant's tortious conduct caused or contributed to the plaintiff's injury too onerous? Is some lesser relationship sufficient to justify compensation?²⁹

I am of the opinion that the dissatisfaction with the traditional approach to causation stems to a large extent from its too rigid application by the courts in many cases. Causation need not be determined by scientific precision. It is, as stated by Lord Salmon in *Alphacell Ltd. v. Woodward*, [1972] 2 All E.R. 475, at p. 490:

... essentially a practical question of fact which can best be answered by ordinary common sense rather than abstract metaphysical theory.

Furthermore, as I observed earlier, the allocation of the burden of proof is not immutable. Both the burden and the standard of proof are flexible concepts. In *Blatch v. Archer* (1774), 1 Cowp. 63, 98 E.R. 969, Lord Mansfield stated at p. 970:³⁰

It is certainly a maxim that all evidence is to be weighed according to the proof

29 [101] *Snell v. Farrell* (1990 SCC S.C.R. 311), at page 326.

30 [101] *Snell v. Farrell* (1990 SCC S.C.R. 311), at page 328.

which it was in the power of one side to have produced, and in the power of the other to have contradicted.

The legal or ultimate burden remains with the plaintiff, but in the absence of evidence to the contrary adduced by the defendant, an inference of causation may be drawn although positive or scientific proof of causation has not been adduced. If some evidence to the contrary is adduced by the defendant, the trial judge is entitled to take account of Lord Mansfield's famous precept. This is, I believe, what Lord Bridge had in mind in *Wilsher* when he referred to a "robust and pragmatic approach to the ... facts" (p. 569).³¹

In [103] *Athey v. Leonati* (1996 S.C.R.3 458), the Court stated:³²

[13] Causation is established where the plaintiff proves to the civil standard on a balance of probabilities that the defendant caused or contributed to the injury: *Snell v. Farrell*, [1990] 2 S.C.R. 311; *McGhee v. National Coal Board*, [1972] 3 All E.R. 1008 (H.L.).

[14] The general, but not conclusive, test for causation is the "but for" test, which requires the plaintiff to show that the injury would not have occurred but for the negligence of the defendant: *Horsley v. MacLaren*, [1972] S.C.R. 441.

[15] The "but for" test is unworkable in some circumstances, so the courts have recognized that

31 [101] *Snell v. Farrell* (1990 SCC S.C.R. 311), at page 330.

32 [103] *Athey v. Leonati* (1996 SCC S.C.R.3 458), at paragraphs 13 to 17, 19 and 20.

causation is established where the defendant's negligence "materially contributed" to the occurrence of the injury: *Myers v. Peel County Board of Education*; [1981] 2 S.C.R. 21, *Bonnington Castings, Ltd. v. Wardlaw*, [1956] 1 All E.R. 615 (H.L.); *McGhee v. National Coal Board*, *supra*. A contributing factor is material if it falls outside the *de minimis* range: *Bonnington Castings, Ltd. v. Wardlaw*, *supra*; see also *R. v. Pinsky* (1988), 30 B.C.L.R. (2d) 114 (B.C.C.A.), *aff'd* [1989] 2 S.C.R. 979.

[16] In *Snell v. Farrell*, *supra*, this Court recently confirmed that the plaintiff must prove that the defendant's tortious conduct caused or contributed to the plaintiff's injury. The causation test is not to be applied too rigidly. Causation need not be determined by scientific precision; as Lord Salmon stated in *Alphacell Ltd. v. Woodward*, [1972] 2 All E.R. 475, at p. 490, and as was quoted by Sopinka J. at p. 328, it is "essentially a practical question of fact which can best be answered by ordinary common sense". Although the burden of proof remains with the plaintiff, in some circumstances an inference of causation may be drawn from the evidence without positive scientific proof.

[17] It is not now necessary, nor has it ever been, for the plaintiff to establish that the defendant's negligence was the sole cause of the injury. There will frequently be a myriad of other background events which were necessary preconditions to the injury occurring. To borrow an example from Professor Fleming (*The Law of Torts* (8th ed. 1992) at p. 193), a "fire ignited in a wastepaper basket is ... caused not

only by the dropping of a lighted match, but also by the presence of combustible material and oxygen, a failure of the cleaner to empty the basket and so forth.” As long as a defendant is part of the cause of an injury, the defendant is liable, even though his act alone was not enough to create the injury. There is no basis for a reduction of liability because of the existence of other preconditions: defendants remain liable for all injuries caused or contributed to by their negligence.

[...]

[19] The law does not excuse a defendant from liability merely because other causal factors for which he is not responsible also helped produce the harm: Fleming, *supra*, at p. 200. It is sufficient if the defendant’s negligence was a cause of the harm: *School Division of Assiniboine South, No. 3 v. Greater Winnipeg Gas Co.*, [1971] 4 W.W.R. 746 (Man. C.A.), at p. 753, *aff’d* [1973] 6 W.W.R. 765 (S.C.C.), [1973] S.C.R. vi; Ken Cooper-Stephenson, *Personal Injury Damages in Canada* (2nd ed. 1996), at p. 748.

[20] This position is entrenched in our law and there is no reason at present to depart from it. If the law permitted apportionment between tortious causes and non-tortious causes, a plaintiff could recover 100 percent of his or her loss only when the defendant’s negligence was the sole cause of the injuries. Since most events are the result of a complex set of causes, there will frequently be non-tortious causes contributing to the injury. Defendants could frequently and easily identify non-tortious contributing causes, so

plaintiffs would rarely receive full compensation even after proving that the defendant caused the injury. This would be contrary to established principles and the essential purpose of tort law, which is to restore the plaintiff to the position he or she would have enjoyed but for the negligence of the defendant.

In [116] *Clements v. Clements* (2012 SCC 32):³³

The foregoing discussion leads me to the following conclusions as to the present state of the law in Canada:

(1) As a general rule, a plaintiff cannot succeed unless she shows as a matter of fact that she would not have suffered the loss “but for” the negligent act or acts of the defendant. A trial judge is to take a robust and pragmatic approach to determining if a plaintiff has established that the defendant’s negligence caused her loss. Scientific proof of causation is not required.

(2) Exceptionally, a plaintiff may succeed by showing that the defendant’s conduct materially contributed to risk of the plaintiff’s injury, where (a) the plaintiff has established that her loss would not have occurred “but for” the negligence of two or more tortfeasors, each possibly in fact responsible for the

33 [116] *Clements v. Clements* (2012 SCC 32), at paragraph 46.

loss; and (b) the plaintiff, through no fault of her own, is unable to show that any one of the possible tortfeasors in fact was the necessary or “but for” cause of her injury, because each can point to one another as the possible “but for” cause of the injury, defeating a finding of causation on a balance of probabilities against anyone.

In [50] *Merck v. Apotex* (2015 FCA 171 lovastatin):³⁴

American jurisprudence tends to apply the “but for” test in a similar way. Under the American law for damages for patent infringement (35 U.S. Code § 284 (2011)), in order to recover lost profits a patent owner must show causation in fact, establishing that “but for” the infringement, the patentee would have made additional profits (*King Instruments Corp. v. Perego*, 65 F. 3d 941 at page 952 (Fed. Cir. 1995)). When a patent owner seeks to recover alleged lost profits on lost sales, the patentee has the initial burden to establish a reasonable probability that it would have made the alleged sales “but for” the infringement. Once the patentee establishes this, the burden shifts to the alleged infringer to establish that the patent owner’s “but for” causation claim is unreasonable for some or all of the lost sales (*Rite-Hite Corp. v. Kelley Co. Inc.*, 56 F. 3d 1538 at pages 1544-1545 (Fed. Cir. 1995 (en banc))).

Reflecting the comments of the Supreme Court above in [101] *Snell*

34 [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), at paragraph 52.

v. Farrell (1990 SCC S.C.R. 311), [103] *Athey v. Leonati* (1996 S.C.R. 3458), and [116] *Clements v. Clements* (2012 SCC 32), there will be cases where the court is convinced that the defendant's infringement has caused damage to the plaintiff, but there is insufficient evidence to prove, on a precise but-for basis, the quantum of the damages. In such situations the court has awarded damages that it considers reasonable in the circumstances. See, for example, *Trans-High Corporation v. Hightimes Smokeshop and Gifts Inc.*, 2013 FC 1190, *Teavana Corporation v. Teayama Inc.*, 2014 FC 372, *Patterned Concrete Industries Inc. v. Horta*, 2014 FC 359, *Source Media Group Corp. v. Black Press Group Ltd.*, 2014 FC 1014, and *Black & Decker Corporation v. Piranha Abrasives Inc.*, 2015 FC 185.

2.2

REMOTENESS

Remoteness is essentially a policy decision by the courts that it would be unfair for the defendant to be liable for all damages that were caused in fact by the infringement (or equivalently, that it would be unfair for the defendant to be liable for all the profits the defendant in fact earned by the infringement).

Remoteness is sometimes referred to as causation in law to distinguish it from causation, which is sometimes referred to as causation in fact, and was discussed previously in Chapter 2.1.

The modern touchstone for remoteness in tort cases is foreseeability, and a defendant is responsible for the foreseeable consequences of its wrongdoing.³⁵

35 See, for example, [110] *Mustapha v. Culligan* (2008 SCC 27), at paragraph 12, where the Court stated, "The remoteness inquiry asks whether 'the harm [is] too unrelated to the wrongful conduct to hold the defendant fairly liable' (Linden and Feldthusen, at p. 360). Since *The Wagon Mound (No. 1)*, the principle has been that 'it is the foresight of the reasonable man which alone can determine responsibility' (*Overseas Tankship (U.K.) Ltd. v. Morts Dock & Engineering Co.*, [1961] A.C. 388 (P.C.), at p. 424)."

as discussed by the UK Patents Court in *Gerber v. Lectra*:³⁶

Given that one can foresee these losses, why should the law not provide that the defendant must recompense the plaintiff? And all the more so where the defendant gets a corresponding benefit from his wrong. If that benefit were large enough it might pay the defendant to commit the wrong. ...

As a result, courts assess damages by investigating the economic consequences of the infringement. The UK Patents Court in [21] *Gerber v. Lectra* (1995 UK Patents Court), discussing whether to award damages for convoyed goods, went on to say:³⁷

I think this is a very powerful policy reason for holding that these ancillary damages are recoverable. The supposed counter-policy is that articulated by Goff L.J.: that one is thereby setting up a wider monopoly than that provided by the patent. However upon analysis one can see this is not really so. The patentee has no monopoly in any of these matters. Anyone could have made peel-apart cameras or film, or sell service or parts, or sell post-expiry. There is no question of setting up a monopoly at all - there is only an investigation into the effect of the invasion of one.

Consequently, in some cases, a focus on economic impacts presents the court with difficult remoteness decisions with no easy answer. While certain effects may be caused in fact by the defendant's infringement, a court will still have to decide whether these effects are too remote.

36 [21] *Gerber v. Lectra* (1995 UK Patents Court), at page 400.

37 [21] *Gerber v. Lectra* (1995 UK Patents Court), at page 400.

Another aspect of remoteness is intervening acts. Generally an intervening act is an event that occurs after the wrong (i.e., the infringement) and causes the plaintiff to suffer additional injury (or in the case of an accounting of profits, causes the defendant to make additional profits). Is the defendant responsible for compensating the plaintiff for the additional injury? According to the Supreme Court in [115] *R. v. Maybin* (2012 SCC 24):

An intervening act that is reasonably foreseeable will usually not break or rupture the chain of causation so as to relieve the offender of legal responsibility for the unintended result.³⁸

But:

Jurisprudence supports the proposition that the specific act need not be reasonably foreseeable.³⁹

For purposes of this book, we will note only that there may be circumstances where a plaintiff has suffered a loss on a but-for analysis but the court determines that loss to be too remote and has excluded the loss in its award. Otherwise the concept of remoteness is beyond the scope of this book.

2.3

APPORTIONMENT

As noted above, the modern approach is to implement the causation requirement by applying the but-for test and comparing the real

38 [115] *R. v. Maybin* [2012] SCR 30, 2012 SCC 24, at paragraph 30.

39 [115] *R. v. Maybin* [2012] SCR 30, 2012 SCC 24, at paragraph 35.

and hypothetical outcomes, with the difference being the measure of damages or the accounting of profits caused by the infringement. However, courts have also approached this issue by “apportioning” a broader measure of the damages or accounting of profits, essentially choosing some basis to award only a portion of the broader damages or profits, to reflect the limited impact of the infringement on the broadly calculated damages or accounting of profits.

In [62] *Wellcome Foundation v. Apotex* (1998 FC CanLII 8270), for example, the court first determined the incremental profits by subtracting incremental costs from revenues, and then apportioned these incremental profits to reflect factors other than the infringement:⁴⁰

[52] An allocation of the identified classes of Apotex’ general expenses, calculated on an annual basis, I allow as deductions from revenues. There is evidence on which the annual cost of materials, *i.e.*, of TMP and SMX [the active pharmaceutical ingredients in Apotex’s infringing drug product], can be determined. An allocation of a share of labour and factory overhead based upon the production ratio directed, and an allocation of a share of the designated costs which appear to make a direct contribution to sales, and thus to revenues, based upon the sales ratio indicated, in my opinion are a fair indication of reasonable costs incurred by Apotex as a result of their infringing activity. Those costs would not have been incurred had the infringing activity not been undertaken and, in my opinion, they are to be considered as expenses incurred in earning the revenues from infringement. As such they are deductions from revenues in

40 [62] *Wellcome Foundation v. Apotex* (1998 FC CanLII 8270), at paragraphs 52, 57 and 58.

determining profits to be accounted for payment to the plaintiffs.

[...]

[57] [...] In my opinion, apportionment is appropriate in this case... [...]

[58] In my opinion in this case, the proper apportionment is 60% of the profits earned by Apotex from use of infringing TMP with SMX, both active ingredients, in Apo-Sulfatrim. That ratio recognizes, albeit in a simplified calculation, that there are two active ingredients, that TMP is the more significant of the two in combination, and that the profit does result at least in part from Apotex' efforts to successfully develop the generic product and its market. I am satisfied that Apotex has shown that a portion of the profits may be attributed to SMX in the formulation as an active ingredient and to its successful efforts in developing and marketing Apo-Sulfatrim. Recognition of that warrants apportionment of total profits to be accounted and in my view, fair recognition of that is provided by reserving 40% of Apotex' profits and apportioning 60% to the accounting of profits to be paid to the plaintiffs.

However, this approach was subsequently not followed in *Baker Petrolite v. Canwell* (2002 FC FCT 889, liability reversed on appeal 2002 FCA 158), where the Court found:⁴¹

41 [63] *Baker Petrolite v. Canwell* (2002 FC FCT 889, liability reversed on appeal 2002 FCA 158), at paragraph 160.

[160] Counsel for the defendants urged that sweetening costs represented only a very small portion of the overall costs of producing the natural gas from the City of Medicine Hat well in question and therefore some reasonable apportionment was appropriate. For this proposition, counsel for the defendants cited *Wellcome Foundation Ltd. v. Apotex Inc.* I am satisfied that the case relied upon by counsel for the defendants is entirely distinguishable on the facts and that no apportionment is here warranted.

The cases below reflect the courts' statements on apportionment. The need for an apportionment and the size of the apportionment are matters of fact to be proven by the party seeking the apportionment. Generally, the onus is on the defendant to prove that an apportionment is appropriate. Different judges have used different bases to set the apportionment, given the facts before them.

In [58] *Beloit v. Valmet* (1994 FC 78), the Court stated:⁴²

[76] [...] The test in determining if there should be an apportionment is based on the saleability, as a whole, of the product which contains the patented invention. The question for the court is whether the market demand for the defendant's product arose because of the infringed patent or whether it arose by virtue of the product's additional features. [...]

[77] This determination is a factual one to be made on the basis of all the evidence. The answer depends entirely on the particular circumstances of each case.

42 [58] *Beloit v. Valmet* (1994 FC 78), at paragraphs 76 and 77.

The onus is on the defendant to adduce sufficient evidence to satisfy the court that consumer demand for its product arose by virtue of features other than the plaintiff's infringed patent. If the defendant's evidence in this regard is inadequate, the court will not make an apportionment.

In [29] *Jay-Lor v. Penta* (2007 FC 358):⁴³

[123] [...] Apportionment is generally not available to limit the damages payable by the defendant. [...]

[...]

[190] ... The Defendants submit that, if infringement is found, damages should be apportioned. Their argument is based on the fact that they have made significant improvements to the JAY-LOR vertical feed mixer. Most significantly, they have included stainless steel components and lowered the profile of the machine. These improvements, in their submission, have driven the demand for their version of the vertical feed mixer. Thus, they argue, if JAY-LOR is compensated in damages for the entire vertical feed mixer, JAY-LOR will have received a windfall. In their view, damages (either as to lost sales or a reasonable royalty) should be limited to the auger component of the vertical feed mixer. I do not agree.

[191] As noted above, in general, an election of damages entitles a plaintiff to recover its lost profits

43 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraphs 123, 190 to 197 and 199.

on the entire patented machinery. As stated in *United Horseshoe*, above at 267:

[...] Every sale of goods manufactured, without license, by patent machinery, is and must be treated as an illegal transaction in a question with the patentee; and its inherent illegality is not affected by the circumstance that the infringement consisted in using a small, and, it may be, the least useful, part of the invention. [...]

[192] This, then, is the starting point. Every sale of by the Defendants is an illegal sale of an entire vertical feed mixer. The Plaintiffs have lost sales of their patented vertical feed mixer.

[193] I acknowledge that, where a patented article forms only part of the whole, there may be circumstances where a patentee may be entitled to damages based upon the whole article. In such a case, a patentee is entitled to damages assessed upon the sale of non-infringing components when there is a finding of fact that such sale arose from infringing the patented component (*Colonial Fastener*, above at 41-42). However, here the patented article is not just the auger; the '092 Patent is for an entire vertical feed mixer, including the unique auger that sets JAY-LOR's invention apart. There is no evidence whatsoever before the Court indicating that the '092

Patent ought to be construed as limited to the auger or the “upper surface”.

[194] Further, the evidence is that both Penta and JAY-LOR were selling into the vertical feed mixer market and not into the parts market. Although the auger can be replaced in a mixer, this is not the business that either party was in.

[195] There is another aspect of apportionment to consider. As stated in *Lubrizol Corp. v. Imperial Oil Ltd.*, [1997] 2 F.C. 3, 71 C.P.R. (3d) 26 (F.C.A.) at 33:

[...] But if some part of Imperial’s profit on the infringing sales can be shown to have been due not to the appropriation of the Lubrizol invention but to some other factor where is the equity? ... And even if no other patents were involved, to allow Lubrizol to take profits which Imperial succeeds in showing were solely attributable to some non-infringing feature of its motor oil would be to judicially sanction Lubrizol’s unjust enrichment at Imperial’s expense.

[196] Thus, if the Defendants are able to prove that sales of the infringing vertical feed mixers were solely attributable to the improvements that were made to the JAY-LOR invention, their argument of apportionment could succeed. In this task, the onus

is on the Defendants to prove that the demand for their product arose from circumstances other than the patented features.

[197] In my view, the evidence presented by the Defendants falls far short of satisfying me that customers bought the infringing units due not to the appropriation of the JAY-LOR invention but to changes made by Penta. I agree that the changes introduced by Penta may have assisted some of the sales. However, this does not mean that the purchasers were indifferent to the design of the auger. There is little doubt that the auger is the most important part of a vertical feed mixer. Without an auger that functions to mix the ingredients introduced to the mixer, loading height and stainless steel components are irrelevant. I have no evidence from customers as to what drove their sales decisions. Given the importance of the auger, would the customers not have examined the auger in the Penta vertical feed mixer before considering the other features? I am not able to conclude, as a finding of fact, that the Penta sales were made on the basis of its changes to the JAY-LOR invention.

[...]

[199] In sum, this is not a case where the losses to the Plaintiffs should be apportioned and limited to the auger in the patented vertical feed mixer or to exclude add-ons. The assessment of damages on lost sales should be made on the entire vertical feed mixer as sold to the customer.

In [72] *ADIR v. Apotex* (2017 FCA 23 perindopril):⁴⁴

[72] It is a question of fact whether any profits earned by Apotex under the transfer price agreements for the sale of perindopril flowed from something other than the patented invention, and Apotex bears the burden of establishing this fact. The question bears on the relationship between the profits earned and the appropriation of the patented invention (*Imperial Oil Limited v. Lubrizol Corporation* [1997] 2 F.C.R. 3 at para. 9).

[...]

[79] What drove Apotex' sales of perindopril were the new and useful characteristics of the drug. Had perindopril not been protected by the 196 Patent, there would have been no need for Apotex to provide an indemnity to protect the fragility of its affiliates. "But for" the infringing qualities of perindopril, Apotex would have earned nothing on its sale, whether attributable to the drug itself or to the indemnity required to protect the affiliates. Thus, the profit resulting from the sale of perindopril was entirely causally attributable to the invention. It follows that no apportionment is warranted.

⁴⁴ [72] *ADIR v. Apotex* (2017 FCA 23 perindopril), at paragraphs 72 and 79.

2.4

NOMINAL DAMAGES

The general principles that apply to the calculation of monetary remedies in respect of trademark and copyright infringement are the same as those that apply in respect of patent infringement. Specifically, the quantum of damages or accounting of profits awarded is limited to the damages or defendant's profits caused by the infringement,⁴⁵ and this is usually analyzed by applying the but-for test, i.e., comparing the hypothetical and real-world outcomes to arrive at a monetary amount, subject to remoteness considerations.

As a result, most of the patent case law and commentary in this book is equally applicable to cases of copyright and trademark infringement, and vice versa.

Copyright and trademark infringement cases (especially counterfeiting cases) can, however, present the courts with fact scenarios that diverge widely from those typically seen in patent cases. Examples include infringements that do not damage the rights holder and cases with repeat defendants for whom traditional damages or accounting of profits awards do not seem to deter future infringement. In addition, it seems more likely that, in trademark and copyright cases, a situation would arise where the plaintiff plainly suffered damage and/or the defendant plainly made profits as a result of the infringement, but the amount cannot be proved for lack of evidence.

Canadian courts and Parliament have reacted to these challenges by supplementing the traditional basis for awarding monetary remedies in cases of copyright and trademark infringement with

⁴⁵ But see section 35(2) of the *Copyright Act*.

nominal and statutory damages.

Although addressed by courts primarily in cases of trademark and copyright infringement, the reasoning behind nominal damages can be applied in the case of patent or any other intellectual property infringement. Statutory damages by definition only exist where these have been introduced into the relevant legislation, and as of the writing of this book do not extend beyond copyright laws.

This chapter addresses nominal damages, but reference should also be made to Chapter 2.6 regarding punitive damages.

The traditional definition of nominal damages was set out by the Earl of Halsbury of the House of Lords in [98] *The “Mediana”* (1900 House of Lords):⁴⁶

“Nominal Damages” is a technical phrase which means that you have negatived anything like real damage, but that you are affirming by your nominal damages that there is an infraction of a legal right which, though it gives you no right to any real damages at all, yet gives you a right to the verdict or judgment because your legal right has been infringed.

In many cases, the quantum of the nominal damages is small. However, over the past two decades, Canadian courts have awarded significant sums in nominal damages for copyright and trademark infringement, as noted by the Federal Court of Appeal in [82] *Chanel v. Lam* (2016 FCA 111):⁴⁷

[17] I also find no merit in the appellant’s submissions that it was inappropriate for the trial judge to have

46 [98] *The “Mediana”* (1900 House of Lords), at page 116.

47 [82] *Chanel v. Lam* (2016 FCA 111), at paragraphs 17 and 18.

made a nominal damages award, to have set the nominal damages amount for each act of infringement at the level of \$8,000.00 or to have awarded damages to both the trade-mark owners and the licensee for each act of infringement. The authorities support a nominal damages award in a case like this, where the defendants are uncooperative, proof of actual damages is difficult and it is hard to estimate the harm done to the trade-mark owner's goodwill through the sale of inferior quality counterfeit goods: [citations omitted].

[18] Likewise there is significant authority to support an award of \$8,000.00 per act of infringement (adjusted as a result of inflation) and to support awarding damages to both the trade-mark owner and Canadian licensee in a case like the present: [citations omitted].

In [77] *Oakley v. Jane Doe* (2000 CanLII 15963), the Court discussed relevant factors related to the difficulty of proving damages in relevant cases and why the courts have moved toward a scale assessment of nominal damages:⁴⁸

[3] This issue has been considered before. Counsel advises that the \$3,000 amount was fixed as minimum nominal damages by Gibson J. in the course of disposing of motions for default judgment against one Angela Bali in file no. T-1951-95. Prior to that time, the practice on motions for default judgment had been to send the matters to a reference to determine damages. This proved to be cumbersome and a drain

48 [77] *Oakley v. Jane Doe* (2000 CanLII 15963), at paragraphs 3 and 9 to 11.

on the Court's resources. As a way of simplifying and speeding up the process, the Court assessed damages on a global basis at \$3,000 per plaintiff in the case of defendants operating from temporary premises such as flea markets. This has become the accepted measure of damages by the judges of this Court, though there have been instances where other amounts have been assessed.

[...]

[9] Proof of damages would be difficult in any case in this context. The damages may consist of lost sales but given the differences in price between the genuine article and the counterfeit ones, persons who buy the latter may be reluctant to spend the money to buy the former. It is more likely that the intellectual property holder's goodwill will be damaged by the presence of inferior quality goods bearing its marks or copyrighted material. A further difficulty in the assessment of damages is that information about the infringer's sales could only come from his/her records which are often non-existent.

[10] All this to say that the owners of intellectual properties have a right to damages arising from the infringement of each mark or work, which can be assessed without proof of actual damage or damage to goodwill. Setting aside the amount of the award for a moment, it does not seem unfair or unreasonable to approach the question of damages, in the case of judgments in default, from the perspective of a global assessment for which, by convention, a fixed amount is awarded.

[11] This is only true to the extent that the amount is seen to be fair. The \$3,000 amount which has been used since approximately 1995 has achieved the status of precedent. It is not my intention to disturb it. But it is only precedent in the case of undefended claims. This does not prevent a defendant from putting the question of damages into issue, at which point the Court would decide the issue on the basis of the evidence before it.

The nominal damages scale referred to by the Court in the above quote is:

- \$3,000 in cases where the defendant was operating from a temporary premises, such as a flea market;
- \$6,000 in cases where the defendant was operating from a conventional retail premises; and
- \$24,000 in cases where the defendant was a manufacturer and distributor of counterfeit goods.

This is discussed in more detail in [80] *Louis Vuitton v. 486353 B.C. Ltd* (2008 BCSC 799):⁴⁹

[57] In the past, where business records are not available to assess the wrongful profit earned by the defendants, the Federal Court has applied a scale of “nominal” damages in assessing damages. For example, in *Nike Canada Ltd. v. Goldstar Design Ltd. et al.* (Court File T-1951-95) (FCTD), a 1997 decision, the Court held that the following scale would apply, depending on the circumstances: \$3,000

49 [80] *Louis Vuitton v. 486353 B.C. Ltd* (2008 BCSC 799), at paragraphs 57 to 59.

where the defendants were operating from temporary premises such as flea markets; \$6,000 where the defendants were operating from conventional retail premises; and \$24,000 where the defendants were manufacturers and distributors of counterfeit goods.

[58] These damages awards of \$6,000 and \$24,000 were made in 1997 in an attempt to fairly approximate the plaintiff's loss of profits resulting from trademark infringement where no records of actual retail sales were available to actually measure the profits earned by the defendant.

[59] More recently, in the case of a retail premises, Snider J. of the Federal Court increased the usual \$6000 damage award per infringing activity for each plaintiff to \$7250, by adjusting the \$6000 figure for inflation (*Louis Vuitton Malletier S.A. v. Lin Pi-Chu Yang*, November 14, 2007, T-1236-07, FCTD), 2007 FC 1179 (CanLII), 62 C.P.R. (4th) 362 ("Yang").

The basis for the use of the nominal damages scale was described in [78] *Ragdoll v. Jane Doe* (2002 FC 918):⁵⁰

[18] As for the quantum of damages, the current practice of assessing what has been described as "minimum nominal damages" has developed as a result of the time and expense involved in the previous practice of directing a reference in applications for default judgment. The defendants rarely attended with the result that the plaintiffs and the court were

50 [78] *Ragdoll v. Jane Doe* (2002 FC 918), at paragraph 18.

left to assess damages on a minimum of information without the participation of the defendants. It was thought that this was simply a waste of resources. The current practice has been in place since 1997 and was recently reviewed in *Oakley, Inc. v. Jane Doe* (2000), 2000 CanLII 15963 (FC), 8 C.P.R. (4th) 506 (F.C.T.D.). There is nothing untoward about the award of nominal damages where no actual damages are shown.

Several cases have also held that the nominal damages scale referred to above, which was set in 1997, should be increased to account for inflation, including *Kwan Lam v. Chanel S. de R.L.*, 2016 FCA 111 (CanLII) and *Randy River Inc. v. Mint Accessories Inc.*, 2018 ONSC 1215 (CanLII) (albeit in the context of the breach of a settlement agreement).

As noted in [81] *Louis Vuitton v. Singga* (2011 FC 776):⁵¹

[131] The \$3,000, \$6,000 or \$24,000 award of damages is designed to reflect damages based on a single instance of infringement evidenced by the seizure in an *Anton Pillar* order. Where a defendant is engaged in continuous and blatantly recidivist activities over a period of time ... it has been recognized that such activities warrant a much higher award of damages than in the case of a one time execution of an *Anton Piller* order. Where the evidence shows, as it does here, activities continuing over a period of time, and involving importation from a factor (sic) in China and national distribution of bulk, repeated orders, damages need to be considered on a much higher level.

51 [81] *Louis Vuitton v. Singga* (2011 FC 776), at paragraph 131.

The Court went on to award:⁵²

[132] The Federal Court and British Columbia Supreme Court have both recognized the need to allow for a higher calculation of damages in situations of recidivist counterfeiting activities over a period of time. Therefore, where there is evidence of more than a single attendance at the location in question, and it can be shown that a defendant engaged in the complained of activities over a period of time, the Courts in Canada have allowed that the “nominal damages” *Anton Piller* award needs to be calculated on a “per instance of infringement” or, where the evidence is available, “per inventory turnover.” See *Louis Vuitton Malletier S.A. v. Lin Pi-Chu Yang*, 2007 FC 1179 ([CanLII](#)), 62 C.P.R. (4th) 362 at paragraph 43; and *Louis Vuitton Malletier S.A. et al. v. 486353 B.C. Ltd. et al.*, 2008 BCSC 799 ([CanLII](#)), [2008] B.C.W.L.D. 5075 at paragraphs 59-60 and 65-67.

[133] In *Louis Vuitton Malletier S.A., et al. v. Lin Pi-Chu Yang et al.*, the plaintiffs were able to present evidence of six instances where counterfeit merchandise had been delivered-up, purchased or

52 [81] *Louis Vuitton v. Singga* (2011 FC 776), at paragraphs 132 and 133.

viewed at the defendants' business, over a period of 1 1/2 years, and the Federal Court applied the *Anton Piller* order scale of damages to each of those 6 instances in an effort to reflect the ongoing damages that would have been suffered by the plaintiffs. In *Louis Vuitton Malletier S.A. et al. v. 486353 B.C. Ltd. et al.* (2008 BCSC 799 (*CanLII*)), the plaintiffs were able to present evidence of frequency of inventory turnover, over a period of years, and the British Columbia Supreme Court applied the *Anton Piller* order scale of damages to each of those inventory turnovers in an effort to reflect the ongoing damages to the Plaintiffs in those circumstances. See *Louis Vuitton Malletier S.A. v. Lin Pi-Chu Yang*, 2007 FC 1179 (*CanLII*), 62 C.P.R. (4th) 362 at paragraphs 43-44; and *Louis Vuitton Malletier S.A. et al. v. 486353 B.C. Ltd. et al.*, 2008 BCSC 799, [2008] B.C.W.L.D. 5075 at paragraphs 67-72."

Finally, it should be noted that a defendant may be liable to several plaintiffs for nominal damages on the above scale (for example, where a defendant is selling infringing goods of several different rights holders). Courts have held that this stacking of nominal damage awards is allowed, and the size of the total award does not render the award improper. The Courts have also held that the nominal damage on the above scale can be properly awarded to both the rights holder and, separately, to the Canadian licensee:

- [77] *Oakley v. Jane Doe* (2000 CanLII 15963), at paragraphs 12-13;

- [79] *Louis Vuitton v. Yang* (2007 FC 1179), at paragraph 43;
- [80] *Louis Vuitton v. 486353 B.C. Ltd* (2008 BCSC 799), at paragraphs 67 and 72; and
- [81] *Louis Vuitton v. Singga* (2011 FC 776), at paragraph 32.

Some courts have questioned whether the scale approach set out above is properly described as nominal damages or compensatory damages,⁵³ but that is beyond the scope of this book.

2.5

STATUTORY DAMAGES IN COPYRIGHT

The general principles that apply to the calculation of monetary remedies in respect of copyright infringement are the same as those that apply in respect of patent infringement. Specifically, the quantum of damages or accounting of profits awarded is limited to the damages or defendant's profits caused by the infringement, and this is usually analyzed by applying the but-for test, i.e., comparing the hypothetical and real-world outcomes to arrive at a monetary amount, subject to remoteness considerations. As a result, most of the case law and commentary in this book are equally applicable to cases of copyright infringement, and vice versa.

Copyright cases can, however, present the courts with fact scenarios that diverge widely from those typically seen in patent cases. Examples include infringements that do not damage the rights holder, and cases with repeat defendants for which traditional damages or accounting of profits awards do not seem to deter future infringement. In addition,

⁵³ See, for example, [78] *Ragdoll v. Jane Doe* (2002 FC 918), at paragraphs 50 and 51.

it seems more likely that, in copyright cases, a situation would arise where the plaintiff plainly suffers damage and/or the defendant plainly made profits as a result of the infringement, but the amount cannot be proved for lack of evidence.

Canadian courts and Parliament have reacted to these challenges by supplementing the traditional basis for awarding monetary remedies in cases of copyright infringement with nominal and statutory damages.

This chapter addresses statutory damages, which by definition only exist where these have been introduced into the relevant legislation, and as of the writing of this book, do not extend beyond copyright laws.

As described in [84] *Trader v. CarGurus* (2017 ONSC 1841):⁵⁴

[56] The purpose of statutory damages is intended to ease the evidentiary burden on a copyright owner, for whom it may be difficult, if not impossible, to prove the extent of the loss ... [S]tatutory damages are intended to compensate the copyright owner for its losses (and, as well, to deter future infringements). The caselaw has held that there should be some correlation or proportionality between actual damages and statutory damages.

Section 38.1 (1) of the Copyright Act provides a copyright owner the right to an award of statutory damages as follows:

38.1 (1) Subject to this section, a copyright owner may elect, at any time before final judgment is rendered, to recover, instead of damages and profits referred to in subsection 35(1), an award of statutory damages for which any one infringer is liable individually, or

54 [84] *Trader v. CarGurus* (2017 ONSC 1841), at paragraph 56.

for which any two or more infringers are liable jointly and severally,

(a) in a sum of not less than \$500 and not more than \$20,000 that the court considers just, with respect to all infringements involved in the proceedings for each work or other subject-matter, if the infringements are for commercial purposes; and

(b) in a sum of not less than \$100 and not more than \$5,000 that the court considers just, with respect to all infringements involved in the proceedings for all works or other subject-matter, if the infringements are for non-commercial purposes.

The Copyright Act continues, at section 38.1 (5), to provide guidance to the Court in exercising this discretion:

(5) In exercising its discretion under subsections (1) to (4), the court shall consider all relevant factors, including

(a) the good faith or bad faith of the defendant;

(b) the conduct of the parties before and during the proceedings;

(c) the need to deter other infringements of the copyright in question; and

(d) in the case of infringements for

non-commercial purposes, the need for an award to be proportionate to the infringements, in consideration of the hardship the award may cause to the defendant, whether the infringement was for private purposes or not, and the impact of the infringements on the plaintiff.

The Copyright Act also provides, at section 38.5(6), that:

(6) No statutory damages may be awarded against

(a) an educational institution or a person acting under its authority that has committed an act referred to in section 29.6 or 29.7 and has not paid any royalties or complied with any terms and conditions fixed under this Act in relation to the commission of the act;

(b) an educational institution, library, archive or museum that is sued in the circumstances referred to in section 38.2;

(c) a person who infringes copyright under paragraph 27(2)(e) or section 27.1, where the copy in question was made with the consent of the copyright owner in the country where the copy was made; or

(d) an educational institution that is sued in the circumstances referred to in subsection 30.02(7) or a person acting

under its authority who is sued in the circumstances referred to in subsection 30.02(8).

The introduction and rationale of the statutory remedies was described in a “Fact Sheet on Copyright Remedies” released by the Government of Canada as follows:⁵⁵

An Act to Amend the Copyright Act (Bill C-32), adopted in April 1997, introduced new remedies for creators of all kinds of works. These remedies, which came into force on October 1, 1999, are designed to provide stronger deterrents against copyright infringement and to better compensate copyright owners for losses suffered because of infringement.

Because the extent of infringement is particularly difficult to prove, copyright owners were often inadequately compensated for losses suffered as a result of infringement of their rights. Bill C-32 introduced that guarantee a minimum award once infringement is proven, and which should serve to deter future infringements. (sic)

In order to more effectively halt infringements, the amendments also include a “wide injunction” which covers a broader range of copyright protected materials than the injunctions previously available in such cases.

Further, in some circumstances, copyright owners

55 “Fact Sheet on copyright Remedies”, accessed as <https://web.archive.org/web/20111201195308/http://www.ic.gc.ca/eic/site/ipdp-dppi.nsf/eng/ip00090.html>.

will now be able to avail themselves of summary procedures which are more expedient and less expensive than full court actions.

[...]

The remedies are available to all types of copyright owners including authors, composers lyricists, performers, producers of sound recordings and audiovisual works, as well as software and multimedia businesses.

Note that damages and statutory damages may, in certain circumstances, both be awarded. For example, in [80] *Louis Vuitton v. 486353 B.C. Ltd* (2008 BCSC 799):⁵⁶

[73] In addition to the damages awarded for the defendants' infringement of the plaintiffs' rights under the *Trade-marks Act*, Louis Vuitton is entitled to recovery of statutory damages and profits in relation to infringement by the defendants W. Lee Corporation, W. Lee, Ngan and Tran of the Copyrighted Works.

The Copyright Act also provides, at section 38.5(7), that statutory damages and punitive damages can both be awarded:

(7) An election under subsection (1) does not affect any right that the copyright owner may have to exemplary or punitive damages.

This right to punitive damages (see also Chapter 2.6) was discussed in

56 [80] *Louis Vuitton v. 486353 B.C. Ltd* (2008 BCSC 799), at paragraph 73.

[79] *Louis Vuitton v. Yang* (2007 FC 1179), which stated:⁵⁷

[25] Next, I turn to the need to deter others. The LV products that are the subject of copyright protection are highly-valued by consumers. Being seen with one of the Plaintiffs' Copyrighted Works is a statement that carries significant societal weight in some sectors of the population. However, the continuing infringement of this and similar high-fashion accessories with similar copyright protection erodes the position that legitimate copyrighted products hold in the marketplace. Why would a person buy the Plaintiffs' Copyrighted Works when "knock-offs" can be sold and bought with few negative consequences? More seriously, why buy the legitimate product when others seeing it will assume that it is not likely a "real" LV Copyrighted Work? Although, to many, this aspect of the infringement is not serious, the erosion of the market for which the Plaintiffs have worked very hard is a serious consequence of the continuing behaviour of the Defendants and others who may also be infringing the Copyrighted Works. Another aspect of deterrence that is relevant is the behaviour of the Defendants. The award in this case should attempt to deter conduct where orders of the Court and other legal remedies are blatantly ignored. In my view, a high award is necessary to deter future infringement and, secondarily, to deter open disrespect for Canada's copyright protection laws.

While, as noted in *Trader V. CarGurus*, "The award in each case turned

57 [79] *Louis Vuitton v. Yang* (2007 FC 1179), at paragraph 25.

on the facts specific to that case”⁵⁸, cases that have considered an award of statutory damages in copyright include the following (see also the case law cited therein):

- *Wing v. Van Velthuisen*, 2000 CanLII 16609 (FC), 9 C.P.R. (4th) 449 (F.C.T.D.);
- *Ritchie v. Sawmill Creek Golf & Country Club Ltd.*, [2003] O.J. No. 3144 (S.C.J.);
- *L.S. Entertainment Group Inc. v. Formosa Video (Canada) Ltd.*, 2005 FC 1347;
- *Telewizja Polsat S.A. v. Radiopol Inc.*, 2006 FC 584;
- *Microsoft Corp. v. 9038-3746 Quebec Inc.*, 2006 FC 1509;
- *Louis Vuitton Malletier S.A. v. Yang*, 2007 FC 1179;
- *Louis Vuitton Malletier S.A. v. 486353 B.C. Ltd.*, 2008 BCSC 799;
- *Microsoft v. 1276916 Ontario Ltd.*, 2009 FC 849;
- *Microsoft Corporation v. PC Village Co. Ltd.*, 2009 FC 401;
- *Century 21 Canada Ltd. v. Rogers Communications Inc.*, 2011 BCSC 1196;
- *Pinto v. Bronfman Jewish Education Centre*, 2013 FC 945;
- *Twentieth Century Fox v. Hernandez*, 2013 CarswellNat 6160;
- *Royal Conservatory of Music v. MacIntosh (Novus Via Music Group Inc.)*, 2016 FC 929;

58 [84] *Trader v. CarGurus* (2017 ONSC 1841), at paragraph 66.

- *Trader v. CarGurus*, 2017 ONSC 1841; and
- *Andrew Collett v. Northland Art Company Canada Inc. and Bremner Fine Art Incorporated*, 2018 FC 269.

2.6

PUNITIVE DAMAGES (ALSO KNOWN AS EXEMPLARY DAMAGES)

Punitive damages are damages that are intended not to compensate the plaintiff, but instead to punish the defendant for its wrongful act. Typically, these damages are restricted to wrongful acts that are so harsh, vindictive, reprehensible and malicious that they are deserving of punishment on their own. Note, however, that the Supreme Court, in [107] *Whiten v. Pilot Insurance* (2002 SCC 18), stated that, while “deterrence is an important justification for punitive damages”⁵⁹ ... “there is recognition that the primary vehicle of punishment is the criminal law (and regulatory offences) and that punitive damages should be resorted to only in exceptional cases and with restraint.”⁶⁰

The general availability of punitive damages in Canadian civil law cases is well established,⁶¹ but the Supreme Court, in [107] *Whiten v. Pilot Insurance* (2002 SCC 18), held that these damages should be:⁶²

59 [107] *Whiten v. Pilot Insurance* (2002 SCC 18), at paragraph 120.

60 [107] *Whiten v. Pilot Insurance* (2002 SCC 18), at paragraph 69.

61 The Canadian Copyright Act explicitly provides for an award of punitive in addition to statutory damages. [Copyright Act, §38.1(7).]

62 [107] *Whiten v. Pilot Insurance* (2002 SCC 18), at paragraphs 111 to 126. The full text of these paragraphs is set out further below.

1. Proportionate to the blameworthiness of the defendant's conduct;
2. Proportionate to the degree of vulnerability of the plaintiff;
3. Proportionate to the harm or potential harm directed specifically at the plaintiff;
4. Proportionate to the need for deterrence;
5. Proportionate, even after taking into account the other penalties, both civil and criminal, which have been or are likely to be inflicted on the defendant for the same misconduct; and
6. Proportionate to the advantage wrongfully gained by a defendant from the misconduct.

The full text of the relevant citations from [107] *Whiten v. Pilot Insurance* (2002 SCC 18) is set out further below.

The Court of Appeal, in [60] *Lubrizol v. Imperial Oil* (1996 FCA FC 40), confirmed the availability of punitive damages in intellectual property cases, stating:⁶³

[33] In recent years, there have been many awards of punitive or exemplary damages made by Canadian courts. They have not been limited to defamation and intentional tort situations, where they are most prevalent, but they may be awarded in contract cases, in certain negligence cases, fiduciary relationship cases, and other situations where the court, in a civil case, feels that it is necessary to condemn the outrageous conduct of a defendant. We can see no

63 [60] *Lubrizol v. Imperial Oil* (1996 FCA FC 40), at paragraph 33.

reason why, in appropriate circumstances, punitive or exemplary damages could not be available in a copyright or patent infringement case, a type of statutory tort claim, and counsel have not even suggested that they should not be permissible.

This is consistent with the statement in [107] *Whiten v. Pilot Insurance* (2002 SCC 18) that “a traditional function of punitive damages is to ensure that the defendant does not treat compensatory damages merely as a license to get its way irrespective of the legal or other rights of the plaintiff.”⁶⁴ This was elaborated on in [41] *Eurocopter v. Bell Helicopter* (2013 FCA 219):⁶⁵

[173] I agree with the general proposition that the entitlement and quantum of punitive damages should, as a general rule, be determined after the quantum of compensatory damages has been established: *Lubrizol Corp. v. Imperial Oil Ltd.*, [1996] 3 F.C. 40, 67 C.P.R. (3d) 1 (“*Lubrizol*”) at p. 20 of the C.P.R. ed. This general proposition flows from the requirement that for punitive damages to serve their purpose, they may be awarded only where the compensatory damages are insufficient to accomplish the objectives of retribution, deterrence and denunciation: *Whiten* at para. 94.

[174] However, this general proposition must be understood and applied with regard to the actual situation before the court and in a manner which facilitates the just and expedient resolution of the litigation in which the issue is raised. Consequently,

64 [107] *Whiten v. Pilot Insurance* (2002 SCC 18), at paragraph 124.

65 [41] *Eurocopter v. Bell Helicopter* (2013 FCA 219), at paragraphs 173 and 174.

in appropriate circumstances and depending on the context, it may be sometimes possible to ascertain an entitlement (or a non-entitlement) to punitive damages before the exact quantum of compensatory damages has been established. Such would be the case where the compensatory damages, though not precisely quantified, will nevertheless be likely insufficient (or, conversely, likely sufficient) to accomplish the objectives of retribution, deterrence and denunciation. This is precisely the situation identified by the Judge in this case.

The Supreme Court in [107] *Whiten v. Pilot Insurance* (2002 SCC 18) also established several general principles for the quantification of punitive damages, and these were succinctly summarized by the Court in [76] *Frac Shack v. AFD Petroleum* (2017 FC 104) as follows:⁶⁶

1. Punitive damages are appropriate in exceptional circumstances, where the conduct of the defendant merits the condemnation of the court.
2. The purposes of punitive damages are punishment, denunciation, and deterrence.
3. Punitive damages should be assessed having regard to other fines or penalties imposed on the defendant.
4. The terms “high-handed”, “oppressive”, “vindictive”, etc. are insufficient guidance to determine whether punitive damages are appropriate.
5. Punitive damages, in an amount that is the lowest that would

66 [76] *Frac Shack v. AFD Petroleum* (2017 FC 104), at paragraph 325.

serve the purpose, are rational if such an award would further one of the objectives of the law.

6. It is rational to use punitive damages where compensatory damages would amount to nothing more than a licence fee to earn greater profits through outrageous disregard of the legal or equitable rights of others.
7. When determining the amount of punitive damages, the proper focus is on the defendant's conduct, not the plaintiff's loss.
8. The governing rule for quantum is proportionality.
9. Juries need to receive more guidance and help from judges when asked to determine whether punitive damages are appropriate and the quantum of said damages.
10. An appellate court is entitled to intervene if an award exceeds the outer boundaries of a rational and measured response.

With the benefit of the above overview, below is an extract of the relevant sections of [107] *Whiten v. Pilot Insurance* (2002 SCC 18).⁶⁷ Please note while reading these extracts that in most Canadian intellectual property cases the judge assumes the role of the jury:

[111] I earlier referred to proportionality as the key to the permissible quantum of punitive damages. Retribution, denunciation and deterrence are the recognized justification for punitive damages, and the means must be rationally proportionate to the end sought to be achieved. A disproportionate award overshoots its purpose and becomes irrational. A less than proportionate award fails

67 [107] *Whiten v. Pilot Insurance* (2002 SCC 18), at paragraphs 111 to 126 (internal citations omitted).

to achieve its purpose. Thus a proper award must look at proportionality in several dimensions, including:

(i) Proportionate to the Blameworthiness
of the Defendant's Conduct

[112] The more reprehensible the conduct, the higher the rational limits to the potential award. The need for denunciation is aggravated where, as in this case, the conduct is persisted in over a lengthy period of time (two years to trial) without any rational justification, and despite the defendant's awareness of the hardship it knew it was inflicting (indeed, the respondent anticipated that the greater the hardship to the appellant, the lower the settlement she would ultimately be forced to accept).

[113] The level of blameworthiness may be influenced by many factors, but some of the factors noted in a selection of Canadian cases include:

- (1) whether the misconduct was planned and deliberate;
- (2) the intent and motive of the defendant;
- (3) whether the defendant persisted in the outrageous conduct over a lengthy period of time;
- (4) whether the defendant concealed or attempted to cover up its misconduct;

(5) the defendant's awareness that what he or she was doing was wrong;

(6) whether the defendant profited from its misconduct;

(7) whether the interest violated by the misconduct was known to be deeply personal to the plaintiff (*e.g.*, professional reputation or a thing that was irreplaceable (*e.g.*, the mature trees cut down by the real estate developer. Special interests have included the reproductive capacity of the plaintiff deliberately sterilized by an irreversible surgical procedure while the plaintiff was confined in a provincial mental institution, although no award of punitive damages was made on the facts); the deliberate publication of an informant's identity. In *Weinstein v. Bucar*, [1990] 6 W.W.R. 615 (Man. Q.B.), the defendant shot and killed plaintiffs' three companion and breeding German Shepherds who had merely wandered onto the defendant's property from a neighbouring yard. Here the "property" was sentimental, not replaceable, and, unlike the trees, themselves sentient beings.

(ii) Proportionate to the Degree of Vulnerability of the Plaintiff

[114] The financial or other vulnerability of the plaintiff, and the consequent abuse of power by a defendant, is highly relevant where there is a power imbalance. In *Norberg v. Wynrib*, [1992] 2 S.C.R. 226, for example, speaking of a physician who had used his access to drugs to purchase sex from a female patient, McLachlin J. (as she then was) stated, at p. 276:

Society has an abiding interest in ensuring that the power entrusted to physicians by us, both collectively and individually, not be used in corrupt ways....

A similar point was made by Laskin J.A. in the present case (at p. 659):

[V]indicating the goal of deterrence is especially important in first party insurance cases. Insurers annually deal with thousands and thousands of claims by their insureds. A significant award was needed to deter Pilot and other insurers from exploiting the vulnerability of insureds, who are entirely dependent on their insurers when disaster strikes.

[115] I add two cautionary notes on the issue of vulnerability. First, this factor militates against the award of punitive damages in most commercial situations, particularly where the cause of action is contractual and the problem for the court is to sort out the bargain the parties have made. Most

participants enter the marketplace knowing it is fuelled by the aggressive pursuit of self-interest. Here, on the other hand, we are dealing with a homeowner's "peace of mind" contract.

[116] Second, it must be kept in mind that punitive damages are not compensatory. Thus the appellant's pleading of emotional distress in this case is only relevant insofar as it helps to assess the oppressive character of the respondent's conduct. Aggravated damages are the proper vehicle to take into account the additional harm caused to the plaintiff's feelings by reprehensible or outrageous conduct on the part of the defendant. Otherwise there is a danger of "double recovery" for the plaintiff's emotional stress, once under the heading of compensation and secondly under the heading of punishment.

(iii) Proportionate to the Harm or
Potential Harm Directed Specifically at
the Plaintiff

[117] The jury is not a general ombudsman or roving Royal Commission. There is a limited role for the plaintiff as private attorney general. It would be irrational to provide the plaintiff with an excessive windfall arising out of a defendant's scam of which the plaintiff was but a minor or peripheral victim. On the other hand, malicious and high-handed conduct which could be expected to cause severe injury to the plaintiff is not necessarily excused because fortuitously it results in little damage.

(iv) Proportionate to the Need for
Deterrence

[118] The theory is that it takes a large whack to wake up a wealthy and powerful defendant to its responsibilities. The appellant's argument is that the punitive damages award of \$1 million represents less than one half of one percent of Pilot's net worth. This is a factor, but it is a factor of limited importance.

[119] A defendant's financial power may become relevant (1) if the defendant chooses to argue financial hardship, or (2) it is directly relevant to the defendant's misconduct (*e.g.*, financial power is what enabled the defendant Church of Scientology to sustain such an outrageous campaign for so long against the plaintiff in Hill, *supra*), or (3) other circumstances where it may rationally be concluded that a lesser award against a moneyed defendant would fail to achieve deterrence.

[120] Deterrence is an important justification for punitive damages. It would play an even greater role in this case if there had been evidence that what happened on this file were typical of Pilot's conduct towards policyholders. There was no such evidence. The deterrence factor is still important, however, because the egregious misconduct of middle management was known at the time to top management, who took no corrective action.

[121] The fact the respondent's assets of \$231 million were mentioned to the jury in this case was unhelpful. Pilot was obviously a substantial corporation.

Disclosure of detailed financial information before liability is established may wrongly influence the jury to find liability where none exists (*i.e.*, the subliminal message may be “What’s a \$345,000 insurance claim to a \$231 million company?”). Moreover, pre-trial discovery of financial capacity would unnecessarily prolong the pre-trial proceedings and prematurely switch the focus from the plaintiff’s claim for compensation to the defendant’s capacity to absorb punishment. In any event, the court should hesitate to attribute anthropomorphic qualities to large corporations (*i.e.*, the punishment should “sting”).

[122] Where a trial judge is concerned that the claim for punitive damages may affect the fairness of the liability trial, bifurcated proceedings may be appropriate. On the facts of this case, no harm was done by the procedure followed, including the mention of the \$231 million figure.

(v) Proportionate, Even After Taking
Into Account the Other Penalties, Both
Civil and Criminal, Which Have Been
or Are Likely to Be Inflicted on the
Defendant for the Same Misconduct

[123] Compensatory damages also punish. In many cases they will be all the “punishment” required. To the extent a defendant has suffered other retribution, denunciation or deterrence, either civil or criminal, for the misconduct in question, the need for additional punishment in the case before the court is lessened and may be eliminated. In Canada, unlike some other common law jurisdictions, such “other” punishment

is relevant but it is not necessarily a bar to the award of punitive damages. The prescribed fine, for example, may be disproportionately small to the level of outrage the jury wishes to express. The misconduct in question may be broader than the misconduct proven in evidence in the criminal or regulatory proceeding. The legislative judgment fixing the amount of the potential fine may be based on policy considerations other than pure punishment. The key point is that punitive damages are awarded “if, but only if” all other penalties have been taken into account and found to be inadequate to accomplish the objectives of retribution, deterrence, and denunciation. The intervener, the Insurance Council of Canada, argues that the discipline of insurance companies should be left to the regulator. Nothing in the appeal record indicates that the Registrar of Insurance (now the Superintendent of Financial Services) took an interest in this case prior to the jury’s unexpectedly high award of punitive damages.

(vi) Proportionate to the Advantage Wrongfully Gained by a Defendant from the Misconduct

[124] A traditional function of punitive damages is to ensure that the defendant does not treat compensatory damages merely as a licence to get its way irrespective of the legal or other rights of the plaintiff. Thus in *Horseshoe Bay Retirement Society*, *supra*, a real estate developer cut down mature trees on the plaintiff’s property to improve the view from neighbouring lots which it was developing for sale. The defendant appeared to have calculated that enhanced prices for its properties would exceed any “compensation” that

it might be required to pay to the plaintiff. Punitive damages of \$100,000 were awarded to reduce the profits and deter “like-minded” developers (p. 50). For a similar case, see *Nantel v. Parisien* (1981), 18 C.C.L.T. 79 (Ont. H.C.), per Galligan J., at p. 87, “.... the law would say to the rich and powerful, ‘Do what you like, you will only have to make good the plaintiff’s actual financial loss, which compared to your budget is negligible’”. In *Claiborne Industries, supra*, an award of punitive damages was made against the defendant bank in an amount sufficient to ensure that it did not profit from its outrageous conduct (p. 106).

[125] On the other hand, care must be taken not to employ the “wrongful profit” factor irrationally. Thus, in *Lubrizol Corp. v. Imperial Oil Ltd.* (1994), 84 F.T.R. 197, the court ordered the defendant to account to the plaintiff for all profits gained by infringing the plaintiff’s patent, with interest, then added \$15 million in punitive damages (without waiting for the profits to be ascertained) because, *per* Cullen J., “[t]he volume of [patented] product sold, although not quantified, must be enormous” and the defendant was “a large corporation with annual sales of 10 billion dollars” (p. 209). The duplicative remedies thus relieved the defendant of the profit twice, once through the accounting remedy and a second time (at least in part) through an award of punitive damages. The trial judge’s approach was reversed on appeal ([1996] 3 F.C. 40).

[126] In the present case, the effort to force the appellant into a disadvantageous settlement having

failed, it is not alleged that the respondent profited from its misconduct.

In [68] *Lundbeck v. Apotex* (2013 FC 192 escitalopram), the Court stated that:⁶⁸

[257] “An election for an accounting of profits, rather than for compensatory damages, does not preclude the Court from awarding punitive damages.”

As a detailed analysis of punitive damages is beyond the scope of this book, and because the award of punitive damages in each case is dependent on the facts of that case, we have not included further extracts of the case law in this regard. However, to assist the reader, we have listed below a selection of cases where punitive damages have been considered since *Whiten*. Where the cases are not reviewed elsewhere in this book, we have included the full citation. Note that several of these cases are non-intellectual property cases and involve a jury. Please recall while reading these extracts that in most Canadian intellectual property cases the judge assumes the role of the jury.

- *Dimplex North America Ltd. v. CFM Corporation*, 2006 FC 586, aff'd 2007 FCA 278;
- [26] *Merck v. Apotex* (2006 FCA 323 lisinopril);
- *Wi-Lan Technologies Corp. V. D-Link Systems and D-Link Canada Inc.*, 2006 FC 1484;
- [79] *Louis Vuitton v. Yang* (2007 FC 1179);
- *Honda Canada Inc. v. Keays*, 2008 S.C.C. 39, 2008 S.C.R.2 362 (2008);

68 [68] *Lundbeck v. Apotex* (2013 FC 192 escitalopram), at paragraph 257.

- [80] *Louis Vuitton v. 486353 B.C. Ltd* (2008 BCSC 799);
- [83] *Microsoft v. 1276916 Ontario Ltd.* (2009 FC 849);
- [32] *Eli Lilly v. Apotex* (2009 FC 991 cefaclor, aff'd 2010 FCA 240);
- [39] *Eurocopter v. Bell Helicopter* (2012 FC 113);
- *Mediatube Corp. v. Bell Canada*, 2017 FC 6; and
- [76] *Frac Shack v. AFD Petroleum* (2017 FC 104).

3



SECTION

Operating Reality and the But-For World

The objective of the damages quantification is to put the plaintiff back in the position it would have been in but for the defendant's infringement. This derives from the general compensatory and causal principles underlying the analysis and the but-for test, as discussed in the previous section.

In order to do this, it is essential to assess what the operating reality of the parties would have been if the defendant's infringement were to not have occurred. This counterfactual operating reality is generally referred to as the "but-for world," or less frequently, the "hypothetical world." As discussed in [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending):⁶⁹

In determining how one restores the patentee who has sustained injury or loss to the condition in which he would have been, had he not sustained it, courts have often said that one must create a but-for world. The but-for world is a legal fiction described by asking: "But for the infringing product being on the market, what would the patentee's position have been?" The answer to that question responds to the damage calculation [where the patentee has established that the infringer's trade would have been his and that he is entitled to be put in the position he would have been had it been his trade] – the patentee's profits lost as a consequence of the infringement.

The usual starting point for creating this but-for world is to understand the operating reality that in fact existed during the damages period in the "real world." As described in [97] *Teva v. Pfizer* (2017 FC 332 pregabalin):⁷⁰

69 [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), at paragraph 20.

70 [97] *Teva v. Pfizer* (2017 FC 332 pregabalin), at paragraphs 13 and 14.

The real world plays a significant role in the construction of the BFW [but-for world]. The BFW is to mirror, as much as possible, the real world experiences and circumstances – to use history as the basis for assessing the assumptions advanced in the BFW scenarios.

From this foundation, the court, with the benefit of factual and expert evidence, must determine how the world would have been different from the real world had the defendant not infringed, without unduly constraining any of the market participants from acting in their own best interests, other than with respect to the information that they would reasonably have known for purposes of making ordinary course business decisions.

In doing so, it is important to understand, among other things, the industry participants, what markets they operated in, their capacity constraints (to the extent this information is publicly available), factors affecting customer decisions and other pertinent information that would reasonably have had an influence on the but-for world.

While not law in Canada, the Panduit test in the United States provides an insightful perspective. This test requires that, in order to get lost profit damages, the plaintiff must prove (1) demand for the patented product, (2) its capability to exploit the market, (3) the amount of profit it would have made had the defendant not infringed and (4) the absence of an acceptable non-infringing substitute.⁷¹ The first two of these factors are discussed further in Chapter 3.3. The third factor is discussed in Section 4.

Under Canadian law, the fourth factor, the existence of non-infringing alternatives (“NIAs”) is an important consideration, as it affects wheth-

er the defendant in the but-for world could have made the sales it actually made in the real world even if the defendant did not infringe, by instead making use of the NIAs.

In Canada, the burden is on the defendant to prove that a commercially available NIA existed, that it had access to it and that it would have made use of this alternative in the but-for world.⁷² This is discussed further in Chapter 3.4.

In some cases, statutory law or legal precedent may trump what otherwise would be considered, from an economic or business perspective, to be the most likely outcome. One such example is the “pre-grant period” or “laid open period” where, pursuant to section 55(2) of the *Patent Act*, a plaintiff is entitled to reasonable compensation which, as discussed further in Chapter 3.1, has been found by the court to be a reasonable royalty. Even in such circumstances, however, it is necessary to establish, and understand, the but-for world, as this could be a relevant consideration in determining a reasonable royalty (see Chapters 6.2 and 6.8).

3.1

PRE-GRANT OR LAID OPEN PERIOD

In respect of liability for patent infringement, the *Patent Act* states that “[a] person who infringes a patent is liable to the patentee and to all persons claiming under the patentee for all damage sustained by the patentee or by any such person, after the grant of the patent, by reason of the infringement.”⁷³ (emphasis added)

72 [50] *Merck v. Apotex* (2015 FCA 171 (lovastatin)), at paragraph 73.

73 *Patent Act*, section 55(1).

By contrast, the Patent Act states that, in the period before the patent is granted, “[a] person is liable to pay reasonable compensation to a patentee and to all persons claiming under the patentee for any damage sustained by the patentee or by any of those persons by reason of any act on the part of that person, after the application for the patent became open to public inspection [...] and before the grant of the patent, that would have constituted an infringement of the patent if the patent had been granted on the day the application became open to public inspection.”⁷⁴ (emphasis added)

The Court has generally interpreted “reasonable compensation” to mean a reasonable royalty. For example, in [29] *Jay-Lor v. Penta* (2007 FC 358), the Court held:⁷⁵ (emphasis added)

[120] As noted above, a plaintiff is also entitled to “reasonable compensation” for infringement during the laid open period. Reasonable compensation has been described as being in the nature of a reasonable royalty, the onus being on the party claiming to prove what a reasonable royalty would be (*Baker Petrolite Corp. v. Canwell Enviro-Industries Ltd.*, 2001 FCT 889 (CanLII), [2002] 2 F.C. 3, 13 C.P.R. (4th) 193 at paras. 253 (F.C.T.D.), rev’d on other grounds 2002 FCA 158 (CanLII), 17 C.P.R. (4th) 478 (F.C.A.)). It is obvious that recovery of reasonable compensation, pursuant to s. 55(2) of the Patent Act, may only be granted if the patent in question has issued, and, if challenged, has been held to be valid. Beyond *Baker Petrolite*, there is no jurisprudence discussing

⁷⁴ Patent Act, section 55(2).

⁷⁵ [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraphs 120 to 122.

what is meant by “reasonable compensation” in s. 55(2).

[121] The Plaintiffs urge me to award damages on the lost sales for [the pre-grant period]. That is, the Plaintiffs seek the same type of damages for [the pre-grant period] as for the period after the grant of the '092 Patent.

[122] In my view, such an award is not warranted. In addition to relying on the comments of Justice Gibson in *Baker Petrolite*, I base this view on my reading of the relevant statutory provisions. For the period after the grant of the patent, s. 55(1) of the Patent Act provides that “a person who infringes a patent is liable ... for all damage sustained by the patentee.” In contrast, s. 55(2) provides that a person is liable to pay “reasonable compensation ... for all damage sustained by the patentee” during the laid open period. In s. 55(2), Parliament could have provided for the same assessment of damages as in s. 55(1). It did not do so. Accordingly, to give effect to the different words in the two provisions, I believe that the better view is that “reasonable compensation” during [the pre-grant period] must be something other than damages as contemplated by s. 55(1). It may be that there are other means to provide reasonable compensation beyond a royalty. However, in the case before me, no alternatives were presented. Thus, in this case, I intend to equate “reasonable compensation” to a “reasonable royalty.”

For further discussion on the quantification of reasonable royalties, see Section 6.

3.2

PLAINTIFF IS REGULAR LICENSOR

The foundational objective of a computation of monetary remedies is to restore the party that has sustained injury and loss to the financial condition in which it would have been but for the defendant's infringement. Consequently, where the plaintiff is a regular licensor, it is logical to expect that the financial loss suffered by a plaintiff is in the form of lost licensing revenue that it would otherwise have earned. This was succinctly stated by the Court in [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464):⁷⁶

Where the patentee has licensed its invention in the past, it is “almost a rule of law” to assess damages in terms of a reasonable royalty; i.e., according to what the infringer would have paid if it had entered into a legitimate licensing agreement with the patentee.

For further discussion of a reasonable royalty for the defendant's infringement, see Section 6, although, where the plaintiff has licensed the patent at issue, the question as to what the appropriate royalty rate would be is likely based on factual rather than expert evidence, subject to any unique aspects of the case, for example that past licensing activity would not be predictive of future licensing revenues. For further discussion, see Chapter 6.5.

76 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraph 12.

3.3

WHAT SALES DID THE PLAINTIFF LOSE?

The foundational objective of a computation of monetary remedies is to restore the party that has sustained injury and loss to the financial condition in which it would have been but for the defendant's infringement. Where the plaintiff practices its patent and manufactures products and makes sales in the relevant market, then, in the absence of the presence of the infringer, the plaintiff may have made additional sales of its products. Accordingly, under the principles of compensatory damages, the plaintiff would, therefore, be entitled to lost profits on those lost sales it incurred as a result of the defendant's infringement.

In order to be awarded these lost profits, the plaintiff must prove that, absent the infringer's behavior, it would have, in fact, made additional sales. Depending on the facts of the case, it is possible that the plaintiff may have made all the sales of the infringer, and these unit sales represent its lost sales. This could occur where there are no alternative product substitutes, for example in a pharmaceutical case involving an infringing generic product, where the total market for the molecule was not affected by the defendant's sale of an infringing bioequivalent product, which merely substituted sales away from the plaintiff's patented branded product, and the defendant had no non-infringing alternatives.

It is also possible that the lost sales of the plaintiff exceed the actual sales made by the infringer. This may occur in cases, for example, where, despite the best business decisions of both plaintiff and infringer, customers switched to a competing third-party product (or stopped purchasing any products altogether) because of, e.g., some perceived loss of quality or service that resulted from the defendant's infringement.

In yet other cases, the infringer may have increased the size of the market by either entering markets in which the plaintiff did not operate or appealing to customers who would not have purchased the plaintiff's product, or for other reasons. As a result, the sales that the plaintiff would have made are less than those that the infringer actually obtained.

In all cases, the burden lies with the plaintiff to provide evidence as to whether, and to what extent, it would have made additional sales absent the defendant's infringement.

Statements from the Courts discussing what sales the plaintiff would have achieved absent the defendant's infringement are set out below.

In [1] *Meters v. Metropolitan Gas Meters* (1911 Court of Appeal of England and Wales):⁷⁷

The Defendants seek to diminish the damages by a variety of affidavits intended to show that the particular purchasers for whom they manufactured these infringements were customers who would not have purchased from the Plaintiffs if they had not purchased from them. I am not for a moment going to say that evidence of that kind may not be relevant, but the argument based upon it was that where a plaintiff proves the sale of infringing instruments by the defendants he does not establish any right to damages unless he shows how many of those particular instruments would have been purchased from him if the defendant had not sold them; and the Counsel for the Defendants were bold enough to say that in this case of infringement on a large scale there ought to be only nominal damages.

77 [1] *Meters v. Metropolitan Gas Meters* (1911 Court of Appeal of England and Wales), at page 163.

In [61] *Beloit v. Valmet-Dominion* (1997 FCA CanLII 6342):⁷⁸

[...] the Supreme Court of Canada in *Colonial Fastener Co. Ltd. v. Lightning Fastener Co. Ltd.*, held that there may be instances when a patentee may be entitled to damages based upon the whole article of which the patented article forms a part. In that instance, the Court awarded damages not just for the infringed article [...] but for the completed article [...]

[...]

Based upon the jurisprudence, in our view [...] a patentee is entitled to damages assessed upon the sale of non-infringing components when there is a finding of fact that such sale arose from infringing the patented component.

In [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464):⁷⁹

[34] The process of examining the hypothetical situation where one assumes that the infringing product never entered the market is an uncertain one. Nonetheless, there are several factors that serve to answer the question, “What would have happened?” The following factors have been considered in various cases:

- (a) Presence of competing products in the market;
- (b) Advantages of the patented product over competing products;

78 [61] *Beloit v. Valmet* (1997 FCA CanLII 6342), at pages 38 and 39.

79 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraph 34.

- (c) Advantages of the infringing product over the patented product;
- (d) Market position of the patentee;
- (e) Market position of the infringer;
- (f) Market share of the patentee before and after the infringing product entered the market;
- (g) Size of the market before and after the infringing product entered the market; and,
- (h) Capacity of the patentee to produce additional products.

In [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending) (formatting added):⁸⁰

[33] [...] I also agree with the submission of Apotex that damages for lost profits have been denied where the causal link between the infringement and the lost sales has not been established. Apotex brought examples to the court's attention where a patentee was denied recovery of its alleged lost profits on the sales made by the infringer because it was unable to prove that it would have made those sales, but for the infringing product being on the market. I summarize these examples as follows:

- (1) where the infringed patents are usually

80 [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), at paragraph 33.

licensed by the patentee, the patentee's loss is limited to the royalty it usually charges: *AlliedSignal Inc v Du Pont Canada Inc* (1998), 78 CPR (3d) 129 [AlliedSignal] and *Meters Ltd v Metropolitan Gas Meters Ltd* (1911), 28 RPC 157 (CA);

- (2) where the infringing sales occur in markets where the patentee does not operate it is limited to recover only a reasonable royalty: *United Horse-Shoe & Nail*;
- (3) where the patentee would not have made the infringing sales because it had ineffective distribution or marketing: *Hamilton v. Featherweight Aluminum* (1965), 47 CPR 40 (Ex Ct);
- (4) where the plaintiff would not have made the infringing sales because of customer dissatisfaction and its refusal to deal with the patentee: *AlliedSignal*; and
- (5) where there is a competitive market-place and it is shown that some of the infringing sales would have been made by a third party competitor: *Jay-Lor International Inc v. Penta Farm Systems Ltd*, 2007 FC 358; 59 CPR (4th) 228 [Jay-Lor].

The application of the above principles can vary depending on the specific facts of the case. One significant aspect is the quantum of allegedly infringing sales. Where there are allegedly infringing sales to only a

few customers, it may be possible to review the actions and preferences of each customer to identify whether, had the infringer not used the infringing feature, the plaintiff would have made the sale, and has thus suffered lost sales. Such an approach was employed, for example in [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), where the Court stated, “It became obvious ... that, in the circumstances of the case at bar, it is necessary to look at the question on a customer-by-customer basis, instead of on a wider, “market” basis under the market-share theory.”⁸¹

In some cases, however, even with few customers, it may not be exactly evident what sales the plaintiff may have lost. This was discussed in [21] *Gerber v. Lectra* (1995 UK Patents Court, aff'd), as follows:⁸²

I have already indicated that Lectra made 25 sales during the 5 year period of infringement. These were to some 23 customers. Following the evidence, Miss Heilbron [Counsel for the defendant infringer] conceded that on a balance of probability 4 of the sales would have been made by Gerber. Mr. Floyd [Counsel for the plaintiff] conceded on that basis one sale would not have been. Miss Heilbron said that as to the remaining 20 I should consider the evidence as to each transaction individually and decide whether or not Gerber would have made the sale absent Lectra [the infringer]. Every sale with an over 50% probability would count for Gerber on a lost profits basis, every sale worth 50% or less would count only for a reasonable royalty. Mr. Floyd favoured a more general approach, that having heard the evidence about all 25

81 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraph 36.

82 [21] *Gerber v. Lectra* (1995 UK Patents Court, aff'd), at page 407.

sales I should form a general view as to what proportion of these Gerber would have made absent Lectra.

I think Mr. Floyd is right. This is not just a judicial cop out to save me going through the detailed exercise required by Miss Heilbron's approach. He is right both in principle and on authority. First principle. An example shows how unfairly Miss Heilbron's approach could be. Suppose 20 sales, each with a 49% chance of Gerber making the sale. Using her method one would conclude that Gerber would not have made any sales. Mathematically that would be wholly improbable - just less than the chance of tossing 20 heads successively. The Floyd method would give Gerber nearly half the sales, reflecting the probabilities as a whole. I believe that to be the court's task, though mathematical precision is impossible.

Conversely, where there are a significant number of sales then it becomes necessary to implement the "wider, 'market' basis under the market-share theory" referred to in [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), and described in more detail by the Court as follows:⁸³

[35] It is interesting to note that U.S. courts have taken many of the same factors [the factors listed above as (a) to (h)] and turned them into a legal test. According to the test established by the Sixth Circuit Court of Appeals in *Panduit Corp. v. Stahl Brothers Fibre Works, Inc.* a patentee must establish (i) the existence of demand for the patented product; (ii) the absence of acceptable non-infringing substitutes;

83 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraphs 35 and 36.

(iii) the patentee's manufacturing and marketing capacity to meet the demand; and, (iv) the amount of profit lost per lost sale. More recently, the Federal Circuit Court of Appeals in *State Industries v. MorFlo* upheld a "market-share approach" that altered the second factor of the Panduit test. Essentially, this approach allows the plaintiff to claim that, notwithstanding the presence of acceptable, non-infringing substitutes in the market, it would have captured a proportion of the infringer's sales equivalent to its market share.

[36] While these approaches may be interesting, it is clear that there is no equivalent "legal test" in Canada. However, at least two key witnesses in this case presented opinions that were clearly based on U.S. jurisprudence. For example, Mr. Rostant, the defendant's expert accountant, relied heavily on the U.S. market-share approach. He claimed that the plaintiff would only have captured a proportion of the defendant's sales equivalent to its market share over the entire carrier web market.

The process required to undertake such a market-share approach is technical and beyond the scope of this book.

3.4

NON-INFRINGEMENT ALTERNATIVES

In considering what sales the plaintiff lost as a result of the infringement, one factor is the potential existence of a non-infringing alternative, or

NIA. As many readers will be well aware, this topic has received much attention over the past few years in Canadian patent-law commentary as how to appropriately consider the availability of an NIA, and the case law in this area will likely continue to evolve over the next few years. Accordingly, this chapter is devoted to providing a fulsome, and chronological, overview of the Canadian jurisprudence on this topic.

Before starting, it is important to note that, as stated by the Federal Court of Appeal in [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), “[a]s a matter of principle, the burden lies on the defendant to establish the factual relevance of a non-infringing alternative on a balance of probabilities. Indeed, Apotex acknowledged in oral argument that it bears the persuasive burden, on a balance of probabilities, to prove that it would have used the non-infringing alternative.”⁸⁴ Note that this is different to the treatment in the U.S., where the burden lies with the plaintiff under the Panduit test, as discussed in Chapter 3.

Largely, until recently, the treatment in Canada of an NIA in the calculation of lost profits damages for lost sales was considered to follow the legal principle adopted from the 1888 United Kingdom *United Horse Shoe and Nail v. Stewart* case.⁸⁵ This historical treatment was summarized in [50] *Merck v. Apotex* (2015 FCA 171 lovastatin) as follows:⁸⁶

[61] I wish to deal with the Judge’s reliance upon *The United Horse Shoe and Nail Company, Limited v. Stewart and Company* (1888), 5 R.P.C. 260 (H.L.), 13 App. Cas. 401, and the policy reasons the Judge found to support rejection of non-infringing alternatives.

84 [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), at paragraph 74.

85 A consideration of NIA in an accounting of profits has been recognized in Canada for a longer period. For a discussion on this topic, see Chapter 5.1.

86 [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), at paragraphs 61 to 68.

[62] In *United Horse Shoe*, the House of Lords held that a non-infringing alternative is always irrelevant. This decision has been subsequently followed by courts in the United Kingdom and some Commonwealth jurisdictions.

[63] It is fair to say that the House of Lords rejected non-infringing alternatives for policy reasons. No Law Lord conducted a causation analysis, and the reasons of each Law Lord reflect the Court's opprobrium of the infringer's conduct. To illustrate, the Lord Chancellor wrote that "[e]very sale of goods manufactured, without licence, by patent machinery, is and must be treated as an illegal transaction in a question with the patentee" (*United Horse Shoe* at page 267).

[64] *United Horse Shoe* has a narrow foothold in Canadian law. Counsel were able to refer us to only two cases that have referred to the decision: *Domco Industries Ltd. v. Armstrong Cork Canada Ltd. et al.* (1983), 76 C.P.R. (2d) 70 at page 73 (Fed. Proth.), [1983] F.C.J. No. 1182, reversed on other grounds, (1986), 10 C.P.R. (3d) 53 (F.C.T.D.), 3 F.T.R. 289; and, *Jay-Lor International Inc. v. Penta Farm Systems Ltd.*, 2007 FC 358, 59 C.P.R. (4th) 228 at paragraph 116.

[65] *Domco* was a reference for the recovery of damages incurred as a result of patent infringement. The Prothonotary rejected the relevance of a non-infringing alternative. The Prothonotary did not provide any detailed analysis, stating the argument "is irrelevant in the light of what actually happened, and tends to obfuscate the main issue of the continued infringement by the defendant" (*Domco*, C.P.R. at page 91).

[66] On appeal, Justice Collier affirmed the rejection of the relevance of a non-infringing alternative. The Judge applied *United Horse Shoe* with little analysis.

[67] In *Jay-Lor* at paragraph 116, the Judge cited *United Horse Shoe* with approval in an *obiter* discussion of general principles.

[68] Neither of these decisions are binding on this Court, and I decline to follow them. In my view, they do not accord with the requirement in subsection 55(1) of the Act that the damages be sustained “by reason of the infringement.”

The last Canadian case regarding a claim for damages in which the court did not accept the relevance of an NIA was [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), where the Court stated:⁸⁷

[26] Notwithstanding the submissions of counsel for Apotex, and the opinions of its expert witnesses who spoke from the viewpoint of economics and accounting, I reject that the NIA Defence is available to an infringer in Canada in an action for damages for patent infringement.

[...]

[50] [...It] is clear that alternative courses of action an infringer could have taken, but did not, have absolutely no bearing on the damages actually suffered because of the action it did take. [...]

In 2015, the Federal Court of Appeal, in [50] *Merck v. Apotex* (2015

87 [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), at paragraphs 26 and 50.

FCA 171 lovastatin), provided appellate guidance on the relevance of an NIA in the computation of damages, stating:⁸⁸

[41] The purpose of an award of damages is to compensate a patentee (or any entity claiming under the patentee) who has suffered loss as a result of patent infringement. The concept of compensation rejects both under-compensation and over-compensation.

[42] The Act as a whole is intended to advance research and development, and to encourage broader economic activity (*Free World Trust v. Électro Santé Inc.*, 2000 SCC 66, [2000] 2 S.C.R. 1024, at paragraph 42). The Act coaxes inventive solutions to practical problems into the public domain through the promise of a limited monopoly for a limited period of time (AZT at paragraph 37). At the heart of this bargain with the inventor, and at the heart of the Act, is the concept of balance between the benefit conferred on the public through the disclosure of a new and useful invention, and the benefit conferred on the inventor through the grant of a monopoly. Thus, in the event of infringement, under-compensation of an inventor discourages research and development, and the disclosure of useful inventions. Equally, over-compensation of an inventor chills potential competition to the extent that a potential infringer is uncertain about the scope and validity of a patent. The balance at the heart of the Act requires perfect compensation.

[43] With this in mind, the inquiry must move to

88 [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), at paragraphs 41 to 43, 48 to 50 and 59 to 60.

which possible interpretation of subsection 55(1) leads to perfect compensation? By requiring that damages for infringement must arise “by reason of the infringement”, the Act invokes the principle of causation. Therefore, it is necessary to understand the role of causation in the quantification of compensatory damages

[...]

[48] The difficulty with the Judge’s approach is that if damages for lost profits are calculated never having regard to an available non-infringing alternative, the patentee will sometimes be better off than it would have been in the absence of infringement. This is so for the following reason. Where a defendant can make and sell a non-infringing alternative, the patent does not confer a complete monopoly on the patent holder. Instead, the patent confers a share of market power upon the patentee. In this circumstance, where, instead of using a non-infringing alternative, a defendant infringes, it is a question of fact whether, “but for” the infringement, the defendant would not have competed with it. The defendant’s lawful competition in the “but for” world may have deprived the patentee of some sales.

[49] Put another way, in cases where, in the “but for” world, the infringer could and would have made and sold a non-infringing alternative, these sales may well reduce the patent owner’s sales. Awarding the patentee full damages for lost profits in every case will, therefore, sometimes over-compensate the patentee.

[50] Perfect compensation requires consideration of: (i) what, if any, non-infringing product the defendant or any other competitors could and would have sold “but for” the infringement; and, (ii) the extent lawful competition would have reduced the patentee’s sales.

[...]

[59] In *Monsanto*,⁸⁹ the patentee sued the defendant for patent infringement and sought an accounting of the defendant’s profits. In its analysis of the remedy claim, citing *Lubrizol Corp. v. Imperial Oil Ltd.*, [1997] 2 F.C. 3 (C.A.), 71 C.P.R. (3d) 26, the Supreme Court noted that it was settled law that a patentee is only entitled to that portion of the infringer’s profit that was causally attributable to the invention. The Court went on to explain that the preferred method of calculating an accounting of profits is the “differential profit” approach. This requires a comparison between the infringer’s real world profit and what his profit would have been had he not infringed (*Monsanto* at paragraphs 101 to 105).

[60] The Judge correctly understood that *Monsanto* did not change the existing law as to how the patentee’s lost profits are to be calculated. However, the significance of *Monsanto* is that if a court may consider a defendant’s resort to a non-infringing alternative when calculating the infringer’s profit, there is no reason in principle to ignore such conduct when calculating the patentee’s lost sales. This is particularly so where:

89 See Chapter 5.1 for a discussion of *Monsanto*, an accounting of profits case.

The problem with computing lost profits without considering the availability of non-infringing alternatives is that [...] this practice renders the patentee *better off* than she would have been in the absence of infringement. (Analogously, ignoring non-infringing substitutes when calculating defendant's profits renders defendants worse off than they would have been, but for the infringement.) [Emphasis in the original]

(Thomas F. Cotter, *Comparative Patent Remedies: A Legal and Economic Analysis* (New York: Oxford University Press, 2013) at pages 189 to 190).

Having accepted the appropriateness of considering an NIA, the Federal Court of Appeal continued, in [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), to describe what questions of fact would need to be considered by the Court:⁹⁰

[73] When considering the effect of legitimate competition from a defendant marketing a non-infringing alternative, a court is required to consider at least the following questions of fact:

- i) Is the alleged non-infringing alternative a true substitute and thus a real alternative?
- ii) Is the alleged non-infringing alternative a true alternative in the sense of being economically viable?
- iii) At the time of infringement, does the infring-

90 [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), at paragraph 73.

er have a sufficient supply of the non-infringing alternative to replace the non-infringing sales? Another way of framing this inquiry is could the infringer have sold the non-infringing alternative?

iv) Would the infringer actually have sold the non-infringing alternative? [Emphasis added.]

Various court decisions have elaborated on the terms “could have” and “would have,” most recently in [72] *ADIR v. Apotex* (2017 FCA 23 perindopril), where the Court stated:⁹¹

[42] As this Court later explained in *Pfizer Canada Inc. v. Teva Canada Limited*, 2016 FCA 161, 483 N.R. 275, (*Effexor*) at paragraph 50, both the “could have” and “would have” requirements are important. To prove “could have,” the defendant must demonstrate that it was possible for it to secure non-infringing product. To prove “would have,” the defendant must demonstrate “that events would transpire in such a way as to put them in that position” (*Effexor*, paragraph 50). The importance of the “would have” requirement is that by requiring a defendant to show that it would have used a non-infringing alternative, the defendant shows that the value of the patented invention is not such that reliance on alternatives is unlikely or fanciful. Put another way, notwithstanding the availability of a non-infringing alternative, the defendant must show that there are no impediments to its use.

91 [72] *ADIR v. Apotex* (2017 FCA 23 perindopril), at paragraph 42.

For an example of the fact-specific nature of the “would have” and “could have,” the reader is referred to *ADIR and Servier Canada Inc. v. Apotex Inc. and Apotex Pharmachem Inc.*, 2018 FC 346 (under appeal).

The Court, in [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), addressed the issue of availability, stating:⁹²

[79] Dealing first with whether Apotex could have sold non-infringing lovastatin, Merck argues that the alleged alternative must have been actually available to replace Apotex’ infringing sales as they were made. Otherwise, Merck, not Apotex, would have replaced those sales. I believe this submission to be correct both in fact and in law. In *Advanced Building Systems Pty Ltd et al. v. Ramset Fasteners (Aust) Pty Ltd*, [2001] FCA 1098, (2001) 52 I.P.R. 305 the Federal Court of Australia rejected the relevance of a non-infringing alternative, but held that if it was legally relevant, it could only apply “if at the moment of infringement [...] there is available on the market instantaneously the appropriate substitute” in the reconstituted market. I agree.

Shortly after [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), the Federal Court of Appeal in [96] *Teva v. Pfizer* (2016 FCA 161 venlafaxine) provided further clarification on the requirement for the defendant to prove both that it “could have” and “would have” made use of an NIA in the but-for world, stating:⁹³

[47] This Court offered much guidance on how to go about assessing the hypothetical world in *Apotex*

92 [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), at paragraph 79.

93 [96] *Teva v. Pfizer* (2016 FCA 161 venlafaxine), at paragraphs 47 to 51, 54 and 55.

Inc. v. Merck & Co., Inc., 2015 FCA 171, 387 D.L.R. (4th) 552 (*Lovastatin*). I acknowledge that *Lovastatin* concerned a claim for compensatory damages for patent infringement, not a claim for damages under section 8 of the *PMNOC Regulations*. But in both types of claims the court's task is the same: to assess a hypothetical world where the defendant's impugned conduct did not take place. And in both the overriding principle is the same: a plaintiff is to be compensated, no more, no less: *AstraZeneca Canada Inc. v. Apotex Inc.*, 2013 FCA 77, 444 N.R. 254 at para. 7.

[48] In *Lovastatin*, the plaintiff claimed that the defendant, by making and selling infringing product, caused it to lose sales it could have made. The defendant submitted, among other things, that in the hypothetical world it would have been able to make the product in a non-infringing way. The sales would still have happened, cutting into the defendant's sales just as actually happened.

[49] This Court held that to make out that argument, the defendant would have had to show, on the evidence, that in the hypothetical world it would have and could have had access to sufficient quantities of non-infringing product and would have and could have used it: *Lovastatin*, at paras. 32, 53, 55, 70, 77 and 78.

[50] Both "would have" and "could have" are key. Compensatory damages are to place plaintiffs in the position they would have been in had a wrong not been committed. Proof of that first requires demonstration that nothing made it impossible for them to

be in that position—*i.e.*, they *could* have been in that position. And proof that plaintiffs would have been in a particular position also requires demonstration that events would transpire in such a way as to put them in that position—*i.e.*, they *would* have been in that position.

[51] Both elements have to be present. “Could have” does not prove “would have”; “would have” does not prove “could have”:

- Evidence that a party would have done something does not prove that it could have done something. I might swear up and down that I would have run in a marathon in Toronto on April 1 aiming to complete it, but that says nothing about whether I could have completed it. Maybe I am not fit enough to complete it.
- Evidence that a party could have done something does not prove that it would have done something. A trainer might testify that I was fit enough to complete a marathon race in Toronto on April 1, but that says nothing about whether I would have completed it. Perhaps on April 1 I would have skipped the marathon and gone to a baseball game instead.

[...]

[54] Here too, *Lovastatin*, above, is instructive. In that

case, this Court held that the plaintiffs bear the burden of proving the hypothetical world on the balance of probabilities as part of their damages claim (at para. 45).

[55] This is no surprise: in suits for breach of contract or for damages caused by a wrong, such as tort cases, the plaintiff usually bears the burden to prove what would have transpired had the breach or wrong not been committed, *i.e.*, the persuasive burden to show what would have transpired in the hypothetical world: *Red Deer College v. Michaels*, [1976] 2 S.C.R. 324 at p. 330, 57 D.L.R. (3d) 386; *Janiak v. Ippolito*, [1985] 1 S.C.R. 146, 16 D.L.R. (4th) 1 at para. 32. The task of constructing the hypothetical world for the purposes of assessing compensatory damages is a factual inquiry using “robust common sense”: *Clements v. Clements*, 2012 SCC 32, [2012] 2 S.C.R. 181, at paras. 8 and 9.

The Federal Court, in [55] *Eurocopter v. Bell Helicopter* (2017 FC 170), addressed the consideration of hindsight in assessing the “would have” and “could have” tests, stating:⁹⁴

[294] Using “the actual financial information that has come available through [the] litigation and over time” [emphasis added] (*Jay-Lor* at para 151) is one thing, but reconstructing the bargaining position of the parties, based on a predictive model tainted by questionable inferences made *ex post facto*, is another. A presumption is an inference drawn by the law or the Court from a known fact, while presumptions which are not established by law are left to the dis-

94 [55] *Eurocopter v. Bell Helicopter* (2017 FC 170), at paragraphs 294 and 295.

cretion of the Court which shall take only serious, precise, and concordant presumptions into consideration: articles 2846 and 2849 of the *Civil Code of Quebec*, CQLR c CCQ-1991. Inferences must be grounded on evidence, but the evidence itself must be reliable. There is a fundamental element of uncertainty and chance in the real world. The fact that the farmer was able to catch the fox who had killed his chicken the week before does not mean that he will be able to do so in the future or that he would have done so a year earlier. The trier of fact would like to know more about the farmer's various methods, his test and fail experiences, etc. before drawing any sort of conclusion.

[295] The fact that Bell was able to develop the Production gear at some posterior date does not allow the Court to infer that Bell would have done so on the eve of first infringement of the '787 Patent. It would simply be too easy to allow infringers of a valid patent, to retroactively rewrite history to escape their liability to pay damages by bringing out scenarios that were never considered or unrealistic on the eve of first infringement. This is not a policy statement, but an observation based on the rule of law and due process. The rules of evidence are there to protect the right of each party to fairly present their case before the Court.... In other words, if a look into what transpired in the "real world" is acceptable to a certain point, it must not translate itself in some "hindsight bias," which can be defined as the inclination, after an event has occurred, to see the event as having been predictable, despite there having little or

no objective basis for predicting it (N. J. Roese and K.D. Vohs' "Hindsight bias" (2012) 7:2 Perspectives on Psychological Science at pages 411-426).

In [72] *ADIR v. Apotex* (2017 FCA 23 perindopril), the Federal Court of Appeal further clarified the principles underlying the consideration of the NIA in the context of causation, stating:⁹⁵

[26] The starting point of this analysis must be the decision of the Supreme Court in *Schmeiser*⁹⁶... In *Schmeiser*, the patentee sued the defendant for patent infringement and sought an accounting of the defendant's profits. In its analysis of the remedy claim, citing *Lubrizol Corp. v. Imperial Oil Ltd.*, 1996 CanLII 4095 (FCA), [1997] 2 F.C.R. 3 (C.A.), 71 C.P.R. (3d) 26, the Supreme Court noted that it was settled law that a patentee is only entitled to that portion of the infringer's profit that is causally attributable to the invention. The Court went on to explain that the preferred method of calculating an accounting of profits is the "differential profit" approach, 'where profits are allocated according to the value contributed to the defendant's wares by the patent'. [...]

[...]

[28] Servier argues that *Schmeiser* did not definitively preclude the use by a trial judge of other valuation methods, better suited to a different set of facts and that it was open to the Federal Court to proceed as it did. I acknowledge that in *Schmeiser* the Supreme

95 [72] *ADIR v. Apotex* (2017 FCA 23 perindopril), at paragraphs 26, 28, 34, 42, 66 and 67.

96 See Chapter 5.1 for a discussion of *Schmeiser*, an accounting of profits case.

Court referred to the differential profit approach as the “preferred means” of calculating an accounting of profits – not the only means. However, at bottom is the need to ensure that a patentee only receives that portion of the infringer’s profit that is causally attributable to the invention. In this circumstance, I accept the submission of Apotex that the value of the invention can only be quantified if non-infringing alternatives are considered. This is so because the value of a patent lies in the ability of the patentee to exclude competitors and competition.

[...]

[34] ... [P]olicy reasons cannot trump the requirement that an infringer’s disgorged profit must be only the profit which is causally attributable to the invention.

[...]

[42] ... The importance of the “would have” requirement is that by requiring a defendant to show that it would have used a non-infringing alternative, the defendant shows that the value of the patented invention is not such that reliance on alternatives is unlikely or fanciful. Put another way, notwithstanding the availability of a non-infringing alternative, the defendant must show that there are no impediments to its use.

[...]

[66] Three final comments must be made before leaving this issue.

[67] First, it may be that the Federal Court could conclude in the hypothetical world that one or more suppliers would not or could not supply perindopril in time to replace the initial infringing sales. However, this would not end the inquiry as the Federal Court would still have to consider whether at some later point in time a supplier would and could have provided replacement non-infringing tablets.

The Federal Court, in [73] *AstraZeneca v. Apotex* (2017 FC 726 omeprazole), addressed the question of foreseeability and availability of the NIA in the context of addressing the need to demonstrate that the infringer “would have” used the NIA at the time of infringement, stating:⁹⁷

[7] It is now well established in Canadian law that a NIA defence is available to a patent infringer to potentially reduce an innovator’s claim to damages or to the recovery of the infringer’s profits.

[...]

[12] AstraZeneca contends that the jurisprudence does not support a NIA that is not perceived by the infringer to be non-infringing at the point of the infringement. It also posits that a NIA must be “foreseeable” to the infringer at the relevant time. Anything short of this is said to be speculative.

[13] In support of the “knowledge” requirement, AstraZeneca relies on the trial decision in *Wellcome Foundation Ltd v Apotex Inc* (1998), 82 CPR (3d)

97 [73] *AstraZeneca v. Apotex* (2017 FC 726 omeprazole), at paragraphs 7, 12 to 19 and 22.

466 at paras 32-33, 151 FTR 250 (FCTD) [*Wellcome FC*], aff'd [2001] 2 FCR 618, 11 CPR (4th) 218 (CA). AstraZeneca cites to *Lovastatin FCA*, above, at paras 93-95 on the issue of foreseeability.

[14] I do not read these decisions as broadly as AstraZeneca suggests. In *Wellcome FC*, above, Justice MacKay did focus on whether Apotex had actual knowledge that its proposed NIA was non-infringing, but he also considered whether “it could have known” [para 33]. Knowing whether or not a proposed NIA would infringe is, of course, a factor in determining whether the infringer “would have” employed it in place of the infringing product. But this falls well short of making prior knowledge of non-infringement an absolute pre-requisite to the assertion of a NIA.

[15] I also place little significance on the stray reference to “foreseeability” in *Lovastatin FCA*, above. In the context of its use I take that reference to mean only that the concept of a viable NIA would have been available to the infringer based on what was known in the art at the time. If foreseeability meant that the infringer must have the asserted NIA in mind at the time of the infringement, it could potentially punish those who had no idea their product was infringing while rewarding those who had an appreciation of the risk and courted it, but nevertheless had a back-up, work-around solution available.

[16] ... AstraZeneca cites two United States authorities (*Grain Processing Corp v American Maize-Products Co*, 185 F 3d 1341 (Fed Cir 1999) [*Grain Processing*],

and *Micro-Chemical Inc v. Lextion Inc*, 318 F 3d 1119 (Fed Cir 2003) [*Micro-Chemicals*] for the idea that a NIA requiring the infringer to “invent around the patented technology” is not considered to be “available” to the infringer. I do not agree with this interpretation. Neither *Micro-Chemical*, above, nor *Grain Processing*, above, stand for the idea that the availability of a NIA is necessarily contingent on the amount of inventive effort required to make it. The time and effort of coming up with a non-infringing solution is certainly relevant to whether the infringer would have pursued it, but they are not absolute barriers to the defence. That this was all Judge Rader for the Court was saying in *Micro-Chemical* is clearly evident from his statement at p 1123 that high costs and the complexity of the exercise “to design or invent around the patented technology to develop an alleged substitute weighs [sic] against a finding of availability”. The Court in *Grain Processing* makes the same point.

[17] The American authorities cited by the parties also do not, on my reading, support an argument for exclusion of a NIA that is not “on the market” at the time of infringement. In *Grain Processing*, above, the Court was only concerned with the hypothetical availability of a NIA “including but not limited to products on the market” [p 1349]. Where the substitute was not on the market at the relevant time, the Court observed that an inference of unavailability could be drawn but not that it must be drawn. The Court went on to say at p 1353 that “the trial court must proceed with caution in assessing proof of the availability of substitutes not actually sold during

the period of infringement”. In that case, however, the trial court had found that the asserted substitute could have been made by a process that was known in the art. That finding was upheld on appeal. I can see nothing in the *Micro-Chemical* decision that detracts from the above view.

[18] There is, of course, a difference between cases like *Perindopril* FCA and this one. In *Perindopril* FCA the NIA was known to exist at the time of infringement. The NIAs Apotex proposes in this case were unknown and never made by anyone before or during the infringing period let alone approved for use in Canada, the United States or elsewhere. Notwithstanding this distinction, I accept Apotex’s point that in the hypothetical, but for pharmaceutical world the infringer’s failure to produce a viable NIA formulation in the real world is not a threshold bar to the use of the NIA defence. In this context, the question is: Could the infringer have made the product had it attempted to do so at the relevant time and would the infringer have sold the product on some reasonable financial basis in substitution for the infringing product?

[19] I think this is the point being made by Justice Eleanor R Dawson for the Court in *Perindopril* (sic) FCA, above, when she said at para 62 “the fact that an event does not take place in the real world does not necessarily mean that the event could not and would not have taken place in the hypothetical world.” Added to this is the recognition in *Perindopril* FCA that the availability of a NIA is not to be foreclosed simply because it was not immediately available to the

infringer, *i.e.* on the eve of first infringement. The Court is still obliged “to consider whether at some later point in time a supplier would and could have provided” a replacement product. This lends support to Apotex’s view that a viable NIA need not exist at the exact time of infringement.

[...]

[22] I do not, however, think that Justice Martineau’s decision in *Airbus* ... stands for the proposition that *ex post facto* NIAs of the sort proposed in this case must be excluded from consideration as a matter of law. Justice Martineau simply expressed reservations about the dangers of relying on a NIA that was either unknown during the period of infringement or had been previously discarded. He was appropriately concerned about the reliability of this type of look-back evidence and the risk of hindsight bias....

Generally, the Canadian jurisprudence in regard to the NIA has been trending away from that in the UK (*United Horseshoe*) and toward that in the U.S. (*Grain Processing*). For example, in [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), the Court stated:⁹⁸ (emphasis in original)

[24] [In the U.S. the] NIA Defence provides that if the infringer can show that there was an alternative substitute to the patented product that did not infringe the patent, and which was available, then the patentee cannot prove that it would have made the sales made by the infringer because the infringer could have made those sales using

98 [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), at paragraphs 24 and 48.

the NIA. Absent proof that the patentee would have made the infringing sales in the but-for world, it cannot prove that it suffered a loss of profits on those sales.

[...]

[48] Under 35 U.S.C. section 284, “the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer” [emphasis added]. Justice Rader in *Grain Processing*, citing Supreme Court jurisprudence, says that this “statutory measure of ‘damages’ is ‘the difference between [the patent owner’s] pecuniary condition after the infringement, and what his condition would have been if the infringement had not occurred’” and this “requires a reconstruction of the market, as it would have developed absent the infringing product, to determine what the patentee ‘would ... have made’.” This determination, he says, requires an examination of what the patentee likely would have done and also what the infringer, absent the infringing product, would likely have done:

[A] fair and accurate reconstruction of the “but for” market also must take into account, where relevant, alternative actions the infringer foreseeably would have undertaken had he not infringed. Without the infringing product, a rational would-be infringer is likely to offer an acceptable non-infringing alternative if available, to compete with the patent owner rather than leave the market all together. The competitor in the “but for”

marketplace is hardly likely to surrender its complete market share when faced with a patent, if it can compete in some other lawful manner.

Similarly, in [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), the Court stated:⁹⁹ (emphasis in original)

[53] The state of American jurisprudence is that if a non-infringing alternative which a defendant could and would have resorted to, but for the infringement, is as good as the patented invention, and would have replaced all infringing sales, the infringement causes the patentee to suffer no damage.

[54] In *Grain Processing Corporation v. American Maize-Products Company*, 185 F.3d 1341 at pages 1350-1351 (Fed. Cir. 1999), Judge Rader (as he then was), writing for the Court, explained the two principal rationales for taking into account the availability of a non-infringing alternative.

[55] First, a patentee claiming damages is required to reconstruct the market to project economic results that did not occur. This is a hypothetical enterprise. To “prevent the hypothetical from lapsing into pure speculation” courts require sound economic proof of the nature of the market and the likely outcomes with infringement factored out of the economic picture. Within this framework, patentees are permitted to present market reconstruction theories showing all of the ways in which they would have been better

99 [50] *Merck v. Apotex* (2015 FCA 171 lovastatin), at paragraphs 53 to 57.

off in the “but for” world. A fair and accurate reconstruction of the “but for” world must also take into account relevant, alternative actions an infringer foreseeably could and would have undertaken had he not infringed.

[56] Second, only by comparing the patented invention to non-infringing alternatives can a court discern the market value of the patent owner’s exclusive right, and therefore his expected profit or reward. Judge Rader quoted with approval from John W. Schlicher, *Patent Law: Legal and Economic Principles* (New York: Thomson West, 1997) to the effect that “unless the law wishes to systemically overreward patented inventions, it is necessary to inquire about the nature and value of the product that the infringer could have made had he not infringed.”

[57] Thus, American jurisprudence is clearly to the effect that the “but for” causation inquiry requires consideration of non-infringing alternatives. Otherwise, patentees may be over-compensated.

3.5

FIRST MOVER’S ADVANTAGE AND SPRINGBOARD

The foundational objective of a computation of monetary remedies is to restore the party that has sustained injury and loss to the financial condition in which it would have been but for the defendant’s infringement.

The market exclusivity granted by a patent can offer a patent holder

other advantages, in addition to a monopoly on the manufacture and sale of products that embody the patented technology during the life of the patent. For example, by being the first and only seller in the market, the patent holder can gain an entrenched position that lasts beyond the period of patent exclusivity. First mover's advantage refers to the competitive advantage gained by the first entrant into a market. This may result from some combination of:

- The first chance to establish a reputation for quality in the marketplace;
- Establishing a network of contacts of people making purchase decisions; and
- The existence of a switching cost for customers that creates an inertia or barrier to switching to subsequent entrants.

More generally, the concept of springboard refers to the fact that, even if a company is not first into the market, an earlier entrant may have a competitive advantage over later entrants, especially when some period of time is required for each company to “ramp up” and build its market share.

Accordingly, a plaintiff may seek damages for the loss of opportunity to establish itself in the market and gain a first mover's advantage that occurred as a result of the defendant's infringement before the end of patent exclusivity. Alternatively, the plaintiff may seek a royalty on or an accounting of the defendant's profits that were gained by the defendant being able to “springboard” into the market ahead of other entrants.

In [70] *AstraZeneca v. Apotex* (2015 FC 671 omeprazole), the Court stated:¹⁰⁰

[7] [...] In my view, springboard damages are nothing more than a type of loss no different than any other claim to damages. They must be proven or disproven with evidence. [...]

In [74] *Dow v. Nova* (2017 FC 350), the Court stated:¹⁰¹

[124] An accounting of profits is to be assessed in relation to a “but-for” world in which the defendant has not infringed the plaintiff’s patent. The assumption is that at the time of the patent’s expiry, the defendant had not yet produced the infringing product. I agree with Justice Barnes [in *AstraZeneca v. Apotex* (2015 FC 671 omeprazole)] that springboard damages are nothing more than a type of loss to be proven with evidence, and I see no reason why this principle should operate differently to a plaintiff’s gains in the context of an accounting of profits.

Before discussing the case law on damages related to a first mover’s and springboard advantages, we feel it is worthwhile discussing the economic and business issues embodied in these concepts.

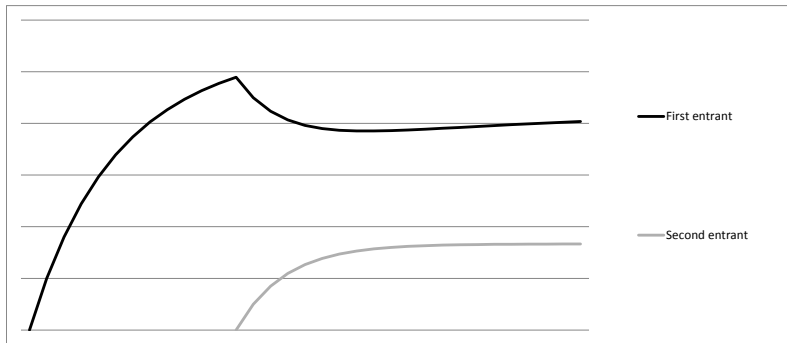
The dynamics of a product market are impacted by the entry of a new supplier in the market. For the first company to enter the market, the benefit of being first may allow that company to establish a market position that, depending on the industry and company in question, allows it to become established in such a way as to make it difficult for

100 [70] *AstraZeneca v. Apotex* (2015 FC 671 omeprazole), at paragraph 7.

101 [74] *Dow v. Nova* (2017 FC 350), at paragraph 124.

subsequent entrants to unseat it. This can result in what is generally referred to as a “first mover’s advantage,” which may result in a higher market share later in a competitive market than it would have without the first mover’s advantage. Depending on the industry and company in question, this benefit may endure for a long period of time. The benefit of a first mover’s advantage can therefore be thought of as a higher market share than would otherwise be achieved with simultaneous entry and an advantage that may last beyond the period of infringement.

The following chart illustrates a first mover’s advantage:¹⁰²



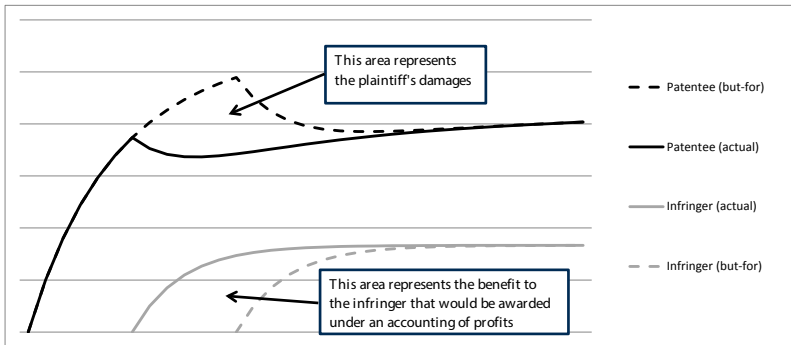
The chart shows that, while the market of the first entrant declines following the entry of the second company, it maintains a significant market share benefit.

The concept of springboard is similar in principle but applies more generally to situations where a company, though not the first to market, nevertheless gains a competitive advantage because it was able to come to market sooner, ahead of other entrants. Specifically, even though it was not first, a company that is able to enter the market and ramp up its sales ahead of its rivals has the advantage of both stockpiling inventory and making sales at its post ramp-up level while its rivals are still only beginning to ramp up. The benefit of a springboard can

¹⁰² Note that, for ease of illustration, all the charts in this section assume no change in the total market size due to the infringement.

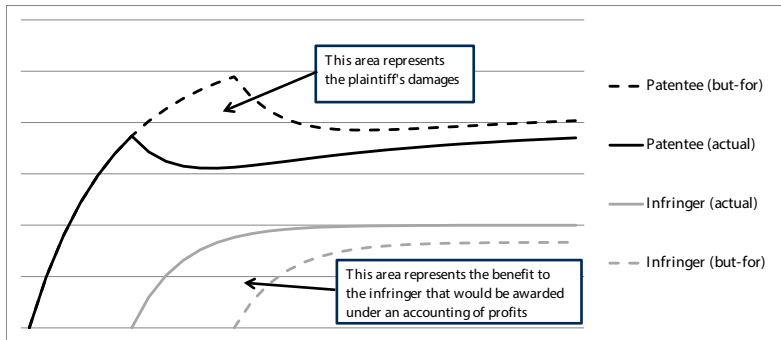
therefore be thought of as the company achieving its steady state market share sooner, but the period of a springboard is limited, as described further below.

The following chart illustrates the benefit to the second entrant (and loss to the plaintiff) if it were to infringe and enter the market ahead of rivals, thus obtaining a springboard advantage.



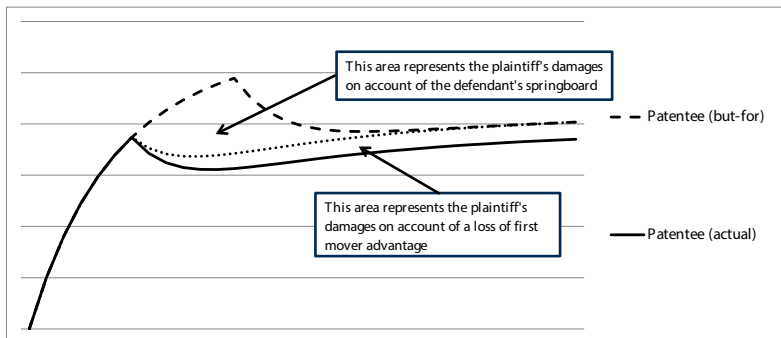
The above chart shows how, for a period of time, the sales of the patentee are adversely affected to the benefit of the infringer, but that with time, each company converges to the same level of sales or market share that it otherwise would have achieved in the absence of the infringement. In this illustrative example, the impact of the infringer's springboard and resulting loss to the plaintiff ceases after a certain point in time, but that point is typically after the period of time when the defendant would have reached its steady-state market share had it not infringed. By way of illustration, if the infringer entered the market in January, but would have otherwise entered the market three months later, in March, the benefit to the infringer (and the harm to the plaintiff) may extend for nine months, to September.

However, in some situations it is possible for the defendant's infringement to impact both the plaintiff's first mover's advantage and the defendant's springboard, as illustrated in the following chart:



This third chart illustrates a scenario where the impact of the springboard advantage gained by the infringer continues throughout the period depicted. In this case, the plaintiff's first mover's advantage has been adversely affected, although not eliminated completely.

The following chart decomposes the plaintiff's aggregate damages into a portion that is attributable to the springboard advantage gained by the defendant from infringing and thus entering the market early, and a portion that is attributable to the loss of the plaintiff's first mover's advantage as a result of facing competition early:



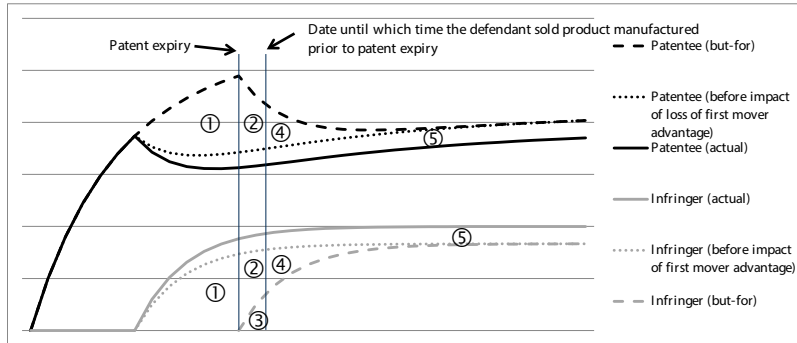
This fourth chart illustrates the overlap that exists between damages caused by the defendant's gain of a springboard advantage and the plaintiff's loss of a first mover's advantage. While the distinction may be easy to understand when presented diagrammatically, it is often difficult to isolate these different sources of losses when computing damages or an infringer's profits. In practice, therefore, while case law tends to refer to one or the other, the two are often interrelated.

In summary, it is possible that the defendant's infringing use of a plaintiff's intellectual property may result in one or more of the following:

- A reduction of the plaintiff's first mover's advantage, where the infringer entered after the patentee but reduced the opportunity for the patentee to fully establish itself in the market prior to competition. Note that, generally, the longer the first entrant has been in the market, the lower the likelihood that the patentee would suffer such a loss. Where it is appropriate, however, this would be reflected in a damages computation, and in particular, lost profits on lost sales;
- A first mover's advantage for the infringer where it has been able to enter the market before the patentee in cases where neither the plaintiff nor one of its licensees had entered the market prior to the defendant's infringement. This benefit would be reflected in an accounting of profits, or in a reasonable royalty on the defendant's profits; and
- A springboard for the infringer that resulted in it being able to ramp up and obtain its steady-state market share sooner, to the detriment of the patentee. This would be reflected in either a damages computation (lost profits on lost sales, or a reasonable royalty on the defendant's sales) or an accounting of profits, as applicable.

Note that some recent patent cases have considered the questions of

losses suffered by the plaintiff after patent expiry.¹⁰³ The following chart illustrates an example where the plaintiff could suffer such damages as a result of losing a first mover's advantage or of the defendant gaining a springboard advantage:¹⁰⁴



In this chart we have incorporated numerous assumed facts of the case to the charts provided previously to illustrate the different sub-categories of damages (and infringer's profits). Specifically, we have illustrated the date of patent expiry, and the date until at which the defendant stopped selling product that it manufactured and stockpiled pre-patent expiry, as well as an assumed loss of the first mover's advantage by the plaintiff. Based on these assumed facts, each head of damage (or profit to the defendant) is illustrated as follows:

- Area ① represents a period when the patent was still extant and the infringer sold the infringing product. The defendant is, accordingly, liable for monetary remedies to the full extent of its sales or the damages suffered by the plaintiff, depending on whether the court awards an accounting of profits or damages;
- Area ② represents a time when the patent has expired, but the

103 See, for example, [43] *Merck v. Apotex* (2013 FC 751 lovastatin, aff'd 2015 FCA 171).

104 Note that, for simplicity, the infringer is assumed to enter the market on the date of patent expiry. In practice, depending on the facts of the case, there may be a slight delay between the date of patent expiry and the date when the infringer would otherwise have been able to enter the market.

infringer sold the infringing product that it had manufactured before the expiry of the patent, and thus made sales that it otherwise would not have made if it had waited to begin manufacture of its product until after expiry of the patent. The defendant is, accordingly, liable for monetary remedies to the extent of its sales (for purposes of an accounting of profits, these sales relate only to area ② of the infringer's profits, and not to area ③, which is discussed separately below) or the damages suffered by the plaintiff, as represented by the top area ②;

- Area ③ of the infringer's sales represents sales of the infringing product, but these are sales that the plaintiff would not have made had the infringer entered the market following patent expiry. Accordingly, these sales do not constitute lost profit damages to the plaintiff, but the plaintiff is still entitled to monetary remedies in the form of a reasonable royalty (see Section 6), or an accounting of the defendant's profits on these sales should the court award it (see Section 5);¹⁰⁵
- Area ④ represents a period of springboard damages. At this time the defendant was no longer selling the infringing product, but was still making sales that it would not otherwise have been able to make if it had not had the benefit of entering the market and ramping up early. It was thus achieving, to the detriment of the plaintiff, a higher market share than it would have obtained had it waited until the expiry of the patent at issue to enter the market. Note, however, that these damages are finite and continue only until each party reaches the market share that it would have had in the but-for world; and
- Area ⑤ represents the loss by the patentee of some of its first mover's advantage, to the benefit of the infringer. The defendant

105 "The award of a royalty, where the plaintiff cannot prove a lost sale, is recognition of the fact that every sale by an infringing party is an illegal transaction." [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraph 119.

is, accordingly, liable for monetary remedies to the extent of its sales, as represented by the bottom area ⑤, or the damages suffered by the plaintiff, as represented by the top area ⑤.

There are several further points concerning first mover's and springboard advantages that could arise in specific situations and are worth noting. First, a first mover's advantage is defined relative to the unique relevant market at issue. To illustrate, in the pharmaceutical industry, the generic market is distinct in certain aspects from the branded market. Accordingly, the first generic entrant, if it has sufficient lead time, may obtain a first mover's advantage relative to other generic companies, even though it's technically not the "first" market entrant (which would have been the brand). Second, the concept of an early entrant gaining a competitive advantage over later entrants is not exclusive to the first market entrant. The second entrant could have a springboard advantage over the third entrant, who may have a springboard advantage over the fourth entrant, etc. Accordingly, where, for example, an injunction is found to have been wrongfully issued, a second entrant may suffer economic damages in the form of a loss of a springboard advantage that it would otherwise have enjoyed.

Statements from the Courts in respect of the impact of a defendant's infringement on either the plaintiff's first mover's advantage or the defendant's springboard advantage, and the resulting losses suffered by the plaintiff after patent expiry, are set out below.

In [104] *Cadbury Schweppes v. FBI Foods* (1999 SCC S.C.R. 142), the Supreme Court of Canada held:¹⁰⁶

The trial judge acknowledged that the breached confidences had acted as a "springboard" to enable the appellants to bring Caesar Cocktail to market 12

106 [104] *Cadbury Schweppes v. FBI Foods* (1999 SCC S.C.R. 142), at paragraph 67.

months earlier than would otherwise have been the case. The “springboard” or “head start” concept descends from the judgment of Roxburgh J. in *Terrapin Ltd. v. Builders’ Supply Co. (Hayes) Ltd.*, [1967] R.P.C. 375 (Ch. D. 1959), *aff’d* [1960] R.P.C. 128 (C.A.), at p. 391:

As I understand it, the essence of this branch of the law, whatever the origin of it may be, is that a person who has obtained information in confidence is not allowed to use it as a spring-board for activities detrimental to the person who made the confidential communication, and spring-board it remains even when all the features have been published or can be ascertained by actual inspection by any member of the public.

In [43] *Merck v. Apotex* (2013 FC 751 lovastatin), the Court held that:¹⁰⁷

[t]here is nothing in the Patent Act that limits damages to those sustained during the life of the patent. Section 55(1) states that the infringer is liable “for all damages sustained by the patentee [or licensee] after the grant of the patent, by reason of the infringement”. Merck is entitled to its damages for infringing sales even though those sales actually would take place during the post-expiry period.

107 [43] *Merck v. Apotex* (2013 FC 751 lovastatin), at paragraph 183. Note that the court went on to rule, on the facts, that an appropriate award was a reasonable royalty. The related Court of Appeal decision, [50] *Merck v. Apotex* (2015 FCA 171 lovastatin) at paragraph 96, noted that “[t]he parties and the Judge agreed that the appropriate damages award in respect of those sales would be based upon a reasonable royalty.”

In [74] *Dow v. Nova* (2017 FC 350), the Court held that:¹⁰⁸

I am satisfied that in the “but for” world, where Nova was unable to enter the mLLDPE market until the expiry of the ‘705 Patent, it would have taken Nova some time to overcome the long-established presence of Dow’s ELITE products and ramp up its sales to the levels it enjoyed in the real world. I am most persuaded by the third scenario calculated by Mr. Hamilton, using the monthly ramp up percentages found in Dr. Leonard’s reply report. This analysis is based on the historical data of Nova’s actual ramp up periods, and is therefore grounded in reality. It also takes into account Nova’s historical cumulative profit for the first 11 months that it offered the infringing products for sale, and assumes an effective ramp up rate of zero during this initial period. This is a fair and balanced approach.

3.6

FUTURE LOSSES

The losses to a plaintiff caused by a defendant’s infringement can occur over an extended period of time, and indeed may continue well into the future, even after the defendant has ceased its infringement. In some cases, reflecting, for example, the loss of a head start as discussed in Chapter 3.5, it is theoretically possible that those losses may last in perpetuity in cases where the plaintiff suffers a permanent loss of market share as a result of the defendant’s infringement.

108 [74] *Dow v. Nova* (2017 FC 350), at paragraph 130.

In restoring the party that has sustained losses to the financial condition in which it would have been but for the defendant's infringement, as a matter of economics, there is no reason why a distinction should be drawn between losses that have already been suffered prior to a trial and those that are still to be suffered.

Put another way, the arbitrary date on which a trial happens to take place is a function of numerous external factors, including the court's schedule, that have nothing to do with the losses suffered by the plaintiff, and should not affect the quantum of the monetary remedy necessary to restore the party that has sustained injury to the position it would have been in had the wrong not taken place.

These principles were described in [52] *Elbit Systems v. Selex* (2016 FC 1129), where the Court noted that the Prothonotary stated:¹⁰⁹

[34] “[...] I agree ... that ... those paragraphs do not purport to set up a speculative cause of action, but ... support a claim for a certain species of damages flowing from the alleged acts of infringement. The pleadings therefore do not impermissibly plead a speculative cause of action. If there is an element of foretelling as to the damages that might in the future flow from the infringement, it is not, in the circumstances, purely speculative or improper, as the future losses are reasonably arguable as foreseeable consequences of a specifically pleaded set of past and current factors.”

109 [52] *Elbit Systems v. Selex* (2016 FC 1129), at paragraph 34.

In confirming the findings of the Prothonotary, the Court found that:¹¹⁰

[36] Under subsection 55(1) of the Patent Act, RSC 1985, c P-4, a person who infringes a patent is liable to the patentee and for any damages sustained by the patentee by reason of the infringement. [...] According to the case law, a future or hypothetical possibility will be taken into consideration as long as it is a real and substantial possibility and not mere speculation [...].

The challenge, however, with quantifying future losses was summarized in the U.S. case of [17] *Brooktree v. Advanced Micro Devices* (1992 Fed. Cir.), where the Court of Appeals for the Federal Circuit held:¹¹¹

Although projected future losses may be recovered when sufficiently supported [...] the amount of lost profits awarded must not be speculative.... The burden of proving future injury is commensurately greater than that for damages already incurred, for the future always harbors unknowns. We take note of the discussion before the trial judge of the uncertainties of future pricing, future competition, and future markets, in this fastmoving field, as well as the requirements of proof of future losses.

110 [52] *Elbit Systems v. Selex* (2016 FC 1129), at paragraph 36.

111 [17] *Brooktree v. Advanced Micro Devices* (1992 Fed. Cir.), at 1581.

3.7

CONSEQUENTIAL DAMAGES -
CONVOYED SALES

In attempting to restore the party that has sustained injury and loss to the financial condition in which it would have been but for the defendant's infringement, a plaintiff may claim financial damages that were suffered in aspects of its business that are unrelated to the goods and services within the scope of the intellectual property at issue in the litigation.

These losses are often referred to as consequential damages and are subject to the court's findings on remoteness, generally recoverable heads of damages. Consequential damages may take on, amongst others, one of the following forms:

- Convoyed sales;
- Price erosion and price suppression; or
- Indirect lost profits.

We address each of these heads of damage separately. In this chapter we address convoyed sales.

Convoyed sales typically involve complementary products or sales tied to the patented product, and are perhaps best illustrated by way of the following three examples, which are intended to be not exhaustive but merely illustrative:

- Where, as a result of selling one product, the plaintiff typically makes sales of another product at the same time as the sale of the product at issue. For example, at the time of the sale of a motorcycle or snowmobile, a customer will typically

purchase add-on features and branded safety clothing;

- Where, as a result of selling one product, the plaintiff typically makes ongoing sales of other services. For example, following the sale of a vehicle, the buyer will typically have that vehicle serviced at the dealer from which it was purchased; and
- Where, as a result of a more complete product offering, distributors and retailers are more likely to carry the plaintiff's range of products than those of its competitors.

Note that, from a damages computation perspective, the principles of causation and the butfor test (Chapter 2.1) are often intertwined with the issue of profits from convoyed sales, and we encourage the reader to read each of the sections for a fulsome understanding of this relationship.

Statements from the Court on whether lost profits on convoyed sales are a recoverable head of damages include [29] *Jay-Lor v. Penta* (2007 FC 358), where the Federal Court of Canada stated:¹¹²

[T]he Defendants [...] submit that the costs of certain components – most notably, the conveyors – should not be included in the assessment of costs. In their view, these are separate “add-ons,” and are not part of the vertical feed mixer. The problem with this argument is that the conveyor and other add-ons are sold with a vertical feed mixer and form part of the same sale. Although conveyors are mentioned briefly, as an option to transport the mixture, in the specifications of the ‘092 Patent, JAY-LOR would not have sold a vertical feed mixer without a conveyor. When

112 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraph 198.

JAY-LOR lost a sale of a vertical feed mixer to Penta, it also lost the sale of the conveyor and other add-ons. Therefore, the Plaintiffs' damages include the loss of the sale of the conveyors. The costs of any add-ons, sold as a unit with the vertical feed mixer, should not be artificially severed from the assessment of the Plaintiffs' losses.

Similarly, in [21] *Gerber v. Lectra* (1995 UK Patents Court, aff'd), the UK Patents Court found:¹¹³

[Page 402] I hold that infringement of patent is another case where a secondary loss can be recovered, provided that secondary loss is a foreseeable consequence of the infringement. The secondary loss may consist of sales of unpatented items which go with the patented item as a commercial matter (here the CAD, service, and spares) and such loss as the patentee can establish results from the infringer establishing a business pre-expiry. In all these cases it remains critical that the patentee can establish the factual basis: that his loss is caused by the infringement and foreseeably so.

This finding was upheld in [22] *Gerber v. Lectra* (1997 Court of Appeal of England and Wales) by the UK Court of Appeal, which elaborated as follows:¹¹⁴

[Page 453] The Patents Act is aimed at protecting patentees from commercial loss resulting from the wrongful infringement of their rights. That is only a

113 [21] *Gerber v. Lectra* (1995 UK Patents Court, aff'd), at page 402.

114 [22] *Gerber v. Lectra* (1997 Court of Appeal of England and Wales), at pages 453 and 455.

slight gloss upon the wording of the statute itself. In my judgment, again as a matter of first impression, it does not distinguish between profit on the sale of patented articles and profit on the sale of convoyed goods.

[Page 455] Viewing the cases as a whole, I cannot find any rule of law which limits the damages for infringement in a patent case in such a way as to exclude the loss claimed by the patentees in the present case. In *General Tire & Rubber Co. v. Firestone Tyre & Rubber Co. Ltd.* [1976] R.P.C. 197 at page 214 Lord Wilberforce approved a passage in the judgment of Fletcher Moulton L.J. in the *Meters* case which concluded:

“But I am not going to say a word which will tie down future judges and prevent them from exercising their judgment, as best they can in all the circumstances of the case, so as to arrive at that which the plaintiff has lost by reason of the defendant doing certain acts wrongfully instead of either abstaining from doing them, or getting permission to do them rightfully.”

The question of lost convoyed sales of other products was raised in [92] *Teva v. Sanofi-Aventis* (2012 FC 552 ramipril, aff'd 2014 FCA 67), where the Federal Court of Canada stated:¹¹⁵

Teva claims that it is entitled to recover for certain indirect losses. In particular, Teva argues that it should

115 [92] *Teva v. Sanofi-Aventis* (2012 FC 552 ramipril, aff'd 2014 FCA 67), at paragraphs 283 and 284.

be permitted to recover for lost profits on sales of other Teva products that it could have made. [...]

The lost profits on sales of other Teva products was described by Mr. Sommerville in his testimony. As Mr. Sommerville stated, being first in the market allows Teva to leverage additional business and additional profitability. I have no reason to doubt that he is right; there is a strong element of common sense to his assertion. However, assuming that he is correct and that the amount could in some way be quantified, the problem is that, in the “but for” world that I have constructed, Teva is not first to market. Accordingly, on the evidence before me, I have no support for [Teva’s] loss under this head of damages.

3.8

CONSEQUENTIAL DAMAGES - PRICE EROSION AND PRICE SUPPRESSION

See the introduction to Chapter 3.7 above relating to the principle of consequential damages. In this chapter we address price erosion and price suppression.

A monopolist seller of a product is typically able to charge higher prices than those charged by a seller that faces competition. Accordingly, a plaintiff may have suffered losses on the sales it actually made, as well as on the incremental sales it would have made but for the defendant’s infringement, because it had to lower its prices as a result of the competition it faced from the defendant (price erosion), or was not able to raise its prices as high as it otherwise would have in the absence of competition from the defendant (price suppression).

Price erosion and price suppression can apply both to the plaintiff's sales of the product embodying the patented technology at issue and to sales of convoyed products described in Chapter 3.7. Losses attributable to price erosion and price suppression are generally compensable, provided that the price reductions are consistent with the plaintiff's duty of mitigation, i.e., that those price reductions were a reasonable attempt made by the plaintiff to mitigate its damages (discussed separately in Chapter 3.13), and such losses are subject to general limits on the award of compensatory damages, such as remoteness or intervening acts (discussed separately in Chapter 2.2).

In [1] *Meters v. Metropolitan Gas Meters* (1911 Court of Appeal of England and Wales), the Court stated:¹¹⁶

The patentee need not prove that the infringer undercut its prices or even sold any product; it will suffice if the patentee can show that its prices were affected by the infringer's market presence through marketing schemes or other means.

In [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), the Court, citing *Colonial Fastener v. Lightning Fastener* (1937 SCC), stated:¹¹⁷

In addition to lost profits due to lost sales, the patentee may also claim lost profits due to price suppression if it can establish that it necessarily reduced its prices because of the competition of the infringer.

However, in *AlliedSignal*, the plaintiff did not claim that it had to reduce its prices because of competition from the infringer, but rather

116 [1] *Meters v. Metropolitan Gas Meters* (1911 Court of Appeal of England and Wales), at page 160.

117 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraph 219.

claimed that it was unable to make the price increases it had planned in the ordinary course of business, due to the presence of the infringer. While “the expert witnesses for both parties accepted these principles,”¹¹⁸ the Court stated, “[c]onsidering my conclusion [...] that the plaintiff has not met its case on this issue, I prefer not to express my opinion as to whether such a claim is possible in law.”

This issue of price suppression was more recently addressed in [53] *Janssen v. Teva* (2016 FC 593 levofloxacin), where the Court stated:¹¹⁹

The law is clear that if, due to activities of an infringer, the patentee or person claiming under the patentee had to reduce prices because of the entry into the market of an infringer offering the product at a lower price, a claim for damages can be made for price suppression.

The issue of price erosion was addressed in the U.S. case of [17] *Brooktree v. Advanced Micro Devices* (Fed. Cir. 1992), where the Court of Appeal for the Federal Circuit stated:¹²⁰

The jury was instructed that actual damages could be based on finding that Brooktree could have charged higher prices but for AMD’s infringing activities: Brooktree’s actual damages for mask work infringement may be its lost profits caused by A.M.D.’s infringement. Brooktree may establish lost profits from A.M.D.’s mask work infringement by establishing, by a preponderance of the evidence, that — and there are two elements: one, A.M.D.’s infringement

118 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraph 218.

119 [53] *Janssen v. Teva* (2016 FC 593 levofloxacin), at paragraph 116.

120 [17] *Brooktree v. Advanced Micro Devices* (Fed. Cir. 1992), at 1578 to 1580.

of Brooktree's mask work reduced A.M.D.'s time to market and allowed A.M.D. to make sales earlier than it otherwise would have made, had it not infringed Brooktree's mask work; and, two, Brooktree would have made additional sales or charged higher prices had A.M.D. not made these earlier sales.

To recover lost profits for mask work infringement, Brooktree must establish with reasonable probability that, but for A.M.D.'s infringement, Brooktree would have made additional profits.

In patent cases, as in other commercial torts, damages are measured by inquiring: had the tortfeasor not committed the wrong, what would have been the financial position of the person wronged? [...] In *Lam, Inc. v. Johns Manville Corp.*, 718 F.2d 1056, 1067, 219 USPQ 670, 676 (Fed. Cir.1983), we sustained a damages award that included recovery for losses due to reduced prices, based on evidence that the patentee reduced its prices to meet the infringer's competition. See also *Kalman v. Berlyn Corp.*, 914 F.2d 1473, 1485, 16 USPQ2d 1093, 1102 (Fed. Cir.1990) (affirming damages award including recovery for depressed prices due to infringement).

We conclude that there was a legally sufficient evidentiary basis in the record from which a reasonable jury could have concluded that Brooktree's price reductions were made as a result of AMD's actual and announced marketing of the infringing chips, and, accordingly, included these price reductions in the calculation of damages.

The U.S. Court of Appeal for the Federal Circuit also addressed the issue of future losses on account of price suppression, stating:¹²¹

Although projected future losses may be recovered when sufficiently supported [...] the amount of lost profits awarded must not be speculative.... The burden of proving future injury is commensurately greater than that for damages already incurred, for the future always harbors unknowns. We take note of the discussion before the trial judge of the uncertainties of future pricing, future competition, and future markets, in this fastmoving field, as well as the requirements of proof of future losses. Brooktree has not shown that the district court erred in determining that the evidence was too speculative to meet the threshold requirements for a sustainable jury verdict.

3.9

CONSEQUENTIAL DAMAGES - INDIRECT LOST PROFITS

See the introduction to Chapter 3.7 above relating to the principle of consequential damages. In this chapter we address indirect lost profits.

Indirect lost profits refer to additional financial losses, such as lost investment opportunities and lost returns on equity (i.e., profits on profits), that the plaintiff suffered as a result of not being able to invest or make use of the profits from the product at issue that it would have earned but for the defendant's infringement.

121 [17] *Brooktree v. Advanced Micro Devices* (1992 US Fed. Cir.), at 1581.

In [92] *Teva v. Sanofi-Aventis* (2012 FC 552 ramipril, aff'd 2014 FCA 67), the Court found that, while damages in the form of indirect lost profits were recoverable, a monetary award of the same required “clear and non-speculative evidence of a lost opportunity that would exceed the interest otherwise payable on the lost sales,” and also considered the question of remoteness.¹²² In reaching this conclusion, the Court stated:¹²³ (emphasis added)

[283] Teva claims that it is entitled to recover for certain indirect losses. In particular, Teva argues that it should be permitted to recover for lost profits on sales of other Teva products that it could have made and for lost return on equity. Ms. Loomer included both of these amounts in her calculations.

[284] The lost profits on sales of other Teva products was described by Mr. Sommerville in his testimony. As Mr. Sommerville stated, being first in the market allows Teva to leverage additional business and additional profitability. I have no reason to doubt that he is right; there is a strong element of common sense to his assertion. However, assuming that he is correct and that the amount could in some way be quantified, the problem is that, in the “but for” world that I have constructed, Teva is not first to market. Accordingly, on the evidence before me, I have no support for Ms. Loomer’s loss under this head of damages.

122 For further discussion on remoteness, see Chapter 2.2.

123 [92] *Teva v. Sanofi-Aventis* (2012 FC 552 ramipril, aff'd 2014 FCA 67), at paragraphs 283, 284 and 288 to 293.

[288] In her Responding Report, Ms. Loomer describes “lost indirect profit” as follows (Exhibit 29, vol 1 at para 51):

If the Court finds that Teva would have entered the market and begun selling Ramipril during the Relevant Period, but for the Alleged Actions of the Defendant, then Teva has been denied the ability to use and reinvest the profits that would otherwise have been available to it over the Relevant Period, and up to the date of trial.

[289] Both Mr. Dan Youtoff and Mr. Fishman testified that revenue from the sale of Novo-ramipril during the Relevant Period would have been put towards building more value into Teva, for example, through investing in research and development and litigation.

[290] I agree with Sanofi that this head of damages is unrecoverable for the reason that the alleged losses are speculative and too remote.

[291] As stated by Sanofi:

The head of damages is analogous to a lost opportunity to enjoy the increased value of a failed second real estate transaction in *Kienzle v. Stringer* [(1981), 35 OR (2d) 85 at paras 19-24 (CA)]. In that case, the plaintiff sued the defendant lawyer for negligently certifying that the plaintiff had a good title on the

first property. The plaintiff purchased a second property conditional upon his being able to sell the first property. Due to the title defect, the plaintiff could not complete the sale of the first property and the purchase of the second. The plaintiff claimed damages for the lost profit on the increased value of the second property. The Ontario Court of Appeal rejected the claim, finding that such loss is too remote.

[292] In addition, there is simply no evidence on the record, beyond the bare assertions of Mr. Fishman and Mr. Youtoff, that Teva would have made such investments. The claim is too vague and unsubstantiated to be allowable on the facts of this case. In his Responding Report, Mr. Hamilton commented (Exhibit 162 at para 130) that:

Teva did not identify or produce any supporting documentation related to the specific business opportunities that Teva was not able to undertake over the Relevant Period due to the lost profits on the sale of Teva-Ramipril and other products.

[293] Finally, on this point, pre-judgment interest is the accepted method for compensating for this loss. As pointed out by the Supreme Court of Canada in *VK Mason Construction Ltd v. Bank of Nova Scotia*, [1985] 1 SCR 271 at 286, [1985] SCJ No 12, “[i]nterest is the court’s way of compensating ... for the

loss of the opportunity to invest that money” (see also *Seaboard Life Insurance Co v. Bank of Montreal*, 2002 BCCA 192 at paras 89-91, 166 BCAC 64). Unless a plaintiff provides clear and non-speculative evidence of a lost opportunity that would exceed the interest otherwise payable on the lost sales, it appears to me that interest is the only remedy available to the plaintiff.

This question was specifically addressed by the Court of Appeal, which stated:¹²⁴

[122] The Trial Judge found, as a matter of fact, that “there is simply no evidence on the record, beyond the bare assertions ... that Teva would have made such investments. The claim is too vague and unsubstantiated to be allowable on the facts of this case”: Trial Judge’s Reasons at para. 292. Teva has failed to convince me that the Trial Judge made a palpable and overriding error in reaching these findings.

[123] Moreover, as a matter of law, to the extent that Teva has lost an opportunity to invest the profits it would have made during the liability period, the Trial Judge was correct in concluding that pre-judgment interest was the accepted method for compensating this loss unless there is clear and non-speculative evidence of a lost opportunity that would exceed the interest otherwise payable: Trial Judge’s Reasons at para. 293, citing *V.K. Mason Construction Ltd. v. Bank of Nova Scotia*, [1985] 1 S.C.R. 271 at p. 286.

124 [94] *Teva v. Sanofi-Aventis* (2014 FCA 67 (April)), at paragraphs 122 and 123.

In [32] *Eli Lilly v. Apotex* (2009 FC 991 cefactor, aff'd 2010 FCA 240), the Court, at the liability phase, addressed the question of pre-judgment interest calculated on a compound basis, stating:¹²⁵

[665] When a cause of action arises outside of, or in more than one, province, subs. 36(2) of the Federal Courts Act, R.S.C. 1985, c. F-7, applies, giving jurisdiction to this Court to include an award of prejudgment interest, at a rate it considers reasonable in the circumstances, on a sum of money representing damages. Unless the Court is awarding interest pursuant to para. 36(4)(f) of the Federal Courts Act (such as interest awarded in equity) or exercising its admiralty jurisdiction, Apotex's position that pre-judgment interest awarded on an award for damages cannot be compounded is correct.

[666] By operation of para. 36(4)(b) of the Federal Courts Act, interest cannot be awarded by virtue of subs. 36(2) on interest accruing under s. 36. This, the Courts have determined, precludes prejudgment compound interest from being awarded on damages (Merck & Co. (FCA)).

[667] However, that is not to say that the reference which will deal with the quantification of damages or profits (depending on Lilly's election) cannot award compounded prejudgment interest (even at an elevated rate) as an element of compensation, provided it is adequately proven by Lilly. When so awarded, interest becomes part of a damage award and is not itself an award of interest.

125 [32] *Eli Lilly v. Apotex* (2009 FC 991 cefactor, aff'd 2010 FCA 240), at paragraphs 665 to 667.

The “award” referred to in the last paragraph above contemplates damages in the form of indirect lost profits. At the subsequent reference, [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), the Court awarded compound interest as indirect lost profits, stating:¹²⁶ (emphasis added unless otherwise indicated)

[116] Interest may be payable by a right under another [emphasis in original] statutory provision. Justice Gauthier implicitly recognized this when she wrote that Lilly could be awarded compound prejudgment interest “as an element of compensation.” The source for “compensation” is subsection 55(1) of the Patent Act which provides that the infringer is liable to the patentee “for all damage sustained” by reason of the infringement. If the patentee can establish that it lost profits as a result of the infringement and that those profits would have generated income on a regular basis over the period of deprivation of those profits, then the patentee has also sustained the damage of the lost income from those profits.

[117] Apotex submits that Lilly has failed to prove any such loss. It has failed to prove that it would have invested the lost profits and reinvested any income from it or that it would have paid down existing debt.

[118] In my view, the patentee is not required to prove exactly what use it would have made of the profit it has lost as a result of the infringer’s actions. This is after all, a hypothetical scenario because it did not have the funds in hand. [...]

126 [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), at paragraphs 116 to 118 and 120 to 122.

[...]

[120] Lilly called Dr. Stephen Foerster, a Chartered Financial Analyst and Professor of Finance at the Ivey School of Business at the University of Western Ontario to provide his opinion as to the appropriateness of compounding prejudgment interest and the appropriate rate. He testified that the Weighted Average Cost of Capital [WACC] was the most appropriate rate to be awarded as it represented the best estimate of the forgone opportunity cost to Lilly, and this he said was [..Redacted..] %. I agree with Apotex, for the various reasons it offered, that WACC is “simply not a measure that is compensatory for the time-value of money.” The principle basis for rejecting WACC is that stated by Justice Snider in *Lovastatin FC* at para 262: “[T]he rate at which a very large and wealthy corporate entity would choose to screen investments has little relevance to the assessment of a rate of pre-judgment interest.”

[121] Dr. Forester also considered using the rate of return on Treasury Bill investments, the bank rate, Lilly’s cost of debt, and Apotex’s cost of borrowing. It may be that any of these are acceptable and appropriate in specific circumstances. However, in my view, when one is attempting to ascertain what loss Lilly suffered over the period by not having the funds available to invest in its business, the best measure is to examine what profit it realized in its business activities in the relevant time period. When this was put to Dr. Foerster by the court, he responded “that would be another scenario that certainly is a viable scenario.”

[122] The evidence before the court is that Lilly's profit margin from 1997 to 2012 ranged from [..Redacted..] % to [..Redacted..] %, with an average before tax profit margin of [..Redacted..] %. The court was not provided with its annual profit margins after 2012.

The Court in [53] *Janssen v. Teva* (2016 FC 593 levofloxacin) commented further on the topic of compounded pre-judgment interest, stating:¹²⁷ (emphasis added)

[133] In my previous Judgment in Court File No. T-2175-04 at paragraph 5, I awarded the Plaintiffs, Janssen Canada and Daiichi pre-judgment interest, not compounded, at the average established bank rate. That Judgment was not varied on appeal and is binding upon Janssen Canada.

[134] Janssen US argues that, if it can establish that it lost profits as a result of the infringement, and that those profits would have generated income on a regular basis over the period of deprivation, then it has also sustained the damage of that lost income on those profits; exact proof of how those lost profits would have been used is not required. It relies on the decision of Justice Zinn of this Court in *Eli Lilly and Company v. Apotex Inc.*, 2014 FC 1254, particularly at paragraphs 115 to 119.

[137] Teva argues that, at least in this case, the terms of my previous Judgment applicable to Janssen Canada should apply equally to Janssen US; that

127 [53] *Janssen v. Teva* (2016 FC 593 levofloxacin), at paragraphs 133, 134, 137 and 138.

Judgment was not altered on appeal nor did Janssen Canada even challenge that portion of the Judgment on appeal. In any event, Teva argues, the evidence of Smith is vague and inconclusive; the US income tax returns of Janssen US in evidence before me show a profit in some years and losses in other years; there is no evidence specific to the LEVAQUIN product.

[138] I agree with Teva. The terms of my previous Judgment respecting Janssen Canada and pre-judgment interest should apply equally to Janssen US. The decision of Zinn J. in Eli Lilly appears to consider lost profit arising from damages for lost sales is somehow reflected in an award of compound interest. Perhaps the Court of Appeal will clarify the situation. In any event, I am not satisfied that the evidence in this case, that of Smith and the tax returns, suggests that a claim for lost profits or compound interest in respect of damages is warranted.

3.10

SALES OUTSIDE OF CANADA

The foundational objective of a computation of monetary remedies is to restore the party that has sustained injury and loss to the financial condition in which it would have been but for the defendant's infringement.

The owner of intellectual property in Canada has the exclusive right to use, make and sell products embodying that intellectual property to customers in Canada or for export from Canada to customers abroad.

Accordingly, in cases where a defendant infringes in Canada but sells both to domestic and international customers, a plaintiff may make a claim for damages from lost export sales to international customers that resulted from the defendant's infringement, in addition to lost sales to domestic customers.

The question as to how lost profits on lost sales outside Canada are to be considered in monetary remedies was addressed at length in [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), where the Court stated:¹²⁸ (end note references omitted)

[25] The Patent Act confers exclusive rights on the patentee to make, construct, use and vend the patented invention within Canada. It also confers on the patentee the right to be compensated for any infringement of these rights.

[26] The defendant submitted that the plaintiff is only allowed to claim profits lost on sales made within Canada because of the territorial limitations set out in the Patent Act. For those sales made outside Canada, the plaintiff is only entitled to a reasonable royalty.

[27] For this proposition, the defendant relies on various decisions that examine the territorial limitations of the Patent Act, including *Domco Industries Ltd. v. Mannington Mills Inc. et al.*; *Beloit Canada Ltée/Ltd. v. Valmet Dominion Inc.*; and *Colonial Fastener Company Ltd. v. Lightning Fastener Company Ltd.*

[28] These cases deal with the territorial limitation of the Patent Act in the context of determining in-

128 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraphs 25 to 33.

fringement, not in respect of the calculation of damages. They support the proposition that there is no infringement of a patent if there is no making, constructing, using, or vending of the patented product within Canada. These decisions do not strengthen the defendant's proposition, and the defendant could cite no decision relevant to the calculation of damages.

[29] The plaintiff is entitled to due compensation for all damages flowing from infringement of its patent, limited to infringement that occurs within Canada. Here, the infringement consists of the manufacture of DARTEK film for the purpose of making SMC, whether it is sold in Canada or the United States. In her reasons for judgment at trial, Reed J. stated, "In the circumstances, I have trouble understanding how the sale of the film to SMC producers in the United States could be for any other purpose than to cause or induce a breach of the patent."

[30] This is also the view taken in the United States, where the question has been addressed directly. In *Schneider (Europe) A.G. v. SciMed Life Systems Inc.*, the Federal Circuit Court of Appeal stated, "We are aware of no rule that the plaintiff cannot recover lost profits for foreign sales of infringing products manufactured in the United States."

[31] Therefore, if the plaintiff can prove that it would have made those sales in the United States, then the profits lost on those sales flow directly from the manufacture, and the consequent infringement of the patent, within Canada.

[32] Furthermore, it is important to keep in mind that the use of lost profits to measure due compensation comes from neither legislation nor a rule of law. Rather, courts have used the calculation of lost profits as one of the “practical working rules” to help determine the appropriate compensation. The question is whether the plaintiff would have made the sales actually made by the defendant, but for the presence of the defendant’s infringing product in the market.

[33] In conclusion, the right to claim lost profits is not circumscribed by the territorial limitations of the Patent Act to profits made on sales within Canada. The patentee has a right to be compensated for all damages flowing from the infringement of the patent within Canada, which may include profits lost on sales outside Canada. Furthermore, lost profits are merely a useful measure to help determine an appropriate and fair level of compensation.

This conclusion that damages are not limited to sales that would have been made to customers in Canada was supported more recently by the Court in [52] *Elbit Systems v. Selex* (2016 FC 1129):¹²⁹

Under subsection 55(1) of the *Patent Act*, RSC 1985, c P-4, a person who infringes a patent is liable to the patentee and for any damages sustained by the patentee by reason of the infringement. Moreover, damages for patent infringement may include damages incurred outside of Canada, if the damages are caused by an infringement in Canada (*Allied Signal Inc v. DuPont Canada Inc* (1998), 1998 CanLII 7464

129 [52] *Elbit Systems v. Selex* (2016 FC 1129), at paragraph 36.

(FC), 78 CPR (3d) 129 (FCTD) at paras 18-19, 25-29, 31 and 34, *aff'd* 1999 CanLII 7409 (FCA), 86 CPR (3d) 324 (FCA) [*Allied Signal*]). According to the case law, a future or hypothetical possibility will be taken into consideration as long as it is a real and substantial possibility and not mere speculation (*Apo-
tex Inc v. Merck Canada Inc*, 2012 FC 1235 (CanLII), [2012] FCJ No 1323 at para 37).

3.11

SUBSIDIARY COMPANIES

Modern industrial organizations are complex, with the supply and distribution channel for a product often involving a long chain of companies. Accordingly, losses can be suffered by each entity along this chain when the demand for the plaintiff's patented product falls as a result of the defendant's infringement. In the case of subsidiary companies, i.e., companies owned by the patent holder, the question arises as to the distinction in the quantification of monetary remedies for harm suffered directly by the plaintiff patent holder and the harm suffered by its subsidiary companies.

In [22] *Gerber v. Lectra* (1997 Court of Appeal of England and Wales), the Court stated:¹³⁰

[Page 456] For the reasons given by Hobhouse L.J. I agree that, in law, the parent of a wholly-owned subsidiary can recover damages in respect of the parent's loss by reason of misfortune that has fallen upon the

130 [22] *Gerber v. Lectra* (1997 Court of Appeal of England and Wales), at pages 456 and 481.

subsidiary, at all events when the subsidiary has no cause of action against the wrongdoer. I am of course assuming that the parent does have a cause of action.

[Page 481] I have had the advantage, on this as on other issues, of reading the judgments of Staughton L.J. and Hobhouse L.J. in draft. I share their view that, on the facts of this case, it was as a matter of law open to the plaintiff patentees to recover damages reflecting the losses suffered by their subsidiaries by reason of infringements of the patents. The subsidiaries had no cause of action against Lectra, and therefore could not themselves have recovered damages. In those circumstances, for the reasons explained by Hobhouse L.J. whose analysis I gratefully adopt, I have no difficulty in accepting that, subject to proof of damage, the patentees can recover the losses they have suffered by reason of the diminution in value of their share holding in or dividends from the subsidiary companies brought about by the infringements. The vital question remains as to whether the judge was entitled to hold that they had proved their loss. There can be no doubt that the onus which rests on a plaintiff in relation to proof of damages requires, in such cases as the present, that the plaintiff company should establish that it has suffered damage by reason of the losses suffered by its subsidiary company. It is not enough simply to demonstrate that the profits of the subsidiary have been diminished: the plaintiff company can only recover in respect of its own loss. [emphasis added]

In Canada, this conclusion that the plaintiff company can recover only its own loss was also found in [12] *Domco v. Armstrong* (1983 FC

C.P.R. (2d) 70), where the Court stated:¹³¹

The damages are only recoverable by the legal entities who incurred them. Further, the contention that Domco would have been paid increased dividends, or enlarged its equity, is too speculative, if not too remote. The subsidiaries could have applied the “lost” profits in many ways, purely for their own advancement or benefit.

3.12

PLAINTIFF’S MITIGATION

The foundational objective of a computation of monetary remedies is to restore the party that has sustained injury and loss to the financial condition in which it would have been but for the defendant’s infringement. However, in some cases, there may have been reasonable actions that the plaintiff could have taken to limit the losses it suffered from the defendant’s infringement, and in Canada the Court has held that a plaintiff has a duty to mitigate.

The Supreme Court, in [117] *Southcott v. Toronto Catholic District School Board* (2012 SCC 51), described the objective in assessing mitigation as follows:¹³²

[23] This Court in *Asamera Oil Corp. v. Seal Oil & General Corp.*, [1979] 1 S.C.R. 633, cited (at pp. 660-61) with approval the statement of Viscount Haldane

131 [12] *Domco v. Armstrong* (1983 FC C.P.R. (2d) 70), at paragraph 69.

132 [117] *Southcott v. Toronto Catholic District School Board* (2012 SCC 51), at paragraphs 23 to 25.

L.C. in *British Westinghouse Electric and Manufacturing Co. v. Underground Electric Railways Company of London, Ltd.*, [1912] A.C. 673, at p. 689:

The fundamental basis is thus compensation for pecuniary loss naturally flowing from the breach; but this first principle is qualified by a second, which imposes on a plaintiff the duty of taking all reasonable steps to mitigate the loss consequent on the breach, and debars him from claiming any part of the damage which is due to his neglect to take such steps.

[24] In *British Columbia v. Canadian Forest Products Ltd.*, 2004 SCC 38, [2004] 2 S.C.R. 74, at para. 176, this Court explained that “[l]osses that could reasonably have been avoided are, in effect, caused by the plaintiff’s inaction, rather than the defendant’s wrong.” As a general rule, a plaintiff will not be able to recover for those losses which he could have avoided by taking reasonable steps. Where it is alleged that the plaintiff has failed to mitigate, the burden of proof is on the defendant, who needs to prove both that the plaintiff has failed to make reasonable efforts to mitigate and that mitigation was possible (*Red Deer College v. Michaels*, [1976] 2 S.C.R. 324; *Asamera; Evans v. Teamsters Local Union No. 31*, 2008 SCC 20, [2008] 1 S.C.R. 661, at para. 30).

[25] On the other hand, a plaintiff who does take reasonable steps to mitigate loss may recover, as damages, the costs and expenses incurred in taking those

reasonable steps, provided that the costs and expenses are reasonable and were truly incurred in mitigation of damages (see P. Bates, “Mitigation of Damages: A Matter of Commercial Common Sense” (1992), 13 *Advocates’ Q.* 273). The valuation of damages is therefore a balancing process: as the Federal Court of Appeal stated in *Redpath Industries Ltd. v. Cisco (The)*, [1994] 2 F.C. 279, at p. 302: “The Court must make sure that the victim is compensated for his loss; but it must at the same time make sure that the wrongdoer is not abused.” Mitigation is a doctrine based on fairness and common sense, which seeks to do justice between the parties in the particular circumstances of the case.

The question as to what constitutes “reasonable mitigation” was addressed by the Court of Appeal in [119] *Apotex v. Canada* (2017 FCA 73 trazodone) as follows:¹³³⁺¹³⁴

[151] The concept of mitigation may be succinctly expressed: a plaintiff is not entitled to recover compensation for loss that could have been avoided by taking reasonable action. Pursuant to this concept, any loss is disallowed when the loss flows from the plaintiffs inaction, as opposed to the defendant’s wrong.

[152] What constitutes reasonable action is in every case a question of fact, depending on the particular circumstances of the plaintiff and the case. This said,

133 [119] *Apotex v. Canada* (2017 FCA 73 trazodone), at paragraphs 151 to 155.

134 Note that the ruling of the Court of Appeal in [56] *Teva v. Janssens* (2018 FCA 33 levofloxacin) used substantially identical wording at paragraphs 54 to 58.

as is the case with the concept of remoteness, a finding that a plaintiff ought to have mitigated its loss is not a simple question of fact because it also involves a legal conclusion.

[153] The burden of establishing the failure to mitigate is on the defendant. The defendant must show both that the plaintiff failed to make reasonable efforts to mitigate and that mitigation was possible (*Southcott Estates Inc. v. Toronto Catholic District School Board*, 2012 SCC 51, [2012] 2 S.C.R. 675, at paragraph 24).

[154] In case of doubt, the plaintiff will generally receive the benefit of the doubt on the ground that a defendant should not be overly critical of a plaintiff's good-faith effort to avoid difficulties caused by the defendant's wrongful act (S. M. Waddams, *The Law of Damages*, looseleaf (Toronto: ON: Thomson Reuters Canada, 1991) at paragraph 15.140). In *Banco de Portugal v. Waterlow & Sons, Ltd.*, [1932] A.C. 452 (H.L.) Lord Macmillan expressed this concept as follows (at page 506):

Where the sufferer from a breach of contract finds himself in consequence of that breach placed in a position of embarrassment the measures which he may be driven to adopt in order to extricate himself ought not to be weighed in nice scales at the instance of the party whose breach of contract has occasioned the difficulty. It is often easy after an emergency has passed to criticise the steps

which have been taken to meet it, but such criticism does not come well from those who have themselves created the emergency. The law is satisfied if the party placed in a difficult situation by reason of the breach of a duty owed to him has acted reasonably in the adoption of remedial measures, and he will not be held disentitled to recover the cost of such measures merely because the party in breach can suggest that other measures less burdensome to him might have been taken.

[Emphasis added]

[155] This principle applies equally to cases where there has been a tortious act. Thus, a plaintiff's conduct is not weighed against a single standard of objective reasonability.

In [119] *Apotex v. Canada* (2017 FCA 73 trazodone), the Court of Appeal specifically addressed the issue as to whether the duty to mitigate related only to the product at issue or to a broader perspective of the plaintiff's business:¹³⁵

[159] While Apotex asserts a number of other errors on the part of the Federal Court, in my view it is only necessary to consider whether the Federal Court erred by requiring Apotex to accede to the use of a Canadian reference product in order to mitigate its loss.

135 [119] *Apotex v. Canada* (2017 FCA 73 trazodone), at paragraphs 159 to 163.

[160] The Federal Court found that Apotex “knew it could mitigate its losses by conducting tests using a Canadian reference standard. It did precisely that in respect of Apo-Zidovudine” (reasons, paragraph 155). Had Apotex done so, it would have cost between \$200,000 and \$300,000 and taken three to six months (reasons, paragraph 157). The Court found a “reasonable person, thinking in terms of economics” would have chosen to re-test Apo-Trazadone’s bioavailability against a Canadian reference product (reasons, paragraph 161). Had Apotex done so, it may have received its notice of compliance in between 15 to 18 months (reasons, paragraph 162).

[161] As noted above, in any case what is reasonable depends on the particular circumstances of the plaintiff and the case.

[162] Perhaps because of its failure to appreciate the applicable onus of proof, the Federal Court did not review the actions Apotex did take after it became aware that Health Canada was acting contrary to the settlement agreement in order to consider whether Apotex made reasonable efforts to mitigate. Instead, the Federal Court went directly to its conclusion that “Apotex knew it could mitigate its losses by conducting tests using a Canadian reference standard” (reasons, paragraph 155). In my view it was an error of law for the Federal Court to dictate a single, reasonable course of action and to fail to consider the reasonableness of Apotex’ actual course of conduct.

[163] As a result of this failure it is necessary to review Apotex' conduct in order to assess the reasonableness of its course of conduct.

Without repeating the chronology of events, which were unique to that case, the Court of Appeal concluded:¹³⁶

[171] It is apparent that throughout this chronology, Apotex never sat on its rights. Notwithstanding, Health Canada argues that Apotex' conduct does not constitute reasonable mitigation because "[i]nsisting that a party allegedly in breach honour a contractual term cannot constitute mitigation" (memorandum of fact and law, paragraph 88).

[172] This said, Health Canada does acknowledge that in "rare situations" a failure to mitigate is justifiable (memorandum of fact and law, paragraph 90). This arises where a plaintiff has a substantial and legitimate interest in seeking specific performance of a defendant's obligation.

[173] Thus, in *Asamera Oil Corporation Ltd. v. Sea Oil & General Corporation et al.*, [1979] 1 S.C.R. 633, 89 D.L.R. (3d) 1, the Supreme Court considered the claim of a party that sought the return of a number of shares in a corporation and argued it was not obliged to mitigate its loss by purchasing replacement shares in the market. Rather, the claimant argued that it was entitled to seek specific performance of the contract to return the shares and that during the period it relied upon an interim injunction restraining the sale

136 [119] *Apotex v. Canada* (2017 FCA 73 trazodone), at paragraphs 171 to 180.

of the shares it did not have to take into account the losses flowing from its failure to purchase replacement shares and mitigate those losses.

[174] The Supreme Court found that, as a matter of law, the principle of mitigation ought to prevail unless there was “a substantial and legitimate interest represented by specific performance” (Supreme Court Reports, page 667). Therefore, when the evidence revealed “a substantial and legitimate interest in seeking performance as opposed to damages, then a plaintiff will be able to justify his inaction” (Supreme Court Reports, pages 668-669).

[175] This principle was reiterated in *Semelhago v. Paramadevan*, [1996] 2 S.C.R. 415, 28 O.R. (3d) 639, at pages 429-430 of the Supreme Court Reports.

[176] In the present case, Apotex regularly interacted with Health Canada with respect to new drug submissions. Dr. Sherman testified that Apotex developed most of its generic products in Canada and therefore, as a matter of convenience, it used Canadian reference products to establish bioequivalence and bioavailability. However, when a generic product was developed outside of Canada, Apotex established bioequivalence using studies done in the foreign market. Thus, Dr. Sherman could point to four instances between September 1976 and 1995 when Apotex had obtained a notice of compliance using a foreign reference product. It was his understanding that “every time we, or to the best of our knowledge anyone else, submit a submission using a foreign reference it

was acceptable except only for Spirozide” (transcript October 21, 2014, page 299, line 11 to page 302, line 26). Apotex had a clear business interest in establishing that foreign reference products were, as a matter of general principle, acceptable. As the Federal Court found, Apotex made its Apo-Trazad submission a test case as to whether a non-Canadian reference product could be used as a reference (reasons, paragraph 105).

[177] At the same time, Health Canada recognized that Apotex had raised an important point of principle. Thus, as previously discussed, in his memo of January 20, 1989 to the Director of the Drugs Directorate, Dr. Johnson acknowledged the scientific basis of Apotex’ position that it ought to be able to rely on the foreign reference product. He wrote:

Therefore, on the basis of science alone, I am inclined to accept the arguments advanced by Apotex. However, we should also examine the possibility that we may be establishing a precedent if we follow this course of action that could see us forced to accept similar arguments from around the world. What is to prevent, for example, Apotex from commissioning a bioavailability study comparing the French brand of a product as the standard? If we accept the arguments advanced in this particular case, we could have a difficult time not allowing this type of study. This could be the start of a process that would see us lose control over the generic submissions. [Emphasis added]

[178] It follows that this was not a case where Apotex clung to a point of principle without regard to the consequences. Both Apotex and Health Canada recognized that the availability of recourse to a foreign reference product raised an important issue of principle. While the Federal Court recognized that “battle lines” were drawn, it erred by ignoring this important issue of principle and by considering only the economics involved in a single drug submission. The issue in dispute transcended a single drug submission and was directly linked to Apotex’ strategic and economic interests.

[179] The evidence establishes that Apotex had a substantial and legitimate interest in pursuing its claim for mandamus, a claim that would, in effect, require Health Canada to abide by the settlement agreement and specifically perform its obligation to consider evidence to establish the bioequivalency of the Canadian and the American reference standards.

[180] Thus, in the rather unique circumstances of this case, Apotex’ choice to pursue litigation was reasonable. It did not fail to mitigate its loss and it was an error of principle to require Apotex to mitigate its loss by requiring it to abandon its right to have the Health Protection Branch consider evidence to establish the bioequivalence of the Canadian and American reference standards and by requiring Apotex to do the very thing the settlement agreement was intended to avoid: a new bioavailability test using a Canadian reference product.

The question of mitigation has also been considered in the context

of an injunction application in [111] *AstraZeneca v. Apotex* (2011 FC 505 esomeprazole) in which AstraZeneca alleged it would suffer irreparable harm in the absence of an injunction. The Court, however, found that much of the alleged harm it would suffer would be as a result of its own decision to cease marketing, and the Court found that this would not be a reasonable decision if AstraZeneca anticipated being successful in the litigation. The Court, in effect, put AstraZeneca on notice that it needed to mitigate its losses by continuing to market its esomeprazole product:¹³⁷

[83] AstraZeneca added that an important consequence of ceasing to promote NEXIUM would be that the overall market for the drug will shrink, “resulting in a permanent decrease in the NEXIUM market” by the time the within action is decided, which it forecasted will be almost three years from now.

[84] In support of its claims, AstraZeneca submitted affidavit evidence from Ms. McCourt as well as from two experts, Dr. Ranjay Gulati and Dr. Alan Biloski.

[85] In her affidavit, Ms. McCourt repeated the claims made in AstraZeneca’s written submissions and stated that generic products typically are listed on provincial and private formularies at a fraction of the drug innovator’s prices. As a result, “once a generic enters the market it is expected that a substantial portion of the innovator’s market for that drug will be lost within months.” For this reason, “as soon as a generic version of an AstraZeneca product enters the market, AstraZeneca Canada considers that market lost, and the business is restructured accordingly.”

137 [111] *AstraZeneca v. Apotex* (2011 FC 505 esomeprazole), at paragraphs 83 to 89, 91 to 94 and 96 to 97.

[86] Based on her experience with launches of other generic products, Ms. McCourt stated that she expects that “Apotex will quickly flood the market with lower priced generic esomeprazole.” She also asserted that “AstraZeneca Canada will cease promotion of NEXIUM if the product is genericized.” She added that “the loss of NEXIUM at this time will destabilize and imperil the transformation [of its organization that was recently implemented] and imperil its future performance.” This is based on her forecast that, in the absence of Apotex’s continued roll-out of Apo-Esomeprazole, NEXIUM will generate approximately \$[*] billion in sales between now and May 2014. This represents “about [*] of the total [forecasted lifetime] sales of NEXIUM.”

[87] Dr. Biloski and Dr. Gulati supported Ms. McCourt’s position that it would not make economic sense to continue promoting NEXIUM once that product has become genericized. In short, they agreed that such action would simply serve to increase sales of the generic product more than to increase sales of NEXIUM. They added that such promotion would utilize resources that could be better spent on more fruitful endeavours. Indeed, Dr. Gulati asserted that “continued promotion of NEXIUM would require significant financial capital which would no longer be available due to the rapid erosion of the revenue stream following NEXIUM genericization.” Dr. Biloski and Dr. Gulati both opined that the harm to AstraZeneca that would likely flow from generic erosion of NEXIUM’s sales would not be reasonably quantifiable. Dr. Gulati explained that this was “because of

the multiplicity of exogenous and endogenous factors which necessarily impact a business' outcomes in its market and sphere of operation." Likewise, Dr. Biloski supported his conclusion on the basis of "the wide variability in the future commercial outcomes of AstraZeneca Canada's business if [NEXIUM] were to retain market exclusivity until May 27, 2014. ..."

[88] I do not agree with either: (i) the position that it would not make sense to continue to promote NEXIUM once that product has become genericized; or (ii) the position that the various harms that AstraZeneca has asserted under this heading would not be reasonably quantifiable.

[89] With respect to the promotion of NEXIUM, I find the evidence of Apotex's experts to be more analytically robust and persuasive.

[...]

[91] Dr. Hollis provided various calculations that served to confirm the common sense view that, "the firm that benefits from the promotional efforts will be the firm that is successful in the patent infringement action." Thus, even in the absence of an interlocutory injunction, AstraZeneca would be the only beneficiary of the promotional efforts, assuming that it prevails in the within action, and assuming that it can reasonably quantify and prove its damages. Given that AstraZeneca launched the within action fairly recently, and is continuing to pursue it, it is reasonable to assume that AstraZeneca believes that it will prevail.

[92] I agree with Dr. Hollis' observation that it is not reasonable for a firm that speculatively invests hundreds of millions of dollars in "finding and developing new drugs that may or may not be approved by regulatory authorities to claim that it would not make good business sense to continue to promote NEXIUM, a proven blockbuster drug, until trial. Based on figures derived from AstraZeneca's own evidence, and assuming a 50% chance of prevailing in the within action, Dr. Hollis estimated that AstraZeneca's expected revenues over the next three years would be approximately \$[*] million if the requested injunction is granted, and \$[*] million, which is only 5% less, if the requested injunction is not granted. If AstraZeneca believes that it has a greater chance of prevailing, the difference in the expected values of its revenues, with and without an injunction, would be even less. For example, Dr. Hollis calculated that this difference would be only approximately 1.6%, if the probability of AstraZeneca prevailing in the within action is 80%.

[93] Andrew Harrington [sic] agreed with Dr. Hollis' view that, if AstraZeneca Canada does in fact anticipate that it will succeed in the within litigation, "it would be prudent action to continue the full sales and marketing initiative and thereby preserve Nexium's share in the PPI market pending the outcome of the trial in this matter." In his view, this would be "sensible given that, if successful in the litigation, AstraZeneca Canada will have a damages award against Apotex equal to the amount of its lost sales to Apotex." Mr. Harrington [sic] acknowledged that there

is no certainty that AstraZeneca Canada will in fact prevail in the within action. However, he estimated that, “depending upon which patent or patents AstraZeneca Canada succeeds upon, the benefit to AstraZeneca of maintaining the Nexium® market will be between \$[*] billion and over \$[*] billion.” Although he did not refer to the marketing costs that would be required to continue to promote NEXIUM, his conclusion that “the prospective revenue opportunity benefit to AstraZeneca Canada of continuing to promote Nexium® is very substantial at a relatively low cost” strikes me as being much closer to the mark than the unsubstantiated assertions of Dr. Gulati and Dr. Biloski.

[94] Mr. Harrington [sic] also astutely questioned “why any reasonable business person would accept the risk” of Apotex successfully arguing, in the within action, that “the entirety of AstraZeneca Canada’s losses were attributable to AstraZeneca Canada’s irrational decision to allow the Nexium® market to collapse.” This observation would apply with equal force even if Apotex only succeeded in ultimately establishing that a portion of AstraZeneca Canada’s damages were attributable to its decision to stop promoting NEXIUM.

[...]

[96] Considering the foregoing, and in the absence of additional financial and other evidentiary support from AstraZeneca or its experts, I do not accept that it would make good business sense for AstraZeneca Canada to discontinue promoting NEXIUM if this

Motion for an interlocutory injunction is not granted. This is particularly so given that: (i) AstraZeneca's patent protection is likely to last for approximately three more years, if not until 2018, when the last of the patents in the within action expires (Servier, above, at para. 71); and (ii) AstraZeneca Canada has not provided any evidence to indicate that the costs associated with continuing to promote NEXIUM would likely exceed the profits that could reasonably be expected to be derived from those promotional efforts.

[97] In my view, if AstraZeneca Canada does cease or reduce its promotional activities in respect of NEXIUM, any harm that it may suffer will flow from its own actions, not the continued roll-out of Apotex's generic product. ...

4



SECTION

Lost Profits

The objective of a quantification of damages is to put the plaintiff back in the same economic position in which it would have been but for the defendant's infringement. This should incorporate every head of damage that the plaintiff can demonstrate it has suffered. In particular, in the context of damages related to lost sales, these damages would take the form of lost profits.

These principles were summarized in [29] *Jay-Lor v. Penta* (2007 FC 358), where the Court stated:¹³⁸

In sum, since the Plaintiffs have elected damages, the following general principles apply:

- An award of damages seeks to compensate the plaintiff for any losses suffered by the plaintiff as a result of the infringement.
- The profits made by the defendant are irrelevant.
- Every sale of an infringing product is an illegal transaction for which the plaintiff is entitled to recover damages.
- In assessing the award, the plaintiff is entitled to the profits on the sales it would have made but for the presence of the infringing product in the market.
- For those sales made by the defendant that the plaintiff patentee would not have made or cannot persuade the Court it would have made but for the presence of the infringing product, the plaintiff is entitled to a reasonable royalty.
- Apportionment is generally not available to limit the damages payable by the defendant.
- The period between the laying open of the patent to the grant

138 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraph 123.

of the patent, the plaintiff is entitled to a reasonable royalty on all sales of infringing products made by the defendant.

- The plaintiff bears the burden of proving: (a) the sales that it would have made but for the presence of the infringing product; and (b) what a reasonable royalty would be.

The calculation of damages is most easily thought of for the plaintiff entity in its entirety and summarized formulaically as:

$$\begin{array}{l} \text{Damages} = \text{Plaintiff's but-for profits} \\ \text{minus} \\ \text{Plaintiff's actual profits} \end{array}$$

This method is referred to as the “Differential Method,” as it computes the damages as the difference between the plaintiff’s but-for profits and its actual profits on aggregate. In cases where this method is appropriate, the damages expert has to compute both the plaintiff’s but-for and actual profits, and then compute the plaintiff’s damages as the difference between these two levels of profit. Accordingly, since damages are computed as the difference between the plaintiff’s total profits in the but-for world and in the actual world, they will reflect all heads of damages (they will be incorporated into the totals) suffered by the plaintiff as a result of the defendant’s infringement.

A variation of this method that may be applied in appropriate fact situations involves applying the Differential Method only to that portion of the plaintiff’s business that was affected by the defendant’s infringement. In practice, there may be many aspects of the plaintiff’s business that were not affected by the defendant’s infringement, particularly for larger companies. For these unaffected aspects of the plaintiff’s business, the but-for profits and actual profits would be identical, and thus it is not necessary to consider them in the damages analysis.

A further variation of this method, referred to as the “Direct Method,” directly computes the profits that were lost as a result of the infringement. Under this method, each head, or component, of damages is discretely computed as the incremental revenues that the plaintiff would have earned (i.e., the revenues on its lost unit sales) less the incremental costs that it would have incurred in order to generate those revenues (i.e., the differential cost of those lost unit sales). Damages are then the sum of each individual head of damages. This computation can be summarized formulaically as:

<p><i>Damages =</i></p> <p>+ <i>Revenues less costs from lost convoyed sales (if applicable)</i></p> <p>+ <i>Lost revenues from price erosion or price suppression (if applicable)</i></p> <p>+ <i>Lost royalty revenues (if applicable)</i></p> <p>+ <i>Indirect losses (if applicable)</i></p> <p>+ <i>Any other demonstrable head of damage</i></p>	<p><i>Revenues less differential costs on lost unit sales of product at issue</i></p>
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All these variations (the Differential Method, for either the entire business or the affected division, and the Direct Method) will, when done correctly, produce the same result, and the damages expert should select that approach which they consider most appropriate and efficient, in the circumstances, to explain to the trier of fact.

In assessing the determination of the operating reality in Section 3, we intentionally considered each type of damage in isolation. This should not be interpreted as a suggestion that the Direct Method is, in any way, superior to the Differential Method.

The key difference in the application of the Direct Method, as compared with the Differential Method, is with respect to the consider-

ation of which costs to deduct in computing damages.

Under the Differential Method, in principle, all costs are deducted when computing the plaintiff's profits in each of the but-for world and the actual world. Thus, there is no need, nor would it be appropriate, to consider whether or not to include any particular cost item. This is true regardless of whether a cost is "fixed" or "variable."¹³⁹ For example, a cost that is truly fixed would be incurred in both the actual and but-for worlds. Therefore, deducting it from the calculations of both the plaintiff's but-for profits and its actual profits has no effect on the damages computation. Consequently, in practice, fixed costs that would be incurred in both the actual and but-for worlds are typically ignored, in the same way as are the unaffected aspects of a plaintiff's business, since they do not affect the quantification of the plaintiff's damages from the defendant's infringement.

In the Direct Method, however, there is no comparison of total profits, and therefore the assessment of which costs are appropriate to deduct is required when computing the losses for each head of damage. This is discussed in Chapter 4.2. Nevertheless, guidance can be inferred as to which costs are appropriately considered in the Direct Method from the fact that the end damages result determined under the Direct Method should match that which would have been obtained from application of the Differential Method. Put another way, if the Direct Method produces a different result than that of the Differential Method, subject to legal constraints, for example as a result of remoteness (see Chapter 2.2) or statutory damages (see Chapter 4.3), the damages determined under the Differential Method are more likely to be correct.

Note that, in the descriptions used above, we have adopted the term "profits." What expenses are immediately deducted when determining

139 For simplicity sake, we use the terms "fixed" and "variable," but as discussed further in Chapter 4.2, this distinction is not always clear.

profits, as compared with capitalized on a company's balance sheet and amortized as expenses over time, is a question of accounting principles and well beyond the scope of this book. From the perspective of calculating damages, whether the plaintiff actually or would have incurred a cash outlay that was or would have been expensed immediately, or whether the plaintiff actually or would have incurred a cash outlay that was or would have been capitalized and expensed later, should be of no relevance. The important point is that there was a cash outlay. Accordingly, the more appropriate consideration when computing damages is cash flow, not profits. This is discussed further in Chapter 4.2

The computation of lost profit damages requires other considerations (such as currency and income taxes) that also apply to both an accounting of profits and the computation of a reasonable royalty. These other considerations are discussed in Section 7.

4.1

PLAINTIFF'S CAPACITY UTILIZATION

One of the factors that the court must consider when determining lost profit damages is whether the plaintiff would have had the manufacturing, selling and distribution capacity necessary to sell additional volumes of the product at issue in the but-for world. While, to the best of our knowledge, there are only a few cases that explicitly discuss this factor beyond where evidence is provided to the effect that the plaintiff did or would have had the capacity,¹⁴⁰ this aspect is relevant in a damages calculation in three respects:¹⁴¹

140 See for example, [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraph 58.

141 Note that the plaintiff's capacity may also be a relevant factor in determining royalty rates, as discussed further in Section 6.

- Where the plaintiff did not have sufficient existing capacity to either manufacture or sell additional units of the product at issue in the but-for world where the defendant had not infringed, then the question is whether the plaintiff could have, and would have, (i) expanded its own capacity to meet the demand, (ii) outsourced production and/or distribution or (iii) foregone the additional sales volume;
- Where the court concludes that the plaintiff would have expanded its capacity (or outsourced some aspect of its supply and distribution chain) to meet the demand, this may have an impact on the extent of the damages during the period of expansion, since there is usually a time-to-build delay for capital projects. There is also the possibility that, depending on the facts of the case, the plaintiff would have incurred additional expenses in the but-for world that it has avoided in the actual world; and
- Even if the plaintiff did have sufficient capacity, depending on the utilization of that capacity, the incremental costs that the plaintiff would have incurred may vary (positively or negatively) depending on the intensity of utilization, and this could have an impact on the damages incurred.

Each of these is discussed separately below.

Need for additional capacity to meet demand

The causation test indicates that if the plaintiff is able to demonstrate both that it could have and would have expanded its production capacity (either by building capacity itself or outsourcing some aspect of its supply and distribution chain to a third party) so as to be able to supply the additional demand that would have existed if the defendant had not infringed, then the plaintiff is entitled to lost profit damages on the sales it would have made using the expanded production capacity.

This was considered in [23] *AlliedSignal v. du Pont Canada*, where the Court stated when answering the question “what would have happened?” that one of the factors considered in past cases is the capacity of the patentee to produce additional products.¹⁴²

In [96] *Teva v. Pfizer* (2016 FCA 161 venlafaxine), the Court stated:¹⁴³

[52] There must be evidence that the parties “would have” and “could have” ordered and supplied material at the relevant time. Evidence that a manufacturing plant had capacity at some time other than the relevant time for the assessment of loss under section 8 does not necessarily mean that the plant could have and would have had capacity in the hypothetical world at the relevant time. In the words of *Lovastatin*, without more it is an error to “[jump] from a statement as to manufacturing capacity to conclusions as to what [a generic] could and would do in the ‘but for’ [hypothetical] world” ([50] *Merck v. Apotex* (2015 FCA 171)) at para. 77).

[...]

[165] In my view, it is not enough to establish this on the balance of probabilities by pointing *only* to sufficient manufacturing capacity a long time (here over a year) before the relevant time and Alembic’s general willingness to keep its customer, Ratiopharm (Teva), happy. Perhaps as part of the totality of the admissible evidence and permissible inferences therefrom, Teva can establish its case on the balance of

142 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraph 34.

143 [96] *Teva v. Pfizer* (2016 FCA 161 venlafaxine), at paragraphs 52 and 165.

probabilities. That will be for the Federal Court to determine.

Incremental capital costs and delay in construction of capacity to meet demand

Where the court concludes that the plaintiff would have expanded its capacity to meet the demand, the quantification of those damages should take into consideration the additional costs that would have been incurred by the plaintiff to undertake that expansion.

Similarly, the time that would have been required for the plaintiff to have brought the expanded capacity into effect should be considered in determining the plaintiff's but-for sales.

Alternatively, on the facts of a case, a plaintiff may demonstrate that, while it did not have the capacity to manufacture in-house, it could have and would have outsourced the manufacturing to a third party. In such a case, consideration of these outsourcing costs and timing should be incorporated into the calculations.

These same principles that apply to production capabilities also apply when considering marketing capabilities, both from a sales force or a physical product distribution perspective. Both the costs and timing should be incorporated into the calculations of the plaintiff's but-for profits.

Operating costs

As is discussed in Chapters 4 and 4.2, a quantification of damages under the Direct Method requires the deduction of incremental costs that the plaintiff would have incurred in order to generate, and as a result of generating, the additional revenue on the lost unit sales suffered by the plaintiff.

The precise determination of which costs are incremental will depend on the facts of each situation, and two of those facts may be (i) the actual capacity utilization of the plaintiff and (ii) the quantum of incremental sales that the plaintiff would have made. This is perhaps best illustrated by way of a simple example.

Assume that:

- The plaintiff's total factory capacity is 3 million widgets per year;
- This capacity is based on three working shifts, each capable of producing 1 million widgets per year;
- For every 500,000 widgets produced, equipment maintenance is required; and
- Every widget requires a certain cost of raw materials.

Clearly, every additional widget that the plaintiff produced would require the cost of raw materials as a direct cost.

However, if the volume of additional production, on top of the production that the plaintiff actually incurred, results in the plaintiff exceeding the next "500,000-units step" in its maintenance schedule, then the incremental cost of equipment maintenance would be an incremental cost and should be included in addition to the cost of the raw materials.

Further, if the volume of additional production, on top of the production that the plaintiff actually incurred, results in the plaintiff requiring an additional production shift, then the cost of that full shift is incremental and should also be considered in the calculation of the plaintiff's damages.

Yet further, if the volume of additional production is such that it will exceed the available capacity of the factory, then the question arises

as to whether the plaintiff would have (i) only made additional production up to the level of its available capacity; (ii) displaced other, lower-profit product in order to achieve the additional production; or (iii) decided that the additional profit justified the expansion of the factory capacity.

To illustrate, the following table sets out costs that would be incremental under a variety of production capacity scenarios:

Scenario	Actual annual capacity utilization	Additional annual units (lost unit sales)	But-for unit sales	Incremental costs to consider
1	1,300,000	100,000	1,400,000	Raw materials
2	1,300,000	300,000	1,600,000	Raw materials, maintenance
3	1,300,000	800,000	2,100,000	Raw materials, maintenance, labour shift
4	1,300,000	>1,700,000	>3,000,000	Raw materials, maintenance, labour shift, capital expenditure to expand capacity (if applicable)

As can be seen from the above scenarios, an analysis of the capacity utilization can have a significant impact on the damages analysis. Further, in scenario 4, the question arises as to whether the plaintiff would have, in the but-for world, undertaken the capacity expansion or whether its lost unit sales are limited to its available capacity. Further, or in the alternative, it raises the potential for the plaintiff to have mitigated its damages by re-employing the capacity that would otherwise not have been available, as discussed in Chapter 3.12.

4.2

DIFFERENTIAL COSTS UNDER
THE DIRECT METHOD

As discussed in Chapter 4, the key difference between the application of the Direct Method and the Differential Method is the consideration of which costs to deduct in computing damages.

Under the Differential Method, where damages are computed as the difference between the plaintiff's total profits in the but-for world and in actual world, all costs are deducted when computing the plaintiff's profits in each of the but-for world and the actual world. Accordingly, there is no need to consider whether or not to include any particular cost item, since any non-incremental costs (i.e., costs that would have been incurred at the exact same level in both the but-for and actual worlds) will net out, and thus have no effect in the quantification of the plaintiff's damages.

This is true regardless of whether a cost is thought of as "fixed" or "variable."¹⁴⁴ For example, a cost that is truly fixed would be incurred in both the actual and but-for worlds, and therefore, when deducted from both the calculation of the plaintiff's but-for profits and its actual profits, has no effect on the damages computation. Consequently, in practice, "fixed" costs that would be incurred in both the actual and but-for worlds are typically ignored, in the same way as are the unaffected aspects of the plaintiff's business, since they do not affect the quantification of the plaintiff's damages from the defendant's infringement.

144 The concepts of "fixed" and "variable" costs can be very misleading for various reasons. For example, a definition that considers fixed costs as costs that do not vary with changes in volume may well not apply with significant changes in volume. Further, a definition that considers fixed costs as costs that cannot be avoided may well not apply with the passage of sufficient time. Consequently, what costs would, in fact, vary will depend on the facts of each case and, accordingly, are better considered using the term "differential" than the terms "fixed" or "variable."

However, under the Direct Method, there is no comparison of total profits, and therefore the assessment of which costs are appropriate to deduct is required when computing the losses for each head of damage.

Nevertheless, guidance can be inferred as to which costs are appropriately considered in the Direct Method, from the fact that the end damages result determined under the Direct Method should match that which would have been obtained under the Differential Method. Put another way, if the Direct Method produces a different result than the Differential Method, subject to legal constraints, for example as a result of remoteness (see Chapter 2.2) or statutory damages (see Chapter 4.3), the damages determined under the Differential Method are more likely to be conceptually correct.

Note that, in the descriptions used above, we have adopted the term “profits.” What expenses are immediately deducted when determining profits versus capitalized on a company’s balance sheet and amortized as expenses over time is a question of accounting principles and well beyond the scope of this book. From the perspective of calculating damages, whether the plaintiff actually would have incurred a cash outlay that was or would have been expensed immediately, or whether the plaintiff actually or would have incurred a cash outlay that was or would have been capitalized and expensed later, should be of no relevance. The important point is that there was a cash outlay. Accordingly, the more appropriate consideration when computing damages is cash flow, not profits.

Before reviewing the case law, which in large part attempts to make sense of the parties’, or experts’, positions on a case-by-case basis, it is worth presenting a brief overview of accounting to enable an understanding of the framework which all cases attempt to apply.

In principle, the expenses that would have been incremental to the plaintiff in a computation of lost profits are the same types of expenses

as those that would be incremental to the defendant in a computation of an accounting of profits (see Chapter 5.2). There is, however, a possible misconception that there is only one type of accounting and all financial reports are prepared on a similar basis. While this is not true in general, we will try and keep it simple:

- **Financial accounting** is required by securities regulators and/or law and is intended to provide historical information to third parties, including shareholders, lenders and creditors, about a company's profitability, cash flows and assets on a periodic basis, typically quarterly.
- **Management accounting**, which is completely unregulated and prepared for the company's internal use only, is a combination of historical and forward-looking financial information to management on which to make operational or investment decisions.

When looking at the profitability of a product, or a product line, within a large business, there are three alternative perspectives that one could take:

- **Contribution margin** (sometimes referred to as gross margin or gross profit) is generally computed as revenues less variable costs. This is a financial accounting concept and considers how much the product line contributes to the fixed cost and profitability of the company as a whole. Contribution margin provides no business decision-making information other than to set an absolute short-term minimum price below which the company would be better off ceasing production, i.e., if the selling price were to reduce below the variable cost of production;
- **Incremental profit** is computed as revenues less any incremental cost or cash outlay that the company needs to incur in order to generate the revenue. The concept of incremental profit is fundamental in business-investment decisions, which require both in-

cremental profit (if incremental profit is negative, then the company would lose money on the decision) and an adequate rate of return on the capital employed. Incremental profits will vary for each business, as those profits will depend, in part, on the extent of existing capacity and infrastructure. For example, for a company that has existing manufacturing and distribution capacity, the incremental cost of adding an additional product may be low, resulting in that product generating high incremental profit;¹⁴⁵ and

- **Full absorption profit** is computed as contribution margin less an allocation of that product line's share of the business' total fixed costs. Full absorption profit is generally used to set pricing, as, in the long run, a company needs to generate sufficient revenues across its product lines in order to cover all the expenses of the company and generate a profit.

Note also that contribution margin and full absorption profit may include an expense called depreciation, which is an attempt to “spread” capital costs over the multi-year life span of an asset. Incremental profit is more akin to a cash profit analysis that does not “spread” such capital costs, but considers incremental capital expenditures that are required to be incurred as expenses in the period when the capital cost is required.

The foundational objective of a computation of monetary remedies is to restore the party that has sustained injury and loss to the financial condition in which it would have been had the wrong not taken place. Consequently, from a costing perspective, the application of which costs are to be considered is no different to the incremental profit approach used in management accounting for investment decisions.

¹⁴⁵ The adequacy of the rate of return on capital employed is included for completeness but is beyond the scope of this book or the brief overview set out herein.

To avoid repetition, we refer the reader to the case law review in Chapter 5.2. While those cases are all accounting of profits cases, the principles of which costs are incremental apply equally to lost profits damages.

4.3

PM(NOC) SECTION 8

When a drug company seeks to gain approval (a Notice of Compliance or NOC) from Health Canada to sell a generic version of another company's branded drug product that has already been approved, it can file an Abbreviated New Drug Submission relying on the safety and efficacy data used in the branded drug's full New Drug Submission, to gain expedited approval, provided the generic drug company can show that its product is bioequivalent to the branded drug. However, in doing so, the generic drug company must serve a notice to the branded drug company alleging that the patent(s) listed with Health Canada by the branded drug company against the product are either expired or not valid, or will not be infringed by the generic company's drug product; or that the generic drug company will await patent expiry.

Upon receipt of such an allegation, the branded drug product may commence a proceeding for an order that would prohibit the Minister of Health from granting the generic company an NOC until the expiration of any relevant patents. Pending the disposition of this proceeding or the expiration of 24 months after its commencement, whichever is earlier, the Minister of Health is precluded from issuing an NOC to the generic company. However, if the branded company is ultimately unsuccessful in this proceeding, then the generic company can seek damages for being delayed from receiving an NOC and from entering

the market as a result of the institution and prosecution by the branded company of the prohibition proceeding.

Damages claims brought by a generic pharmaceutical company against the branded company for having been held off the market are referred to as “section 8 claims,” after the section of the *Patented Medicines (Notice of Compliance) Regulations* (*PM(NOC) Regulations*) governing those claims.¹⁴⁶

These claims brought under section 8 of the *PM(NOC) Regulations* are for statutory damages, which, for all cases heard as of the date of this book, differ in certain aspects from compensatory or “make whole” damages that are intended to return a plaintiff back to the same economic position in which it would have been but for the actions of the defendant.

The background to these *PM(NOC) Regulations* was described by the Supreme Court in [85] *BMS v. Canada* (2005 SCC 26), as follows:¹⁴⁷

[8] Until 1993 the Minister of Health was not directly concerned with patent issues. Indeed, Parliament’s policy since 1923 had been to favour health cost savings over the protection of intellectual property by making available to generic manufacturers a scheme of compulsory licencing of an “invention intended or capable of being used for medicine or for the prepara-

146 Note that, on July 15, 2017, the Government of Canada proposed amendments to the *PM (NOC) Regulations*, one of which is that section 8 damages can now include compensation to a second person for “any loss suffered after the later of the day on which the notice of allegation was served, the service of which allowed that action to be brought, and of the day, as certified by the Minister, on which a notice of compliance would have been issued in the absence of these Regulations.” These regulations came into effect in September 2017.

Given that no cases have been heard under these proposed amendments, the balance of this chapter relates only to the Regulations that have been applied to date.

147 [85] *BMS v. Canada* (2005 SCC 26), at paragraphs 8, 10 to 12, 19, 20 and 23.

tion or production of medicine” under s. 39(4) of the *Patent Act*. The compulsory licencing scheme gathered momentum after 1969 when it was extended to imported drugs. [...]

[...]

[10] In a reversal of policy, Parliament in 1993 repealed the compulsory licence provisions of the *Patent Act* by what became known as Bill C-91 (S.C. 1993, c. 2) and extinguished all compulsory licences issued on or after December 20, 1991. [...]

[11] However, having agreed to respect the 20-year monopoly granted by patents, Parliament wished to facilitate the entry of competition immediately thereafter. It acted to eliminate the usual regulatory lag of two years or more after expiry of a patent for the generic manufacturer to do the work necessary to obtain a NOC. Parliament did so by introducing an exemption from the owner’s patent rights under which the generic manufacturers could work the patented invention within the 20-year period (“the early working exception”) to the extent necessary to obtain a NOC at the time the patent(s) expired (s. 55.2(1)) and to “stockpile” generic product towards the end of the 20-year period to await lawful market entry (s. 55.2(2)). In order to prevent abuse of the “early working” and “stockpiling” exceptions to patent protection, the government enacted the *NOC Regulations* that are at issue in this appeal.

[12] The patent owner’s remedies under the *NOC Regulations* are *in addition to* all of the usual remedies

for patent infringement under the Patent Act.

[...]

[19] Under the *NOC Regulations*, a patent owner may submit to the Minister a patent list in respect of any drug that contains a “medicine.” ... (The party filing the patent list is called the “first person.”) [...]

[20] If another manufacturer subsequently applies for a NOC for the same drug, this “second person” has two options.

- (i) It may state in its application that it accepts that the NOC will not issue until the patent(s) expires *or*
- (ii) it may allege that by reference to a number of listed grounds, the patent list filed by the “first” person provides no obstacle because, contrary to the assertions in the patent list, the first person is not in fact the owner or exclusive licensee in Canada of the drug, or that the patent(s) have expired, are invalid, or that the applicant would not infringe any claim “for the medicine itself and no claim for the use of the medicine” (s. 5(1)(b)).

[23] The innovator that filed the patent list may, within 45 days after being served with a Notice of Allegation, apply to the Federal Court for an order prohibiting the Minister from issuing a NOC until all of the listed patents have expired. Commencement of the application for prohibition automatically triggers a 24-month statutory freeze that stops the Minister from

issuing a NOC unless within that period the prohibition application is finally disposed of by the court.

The process that follows the 24-month statutory freeze was described in [95] *Apotex v. Sanofi-Aventis* (2014 FCA 68 ramipril, aff'd 2015 SCC 20):¹⁴⁸

[22] If the innovator drug manufacturer is successful in the prohibition proceeding, the Minister of Health is prohibited from issuing to the generic drug manufacturer a notice of compliance for its generic drug until the relevant patent has expired. If the generic drug manufacturer is successful, the Minister may then issue a notice of compliance for the generic version of the drug. Whatever the outcome of the proceeding under the *NOC Regulations*, patent validity and patent infringement proceedings under the Patent Act may be initiated or continued by the parties before any competent court.

[23] A compensation mechanism has been set out in the *NOC Regulations* in the event that the innovator's prohibition application made under *subsection 6(1)* of the *Regulations* is withdrawn, discontinued or dismissed by the court. That mechanism is described in section 8 of the *NOC Regulations*, which is reproduced below:

8 (1) If an application made under subsection 6(1) is withdrawn or discontinued by the first person [the innovator] or is dismissed by the court hearing the

¹⁴⁸ [95] *Apotex Inc. v. Sanofi-Aventis* (2014 FCA 68 ramipril, aff'd 2015 SCC 20) (dissenting opinion), at paragraphs 22 and 23.

application or if an order preventing the Minister from issuing a notice of compliance, made pursuant to that subsection, is reversed on appeal, the first person [the innovator] is liable to the second person [the generic] for any loss suffered during the period

(a) beginning on the date, as certified by the Minister, on which a notice of compliance would have been issued in the absence of these Regulations, unless the court concludes that

(i) the certified date was, by the operation of *An Act to amend the Patent Act and the Food and Drugs Act* (*The Jean Chrétien Pledge to Africa*), chapter 23 of the Statutes of Canada, 2004, earlier than it would otherwise have been and therefore a date later than the certified date is more appropriate, or

(ii) a date other than the certified date is more appropriate;
and

(b) ending on the date of the withdrawal, the discontinuance, the dismissal or the reversal.

(2) A second person [the generic] may, by action against a first person [the innovator], apply to the court for an order requiring the first person [the innovator] to compensate the second person [the generic] for the loss referred to in subsection (1).

(3) The court may make an order under this section without regard to whether the first person [the innovator] has commenced an action for the infringement of a patent that is the subject matter of the application.

(4) If a court orders a first person [the innovator] to compensate a second person [a generic] under subsection (1), the court may, in respect of any loss referred to in that subsection, make any order for relief by way of damages that the circumstances require.

(5) In assessing the amount of compensation the court shall take into account all matters that it considers relevant to the assessment of the amount, including any conduct of the first [innovator] or second [generic] person which contributed to delay the disposition of the application under subsection 6(1).

(6) The Minister is not liable for damages under this section.

The Court, in [87] *Apotex v. Merck* (2009 FCA 187 alendronate), further elaborated on the statutory nature of the claim of the second person pursuant to section 8:¹⁴⁹

[71] Proceedings instituted under section 6 and section 8 of the *PM(NOC) Regulations* come within this express grant since both provide for a remedy in respect of patents. Section 6 does so by preventing the issuance of an NOC while listed patents referred to by a second person in order to demonstrate bioequivalence remain in effect, and section 8 does so by allowing a second person to recover losses arising from the automatic stay triggered by a first person when the attempt to assert its patent rights fail.

[...]

[73] We are not concerned here with the enforcement of contractual rights. What is in issue is a remedy devised by the Governor in Council pursuant to a regulatory scheme.

The Court, in [91] *Apotex v. Sanofi-Aventis* (2012 FC 553 ramipril, aff'd 2014 FCA 68, aff'd 2015 SCC 20), described a five-step process to computing the losses claimable under section 8:¹⁵⁰

In very general terms, the assessment of Apotex's damages involves five steps:

1. determine the duration of the period of

149 [87] *Apotex v. Merck* (2009 FCA 187 alendronate), at paragraphs 71 and 73.

150 [91] *Apotex v. Sanofi-Aventis* (2012 FC 553 ramipril, aff'd 2014 FCA 68, aff'd 2015 SCC 20, aff'd 2014 FCA 68, aff'd 2015 SCC 20), at paragraph 11. Note that a similar approach has been employed in all subsequent cases although the term "relevant period" has, on occasion, been replaced with the term, "liability period". See, for example, [97] *Teva v. Pfizer* (2017 FC 332 pregabalin), at paragraph 8.

liability (the Relevant Period);

2. determine the overall size of the [total molecule] market during the Relevant Period (the [Total Molecule] Market);

3. determine the portion of the [Total Molecule] Market that would have been retained by [the brand] and the portion that would have been held by generic manufacturers during the Relevant Period (the Generic Market);

4. determine the portion of the Generic Market that would have been held by [the plaintiff generic company] ([the Plaintiff]’s Lost Volumes); and

5. quantify the damages that would have been suffered by [the plaintiff generic company] in respect of [the Plaintiff]’s Lost Volumes ([the Plaintiff]’s Net Lost Profits).

In computing these damages, there are two aspects in which the damages may be thought to differ from “make whole” or compensatory damages:

1. Rather than a fulsome analysis of all damages suffered, damages are limited to those that the plaintiff suffered during the “Relevant Period”; and
2. While the existence of the *PM(NOC) Regulations* is ignored for the plaintiff for purposes of assessing the start date of the Relevant Period, these regulations continue to exist for other potential market entrants.

Each of these issues is discussed below.

Damages are limited to those suffered by the plaintiff in the Relevant Period

The scope of a claim under section 8 of the *PM(NOC) Regulations* was addressed by the Court of Appeal in [87] *Apotex v. Merck* (2009 FCA 187 alendronate). In that case, Apotex had plead that, under section 8 of the *PM(NOC) Regulations*, it was entitled to damages in respect of “lost sales and permanent market share,” which the Court addressed as follows:¹⁵¹

[99] According to the analysis of the Federal Court Judge, the losses claimed by Apotex were caused during the period since that is when Apotex was prevented from occupying the market and obtaining the market share which, based on its claim, it would otherwise have had. No one takes issue with this reasoning. The question is whether the decrease in sales which occurs in future years as a result of this decreased market share comes within section 8. The Federal Court Judge, by allowing the claim for losses “beyond May 26, 2005” to proceed, answered this question in the affirmative.

[100] When regard is had to the broad grant of authority conferred by subsection 55.2(4) of the Patent Act, it seems clear that the measure of the compensation which can be awarded under the *PM(NOC) Regulations* is a matter within the discretion of the Governor-in-Council. It is also clear that in keeping with the purpose of the *PM(NOC) Regulations* and

151 [87] *Apotex v. Merck* (2009 FCA 187 alendronate), at paragraphs 99 to 102.

the balance which the Patent Act seeks to achieve, a range of compensation was open to the Governor-in-Council in the exercise of this discretion.

[101] In this case, we have the advantage of knowing that in 1998 the Governor-in-Council focused on this very issue, and chose to limit the measure of the losses which can be compensated by way of damages to those suffered during the period. No issue of principle flows from this. The Governor-in-Council could have extended the measure of the losses to include those caused during the period, regardless of when they are suffered. However, it did not do that.

[102] The Governor-in-Council's clearly expressed intent must be given effect to. This excludes compensation for losses occurring in future years since such losses cannot be said to have been suffered during the period. It follows, for instance, that Apotex's entitlement to damages for lost sales resulting from the alleged decrease in its market share must be confined to sales that can be shown to have been lost within the period. In order to be compensated, the losses must be shown to have been incurred during the period.

This was further confirmed by the Court of Appeal in [89] *Teva v. Sanofi-Aventis* (2011 FCA 149 ramipril), where it held:¹⁵²

[2] Relying upon this Court's decision in *Apotex Inc. v. Merck & Co.*, 2009 FCA 187 ... a Prothonotary of

152 [89] *Teva v. Sanofi-Aventis* (2011 FCA 149 ramipril), at paragraphs 2, 3 and 6.

the Federal Court struck out the reference to the permanent loss of market share in paragraph 135 of the pleading, struck out paragraph 136 in its entirety and struck out the last two sentences of paragraph 143 of the pleading (2010 FC 150 (CanLII), 364 F.T.R. 122).

[3] On an appeal from that decision, a Judge of the Federal Court, in a de novo decision, agreed that the impugned portions of the counterclaim that referred to loss incurred after the period defined in section 8 of the *Regulations* should be struck out (2010 FC 1210, 88 (C.P.R. (4th) 465). On consent, an order issued reinstating portions of the counterclaim that had been struck out to the extent they referred to damages incurred within the statutory period. In the Judge's view, this Court's decision in *Merck* made it plain and obvious that the claim for loss of a permanent market share was hopeless and disclosed no reasonable cause of action. In the words of the Judge, a "second person may claim damages resulting from a loss of market share, but only for losses actually incurred within the period [of liability defined in subsection 8(1) of the *Regulations*]. Section 8 does not provide any entitlement to damages in respect of losses incurred outside the period."

[...]

[6] In *Merck* this Court neither overlooked a relevant statutory provision nor failed to have regard to a prior decision that ought to have been followed. The decision in *Merck* has not been shown to be manifestly wrong. The Judge made no error in its application to the pleading before her.

The *PM(NOC) Regulations* still exist for others

The court stated, in [88] *Apotex v. Merck* (2011 FCA 329 norfloxacin), that “it must be remembered that the Federal Court had to assess Apotex’s damages on the basis of a hypothetical question: what would have happened had Merck not brought an application for prohibition?”¹⁵³

In [94] *Teva v. Sanofi-Aventis* (2014 FCA 67 ramipril), the Court of Appeal elaborated further, stating, “My view, in summary, is that in the hypothetical world constructed for the purposes of determining section 8 damages, the *NOC Regulations* should not be assumed away except to the extent required by paragraph 8(1)(a), that is, for the purpose of determining the beginning of the section 8 liability period. For all other purposes, the *NOC Regulations* should be assumed to exist in the hypothetical world, and all steps that were actually taken under the *NOC Regulations* should be assumed to have been taken in the hypothetical world unless there is evidence upon which the trier of fact may reasonably conclude that different steps would have been taken.”¹⁵⁴

Similarly, in [95] *Apotex v. Sanofi-Aventis* (2014 FCA 68 ramipril, aff’d 2015 SCC 20), the Federal Court of Appeal agreed with the trial judge’s reason for rejecting the “open season methodology,” stating:¹⁵⁵

[156] Sanofi points out that the combined effect of the decisions of the Trial Judge in this case and in the *Teva Liability Judgment (FC)* is that the hypothetical market for the period December 13, 2005 to August 1, 2006 (the overlapping portion of the section 8 liability periods for Apotex and Teva) exceeds the size of the actual generic ramipril market.

153 [88] *Apotex v. Merck* (2011 FCA 329 norfloxacin), at paragraph 75.

154 [94] *Teva v. Sanofi-Aventis* (2014 FCA 67 ramipril), at paragraph 145.

155 [95] *Apotex v. Sanofi-Aventis* (2014 FCA 68 ramipril, aff’d 2015 SCC 20), at paragraphs 156 to 159.

As a result, according to Sanofi, its total liability to Apotex and Teva for section 8 damages is overstated. Sanofi argues that because this overstatement is the inevitable result of the methodology adopted by the Trial Judge for determining the characteristics of the hypothetical market, the methodology must be wrong in principle. Sanofi advocates a methodology in which each potential competitor is assumed to enter the hypothetical market free of the constraints of the *NOC Regulations* – I will refer to this as the “open season methodology”.

[157] The machinery of the *NOC Regulations* always takes time. She assumed that in the hypothetical world, the *NOC Regulations* exist and the competitors of a section 8 damages claimant would act as they did in the real world in relation to the *NOC Regulations*, except to the extent that there is evidence upon which the trier of fact can reasonably conclude that they would have acted differently. The open season methodology assumes the *NOC Regulations* away for the purpose of constructing the hypothetical market. For each claimant for section 8 damages, that would result in more competitors entering the hypothetical market at an earlier date than they could have done if the *NOC Regulations* were assumed to be in force. That would reduce the amount of the section 8 damages in every case in which the claimant has a potential competitor, and therefore it would reduce the aggregate liability of the first person (the innovator drug manufacturer, in this case Sanofi) in all such cases involving the same generic drug. That would undoubtedly be an advantage to the first person, but it

could be unfairly prejudicial to a particular claimant because it is not possible to determine whether the open season methodology necessarily would result in reasonable compensation to each claimant or to all claimants collectively.

[158] The Trial Judge rejected the open season methodology, largely because it is inconsistent with the requirement that each claim for section 8 damages must be determined on its own merits based on the evidence presented. She assumed that in the hypothetical world, the competitors of a section 8 damages claimant are bound by the *NOC Regulations*, and that those competitors would act as they did in the real world in relation to the *NOC Regulations* except to the extent that there is evidence upon which the trier of fact can reasonably conclude that they would have acted differently.

[159] I agree with the Trial Judge's reasons for rejecting the open season methodology. I would add that in my view, the methodology she adopted is more consistent with the language and purpose of the *NOC Regulations* than the open season methodology.

The fact-specific nature of the analysis as to the potential entry of other market participants in the but-for world was highlighted by the analysis undertaken by the Court of Appeal in *Apotex v. Sanofi-Aventis* (2014 FCA 68 ramipril, aff'd 2015 SCC 20), at paragraphs 174 to 188, which, for brevity, is not repeated here.

5



SECTION

Accounting of Profits

An accounting of profits awards the plaintiff the actual profits the defendant earned as a result of its use of the patented invention.

The Court of Appeal, in [59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524), provided the following summary of an accounting of profits:¹⁵⁶

An accounting of profits is an equitable remedy whose object is not to punish the infringer, but to prevent his unjust enrichment by compelling him to surrender those profits that were improperly made as a result of the infringement. When a plaintiff elects to take account of the profits made as a result of a patent infringement, it is the infringer, not the plaintiff, who is made accountable for the profits improperly obtained and who has to reveal and disgorge those profits. He has to account both for the profits and for their subsequent use as the plaintiff is entitled to both. The plaintiff need only prove the amount of revenue made from the acts of patent infringement. Where a defendant claims that part of the profits accounted for did not result from the infringement, the burden is on him to prove his right to apportionment and the absence of a causal link between that portion of the profits and the infringement.

The Court of Appeal in [61] *Beloit v. Valmet-Dominion* (1997 FCA CanLII 6342) provided the following history of the remedy of an accounting of profits:¹⁵⁷

The remedy of accounting has existed as an action at

156 [59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524).

157 [61] *Beloit v. Valmet-Dominion* (1997 FCA CanLII 6342).

common law since at least the year 1200, although originally it was limited to actions against bailiffs, guardians in socage or receivers. Prior to 1760, the Court of Chancery had concurrent jurisdiction with the common law courts to order an account in certain cases where such remedy was necessary to assert a legal right.

The equitable remedy of an account was granted against the infringer of a patent, copyright or trade mark, on the premise that the infringer acted as the agent of the owner of the right and was therefore obliged to account for the profits earned through the infringement. Accordingly, the owner of a patent who claimed an account of profits was considered to have condoned the infringement and could not claim damages in addition to the account. The House of Lords then determined that the plaintiff in an action for infringement of a patent, having succeeded, is entitled to an election either for damages or an account of profits. Since 1858, the remedy of accounting, therefore, continues to exist as an equitable remedy in patent infringement cases within the jurisdiction of courts vested with the authority to administer both law and equity.

[...]

It should be noticed that the U.S. Patent Act of 1836, which in all other respects is comparable to the Canadian Patent Act of 1869, makes no mention of an inspection or account. Based on the foregoing comparison, we infer that Parliament clearly intended to adopt the English law respecting the remedy of accounting in patent infringement cases.

We acknowledge that contemporary Canadian and English legislation differ in respect of the remedy of accounting for profits in patent infringement cases. Nonetheless, it is our view that the earlier English authorities, based on statutory provisions almost identical to Canadian legislation, are persuasive in interpreting the latter. Similarly, Australian jurisprudence is equally persuasive to the extent that the provision in the Australian Patent Act provides for the relief of accounting in an infringement action.

We reject the argument that English authorities respecting the remedy of accounting are of no assistance because the basis for the grant of patents in England was the Crown prerogative, but in Canada the grant and the remedies are statutory. In our view, the origin of the right to a patent remains one of prerogative even if it is merged in the statutory right.

In [60] *Lubrizol v. Imperial Oil* (1996 FCA CanLII 4095), the Court of Appeal further recognized Australian jurisprudence, stating:¹⁵⁸

A good overview of the nature, scope and principles governing the remedy of an account of profits may be found in the judgment of the High Court of Australia in *Dart Industries Inc v. Decor Corporation Pty Ltd*:

Damages and an account of profits are alternative remedies. An account of profits was a form of relief granted by equity whereas damages were originally a purely common law remedy. As Wind-

158 [60] *Lubrizol v. Imperial Oil* (1996 FCA CanLII 4095).

eyer J pointed out in *Colbeam Palmer Ltd v. Stock Affiliates Pty Ltd*, even now an account of profits retains its equitable characteristics in that a defendant is made to account for, and is then stripped of, profits which it has dishonestly made by the infringement and which it would be unconscionable for it to retain. An account of profits is confined to profits actually made, its purpose being not to punish the defendant but to prevent its unjust enrichment. The ordinary requirement of the principles of unjust enrichment that regard be paid to matters of substance rather than technical form is applicable.

In [44] *Varco v. Pason* (2013 FC 750), the Court elaborated on the objective of an accounting of profits:¹⁵⁹

[397] There are several objectives which are served by [an accounting of profits]. It restores the plaintiff to the position “but for” the infringement; it deprives the wrongdoer of its ill-gotten gains; it deters the defendant and, potentially as important, it deters others from infringement, both specifically and generally. On this last point, this remedy makes the “risk-reward” calculation of knowing (or ought to know) infringement more risk oriented and serves the purpose of preservation of the purposes of the Patent Act.

159 [44] *Varco v. Pason* (2013 FC 750), at paragraphs 397 and 398.

[398] The equitable remedy acts as a deterrence tool and a mechanism for restorative justice in the commercial world.

In [39] *Eurocopter v. Bell Helicopter* (2012 FC 113), the Court provided another benefit to an accounting of profits:¹⁶⁰

One advantage of the remedy of account of profits over damages is that it is available even where the claimant can prove no loss or where the wrongdoer has profited more than the patent-holder lost from the infringement. The objective of the award is to restore those actual profits to their rightful owner, the plaintiff, thereby eliminating whatever unjust enrichment has been procured by the defendant. It is, however, necessary to show some basis for the exercise of equity (Janssen-Ortho, above, at para 132).

In [71] *Bayer v. Cobalt/Apotex* (2016 FC 1192), the Court commented on the rights of the plaintiff as to electing between damages and an accounting of profits:¹⁶¹

[5] As an alternative to damages, the Court may award a successful plaintiff the equitable remedy of an accounting of profits (*Beloit Canada Ltd v Valmet-Dominion Inc*, [1997] 3 FC 497 at para 97). This jurisdiction is derived from ss 4 and 20 of the Federal Courts Act, RSC 1985, c F-7 and s 57(1) of the Patent Act.

160 [39] *Eurocopter v. Bell Helicopter* (2012 FC 113), at paragraph 409.

161 [71] *Bayer v. Cobalt/Apotex* (2016 FC 1192), at paragraphs 5 and 6.

[6] It is common practice in cases of patent infringement to allow a plaintiff to elect between damages and an accounting of profits (*AlliedSignal Inc v Du Pont Canada Inc*, [1995] FCJ No 744 (CA) at para 77). This practice, however, does not establish a right to an election. The award of an equitable remedy, such as an accounting of profits, is at the Court's discretion, subject to the principles governing its availability (*Strother v 3464920 Canada Inc*, 2007 SCC 24 at para 74; *Wewaykum Indian Band v Canada*, 2002 SCC 79 at para 107; *Apotex Inc v Bristol-Myers Squibb Co*, 2003 FCA 263 at para 14; *Philip Morris Products SA v Marlboro Canada Ltd*, 2016 FCA 55 at para 8).

For further discussion on the exercise of discretion to award the accounting of profits see [25] *Merck v. Apotex* (2006 FC 524 lisinopril, aff'd 2006 FCA 323), *Janssen-Ortho Inc. and Daiichi Pharmaceutical Co., Ltd. v. Novopharm Limited*, 2006 FC 1234, aff'd 2007 FCA 217, *Astrazeneca Canada Inc. v. Apotex Inc.*, 2015 FC 322, and *Uponor AB v. Heatlink Group Inc.*, 2016 FC 320.

In [117] *Bayer v. Apotex* (2018 FCA 32 drospirenone), the Court addressed the rights of the defendant to elect to provide an accounting of its profits and found that it did not have that right.

In *Wellcome v. Apotex* (1998 FC CanLII 8270), the Court commented on the respective burdens of the parties:¹⁶²

[48] The respective burdens of the parties is expressed in other words by Madam Justice Reed in *Diversified Products*:

162 [62] *Wellcome v. Apotex* (1998 FC CanLII 8270), at paragraph 48.

In establishing an infringer's profits, the plaintiff is required to prove only the defendant's sales; the burden then shifts to the defendant to prove the elements of cost to be deducted from the sales in arriving at profit. Any doubts as to the computation of costs or profits is to be resolved in favour of the plaintiff. At the same time, this does not mean that the infringer must prove expenses such as overhead and their relationship to the infringing product in minute detail. But the defendant bears the burden of explaining, at least in general terms, how claimed overhead costs actually contributed to the production of the infringing product.

5.1

NON-INFRINGEMENT ALTERNATIVES IN ACCOUNTING OF PROFITS

The Court of Appeal, in [59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524) stated that “[a]n accounting of profits is an equitable remedy whose object is not to punish the infringer, but to prevent his unjust enrichment by compelling him to surrender those profits that were improperly made as a result of the infringement.”¹⁶³

As will become apparent through the case law discussed below, in Canada there are two situations in which it is appropriate in an accounting

163 [59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524).

of profits to make deductions to the profits the defendant earned as a result of its infringement:

- Where an NIA exists that was available to the defendant such that the defendant could and would have made some, or all, of the sales that it in fact made had it not used the infringing feature, it is appropriate to deduct the profits that correspond to those sales from the quantum of an accounting of profits. We will refer to this scenario as a Traditional NIA; or
- Where the defendant, had it not used its manufacturing capacity to produce the infringing product, is able to demonstrate that it would have made sales of some other product and would have generated profits on the sale thereof, it is appropriate to deduct (at least) the fixed costs associated with that capacity from the quantum of an accounting of profits. While this could be thought of as an “alternative profit opportunity,” it is, in principle, an NIA, and the court in *Dow v. Nova* referred to it as an Indirect NIA.¹⁶⁴

The Court in [74] *Dow v. Nova* (2017 FC 350) described this latter scenario involving an Indirect NIA as follows:¹⁶⁵

[161] The Federal Court of Appeal has described Dart Industries as a “good overview of the nature, scope and principles governing the remedy of an account of profits” (Lubrizol at para 8). In Dart Industries, the High Court of Australia outlined the appropriate method to calculate profits equitably where overhead costs attributed to infringing products would otherwise be allocated to the manufacture or sale of other non-infringing products, and where the defendant could not apply what is known in Canada as the “differential profits”

164 [74] *Dow v. Nova* (2017 FC 350), at paragraphs 150 and 151.

165 [74] *Dow v. Nova* (2017 FC 350), at paragraph 161.

approach. The High Court stated that where a manufacturing plant was at full production capacity, it could be inferred by the evidence that if the defendant had not been manufacturing and marketing the infringing products, then the capacity used to make the infringing products would have been taken up with the manufacture and marketing of alternative products (Dart Industries at 113-14; see also *LED Builders Pty Ltd v Eagle Homes Pty Ltd*, [1999] FCA 584 at paras 157-65).

It is not clear what the Court meant by “and where the defendant could not apply what is known in Canada as the ‘differential profits’ approach.” Accordingly, while, as stated above, in principle this too is an NIA, the existence of an “alternative profit opportunity” has been incorporated into an accounting of profits through the deduction of additional costs; we discuss this further in Chapter 5.2. The remainder of this chapter is specific to Traditional NIAs.

While the findings of the Court in [69] *ADIR v. Apotex* (2015 FC 721 perindopril, reversed in part 2017 FCA 23) were reversed in part, the Court provided a comprehensive analysis of case law to that date in regard to Traditional NIAs.¹⁶⁶

[89] In [[59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524)], the Appeal division of the Federal Court found the plaintiff’s “pull back patent” was infringed when the defendant installed a gas pipeline under the St. Lawrence River. The “pull back patent” refers to a method of drilling and lining a hole, followed by pulling a liner back through the hole with a reamer as a production pipe is attached. In that case, the Court discussed the method

166 [69] *ADIR v. Apotex* (2015 FC 721 perindopril, reversed in part 2017 FCA 23), at paragraphs 89 to 95, 97 to 110 and 117 to 119.

for calculating the amount of profits to be disgorged as counsel argued the amount of profits is to be calculated as the difference between the actual profits earned and the profits that would have been earned through use of an alternative, non-infringing method that most likely would have been used by the infringer instead of the infringing method.

[90] The Court was not prepared to apply the hypothetical comparison, and was of the view that “one has to look at the profits that the appellant actually made through the infringing acts, not the profit that it would have made had he used a non-infringing method” (at para 21). On the facts of the case, which featured an important contract—failure to succeed in the undertaking meant no revenue at all, a “No Hole, No Pay” contract. It was the first time an installation of this nature was done over the distance stipulated. Apportionment of profits was rejected because the whole operation in the installation of the pipeline was found to infringe the patented method. It was clear that alternative methods, in comparison to the patented method, would not be reliable for the project of the kind undertaken.

[91] [[61] *Beloit v. Valmet-Dominion* (1997 FCA CanLII 6342)] concerned infringing press sections of four paper making machines. It was argued on appeal that because the paper machines were sold as package deals, no machines could have been sold whatsoever by the defendant if the infringing press sections were not included. Upholding the trial judge, the Federal Court of Appeal ruled that the plaintiffs were entitled to the profits only realized from the sale of the press

sections that infringed their patent. The judges emphasized that the question was one of fact. The evidence showed that the driving force for the purchases of the machines was not the press section but another component. The trial judge concluded that “the facts clearly show there were numerous reasons why the defendant was successful in its bid for the sale of those machines. None of them, in my view, are in any way related to the infringing press section” (at para 80). However, as there was still, to a certain extent, a connection strong enough between the profits earned and the press sections, the defendant was required to disgorge its profits realized from the sale of the press sections that infringed the plaintiff’s patent.

[92] In [[60] *Lubrizol v. Imperial Oil* (1996 FCA CanLII 4095)], the plaintiff’s patent was a type of additive or dispersant for motor oil. It was infringed by Imperial Oil’s production and sale of various brands of motor oil containing the patented additive. On appeal it was argued by Imperial Oil that it was entitled to apportion its profits on its sales as between those attributable to the infringing additive and those attributable to other factors like different additives or goodwill. The Court concluded that the motor oils may have achieved market share and profits for reasons other than the presence of the patented additive. As Lubrizol had not invented motor oil in its entirety, the Court concluded, “a finding that Imperial’s motor oils infringed the Lubrizol patent does not necessarily amount to a finding that all the profits from the sales of such motor oils are profits arising from the infringement” (para 10).

[93] In [[62] *Wellcome v. Apotex* (1998 FC Can-LII 8270)], the defendant Apotex manufactured and sold a combination drug with active components TMP and SMX in a ratio of 1:5. The TMP was found to contain TAA which was produced by the plaintiff's patented process. That meant TMP manufactured by using TAA as an intermediate was the infringing activity. One of the key issues in the case dealt with the extent of infringement and with the revenues earned by the defendant from its use of infringing TMP—whether some portions of Apotex's product, which contains some TAA in proportion, should be treated, in full, as containing infringing product.

[94] In the light of the specific facts of that case, both the “Differential profit” approach (which required the analysis of the best NIA) and apportionment were considered.

[95] Apotex had argued the most appropriate method was comparing actual profits with those that would have resulted from Apotex utilizing a non-infringing product available to it; non-infringing TMP, as available at the time, at the same cost as incurred in the use of the infringing TMP acquired by Apotex. Mackay J rejected the argument which he described as the “comparative approach”. It could not be established that Apotex knew or even that it could have known that some foreign suppliers may have used the patented process of the plaintiff (that is, TAA as an intermediate) to produce TMP and that others did not. There was no evidence Apotex knew at the time some TMP was produced without infringing the patent, nor that it had detailed knowledge of the meth-

ods of production of foreign manufacturers or its foreign suppliers from which it purchased the TMP.

[...]

[97] However, returning to the alternative scenarios more generally argued by Apotex, Mackay J said that all the possible bases for comparison were: “speculative, based on hypothetical courses of action that, even if they might have been followed by Apotex, were not followed. All ignore the issues of actual profits earned by Apotex which the remedy to account for profits is intended to capture, to compensate the plaintiffs for the unwarranted and unlawful infringements of their patent interests” (at para 37). Mackay J also held, citing *Reading & Bates*, that the acceptance of those arguments would undermine the *Patent Act*, RSC, 1985, c P-4.

[98] As regards apportionment, Mackay J states, at paragraph 57: “No case was referred to me concerning an accounting of profits from use of an infringing active ingredient used with another in a combination pharmaceutical product.” However, he was of the view that apportionment was appropriate and proceeded to apportion along lines of a ratio of 60% to 40%, as TMP was the more significant active ingredient of the combination drug and that profit from SMX also resulted from the defendant’s successful efforts to develop the generic combination product on the market.

[99] In [*Bayer Aktiengesellschaft v. Apotex Inc.* 2001 CanLII 28237 (ON SC)], the plaintiff was a

German company which had a patent for a capsule formulation of a compound known as Nifedipine. As stated by the Ontario Court of Appeal at the liability stage, “The patent is directed to a new dosage unit form for the coronary dilator, Nifedipine, being an instant oral-release compound and a method of its production.” (at para 5).

[100] Apotex was granted a licence to import, make and sell Nifedipine and its capsule in return for a royalty. Upon disagreement between the parties, the licence was terminated. The Court was of the view that Apotex infringed after the termination of the licence.

[101] At the remedy stage, Apotex argued that in the context of the accounting of profits, the sales of its capsule had nothing to do with the utility of the patented invention, namely the instant oral release function because when it obtained its regulatory approval, it was only for its administration of Nifedipine, “swallowed whole”. Apotex argued that only a small proportion of its profits was derived as a result of infringing the patent since only a small number of the Apo-Nifed capsules sold were actually used in a manner which took advantage of the patent. In the circumstances, Apotex urged the Court to apply the principle of apportionment.

[102] Upon review of the case law on apportionment and causation, (*Beloit, Lubrizol, Wellcome, Teledyne Industries, Reading & Bates*), the Court concluded that the defendant must identify non-infringing elements that had an impact on the marketability of the product. What actually did seem important appears

in the reasons at paragraph 25 [emphasis added]:

If the patent is with respect to the entire combination, the ability of the defendant's capsule to be bitten may have been relevant to the issue of infringement, but it is not relevant to the issue of apportionment. It having been determined that the defendant's product infringes the plaintiffs' patent, it is not open to the defendant to argue that a single aspect of the infringing product was not a factor in the marketability of that product. It may be that the defendant could have successfully marketed a product with features different from the plaintiffs'. The fact is that it did not. Since the plaintiffs' patent pertains to the whole of the plaintiffs' product, so too does the defendant's infringement. Any profits earned by the defendant on the sale of its infringing product are therefore properly viewed as the property of the plaintiffs. This is consistent with case law suggesting that the appropriation and sale of the plaintiffs' entire product does not lend itself to apportionment of profits: *Teledyne Industries Inc. v. Lido Industrial Products Ltd.*, *supra*; *Westinghouse Electric Manufacturing Co. v. Wagner Electric Manufacturing Co.*, *supra*.

[103] In [[64] *Monsanto v. Schmeiser* (2004 SCC 34)], the Supreme Court of Canada found that the “preferred means” of calculating an accounting of profits is a “differential approach”. The following two paragraphs state the relevant principles [emphasis added]:

101 It is settled law that the inventor is only entitled to that portion of the infringer’s profit which is causally attributable to the invention: *Lubrizol Corp. v. Imperial Oil Ltd.*, 1996 CanLII 4095 (FCA), [1997] 2 F.C. 3 (C.A.); *Celanese International Corp. v. BP Chemicals Ltd.*, [1999] R.P.C. 203 (Pat. Ct.), at para. 37. This is consistent with the general law on awarding non-punitive remedies: “[I]t is essential that the losses made good are only those which, on a common sense view of causation, were caused by the breach” (*Canson Enterprises Ltd. v. Boughton & Co.*, 1991 CanLII 52 (SCC), [1991] 3 S.C.R. 534, at p. 556, *per* McLachlin J. (as she then was), quoted with approval by Binnie J. for the Court in *Cadbury Schweppes Inc. v. FBI Foods Ltd.*, 1999 CanLII 705 (SCC), [1999] 1 S.C.R. 142, at para. 93).

102 The preferred means of calculating an accounting of profits is what has been termed the value-based or “differential profit” approach, where profits are allocated according to the value contributed to the defendant’s wares by

the patent: N. Siebrasse, “A Remedial Benefit-Based Approach to the Innocent-User Problem in the Patenting of Higher Life Forms” (2004), 20 *C.I.P.R.* 79. A comparison is to be made between the defendant’s profit attributable to the invention and his profit had he used the best non-infringing option: *Collette v. Lasnier* (1886), 1886 CanLII 54 (SCC), 13 S.C.R. 563, at p. 576, also referred to with approval in *Colonial Fastener Co. v. Lightning Fastener Co.*, 1936 CanLII 26 (SCC), [1937] S.C.R. 36.

[104] In that case, the defendant was found to have infringed Monsanto’s patented genes and cells. Canola cultivated from a seed containing Monsanto’s gene and cells survives if sprayed with Roundup. The idea is that Roundup could be sprayed after the canola plants have emerged, killing all weeds except the canola—avoiding the need to delay seeding to accommodate early weed spraying and use of other types of herbicides.

[105] At trial, it was found that Mr. Schmeiser saved, planted, harvested and sold the crop from plants containing the gene and plant cell patented by Monsanto. The Court concluded that on the facts before it, no causation could be found between the profits gained by Mr. Schmeiser and the cultivated Roundup-ready canola because no finding was made at trial that he sprayed Roundup herbicide to reduce the weeds. Therefore, Mr. Schmeiser made no profits as a result of the invention.

[106] In [[67] *Monsanto v. Rivett* (2010 FCA 207)], just as in *Schmeiser*, the defendants were found to have infringed Monsanto's "Glyphosate-Resistant Plants" patent. Mr. Rivett grew, harvested and sold soybeans which he knew contained genes and cells claimed by the patent. While the decision of Zinn J was overturned on a different issue, the Federal Court of Appeal was of the view that he had not erred in choosing the differential approach.

[107] Several important remarks are called for. The Federal Court of Appeal was of the view that pre-*Schmeiser* case law (*Teledyne, Reading & Bates, Wellcome and Bayer*) was unnecessary in determining the issue. In its view, an exercise in apportionment was not necessary nor possible because "there were no profits from infringement to oppose to those that were not caused by the infringement" (at para 36). As Monsanto did not invent soybeans, a differential profit approach had to properly account for this fact, affording Monsanto the portion of the profits which equals the "profit differential expected" of soybeans containing the patented gene when compared to conventional soybeans. The Federal Court of Appeal, at paragraph 37, endorsed Zinn J's reasons [emphasis added]:

"[t]he differential profit approach ... isolates and identifies the profit that was generated because of the patented invention. In short, it looks to those profits that result from the invention that is protected and eliminates those profits that may be earned but that have

no causal link to the invention. Profits that are made that are not attributable to the invention may be retained by the wrongdoer.”

[108] At paragraphs 39-41, the Federal Court of Appeal added that it did not read *Schmeiser* as closing the door “definitely” on other valuation methods better suited to a different set of facts for the trial judge. And, at paragraph 31, it implicitly suggested that unless a case is put before the court, showing a factual matrix materially different from the case at hand, the trial judge is not bound by any particular approach.

[109] In [[68] *Lundbeck v. Apotex* (2013 FC 192 **escitalopram**)], the patent at issue was known as the (+)-Citalopram compound, which is used for treating clinical depression. The patent claims the compound (sic) itself, as well as methods to make it and its non-toxic salts. Harrington J found the patent valid, and Apotex admitted that in the event the patent was found to be valid, in all respects it had been infringed. Harrington J granted Lundbeck’s (sic) election of an accounting of Apotex’s profits and addressed the remedy in the same reasons. The decision does not reproduce *verbatim* the submissions of the parties; yet, in the light of the methodology adopted by Harrington J in his reasons, including his discussion of expert testimonies and the case law, it can be said that the arguments raised in the present case echo those raised in *Lundbeck*.

[110] As regards the application of the “Differential profit” approach, Harrington J discussed the impact of the Supreme Court’s *Schmeiser* decision, particularly on the case before him, with only but a few sentences found in three paragraphs:

[281] In *Monsanto Canada v Schmeiser*, 2004 SCC 34 (CanLII), [2004] 1 SCR 902, [2004] SCJ No 29 (QL), Chief Justice McLachlin and Mr. Justice Fish, speaking for the majority, stated at paragraphs 100 and following that the accounting of profit remedy was based on “differential profits” and referred to an article by Professor Norman Siebrasse entitled “A Remedial Benefit-Based Approach to the Innocent-User Problem in the Patenting of Higher Life Forms” (2004), 20 C.I.P.R. 79. Professor Siebrasse was of the view that Canadian jurisprudence was somewhat inconsistent. He opined that the “differential profit” approach was clearly stated by the United States Supreme Court in *Mowry v Whitney*, 81 U.S. 620 (1871) at page 651:

The question to be determined in this case is, what advantage did the defendant derive from using the complainant’s invention over what he had in using other processes then

opened to the public and adequate to enable him to obtain an equally beneficial result.

[282] In *Monsanto*, the Court held that having elected for an accounting of profits, the plaintiff could not claim damages. Schmeiser had made no profit in the use of a patent relating to Canola in that he could have reached the same result without recourse to it.

[283] This case is quite different. The only active ingredient in the Apotex product was (+)-Citalopram and so it must turn over all profit less legitimate expenses incurred.

[...] ¹⁶⁷

[117] Finally, in [[44] *Varco v. Pason* 2013 FC 750)], the patent at issue covered the braking function in automatic drilling systems. The defendants had developed an AutoDriller adopting the same pressure parameters. They admitted that without these features of its AutoDriller, they would not have had the sales they did. Phelan J adopted in full the same principles and approach enunciated by Zinn J in *Rivett*. In my view, whatever causal issue which

¹⁶⁷ Note that paragraphs 111 to 116 are intentionally omitted, as these paragraphs discuss [43] *Merck v. Apotex* (2013 FC 751 lovastatin) and this judgment precedes the ruling of the Court of Appeal in [51] *Merck v. Apotex* (2015 FCA 171 lovastatin). Both of these cases relate to lost profit damages rather than to an accounting of profits, and are discussed in Chapter 3.4.

could have been foreseen to exist, was largely resolved by the admission made by the defendants that had they not infringed, it was most likely that they would not have sold any AutoDriller. The Court had found that there was no non-infringing option to use as a comparison.

[118] With respect, I am of the view that the Supreme Court did not make new law in *Schmeiser*, nor did it suggest that in an accounting of profits, courts are bound to always consider NIA products, options or scenarios, as fanciful as they may be. In my view, the Supreme Court simply reiterated that “the inventor is only entitled to that portion of the infringer’s profit which is causally attributable to the invention” (*Schmeiser*, at para 101). In other words, the “Preferential profit” (sic) approach is preferred over the actual profit approach when the latter would lead courts to order the infringer to disgorge its profits from its sales, whether or not the invention was only a portion or component of the good sold or used and whether or not the infringer’s profits were only partly attributable to the infringement.

[119] In that search for causation, courts have developed a variety of different formulas or used different terminologies, depending of the facts of each case, to simply decipher the use of the invention by the infringer and the extent in which this use contributed to the infringer’s gross revenues or profits. “Segregation” (as it was employed by the defendants in this case to discuss the indemnity and legal services provided for in the transfer price agreements), “Apportionment” and the “Differential profit approach”

are all reformulations of that same notion and they are concepts that attempt to capture causation. Tracing causation is a factual endeavour. In some cases, it could almost be as complex as the invention, and it will require factual or expert evidence. In other cases ... there is no need for a very sophisticated analysis of the causal relationship between the infringement and the infringer's profits. ...

The Court of Appeal, in *ADIR v. Apotex* (2017 FCA 23), made the following findings regarding the relevance of NIAs:¹⁶⁸

[25] I begin my analysis of Apotex' submissions by considering whether the Federal Court erred by rejecting the relevance at law of non-infringing perindopril for export sales. I then consider the Federal Court's assessment of the evidentiary record before it.

A. The legal relevance of non-infringing perindopril when calculating the profits earned by the defendants by reason of their infringing activities

[26] The starting point of this analysis must be the decision of the Supreme Court in *Schmeiser*, cited above at paragraph 19. In *Schmeiser*, the patentee sued the defendant for patent infringement and sought an accounting of the defendant's profits. In its analysis of the remedy claim, citing *Lubrizol Corp. v. Imperial Oil Ltd.*, [1997] 2 F.C.R. 3 (C.A.), 71 C.P.R. (3d) 26, the Supreme Court noted that it was settled law that a patentee is only entitled to that portion of the

168 [72] *ADIR v. Apotex* (2017 FCA 23 perindopril), at paragraphs 25 to 35.

infringer's profit that is causally attributable to the invention. The Court went on to explain that the preferred method of calculating an accounting of profits is the "differential profit" approach, 'where profits are allocated according to the value contributed to the defendant's wares by the patent'. Citing Professor Norman Siebrasse in "*A Remedial Benefit-Based Approach to the Innocent-User Problem in the Patenting of Higher Life Forms*" (2003) 20 C.I.P.R. 79 and its earlier decision *Collette v. Lasnier* (1886) 13 S.C.R. 563 at page 576, the Supreme Court explained that a "comparison is to be made between the defendant's profits attributable to the invention and his profit had he used the best non-infringing option".

[27] The need for a comparison between a defendant's profit attributable to the invention and the defendant's profit using the best non-infringing alternative is explained in the Siebrasse article cited by the Supreme Court. There, at page 92, Professor Siebrasse writes:

The differential profit approach looks to the profits causally attributable to the infringement, while the cost-based approach looks to the costs causally attributable to the infringement, and the whole profits approach and physically based apportionment more generally, looks to the physical changes causally attributable to the invention. The profits are clearly the correct criterion, for two reasons. First, the award is an award of profits, and the causal link must be be-

tween the award and the infringement.
Secondly, awarding profits according to
the value added by the patented inven-
tion and opposed to the proportionate
cost or physical size, is consonant with
fundamental nature of patents as *intel-*
lectual property. What is valuable is the
 intellectual contribution which is em-
 bodied in an invention, not the phys-
 ical contribution. It may be that even
 though the patented aspect is only a
 small part of the wares which are sold,
 either by physical proportion or by cost,
 the entire value of the wares is due to
 the patent. In such a case, which is not
 uncommon, the differential profit rule
 will allocate the entire profits to the pat-
 entee.

[Italics in the original]

[Underlining added]

[28] Servier argues that *Schmeiser* did not definitively preclude the use by a trial judge of other valuation methods, better suited to a different set of facts and that it was open to the Federal Court to proceed as it did. I acknowledge that in *Schmeiser* the Supreme Court referred to the differential profit approach as the “preferred means” of calculating an accounting of profits – not the only means. However, at bottom is the need to ensure that a patentee only receives that portion of the infringer’s profit that is causally attributable to the invention. In this circumstance,

I accept the submission of Apotex that the value of the invention can only be quantified if non-infringing alternatives are considered. This is so because the value of a patent lies in the ability of the patentee to exclude competitors and competition.

[29] Thus, Professor Thomas F. Cotter, an American scholar whose principal research and teaching interests are in the fields of domestic and international intellectual property law, antitrust law, and law and economics, wrote in *Comparative Patent Remedies: A Legal and Economic Analysis* (New York: Oxford University Press, 2013) at pages 189 to 190:

The problem with computing lost profits without considering the availability of noninfringing alternatives is that [...] this practice renders the patentee *better off* than she would have been in the absence of infringement. (Analogously, ignoring noninfringing substitutes when calculating defendant's profits renders defendants worse off than they would have been, but for the infringement.)

[Emphasis in the original]

[30] In this circumstance I conclude that the Federal Court erred in law by rejecting Apotex' argument that its profits should be calculated taking into account the availability of non-infringing perindopril for export sales and by failing to apply the differential profit approach.

[31] Before leaving this issue, I wish to deal with the three reasons given by the Federal Court for rejecting the relevance of non-infringing perindopril. Those reasons are summarized at paragraph 19 above.

[32] As I understand the reasons of the Federal Court, the first reason for rejecting the relevance of the non-infringing perindopril was that a non-infringing alternative cannot be the patented product itself. To the extent the Federal Court rejected the relevance of non-infringing perindopril because the defendant sold perindopril, this conclusion is inconsistent with *Schmeiser* where the Roundup Ready Canola sold by the defendant *Schmeiser* consisted entirely of the patented genes and the differential profit approach was nonetheless applied.

[33] Additionally on this point, the 196 Patent has no extraterritorial reach. Thus, perindopril may be manufactured in jurisdictions where it was never patented. It may also be manufactured in jurisdictions where *Servier* held a patent, but the patent has been invalidated or has expired. Ignoring perindopril manufactured in such jurisdictions when assessing *Apotex*' profit would give an extraterritorial reach to the 196 Patent.

[34] The second reason given by the Federal Court was policy based: considering a non-infringing alternative to be relevant would provide infringers with "a perfect shelter" against the consequences of their infringement. This argument was rejected by this Court in *Apotex Inc. v. Merck & Co. Inc.*, 2015 FCA 171, 387 D.L.R. (4th) 552 (*Lovastatin*) at para-

graph 71. While Lovastatin considered a claim for compensatory damages for patent infringement, the comments have equal application to an accounting for profits. In any event, policy reasons cannot trump the requirement that an infringer's disgorged profit must be only the profit which is causally attributable to the invention.

[35] The final reason given by the Federal Court, based upon the rejection of an argument in *Wellcome Foundation*, cannot stand for the reason that it is contrary to the application of the differential profit approach applied by the Supreme Court in *Schmeiser*.

5.2

EXPENSES TO BE DEDUCTED FROM REVENUES

An accounting of profits awards the plaintiff the actual profits the defendant earned as a result of its infringement.

As a general matter, profits are the residual after deducting costs or expenses from sales revenues. In an accounting of profits, the defendant's revenues reflect its actual revenues from sales of its infringing product, less the sales it would have made by way of an NIA. The defendant's costs and expenses reflect the incremental costs that it incurred in order to make those sales, typically comprising costs of goods sold; freight and distribution expenses; selling, general and administrative expenses; and any other expenses it incurred in making those infringing sales, less the costs and expenses that it would have incurred with selling an NIA (either Traditional or Indirect).

In many situations, the principles that inform whether an expense is

to be deducted from revenues, in both situations where an NIA exists and where one does not, are similar to the consideration as to whether an expense is deducted in computing lost profit damages. Accordingly, we refer the reader to Chapter 4.2.

Before reviewing the case law, which, in large part, reflects terminology used by the litigating parties (or their experts) in each case, to enable an understanding of the framework applied in each case, it is worth presenting a brief overview of accounting principles in general. To avoid repetition, we refer the reader to the description in Chapter 4.2, as the accounting concepts and principle of differential or incremental cost apply equally in damages and accounting of profits.

The objective of an accounting of profits is to prevent the defendant's unjust enrichment by compelling it to surrender those profits that were improperly made as a result of the infringement. Put another way, an accounting of profits is intended to put the infringer in the same economic position he would have been had he not infringed. This involves an analysis similar to that of evaluating an investment decision, except made with the benefit of hindsight. Consequently, from a costing perspective, determining which of the defendant's costs are to be considered in an accounting of profits is no different than the incremental profit approach used in management accounting for investment decisions.

The Court in *Monsanto v. Rivett* provided a commendable summary of the above:¹⁶⁹ (emphasis added)

Differential Cost Approach

[30] The differential cost approach involves no comparison or consideration of what might have been.

169 [66] *Monsanto v. Rivett* (2009 FC 317, aff'd 2010 FCA 207), at paragraphs 30 to 33.

The differential cost approach requires that the Court deduct from the gross revenue received by the infringer the variable or current expenses directly attributable to the infringement and any increased, fixed or capital expenses that are directly attributable to the infringement. Using this approach, the analysis required is as follows:

- a. What is the gross revenue the infringer received as a result of the infringement (the Gross Revenue)?
- b. Did the infringer incur any current expenses in infringing the patent; if so what is the total of those expenses (the Current Expenses)?
- c. Did the infringer incur any capital expenses directly related to infringing the patent; if so what is the total of those expenses (the Capital Expenses)?
- d. The amount to be paid over to the patentee is the Gross Revenue less the sum of the Current Expenses and the Capital Expenses.

[31] A current expense is one that usually reoccurs after a short period. In the context of this action, current expenses incurred in growing, harvesting, and selling a farm crop could include the expenses incurred in leasing land, hiring contractors to plant, cultivate and harvest the crop, costs incurred in purchasing fertilizers and herbicides, and the costs incurred in purchasing crop insurance. A capital expense generally gives

a lasting benefit or advantage. In the context of this action, capital expenses incurred in growing, harvesting, and selling a farm crop could include the expense of any machinery that was purchased specifically and only in order to plant, cultivate or harvest the crop. Where that capital expense has uses other than those directed to the patented invention, then it may be appropriate to deduct only a portion of the expense.

Full Cost Approach

[32] The full cost approach increases the deductible expenses in the differential cost approach by also deducting from the revenue earned the relevant portion of the common costs incurred by the infringer. In the context of this action, where the infringer is using a patented seed but is also growing, harvesting and selling other crops from conventional seed, he will have costs that are incurred as a consequence of his farming operations, such as general insurance on his buildings and equipment, capital depreciation of equipment, and expenses for water and electricity. Using the full costs approach, a portion of these common costs would be deducted from the revenue earned by the infringer.

[33] If the full cost approach has ever been endorsed by this Court, it has not been of late. It has been rejected in *Teledyne Industries Inc. et al. v. Lido Industrial Products Ltd.* (1982), 68 C.P.R. (2d) 204 (F.C.T.D.); *Diversified Products Corp. et al. v. Tye-Sil Corp. Ltd.* (1990), 30 C.P.R. (3d) 324, *aff'd* on this point (1990), 32 C.P.R. (3d) 385 (F.C.T.D.); *Hancor Ltd. et al. v. Les Systèmes de Drainage Modernes Inc.*

(1991), 38 C.P.R. (3d) 62 (F.C.T.D.); and *Wellcome Foundation Ltd. v. Apotex Inc.* (1998), 82 C.P.R. (3d) 466. Neither party advocated using the full cost approach in this case.

Incorporating the above, for purposes of considering costs, accounting of profits cases can be divided into three categories, as follows:

- Where no NIA exists:

$$\begin{aligned} \text{Incremental Profits} &= \text{Revenues from Infringement} \\ &\quad - \text{Differential Costs with Infringement} \end{aligned}$$

- Where an NIA exists:

$$\begin{aligned} \text{Incremental Profits} &= \text{Revenues from Infringement} \\ &\quad - \text{Differential Costs with Infringement} \\ &\quad \text{less} \\ &\quad \text{Revenues from NIA} \\ &\quad \quad - \text{Differential Costs with NIA} \end{aligned}$$

- Where the infringer is at full capacity and has alternative product opportunities:¹⁷⁰

$$\begin{aligned} \text{Profits} &= \text{Revenues from Infringement} \\ &\quad - \text{Differential Costs with Infringement} \\ &\quad - \text{Allocation of Relevant Fixed Costs} \end{aligned}$$

Given the above summary of accounting principles, we first review the case law on differential costs and, thereafter, the unique circumstance where the infringer is at full capacity and has alternative product opportunities, in which case an allocation of fixed costs is also required.

¹⁷⁰ But has not provided evidence of, or is not entitled to consider, the profit generated by those alternative product opportunities. See Chapter 5.1.

Differential Costs

In [57] *Teledyne v. Lido* (1982 FC 68):¹⁷¹

[209] The judgment obliges the defendant to account for the full amount of all revenue received from the use of the property. ... The amount so declared becomes payable to the rightful owner of the property and is subject to be reduced only by such bona fide expenses or disbursements as the infringer can by positive evidence establish as having been actually incurred.

[...]

...[214] [T]he infringer is entitled to deduct only those expenses, both variable and fixed, which actually contributed to the sums received and for which he is liable to account. It follows that no part or proportion of any expenditure which would have been incurred had the infringing operation not taken place, is to be considered as deductible.

In [62] *Wellcome v. Apotex* (1998 FC CanLII 8270):¹⁷²

[38] If the account of profits is to be determined by assessing actual profits earned, Apotex urges that costs to be deducted from revenues should include the full costs incurred in earning the revenues, including an allocation of a portion of the defendant's full fixed costs. That method was described at the hearing as the absorption method. It is said the absorption

171 [57] *Teledyne v. Lido* (1982 FC 68), at paragraphs 209 and 214.

172 [62] *Wellcome v. Apotex* (1998 FC CanLII 8270), at paragraphs 38, 40 to 42 and 49 to 53.

method has been accepted by the Supreme Court of the United States as the basis for determining profits.⁸ It is urged that is the appropriate method in this case, if an accounting is to be undertaken, since there is no dispute that Apotex, by its research and development, its acquisition of a Notice of Compliance to permit marketing its drug, its manufacturing and its sales promotion, was responsible for significant value added to the material cost, and thus for the revenues earned from sales of Apo-Sulfatrim.

[...]

[40] Not surprisingly, the accountants called as witness by each of the parties differed in their perceptions of the appropriate basis for considering costs. Mr. Rosen, for Apotex, favoured the absorption method and developed a scenario which allocated a portion of general costs to the expenses for Apo-Sulfatrim based upon production or sales ratios. Mr. Yule, for the plaintiffs, favouring the differential cost method, indicated that the full absorption method provides no realistic assessment of costs associated with the Sulfatrim product, or with the infringement by the defendant.

[41] In my opinion, no basis is established for using the full absorption method in this case. It is not to be accepted simply because Apotex is unable to establish from its records the costs directly associated with its development and sales of Apo-Sulfatrim. Mr. Rosen's proposals, based primarily on annual financial statements of Apotex for the years 1980 to 1991 are based on his estimates from incomplete data from Apotex.

They illustrate the method he supports but the Court has no real confidence that the figures adduced are relevant, or that the proposed bases of allocation of a portion of all fixed or general costs are appropriate, for considering the costs to be deducted from Apotex's revenues to determine its profits.

[42] The method for accounting of profits, here urged by the plaintiffs, is that followed in recent cases in this Court, known as the differential cost accounting method, sometimes referred to as the incremental approach. It is referred to by Madam Justice Reed in *Diversified Products*, thus:

... It is well established, since the decision of Mr. Justice Addy in *Teledyne Industries* ... that a differential or incremental approach is appropriate to determine an accounting of a defendant's profits in patent infringement cases.

The method provides for assessment of profits by calculation of the revenues derived from infringement less those variable and fixed costs which contributed to the sums received as revenues. No part or portion of any expenditure which would have been incurred had the infringing activity not taken place is to be considered deductible. In this approach only that portion of indirect costs or fixed costs that can fairly be attributable to the infringing activity is deductible, as opposed to the absorption or full cost approach which provides for allocation of a portion of all indirect or fixed costs to be attributed to that activity.

[...]

[49] For Apotex it is urged that there is no dispute that Apotex had to incur costs to earn revenues from infringing activity, and here some evidence of costs has been adduced. The defendant urges that the Court, as in an assessment of damages, must do the best it can, on the basis of evidence adduced, to assess the profits earned by Apotex. To do as the plaintiffs urge, to ignore whatever evidence there is of costs and to consider all revenues to be profits would result in unjust enrichment of the plaintiffs, in the view of the defendant. In cross-examination, Mr. Yule, the plaintiffs' accounting expert, acknowledged that expense must have been incurred by Apotex to earn the revenues to be accounted for, but there was no direct evidence of costs incurred except the late-produced invoice records for TMP purchases in 1980 to 1984.

[50] In my opinion, in the circumstances of this case, on the evidence adduced the following costs should be deducted as expenses from the revenues earned by Apotex from infringement.

(1) The direct variable material cost of the infringing TMP and SMX is to be deducted
--- calculated for

(i) TMP on the basis of the records produced by Apotex for purchases for the years 1980 to 1984, and thereafter on the costs of TMP for 1985 to 1990 based on the figures produced by Mr. Rosen from

the audit records in files of his firm, and production records of Apotex.

(ii) SMX on the basis that the cost per kg of SMX was half the cost per kg of TMP, and the ratio of 1 kg of TMP to 5 kg of SMX was used in the combination drug Apo-Sulfatrim.

(iii) No other material costs are established or allowed.

(2) The direct costs of production, including only a portion of the annual labour and factory overhead costs from Apotex' annual financial statements. The portion to be allocated shall be determined by calculating the proportion that total production units of infringing Sulfatrim product bears to total production units of all products of Apotex. The total production for all products is provided by Mr. Rosen's calculations, but the annual production of infringing TMP will have to be calculated. An allocation on this basis is a revision of the proposal by Mr. Rosen on behalf of Apotex, as part of his proposal for total absorption of costs. In my view, that basis provides a fair allocation of labour and factory overhead costs when related only to production of Apo-Sulfatrim containing infringing TMP as a proportion of total production units of Apotex.

(3) The direct costs of selling, including only an allocation of the following expenses, from Apotex' financial statements as classified within operating expenses in Mr. Rosen's report, relating to

advertising and promotion

bad debts

freight out

salesmen's salaries & commissions

telephone, telegraph and fax

travel

The annual allocation of the total of these expenses of selling should be based on a refinement of Mr. Rosen's proposal for a wider range of costs; specifically it is to be based upon the proportion of infringing Apo-Sulfatrim sales (in dollars) [not total sulfatrim sales] to total sales of Apotex products, on an annual basis.

[51] I include no allocation of Apotex' annual sales discounts, which Mr. Rosen's calculations included among other costs he would allocate. For purposes of determining profits on a differential cost basis, sales discounts, while shown as an expense in Apotex' annual financial statements, are not a cost to be deducted from revenues, unless in this case counsel are agreed that their agreed revenues were calculated on

a basis that included sales discounts within revenues. Only if that is the case, shall they be considered a part of the direct cost of selling, with the other categories of operating expense specified above.

[52] An allocation of the identified classes of Apotex' general expenses, calculated on an annual basis, I allow as deductions from revenues. There is evidence on which the annual cost of materials, i.e., of TMP and SMX, can be determined. An allocation of a share of labour and factory overhead based upon the production ratio directed, and an allocation of a share of the designated costs which appear to make a direct contribution to sales, and thus to revenues, based upon the sales ratio indicated, in my opinion are a fair indication of reasonable costs incurred by Apotex as a result of their infringing activity. Those costs would not have been incurred had the infringing activity not been undertaken and, in my opinion, they are to be considered as expenses incurred in earning the revenues from infringement. As such they are deductions from revenues in determining profits to be accounted for payment to the plaintiffs.

[53] In my opinion there is no evidence before me that would warrant inclusion of any other direct costs or any portion of other fixed costs in the range of costs here allowed to reduce the revenues earned by Apotex from its sales of Apo-Sulfatrim produced from infringing TMP.

In [64] *Monsanto v. Schmeiser* (2004 SC 34):¹⁷³

[102] The preferred means of calculating an accounting of profits is what has been termed the value-based or “differential profit” approach, where profits are allocated according to the value contributed to the defendant’s wares by the patent: N. Siebrasse, “A Remedial Benefit-Based Approach to the Innocent-User Problem in the Patenting of Higher Life Forms” (2004), 20 C.I.P.R. 79. A comparison is to be made between the defendant’s profit attributable to the invention and his profit had he used the best non-infringing option: *Collette v. Lasnier* (1886), 13 S.C.R. 563, at p. 576, also referred to with approval in *Colonial Fastener Co. v. Lightning Fastener Co.*, [1937] S.C.R. 36.

In [44] *Varco v. Pason* (2013 FC 750):¹⁷⁴

[416] As Justice Zinn held in Rivett, the proper approach in this type of circumstance is the “differential profit approach” which requires the Court to compare the profits made by the infringer that are attributable to the invention and the profits that the infringer would have made if he had used the best non-infringing option.

[417] This approach requires the Court to look at six (6) factors:

(1) Causal connection: there must be a causal connection between the profits made and the infringement;

173 [64] *Monsanto v. Schmeiser* (2004 SC 34), at paragraph 102.

174 [44] *Varco v. Pason* (2013 FC 750), at paragraphs 416 to 417.

- (2) Gross profits from infringement: this is based on calculating the gross revenues from infringement and deducting the incremental costs of earning that revenue;
- (3) Non-infringing option: whether such option exists;
- (4) Disgorgement: absent a non-infringing option, the gross profits as per (2) are paid to the patentee;
- (5) Gross profits from non-infringement: this factor is only relevant if there is a non-infringing option.
- (6) Disgorgement (net): this factor is only relevant where there is a difference between the gross profits of infringement and the gross profits of non-infringement.

In [68] *Lundbeck v. Apotex* (2013 FC 192 escitalopram):¹⁷⁵

[273] The concept is clear. Apotex and Apotex Pharmachem must account for the revenues generated by the sale of (+)-Citalopram. They are entitled to deduct therefrom expenses reasonably incurred in generating that revenue. The balance goes to Lundbeck. As so often happens, the devil is in the detail.

[...]

¹⁷⁵ [68] *Lundbeck v. Apotex* (2013 FC 192 escitalopram), at paragraphs 273 and 300 to 301.

[300] However, I am not prepared to allow indirect overhead, indirect quality assurance, fixed overhead, depreciation and rent. This appears to me to be very close to a full absorption method. In the decision of Mr. Justice MacKay, no breakdown was given between direct and indirect overhead, as has been done in this case. I am guided by the decision of Associate Chief Justice Thurlow in *Bentsen Line A/S v F.F. Soucy Inc*, [1978] FCJ No 815 (QL). That was a breach of a contract of affreightment case. The damages sought were the profits which would have been earned had the contract been performed. Damages were to be ascertained by calculation of the freight which would have been earned less the expenses to which the carrier would have been put in earning it, also taking into account mitigation of damages. The plaintiff's calculations were akin to what accountants would call a full absorption method in that its calculations included crew wages, insurance, maintenance, lubricants, and depreciation. The defendant only brought in as deductions items referable to earning the particular freight, such as loading and discharging expenses, bunkers and port expenses, the theory being that the other expenses were those which a shipowner had to bear regardless of any particular voyage. Associate Chief Justice Thurlow leaned more to the defendant, but differed somewhat from both.

[301] It seems to me that indirect overhead, indirect quality assurance, fixed overhead depreciation and rent are too remote to be referable to the manufacture of (+)-Citalopram and so I disallow them.

In [69] *ADIR v. Apotex* (2015 FC 721 perindopril, reversed in part 2017 FCA 23):¹⁷⁶

[68] The parties' expert, Dr. Rosen and Mr. Hamilton, agree that the following costs have to be deducted from the defendants gross revenues from the sales of perindopril:

- i) Those standard costs incurred in respect of manufacturing Apo-perindopril: raw materials, packaging materials, direct labour, set-up/clean-up, direct overhead and direct quality assurance;
- ii) Those standard costs incurred to sell Apo-perindopril: supply expenses, freight expenses, distribution expenses and commission expenses.

[69] However, they disagree as to other costs incurred by the defendants, but not directly attributable to perindopril. Those costs are: indirect overhead, indirect quality assurance, fixed overhead, depreciation, rent, freight related salary and benefits [Disputed costs].

[70] The Disputed costs are fixed in nature, in the sense that they do not vary with the level of activity or output.

[71] The defendants argue that the full absorption cost accounting, which includes a portion of the fixed costs, should be used because it properly reflects the

176 [69] *ADIR v. Apotex* (2014 FC 721 perindopril, reversed in part 2017 FCA 23), at paragraphs 68 to 77.

defendants' full business venture as a whole, including their manufacturing facilities, staff and overhead, which contribute to their revenue earning operations.

[72] On the other hand, the plaintiffs contend that variable cost accounting, also known as "incremental cost" or the "differential cost" method, should be applied. This method "requires that the Court deduct from the gross revenue received by the infringer the variable or current expenses directly attributable to the infringement and any increased, fixed or capital expenses that are directly attributable to the infringement" (*Rivett FC*, at para 30).

[73] Possibly, and exceptionally, a portion of fixed costs may be deducted, for example when it can be shown that they directly contribute to the production of the infringing product, or that some specific set of facts could, one day, justify the use of the full absorption cost in an accounting of profits. However, the facts of this case do not warrant this Court to depart from its jurisprudence (*Rivett FC*, at para 30; *Teledyne Industries, Inc v Lido Industrial Products Ltd*, [1982] FCJ No 1024 [*Teledyne*] at para 23; *Apotex Inc v Lundbeck A/S*, 2013 FC 192 (CanLII) [*Lundbeck*], at para 300; *Varco* at para 417).

[74] Mr. Rosen candidly admitted that he was aware of the trend developed by the jurisprudence of this Court – he testified on behalf of Apotex in *Lundbeck* and failed to convince my colleague Harrington J – but he remains convinced that the full absorption cost approach is the only one that should be applied when, as is the case for the defendants, the infringer

is in the business of challenging patents. Should the defendants lose (sic) all of their cases, says Mr. Rosen, they would never be permitted to deduct their fixed costs from the gross revenues to be disgorged in favour of the patentees. I find this argument to be somewhat weak. In addition, it was shown in this case that the production of perindopril tablets only represented approximately 1% of Apotex's total production during the 2004-2008 period (D-2, Tab-7). As a consequence, the defendant had sufficient revenues from sales of other products to absorb their fixed costs and indirect overhead.

[75] The defendants did not need to expand their plants to manufacture perindopril, nor did they have to purchase new machinery, engage new employees or subcontract any portion of the production of perindopril.

[76] On November 16, 2014, the defendants provided the plaintiffs with a document disclosing overtime costs incurred by Apotex in relation to "Distribution" and "Operations". Despite the plaintiffs' objection, production of that document was permitted during Mr. Fahner's testimony the next day (D-2, Tab-6). As conceded by Mr. Fahner, those overtime amounts are already included in Apotex's standard costs for "Operations" used by both experts, such that only the "Distribution" amount of \$4 million for the entire production should be considered. As the production of perindopril represents roughly 1% of Apotex's total production, we are talking here about a deduction of approximately \$40,000. In any event, I agree with the plaintiffs

that as the incremental cost of sales related to perindopril has been stipulated by the parties, the defendants are precluded from bringing some variances from that stipulation. The same could be said about utilities costs.

[77] Under those circumstances, I agree with Harrington J who held in Lundbeck that indirect overhead, indirect quality insurance, fixed overhead, depreciation and rent are too remote to be related to the production of perindopril (Lundbeck, at paras 300-301). They would have been incurred had the defendants manufactured perindopril or not.

Where the infringer is at full capacity and has alternative product opportunities

Where the defendant, had it not used its manufacturing capacity to produce the infringing product, is able to demonstrate that it would have made sales of some other product and generated profits on the sale thereof, the court has held it is appropriate to deduct the corresponding fixed costs from the quantum of an accounting of profits. While this could be thought of as an “alternative profit opportunity,” it is, in principle, an NIA (i.e., a non-infringing alternative to sales of the infringing product would be sales of some other product). Indeed, the Court, in *Dow v. Nova* referred to it as an Indirect NIA.¹⁷⁷

This issue was addressed at length by the Court in [74] *Dow v. Nova* (2017 FC 350). The reader is encouraged to read Chapter 5.1, as the principles set out in *Dow* are akin to those of computing profits using the differential method, in that both compare the profit that the infringer in fact made and the profit that it would have made had

177 [74] *Dow v. Nova* (2017 FC 350), at paragraphs 150 and 151.

it not infringed. The only exception is that, in these cases, the profit of the NIA is not adduced, but it is inferred by the Court that, at a minimum, that profit would have recovered the fixed costs that were otherwise associated with the infringing profit, and so those fixed costs are allowed as a deduction against the profits of the infringer.

Specifically, the Court in [74] *Dow v. Nova* (2017 FC 350) held that:¹⁷⁸ (emphasis added)

[141] The second dispute between the parties is whether capital costs or depreciation expenses should be applied against the relevant revenues.

[142] There are several recognized means of accounting for profits. These include the “differential profit” approach; the “variable cost”, “incremental cost” or “differential cost” approach; and the “full cost” or “absorption” approach. The choice of approach determines the allowable deductions, and whether the Court will consider NIAs.

[143] Under the differential profit approach, the profits that must be disgorged are those earned from the infringement less those profits that would have been earned had the infringer produced an NIA (*Rivett* at para 29). The Supreme Court of Canada has described this method as the “preferred approach” (*Schmeizer* (sic) at para 102; see *Apotex Inc v ADIR*, 2017 FCA 23 at para 28 [ADIR]). The NIA must be a true substitute or real alternative (*Apotex Inc v Merck & Co, Inc*, 2015 FCA 171 at para 73 [*Merck & Co*]):

178 [74] *Dow v. Nova* (2017 FC 350), at paragraphs 141 to 149, 158 and 160 to 165.

[144] Under the incremental cost approach, the profits to be disgorged are the applicable revenue less any variable costs attributable to the invention, and any increased fixed or capital costs attributable to the invention (*Rivett* at para 30).

[145] Under the full cost or absorption approach, the profits to be disgorged are the applicable revenue less applicable variable, fixed, and a proportion of certain fixed and capital costs (*Rivett* at para 32). Justice Zinn remarked in *Rivett* at paragraph 33 that “[i]f the full cost approach has ever been endorsed by this Court, it has not been of late”.

[146] In this reference, Nova concedes that there were no “direct non-infringing alternatives” available for the purpose of applying the “differential profits” approach. Furthermore, Nova says its incremental costs are negligible and to apply the “incremental cost” approach would be “manifestly inequitable”. Nevertheless, Nova argues that it should be permitted to deduct appropriate variable, fixed and capital costs because in the “but for” world, it would have produced what it calls “indirect non-infringing alternatives”.

[147] Nova submits that the test for deduction of fixed costs should be whether “an infringer would have manufactured or sold non-infringing products had it not infringed and would have incurred overheads in supporting that manufacture or sale”. In the alternative, Nova says that the PE2 plant operated at full capacity during the relevant time periods, always with a view to maximizing profit.

[148] Dow says that the full cost or absorption approach advocated by Nova has been repeatedly rejected by Canadian courts because fixed costs, which remain constant, are not causally attributable to the infringement. In the alternative, Dow says that Nova must prove the following before fixed and capital costs may be deducted: (i) Nova's manufacturing assets were operating at full capacity; (ii) there was sufficient demand to replace the production of infringing products with alternative products; and (iii) the resulting profits were sufficient to cover the fixed and capital costs in question. Dow says that Nova has failed to prove these conditions.

[149] According to Nova, if it had not made infringing SURPASS products, then it would have used the same PE2 plant capacity to manufacture and sell other products including, as a last resort, pail and crate grades. Nova also claims that it could have manufactured and sold a small volume of non-infringing SCLAIR products as substitutes for specific SURPASS grades used by certain customers. However, these amount to only 4% of the proposed NIAs. Nova says that the profits from all of these non-infringing sales would have been sufficient to cover the non-incremental fixed costs and capital costs allocated to infringing SURPASS products.

[...]

[158] I am satisfied that if Nova had not manufactured the infringing products, it would have worked assiduously to fill out the PE2 plant with other products: pail and crate or other resins that form part of

Nova's "product wheel". I am further satisfied that Nova would have sold these other products within North America or to Asian markets. It is important to bear in mind Justice Reed's observation in *Tye-Sil* that this category of evidence need not be proved in minute detail (at para 11). I have no doubt that the testimony offered by Nova's witnesses was derived from their direct knowledge and experience.

[...]

[160] Mr. Hamilton on behalf of Dow, and Mr. Soriano on behalf of Nova, agreed that if the PE2 plant could be shown to operate at full capacity, then a full cost or absorption approach would be the appropriate costing method from an accountant's perspective.

[161] The Federal Court of Appeal has described *Dart Industries* as a "good overview of the nature, scope and principles governing the remedy of an account of profits" (*Lubrizol* at para 8). In *Dart Industries*, the High Court of Australia outlined the appropriate method to calculate profits equitably where overhead costs attributed to infringing products would otherwise be allocated to the manufacture or sale of other non-infringing products, and where the defendant could not apply what is known in Canada as the "differential profits" approach. The High Court stated that where a manufacturing plant was at full production capacity, it could be inferred by the evidence that if the defendant had not been manufacturing and marketing the infringing products, then the capacity used to make the infringing products would have been taken up with the manufacture and

marketing of alternative products (*Dart Industries* at 113-14; see also *LED Builders Pty Ltd v Eagle Homes Pty Ltd*, [1999] FCA 584 at paras 157-65). The High Court articulated the underlying rationale for this approach as follows (*Dart Industries* at 114-15):

[T]here would be real inequity if a defendant were denied a deduction for the opportunity cost as well as being denied a deduction for the cost of the overheads which sustained the capacity that would have been utilized by an alternative product and that was in fact utilized by the infringing product. If both were denied, the defendant would be in a worse position than if it had made no use of the patented invention. The purpose of an account of profits is not to punish the defendant but to prevent its unjust enrichment.

Where the defendant has forgone the opportunity to manufacture and sell alternative products it will ordinarily be appropriate to attribute to the infringing product a proportion of those general overheads which would have sustained the opportunity. On the other hand, if no opportunity was forgone, and the overheads involved were costs which would have been incurred in any event, then it would not be appropriate to attribute the overheads to the infringing product. Otherwise the defendant would be in a better position than it would have been in if it had not infringed. It is not relevant that the product could not have been manufactured and sold

without these overheads. Nor is it relevant that absorption method accounting would attribute a proportion of the overheads to the infringing product. The equitable principle of an account of profits is not to compensate the plaintiff, nor to fix a fair price for the infringing product, but to prevent the unjust enrichment of the defendant.

[162] In *Hollister Incorporated v Medik Ostomy Supplies Limited*, [2012] EWCA Civ 1419, the Court of Appeal for England and Wales considered Dart Industries, and agreed that a condition precedent to the application of the full cost or absorption approach is that a business must run at full capacity (at paras 80-86; see also *Design & Display Ltd v OOO Abbot & Anor*, [2016] EWCA Civ 95 at paras 38-48).

[163] I do not read the Canadian jurisprudence as foreclosing the availability of the full cost or absorption approach in appropriate circumstances. The law governing the accounting of profits consistently warns against punitive awards. Given the circumstances of this case, particularly the distinct manufacturing model of the polyethylene business, it would be punitive not to permit Nova to deduct a proportion of certain fixed and capital costs from the revenues generated by sales of the infringing products.

[164] As the Supreme Court of Canada noted in *Schmeiser*, “[a] comparison is to be made between the defendant’s profit attributable to the invention and his profit had he used the best non-infringing option” (at para 102). The “best non-infringing option” has

generally been interpreted to mean a “true substitute” or “real alternative” (*Merck & Co* at paragraph 73). But appellate courts have frequently sought to reduce over-generous awards, including those that neglected to take into account alternative profits (*Schmeiser; Collette v Lasnier* (1886), 13 SCR 563 at 576; *ADIR* at para 30). The Federal Court of Appeal recently emphasized that “at bottom is the need to ensure that a patentee only receives that portion of the infringer’s profit that is causally attributable to the invention” (*ADIR* at para 28).

[165] I therefore conclude that Nova is permitted to deduct a proportional amount of the following costs against the applicable revenues during the period for which the accounting of profits applies: (i) annual capital depreciation expenses for the PE2 plant; (ii) salaries for employees working at the PE2 plant; (iii) overhead costs for the PE2 plant; (iv) ongoing capital costs for the PE2 plant; and (v) costs categorized by Nova as “Plant, Distribution, Sales & Marketing, Technical, Administration and Research and Development”, with the exception of costs related to Research and Development. In my view, each of these costs is properly attributed to the production and sale of the infringing products at the PE2 plant.

6



SECTION

Reasonable Royalty

Loosely stated, a royalty is a payment made to the owner of intellectual property in exchange for a license to make, use, or sell products that embody or use the intellectual property. In cases where the plaintiff did not suffer or cannot prove it suffered any losses as a result of the defendant's infringing use of the IP at issue, courts have typically awarded the plaintiff a reasonable royalty for the defendant's infringement (assuming the court has not awarded an accounting of profits).¹⁷⁹

The following Canadian cases summarize the application of a reasonable royalty to monetary remedies.

In [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464):¹⁸⁰

Where the patentee does not normally license use of its invention, it is entitled to the profits on the sales it would have made but for the presence of the infringing product in the market. For those sales made by the infringer that the patentee would not have made, the patentee is entitled to a reasonable royalty. [...] [W]here the patentee has licensed its invention in the past, it is 'almost a rule of law' to assess damages in terms of a reasonable royalty; i.e., according to what the infringer would have paid if it had entered into a legitimate licensing agreement with the patentee.

179 In the U.S., the statute for patent damages (35 U.S. Code § 284) states "Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court." In Canada, however, there is no statutory requirement that a reasonable royalty is a minimum damage award or floor.

180 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraphs 21 to 22.

In [29] *Jay-Lor v. Penta* (2007 FC 358):¹⁸¹

Where the patentee actually engages in the sale of its patented product and does not normally license use of its invention, it is entitled to the profits on the sales it would have made but for the presence of the infringing product in the market. For those sales made by the infringer that the patentee would not have made, the patentee is entitled to a reasonable royalty. [...] The award of a royalty, where the plaintiff cannot prove a lost sale, is recognition of the fact that every sale by an infringing party is an illegal transaction. [Internal citations omitted]

In [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending):¹⁸²

Lord Shaw observed in *Watson, Laidlaw & Co* that the fundamental principal of damages is restitution: “The idea is to restore the person who has sustained injury or loss to the condition in which he would have been had he not so sustained it.” Applying that principal to patent infringement, it was noted that there are two possible scenarios, and that they may both exist. In the first scenario, the patentee may establish that the infringer’s trade would have been his and that he is entitled to be put in the position he would have been had it been his trade. In the second scenario, the patentee cannot prove that the infringer’s trade would have been his, but he establishes that his property right (the patent) was breached. The patentee is entitled to a remedy for that breach. It was

181 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraph 119.

182 [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), at paragraph 19.

held that for such breaches he is entitled to a reasonable royalty, a form of rent, to compensate for the unauthorized use of the patentee's property.

The Court in [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefactor, appeal pending) held further:¹⁸³

[33] [...] I also agree with the submission of Apotex that damages for lost profits have been denied where the causal link between the infringement and the lost sales has not been established. Apotex brought examples to the court's attention where a patentee was denied recovery of its alleged lost profits on the sales made by the infringer because it was unable to prove that it would have made those sales, but for the infringing product being on the market. I summarize these examples as follows:

- (1) where the infringed patents are usually licensed by the patentee, the patentee's loss is limited to the royalty it usually charges: *AlliedSignal Inc v Du Pont Canada Inc* (1998), 78 CPR (3d) 129 [AlliedSignal] and *Meters Ltd v Metropolitan Gas Meters Ltd* (1911), 28 RPC 157 (CA);
- (2) where the infringing sales occur in markets where the patentee does not operate it is limited to recover only a reasonable royalty: *United Horse-Shoe & Nail*;

183 [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefactor, appeal pending), at paragraph 33.

- (3) where the patentee would not have made the infringing sales because it had ineffective distribution or marketing: *Hamilton v. Featherweight Aluminum* (1965), 47 CPR 40 (Ex Ct);
- (4) where the plaintiff would not have made the infringing sales because of customer dissatisfaction and its refusal to deal with the patentee: *AlliedSignal*; and
- (5) where there is a competitive market-place and it is shown that some of the infringing sales would have been made by a third party competitor: *Jay-Lor International Inc v Penta Farm Systems Ltd*, 2007 FC 358; 59 CPR (4th) 228 [*Jay-Lor*].

The foundational objective of a computation of monetary remedies is to restore a successful plaintiff to the financial condition in which it would have been had the defendant not infringed the plaintiff's intellectual property. This does not necessarily imply that the plaintiff is entitled to lost profits damages, because the plaintiff may not have (or cannot prove it has) actually lost any sales, suffered any price erosion or incurred any incremental costs as a result of the defendant's infringement.¹⁸⁴

184 The focus of Section 6 is a "reasonable royalty" in cases where either the plaintiff typically profited from its intellectual property through licensing only or the plaintiff did not (or cannot prove that it did) suffer any losses as a result of the defendant's infringement.

However, in U.S. case law, the court may award an "enhanced royalty" in lieu of a permanent injunction. For example, in [19] *Unilever v. Procter & Gamble* (1993 Fed. Cir.), the Court held that "in return for avoidance of an injunction now, it would be equitable for the defendants to enhance the damages payable by means of an increased rate of royalty from and after the date of these reasons." [19] *Unilever v. Procter & Gamble* (1993 Fed. Cir.), at 183.] The quantification of an "enhanced royalty" is beyond the scope of this book.

For example, if the plaintiff did not use (and would not have used) its intellectual property to manufacture, distribute or sell products that embodied the intellectual property at issue, and made use of its intellectual property through licensing only, then the plaintiff would not have suffered any lost profits on lost sales from the defendant's infringement. Even if the plaintiff was an active participant in the marketplace, the plaintiff may not have suffered any losses as a result of the defendant's infringement because the sales made by the defendant would not (or cannot be proven to) have been captured by the plaintiff in the but-for world.¹⁸⁵ This would be true if, for example, the plaintiff would not have had sufficient manufacturing, supply or distribution capacity to make those infringing sales. For example, the plaintiff may have (or would have) faced capacity constraints, or the defendant's sales were made in a market that was not (or could not be) serviced by the plaintiff's sales force.

Alternatively, there may have (or would have) been substitute products to which the defendant's customers would have turned instead of purchasing the product from the plaintiff. For example, there may have been competing products from independent, third-party suppliers already available in the marketplace at the time of the defendant's infringement; or the plaintiff may have licensed its IP to a third party, which was (or would have been) actively competing in the marketplace; or the defendant itself could have "designed around" the plaintiff's IP and entered the marketplace with an NIA.

Nevertheless, in cases such as these, the plaintiff has a right to compensation under the "user principle" even though it didn't suffer any but-for loss. As held by the UK House of Lords in [100] *Stoke-on-Trent*

185 We refer the reader to Section 2.4. There are instances where the plaintiff is active in the marketplace, its rights are proven to have been infringed and it is unable to prove damages, but the courts award nominal damages rather than a reasonable royalty.

City Council v. W. & J. Wass Ltd (1988 UK Court of Appeal):¹⁸⁶

It is an established principle concerning the assessment of damages that a person who has wrongfully used another's property without causing the latter any pecuniary loss may still be liable to that other for more than nominal damages. In general, he is liable to pay, as damages, a reasonable sum for the wrongful use he has made of the other's property. The law has reached this conclusion by giving to the concept of loss or damage in such a case a wider meaning than merely financial loss calculated by comparing the property owner's financial position after the wrongdoing with what it would have been had the wrongdoing never occurred. Furthermore, in such a case it is no answer for the wrongdoer to show that the property owner would probably not have used the property himself had the wrongdoer not done so.

In [3] *Electric Chain v. Art Metal Works* (1933 SCC S.C.R. 581), the Supreme Court of Canada held:¹⁸⁷

Here it is demonstrated that the patentees have lost no trade which they could have obtained. And under the cover of certain judicial dicta the infringers are entitled to say that the entire measure of the patentees damage is exhausted when restoration of the status quo ante has been obtained.

But in addition there remains that class of business which the respondents would not have done and in

186 [100] *Stoke-on-Trent City Council v. W. & J. Wass Ltd* (1988 UK Court of Appeal), at page 402.

187 [3] *Electric Chain v. Art Metal Works* (1933 SCC S.C.R. 581), at pages 590 to 591.

such cases it appears to me that the correct and full measure is only reached by adding that patentee is also entitled on the principle of price or hire to royalty for the unauthorized sale or use of every one of the infringing machines in market which the patentee if left to himself might not have reaches.

Indeed, as noted in [29] *Jay-Lor v. Penta* (2007 FC 358), “[e]very sale of an infringing product is an illegal transaction for which the plaintiff is entitled to recover damages.” Therefore, in situations such as the above, “[f]or those sales made by the defendant that the plaintiff patentee would not have made or cannot persuade the Court it would have made but for the presence of the infringing product, the plaintiff is entitled to a reasonable royalty.”¹⁸⁸

A reasonable royalty for the defendant’s infringement has often been quantified through a “hypothetical negotiation” framework. In [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), the Court held that a reasonable royalty is “that which the infringer would have had to pay if, instead of infringing the patent, [the infringer] had come to be licensed under the patent. [...] The test is what rate would result from negotiations between a willing licensor and a willing licensee.”¹⁸⁹ The Court in [29] *Jay-Lor v. Penta* (2007 FC 358) elaborated:¹⁹⁰

This notion is premised on the assumption that someone who wishes to use patented technology

188 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraph 123.

Notwithstanding the fact that the plaintiff may not have been “injured” by the defendant’s infringement in such cases, because intellectual property is seen as a property right, courts have held that where infringing sales occur that do not damage the plaintiff, the plaintiff is entitled to a reasonable royalty on those sales.

189 [23] *AlliedSignal v. du Pont Canada*, (1998 FC CanLII 7464), at paragraph 199.

190 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraph 119.

would normally have sought permission and been willing to pay a royalty for its use. The patentee, if prepared to license its invention, would then negotiate the terms of the licence, including the amount of royalty, with the intended licensee. The construct is obviously artificial in the sense that the infringer, in this case, did not make the choice to seek permission from the patentee when it began to use the patented technology in its own device. Assumptions on how parties might have negotiated must be made. However, licensing is a very common practice in the intellectual property field and has developed into an area of academic study. It appears that the methodology is well established and somewhat consistent. Accordingly, evidence of how parties negotiate licence agreements and the theory applicable to the negotiations is available. In other words, from studying what is happening in the real world of licensing practices and applying generally-accepted methodology to the known facts in a specific case, we can form an opinion as to what would have happened in hypothetical negotiations between the parties in this case.

That is, a reasonable royalty is the outcome of a hypothetical licensing negotiation between a willing licensor (the plaintiff) and a willing licensee (the defendant) that would have taken place in the but-for world where the defendant did not infringe and instead took a license from the plaintiff.

While the hypothetical licensing negotiation is designed to mimic real-world licensing negotiations, there is one particular feature of this framework that departs from a real-world negotiation. Specifically, in a real-world licensing negotiation, there is usually some uncertainty as to whether the IP is valid and will be infringed by the product at

issue, and this uncertainty would tend to lower the royalty from the negotiation. In contrast, precisely because a reasonable royalty is a remedy for IP infringement, the IP at issue is deemed in the hypothetical negotiation to be valid, enforceable and infringed by the product or service that is the subject of the litigation. For example, in assessing the relevance of royalty rates from existing licenses, the House of Lords of the United Kingdom in [9] *General Tire v. Firestone* (1976 UK House of Lords) held:¹⁹¹

Before a “going rate” of royalty can be taken as the basis on which an infringer should be held liable, it must be shown that the circumstances in which the going rate was paid are the same or at least comparable with those in which the patentee and the infringer are assumed to strike their bargain. To refer again to *Boyd v. Tootal* (ante): when it was argued that because numerous other persons had agreed to pay at the rate of 4/- per spindle the infringer should also pay at that rate (rather than at 7/- per spindle, which represented the normal profit), it was relevant to show that the rate of 4/- was negotiated by way of settlement of litigation in which the validity of the patent was in doubt. This was not the equivalent of that which the court had to assume: for that purpose the patent must be assumed to be valid. This line of argument is very relevant in the present case, for, as I shall show, the appellants adduced a great deal of evidence as to the royalties actually agreed by various licensees, and this was discarded, totally, by the learned judge and the Court of Appeal. They had every right to discard it if the bargains which led to these royalties being

191 [9] *General Tire v. Firestone* (1976 UK House of Lords), at page 213.

agreed were reached in circumstances differing from those which must be assumed when the court is attempting to fix a bargain as between patentee and infringer. [Emphasis added.]

This is consistent with the jurisprudence in the U.S., for example in [33] *Lucent v. Microsoft* (2009 Fed. Cir.), where the U.S. Court of Appeals for the Federal Circuit held:¹⁹²

The hypothetical negotiation tries, as best as possible, to recreate the *ex ante* licensing negotiation scenario and to describe the resulting agreement. In other words, if infringement had not occurred, willing parties would have executed a license agreement specifying a certain royalty payment scheme. The hypothetical negotiation also assumes that the asserted patent claims are valid and infringed. [Emphasis added.]

Royalties can take different forms, such as a “lump-sum royalty,” where a single payment is made by the licensee to the licensor, or a “running royalty,” where periodic payments are made by the licensee to the licensor over the term of the license.¹⁹³ In either case, a royalty is typically defined by two parts, the royalty base and the royalty rate. The royalty base is the item (e.g., entire product or smallest saleable component) and “value” (e.g., sales revenue, costs and profits) on which royalty payments will be based.

Where the royalty rate is a percentage of a royalty base, it is essential that the royalty rate be determined with reference to the royalty base.

¹⁹² [33] *Lucent v. Microsoft* (2009 Fed. Cir.), at 1325.

¹⁹³ See, for example, the discussion of this topic at [55] *Eurocopter v. Bell Helicopter* (2017 FC 170), at paragraph 116.

Each part can be important to the quantum of the total royalty due to the plaintiff. For example, the royalty at a fixed royalty rate, the total royalty will be larger if the royalty base (discussed in Chapter 6.3) is equal to the entire value of the plaintiff's product, as compared with the value of a smaller, saleable component.

Several approaches have been used to determine the reasonable royalty rate, such as quantifying it through the "anticipated profits approach" (discussed in Chapter 6.5) or through the "analytical approach" (discussed in Chapter 6.6), or by basing it on the rates from established or comparable licenses (discussed in Chapter 6.7).

While each chapter in this section addresses a different topic, many, if not all, chapters may be relevant to a computation due to the inter-relationships between, for example, the date of negotiation, the position of the negotiating parties, the royalty base and the royalty rate. Accordingly, for this section, we suggest that the reader read the entire section.

6.1

DATE OF THE NEGOTIATION

While the quantification of damages is undertaken *ex post* of the defendant's alleged infringement, calculating a reasonable royalty requires an assessment of what would have happened in the but-for world had the defendant obtained a license to the plaintiff's IP as of the date of the negotiation.¹⁹⁴

194 For example, in [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), the court defined a reasonable royalty rate as "that which the infringer would have had to pay if, instead of infringing the patent, [the infringer] had come to be licensed under the patent." [*AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraph 199 (internal citations omitted).]

For litigation involving infringement that has first occurred after patent issue, the courts have held that the framework for assessing a reasonable royalty is a one-time, hypothetical negotiation on the “eve of first infringement.” For litigation involving infringement that first occurred prior to patent issue, see Chapter 6.8.

In [43] *Merck v. Apotex* (2013 FC 751 lovastatin), the Court found:¹⁹⁵

[156] [...] In spite of the fact that Apotex’s infringement occurred in two different ways and at two different times [upon its own first use of the infringing AFI-1 process to manufacture API for its Apo-Lovastatin products on December 2, 1996, and its first import of infringing lovastatin API produced by Blue Treasure on March 1998], a one-time negotiation in November 1996 [the date of first infringement] covering all infringement is appropriate.

[157] Dr. Meyer [Merck’s expert] described a hypothetical negotiation “designed to mimic real-world licensing negotiations.” In her opinion, the date for such negotiation between the patentee and the infringer is a date just prior to the first act of infringement. The theory is that the infringer wishes to avoid all future acts of infringement by obtaining a licence for all such future acts of infringement. Dr. Meyer described how the one-time negotiation that would cover all future infringing use would have been “economically rational and efficient:”

Because this license would be assumed
to cover all future use there would

195 [43] *Merck v. Apotex* (2013 FC 751 lovastatin), at paragraphs 156 to 162.

be no need for any future licensing negotiations between the parties. Such an agreement would reduce the risk to either party of a change in future license terms, and, therefore, each party could make optimal business decisions based on this element of certainty. Furthermore, the parties would be able to avoid future transactions costs associated with renegotiating the license.

[158] Although assertively cross-examined on this point, Dr. Meyer consistently held to her view that a one-time negotiation would have been rational and consistent with the theories of reasonable royalty negotiations.

[159] I see no principled reason to depart from Dr. Meyer's proposed one-time negotiation in this case. The fact that there were, as described by Apotex, two periods of infringement or that only 60% of the lovastatin was, in fact, infringing does not change the underlying premise of the hypothetical negotiations. That key premise is that, by entering into the licensing agreement, an infringer avoids all future acts of infringement, no matter how such infringement might occur or no matter how much infringement might take place. With a licence in hand, Apotex could have made every single batch of Apo-lovastatin API using the AFI-1 process. It was not faced with the uncertainty of whether Blue Treasure would or would not use the infringing AFI-1 or non-infringing AFI-4 process. Apotex could have mixed its non-infringing API with infringing API without a care. In my mind,

there would have been economic efficiencies to be gained by a one-time licence.

[...]

[162] Apotex's position that each infringement is a separate tort is ultimately flawed. Taken to its illogical conclusion, one could ask: why not a separate negotiation for each of the 295 events of infringement? There is no principled reason to treat one of the acts of infringement any differently than another. The point of the hypothetical negotiation is to avoid all infringement, however and whenever it occurs. It follows that I reject the separation of the infringement into two parts. For negotiating purposes, there is but one infringement.

Similarly, in [55] *Eurocopter v. Bell Helicopter* (2017 FC 170):¹⁹⁶

[114] The hypothetical negotiation in question is one that would have taken place on the eve of first infringement. [...]

This is consistent with the treatment in the U.S. where the Federal Court of Appeal for the Federal Circuit in [18] *Wang Laboratories v. Toshiba* (1993 Fed. Cir.) held:¹⁹⁷

The district court awarded damages to Wang based on a stipulated total of infringing sales and a reasonable royalty rate of 2.75%, assuming hypothetical royalty negotiations to have occurred in January 1990, the date Wang gave notice to Toshiba and NEC that their

196 [55] *Eurocopter v. Bell Helicopter* (2017 FC 170), at paragraph 114.

197 [18] *Wang Laboratories v. Toshiba* (1993 Fed. Cir.), at 869 to 870 (internal citations omitted).

products infringed Wang's patents, rather than in April 1987, when the '605 patent issued. [...] Wang argues that negotiations should have been hypothesized at the start of infringement, *i.e.*, when both a patent had issued and accused products were sold. We agree. [...] When an established royalty does not exist, a court may determine a reasonable royalty based on 'hypothetical negotiations between willing licensor and willing licensee.' The key element in setting a reasonable royalty is the necessity for return to the date when the infringement began. In choosing the January 1990 date, the district court failed to follow our precedent. It is not illogical to hypothesize a negotiation at the time of notice. After all, an accused infringer may not know of the patents until notice is given. Nonetheless, this case is governed by the rule in *Fromson*, in which hypothetical negotiations were determined to have occurred when the infringement began, which was the date the patent issued, even though, under 35 U.S.C. § 286, the infringer was only liable for damages for the six years prior to the filing of the infringement action. In this case, infringing products were being sold on the date of issuance of the '605 patent. Therefore, under *Fromson*, hypothetical royalty negotiations should have been considered to have occurred on the patent issuance date. It is true that limitations may apply to the period for which damages may be recovered. [...] However, the court confused limitation on damages due to lack of notice with determination of the time when damages first began to accrue, and it is the latter which is controlling in a hypothetical royalty determination.

Nevertheless, courts in the U.S. have allowed for different dates to apply to acts of infringement that occurred at different times provided that later acts of infringement were separate and distinct from earlier acts of infringement.

In [27] *Applied Medical Resources v. U.S. Surgical* (2006 Fed. Cir.):¹⁹⁸

On appeal, U.S. Surgical argues that the district court erred in refusing to give collateral estoppel effect to the 7% reasonable royalty rate found by the jury in *Applied I* [a previous case between the parties]. U.S. Surgical contends that all of the requirements for application of collateral estoppel are satisfied because the reasonable royalty rate was actually litigated in *Applied I*, it was decided by a jury, and the jury's determination was essential to the district court's final judgment in *Applied II* [the case at bar]. U.S. Surgical maintains that the issue that the *Applied I* jury decided is the same issue presented in *Applied II*, and points out that both cases involved the same parties, the same patent, and the same type of product. In addition, according to U.S. Surgical, the infringement in *Applied II* is an uninterrupted continuation of the infringement in *Applied I*, and therefore the correct date of a hypothetical negotiation in *Applied II* is the 1994 time period used in *Applied I*, rather than 1997.

Applied responds that the court properly denied collateral estoppel effect to the 7% reasonable royalty rate found by the jury in *Applied I* because that determination was for infringing sales of Versaport I [the

198 [27] *Applied Medical Resources v. U.S. Surgical*, 435 F.3d 1356 (Fed. Cir. 2006), at 1360 to 1362.

prior iteration of the product at issue], and should not limit U.S. Surgical's liability for later infringing sales of Versaport II [the product at issue]. Applied contends that because the parties independently litigated infringement, willfulness, and damages for Versaport I and Versaport II, the products constitute separate infringements and require separate hypothetical negotiations to determine damages. According to Applied, the hypothetical negotiation relating to Versaport II involved market conditions that did not exist at the time of the 1994 hypothetical negotiation in *Applied I*, viz., increased demand for the patented product and decreased supply resulting from U.S. Surgical's enjoinder from making Versaport I.

[...]

Consistent with our precedent, reasonable royalty damages are not calculated in a vacuum without consideration of the infringement being redressed. We are required to identify the infringement requiring compensation, and evaluate damages based on a hypothetical negotiation at the time that infringement began, not an earlier one. Here, the issue of reasonable royalty damages in *Applied II* is not identical to the issue of reasonable royalty damages in *Applied I* because the infringements requiring compensation began at separate and distinct times. The infringement in *Applied II* was caused by sales of Versaport II, which began in 1997, whereas the infringement in *Applied I* was caused by sales of Versaport I, which began in 1994. Because Versaport I and Versaport II caused two separate infringements, and each infringement commenced on a different date, it follows

that the reasonable royalties may well be different from each other. Reasonable royalty damages for the infringement caused by Versaport II are tied to sales of Versaport II beginning in 1997. We cannot relate reasonable royalty damages for Versaport II sales back to a separate and past infringement caused by Versaport I sales beginning in 1994. Indeed, the issue of reasonable royalty damages for Versaport II sales could not have been and was not considered, much less decided, in *Applied I* because that product had not yet been determined to infringe. We conclude that the damages issues in *Applied I* and *Applied II* are not identical, and therefore the jury's award of reasonable royalty damages for infringing sales of Versaport I in *Applied I* does not preclude another jury's evaluation of reasonable royalty damages for infringing sales of Versaport II at a different time in *Applied II*.

In [35] *Boston Scientific v. Cordis* (2011 D. Del.):¹⁹⁹

The only dispute between the parties regarding the date of hypothetical negotiation turns on whether the infringement began in 1999, when the stent reflected in claim 36 of the '021 patent was first marketed in the United States, or whether the infringement began in September 2009, when the 2.25 mm Cypher stent presently at issue was first marketed in the United States. The court finds the Federal Circuit's decision in *Applied II* to be instructive in this regard. In *Applied II*, the patent infringer argued that the royalty rate should be identical to the royalty rate in a pre-

199 [35] *Boston Scientific v. Cordis* (2011 D. Del.), at 791 to 792.

vious infringement action involving related claims of the same patent due to the ‘uninterrupted continuation of the infringement.’ The Federal Circuit emphasized that two separate instances of infringement had occurred, concluding that ‘simply because the same company sold two different products which infringed a patent does not prevent the patentee from litigating and collecting separate damages for each infringement.’ The Federal Circuit explained that, because the sales of two different products caused two infringements beginning at different times, two separate hypothetical negotiation dates were required:

[T]he hypothetical negotiation relates to the date of first infringement. There is nothing to suggest that we should tie a hypothetical negotiation to a prior infringement no longer at issue. Here, the hypothetical negotiation date for infringing sales of Versaport II relates to the infringement caused by Versaport II sales beginning in 1997, not the past infringement caused by Versaport I sales beginning in 1994.

In the case at bar, it is undisputed that the 2.25 mm Cypher stent infringes claim 36 of the ‘021 patent for the same reasons that the Cypher and BX Velocity stents were found to infringe claim 36. However, the evidence overwhelmingly indicates that the 2.25 mm Cypher stent is distinct from the Cypher and BX Velocity stents previously marketed by Cordis. Specifically, BSC presented evidence in the form of FDA approval procedures, market structure for small

vessel stents and expert testimony to show that sales of the 2.25 mm Cypher stent constituted a separate act of infringement. Based on the evidence presented by BSC and Federal Circuit precedent, the court concludes that no genuine issues of material fact exist and, as a matter of law, the infringement caused by the 2.25 mm Cypher stent is separate and distinct from the infringement caused by the Cypher and BX Velocity stents previously marketed by Cordis.

6.2

POSITION OF THE NEGOTIATING PARTIES ON THE DATE OF THE NEGOTIATION

The hypothetical negotiation framework tries to recreate the licensing negotiation scenario that would have happened if the infringement had not occurred and the defendant instead entered into a license agreement with the plaintiff for the right to use the plaintiff's intellectual property.

Assessing the outcome from this hypothetical negotiation involves reconstructing the but-for world and accounting for all relevant marketplace factors that the parties would have considered at the negotiation. These include factors that would have likely affected the defendant's expectations of the profits it would earn had it taken a license, relative to those likely earned if it did not (e.g., and instead entered the market using the next best, commercially available NIA, to the extent one was available or anticipated), and the plaintiff's expectations of the profits it would have earned if it did grant the license relative to those likely earned if it did not (e.g., if it instead licensed its IP to a third party, to the extent another licensee was available).

While the quantum of a royalty will of course depend on the facts of the case, as a general matter, a hypothetical negotiation date that is early on in the life of the IP at issue will tend to lower the reasonable royalty because there will usually be greater uncertainty around the sales the defendant would make (and thus the value of the IP to the defendant) if it took a license, and the defendant may have to incur additional incremental costs (e.g., research and development costs) to commercialize the technology successfully. Conversely, a hypothetical negotiation date that occurs after the IP has been commercialized will tend to increase the reasonable royalty because the sales the defendant would make would be more certain, and any research and development costs would likely have been non-incremental, “sunk costs” by that time.

However, situations may arise where an earlier negotiation date may involve a time when neither party is aware of an NIA, while at a later date one may exist – and the existence of an NIA would tend to lower the reasonable royalty.

Likewise, there may be situations where, before commercializing its product, the defendant had expected to make substantial profits, but upon the defendant launching into the market, its sales (for one reason or another) fell flat. In this case, the royalty rate from a negotiation was the only information available, as the defendant’s value of the patent in these “rosy” forecasts would be higher than one where information on the defendant’s actual (lower) sales is also available.

The above examples speak to the heart of modeling the knowledge and position of the parties at the time of the hypothetical negotiation.

Several approaches have been developed to address this issue, such as the “*ex ante* approach” and the “book of wisdom approach,”²⁰⁰ as ex-

200 See also Chapter 7.2 regarding the use of hindsight.

plained by the Court in [55] *Eurocopter v. Bell Helicopter* (2017 FC 170):²⁰¹

[285] [...] Most frequently, in a “damages award”, to determine the maximum amount which the infringer would have paid and the patentee would have accepted, courts refer to a “pure *ex ante*” approach, based on whatever information would have been available to the parties. The conventional rationale for the *ex ante* approach is that it preserves the patent incentive system by ensuring that the patentee is no worse off (but also no better off) than it would have been, but for the infringement.

[286] As noted by the learned academic and author, Norman Siebrasse, “[t]he hypothetical negotiations which form the basis for the reasonable royalty take place before the patent is used, and so the price the willing licensee would pay would depend on the anticipated profit from the use of the patent”, and “[t]he fact that the benefit was not actually realized does not mean that the licensee would not have agreed to pay a royalty at the time of the initial use”. Accordingly, the reasonable royalty should be calculated on the basis of that anticipated profit. [...]

[...]

[290] Conversely, the *ex ante* approach can sometimes result in awards that reflect the parties’ erroneous “*ex ante*” expectations. In this context, Siebrasse proposes to explore a new Canadian perspective in the hypo-

201 [55] *Eurocopter v. Bell Helicopter* (2017 FC 170), at paragraphs 285 to 295.

thetic negotiation which is not far from the recourse in the United States to the “book of wisdom”: “[...] some commentators have proposed a ‘pure *ex post*’ approach which aspires to recreate the bargain the parties might have reached as of some later date, such as the date of judgment. This approach uses more accurate information about the technology’s actual value, but (contrary to sound innovation policy) it also would enable the patentee to capture some of the patent’s holdup value.”

[291] With respect to this *ex post* approach, the US Supreme Court, per Justice Cardozo, stated in *Sinclair Refining Co v Jenkins Petroleum Process Co* (1933), at 698: “[A] different situation is presented if years have gone by before the evidence is offered. Experience is then available to correct uncertain prophecy. Here is a book of wisdom that courts may not neglect. We find no rule of law that sets a clasp upon its pages, and forbids us to look within.”

[292] More recently, in Canadian jurisprudence, Justice Snider stated in *JayLor* at paragraph 151, that “[f]or purposes of the hypothetical negotiations, both parties are assumed to know all of the facts”, including “the actual financial information that has come available through [the] litigation and over time.” Similarly, in *Apotex Inc v Takeda Canada Inc*, 2013 FC 1237, at paragraph 21, Justice Phelan stated that: “The better approach is to mirror as much as possible real world circumstances – to use history as the basis of the calculation of the hypothetical world. In this case the parties start from the premise that real world events post Apotex’s NOC give the basis upon which to then work out what likely would have happened if Apotex had not been held back approximately one year.”

[293] [...] At this point, while this Court understands that it may make inferences based on post events, it cannot reconstruct the hypothetical negotiation taking place on the eve of first infringement in ignorance of the totality of the evidence (pre and post) on record. It may also be appropriate to have a reality check with actual profits made by the infringer where such evidence exists on the record. Such *ex post facto* evidence may be used to corroborate the calculations made by the experts with respect to anticipated profits on the eve of first infringement. But this recourse to the evidence is limited.

[294] Using “the actual financial information that has come available through [the] litigation and over time” (Jay-Lor at para 151) is one thing, but reconstructing the bargaining position of the parties, based on a predictive model tainted by questionable inferences made *ex post facto*, is another. A presumption is an inference drawn by the law or the Court from a known fact, while presumptions which are not established by law are left to the discretion of the Court which shall take only serious, precise, and concordant presumptions into consideration. Inferences must be grounded on evidence, but the evidence itself must be reliable. There is a fundamental element of uncertainty and chance in the real world. The fact that the farmer was able to catch the fox who had killed his chicken the week before does not mean that he will be able to do so in the future or that he would have done so a year earlier. The trier of fact would like to know more about the farmer’s various methods, his test and fail experiences, etc. before drawing any sort of conclusion.

[295] [...] It would simply be too easy to allow infringers of a valid patent, to retroactively rewrite history to escape their liability to pay damages by bringing out scenarios that were never considered or unrealistic on the eve of first infringement. This is not a policy statement, but an observation based on the rule of law and due process. The rules of evidence are there to protect the right of each party to fairly present their case before the Court. In the case at bar, Bell is claiming to have had NIA(s) that were not yet known (the Production gear) or had been earlier discarded (the I-Beam gear). This raises a question of credibility. This is where the evidence of Bell is unreliable and speculative. In other words, if a look into what transpired in the “real world” is acceptable to a certain point, it must not translate itself in some “hindsight bias”, which can be defined as the inclination, after an event has occurred, to see the event as having been predictable, despite there having little or no objective basis for predicting it.

As noted above, the phrase “book of wisdom” was coined in [4] *Sinclair Refining Co v. Jenkins Petroleum Process Co* (1933 USSC), where the U.S. Supreme Court held:²⁰²

The use that has been made of the patented device is a legitimate aid to the appraisal of the value of the patent at the time of the breach.

This is not a case where the recovery can be measured by the current prices of a market. A patent is a thing unique. There can be no contemporaneous sales to express the market value of an invention that derives from

202 [4] *Sinclair Refining Co v. Jenkins Petroleum Process Co* (1933 USSC), at 697 to 698.

its novelty its patentable quality. But the absence of market value does not mean that the offender shall go quit of liability altogether. The law will make the best appraisal that it can, summoning to its service whatever aids it can command. At times the only evidence available may be that supplied by testimony of experts as to the state of the art, the character of the improvement, and the probable increase of efficiency or saving of expense. This will generally be the case if the trial follows quickly after the issue of the patent. But a different situation is presented if years have gone by before the evidence is offered. Experience is then available to correct uncertain prophecy. Here is a book of wisdom that courts may not neglect. We find no rule of law that sets a clasp upon its pages, and forbids us to look within.

A book of wisdom approach was applied by the U.S. Court of Appeals for the Federal Circuit to the setting of a royalty rate in [24] *Harris Corp. v. Ericsson Inc.* (2005 Fed. Cir.):²⁰³

Bratic's reasonable royalty testimony presented the district court with two rates: a 1.75% rate that would have applied to a five-year license beginning on January 1, 1992, and a 0.5% renewal rate beginning on January 1, 1997. The district court's blended rate represents a middle ground between these two.

Harris argued at trial that *Wang* [in which the Court held that date of the hypothetical negotiation is the eve of first infringement] forecloses consideration of events occurring after the date of first infringement. The parties

203 [24] *Harris Corp. v. Ericsson Inc.* (2005 Fed. Cir.), at 1257 to 1258.

agree that the start date of infringement, if any, was January 1, 1992. Harris is now satisfied with the result of the district court's blending, even though it involves consideration of later negotiations, because it "does not exceed the maximum allowable recovery and should be sustained." However, to justify its characterization of 1.75% as the rate behind the "maximum allowable recovery," Harris continues to assert that *Wang* ties the royalty rate to the date of first infringement, regardless of subsequent events that would have occurred. Harris emphasizes this court's statement in *Wang* that "negotiations should have been hypothesized at the start of infringement, i.e., when both a patent had issued and accused products were sold."

Ericsson relies on the undisputed fact that the statutory damages period did not begin until it received notice of the patent on August 17, 1998. It contends that the pre-1997 royalty rate is irrelevant, because no damages were available during that period. According to Ericsson, nothing in *Wang* precludes reliance on events subsequent to a first hypothetical negotiation, so long as that negotiation is considered to have taken place on the date of first infringement.

We agree in part with the district court's analysis of our precedent on the effective date of a reasonable royalty. The court correctly understood *Wang* as mandating consideration of a hypothetical negotiation on the date of first infringement but not automatically excluding evidence of subsequent events. Where we part company with the district court is over the understanding that it is permissible to use a blended royalty rate when all of the infringement for which damages are available

took place after the lower rate would have come into effect. To the best of our knowledge, this issue is one of first impression for this court. We conclude that the rate to apply is the one that would have been in effect during the period for which damages are available. In reversing the district court's legal interpretation, we necessarily conclude that the court abused its discretion.

The highest royalty rate that the evidence supports for the 1998-2000 damages period is 0.5%, the rate at which Bratic testified the parties would have renewed their license in 1997. Assuming that the royalty rate did not depend on whether all four, or fewer than four, of the asserted claims were infringed—and nothing in the record leads us to believe that it did so depend—then 0.5% is the applicable royalty rate, should infringement be found on remand.

6.3

THE ROYALTY BASE

The royalty base is the item and “value” (e.g., sales revenue, costs and profits) on which royalty payments are to be calculated. In the real-world licenses, the royalty base can take on many different forms, including the licensee's (gross or net) unit sales, dollar sales or profits, and costs of the infringing product.

In [6] *The King v. Irving Air Chute* (1949 SCC), the Supreme Court of Canada held:²⁰⁴

That which is regarded as the most important factor in determining the compensation under the circumstances that here obtain is the value of the inventions as used in the parachutes. This must depend upon what advantage the incorporation of these inventions in parachute gives over those parachutes in which they are not embodied. The value of that advantage would be determined under normal conditions in the market “between willing licensor and willing licensee bargaining on equal terms.”

In the context of a reasonable royalty, issues around the royalty base typically revolve around whether the royalty base could be the “entire market value” of the product at issue or some smaller component. Specifically, the so-called “entire market value rule” dictates that a plaintiff can recover damages “based on the value of the entire apparatus containing several features, where the patent-related feature is the basis for customer demand.”²⁰⁵ Conversely, when the patented features of the product are not the “basis for customer demand,” in the vast majority of cases an apportionment of the value of the entire apparatus is required between the patented and unpatented features.

The jurisprudence on the entire market value rule is substantially more developed in U.S. case law than in Canadian case law, though its application has at times been inconsistent.

204 [6] *The King v. Irving Air Chute*, [1949] SCR 613 (SCC), at 629.

205 [15] *State Industries v. Mor-Flo* (1989 Fed. Cir.), at 1580.

In [14] *Rite-Hite v. Kelley* (1989 Fed. Cir.), Rite-Hite sought recovery of damages from Kelly's infringement of Rite-Hite's vehicle-restraint patent (which claimed an invention for securing a truck to a loading dock) based on sales of both patented vehicle restraints and dock levelers, which were not covered by the patent at issue. The U.S. Court of Appeals for the Federal Circuit noted that, in past cases:²⁰⁶

The entire market value rule has typically been applied to include in the compensation base unpatented components of a device when the unpatented and patented components are physically part of the same machine. However, in such cases, the unpatented and patented components together were considered to be components of a single assembly or parts of a complete machine, or they together constituted a functional unit. [The court ruled that the] facts of this case do not meet this requirement. The dock levelers operated to bridge the gap between a loading dock and a truck. The patented vehicle restraint operated to secure the rear of the truck to the loading dock. Although the two devices may have been used together, they did not function together to achieve one result and each could effectively have been used independently of each other. [...] These facts do not establish the functional relationship necessary to justify recovery under the entire market value rule.

In [31] *Cornell University v. Hewlett-Packard Co.* (2009 N.D.N.Y.), Cornell sought a reasonable royalty computed based on a royalty base

206 [14] *Rite-Hite v. Kelley* (1989 Fed. Cir.), at 1543 and 1549 to 1551.

that included not only Hewlett-Packard's revenues from sales of infringing processors, but also Hewlett-Packard's revenues from CPU bricks that were sold with infringing processes. The U.S. District Court for the Northern District of New York held that:²⁰⁷

The entire market value rule in the context of royalties requires adequate proof of three conditions: (1) the infringing components must be the basis for customer demand for the entire machine including the parts beyond the claimed invention; (2) the individual infringing and non-infringing components must be sold together so that they constitute a functional unit or are parts of a complete machine or single assembly of parts; and (3) the individual infringing and non-infringing components must be analogous to a single functioning unit. It is not enough that the infringing and non-infringing parts are sold together for mere business advantage. Notably, these requirements are additive, not alternative ways to demonstrate eligibility for application of the entire market value rule.

[...]

Nowhere does Cornell offer evidence that the claimed invention drove demand for Hewlett-Packard's CPU bricks. As Hewlett-Packard points out, it could have just as easily sold the accused processors in configurations other than CPU bricks. In fact, Hewlett-Packard did sell bricks with other processors and it sold more than 31,000 processors a la carte.

207 [31] *Cornell University v. Hewlett-Packard* (2009 N.D.N.Y.), at paragraphs 286 to 289.

[...]

Accordingly, this record contains no reasonable basis for finding that Cornell is entitled to the entire market value of Hewlett-Packard's CPU bricks or servers or workstations as a reasonable royalty base.

In [33] *Lucent v. Microsoft* (2009 Fed. Cir.), a jury had awarded Lucent damages for Microsoft's infringing use of Lucent's date-picker patent based on a reasonable royalty that used Microsoft's sales of Microsoft Outlook (among other software) as the royalty base. On appeal, Microsoft argued, among other things, "that the damages award must be reversed because the jury erroneously applied the entire market value rule."²⁰⁸ The U.S. Court of Appeals for the Federal Circuit held that:²⁰⁹

Assuming that the jury did apply the entire market value rule, such application would amount to legal error [primarily because] Lucent did not carry its evidentiary burden of proving that anyone purchased Outlook because of the patented method.

Nevertheless, the Court held that:²¹⁰

[...T]hough our law states certain mandatory conditions for applying the entire market value rule, courts must nevertheless be cognizant of a fundamental relationship between the entire market value rule and the calculation of a running royalty damages award. Simply put, the base used in a

208 [33] *Lucent v. Microsoft* (2009 Fed. Cir.), at 1336.

209 [33] *Lucent v. Microsoft* (2009 Fed. Cir.), at 1336 to 1338.

210 [33] *Lucent v. Microsoft* (2009 Fed. Cir.), at 1338 and 1339.

running royalty calculation can always be the value of the entire commercial embodiment, as long as the magnitude of the rate is within an acceptable range (as determined by the evidence).

[...]

Thus, even when the patented invention is a small component of a much larger commercial product, awarding a reasonable royalty based on either sale price or number of units sold can be economically justified.

In *Uniloc v. Microsoft* (2011 Fed. Cir.), Uniloc had sought damages for Microsoft's infringing use of Uniloc's software-registration patent based on a reasonable royalty that used Microsoft's sales of Microsoft Office and Microsoft Windows as the royalty base. On appeal, Microsoft argued, among other things, that "Uniloc's use of the entire market value rule [at trial] was not proper because it is undisputed that product activation did not create the basis for customer demand or substantially create the value of the component parts," while Uniloc argued that "the entire market value of the products may appropriately be admitted if the royalty rate is low enough."²¹¹ The U.S. Court of Appeals for the Federal Circuit held that:²¹²

The Supreme Court and this court's precedents do not allow consideration of the entire market value of accused products for minor patent improvements simply by asserting a low enough royalty rate.

211 [36] *Uniloc v. Microsoft* (2011 Fed. Cir.), at 1318 to 1319.

212 [36] *Uniloc v. Microsoft* (2011 Fed. Cir.), at 1320.

In [40] *LaserDynamics v. Quanta* (2012 Fed. Cir.), LaserDynamics had sought damages for Quanta's infringing use of LaserDynamics optical-disc discrimination patent based on a reasonable royalty that used Quanta's sales of laptop computers with optical disk drives as the royalty base. The U.S. Federal Court of Appeals for the Federal Circuit held that:²¹³

Where small elements of multi-component products are accused of infringement, calculating a royalty on the entire product carries a considerable risk that the patentee will be improperly compensated for non-infringing components of that product. Thus, it is generally required that royalties be based not on the entire product, but instead on the 'smallest salable patent-practicing unit.'

[...]

The entire market value rule is a narrow exception to this general rule. If it can be shown that the patented feature drives the demand for an entire multi-component product, a patentee may be awarded damages as a percentage of revenues or profits attributable to the entire product. In other words, the entire market value rule allows for the recovery of damages based on the value of an entire apparatus containing several features, when the feature patented constitutes the basis for customer demand. The entire market value rule is derived from Supreme Court precedent requiring that 'the patentee ... must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages

213 [40] *LaserDynamics v. Quanta* (2012 Fed. Cir.), at 67 to 68.

between the patented feature and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative.’ The Court explained that ‘the entire value of the whole machine, as a marketable article, [must be] properly and legally attributable to the patented feature.’ In effect, the entire market value rule acts as a check to ensure that the royalty damages being sought under 35 U.S.C. § 284 are in fact ‘reasonable’ in light of the technology at issue.

[...]

Importantly, the requirement to prove that the patented feature drives demand for the entire product may not be avoided by the use of a very small royalty rate.

[...]

We reaffirm that in any case involving multi-component products, patentees may not calculate damages based on sales of the entire product, as opposed to the smallest salable patent-practicing unit, without showing that the demand for the entire product is attributable to the patented feature.

In [48] *VirnetX v. Apple* (2014 Fed. Cir.), a jury trial awarded VirnetX damages for Apple’s infringing use of VirnetX’s intellectual property that covered aspects of Apple FaceTime based on a reasonable royalty on the profits associated with Apple iPhones with the Apple FaceTime feature. On appeal, Apple argued that the district court’s instructions to the jury “created a second exception that would allow a patentee to rely on the entire market value of a multicomponent product so long as that product is the smallest salable unit containing the patented fea-

ture.”²¹⁴ The U.S. Court of Appeals for the Federal Circuit held that:²¹⁵

To be sure, we have previously permitted patentees to base royalties on the ‘smallest salable patent-practicing unit.’ However, the [district court’s] instruction mistakenly suggests that when the smallest saleable unit is used as the royalty base, there is necessarily no further constraint on the selection of the base. That is wrong. For one thing, the fundamental concern about skewing the damages horizon—of using a base that misleadingly suggests an inappropriate range—does not disappear simply because the smallest saleable unit is used. Moreover, the smallest saleable unit approach was intended to produce a royalty base much more closely tied to the claimed invention than the entire market value of the accused products.

[...]

In other words, the requirement that a patentee identify damages associated with the smallest saleable patent-practicing unit is simply a step toward meeting the requirement of apportionment. Where the smallest saleable unit is, in fact, a multi-component product containing several non-infringing features with no relation to the patented feature (as VirnetX claims it was here), the patentee must do more to estimate what portion of the value of that product is attributable to the patented technology. To hold otherwise would permit the entire market value exception to swallow the rule of apportionment.”

214 [48] *VirnetX v. Apple* (2014 Fed. Cir.), at 1327.

215 [48] *VirnetX v. Apple* (2014 Fed. Cir.), at 1327 to 1328.

In [47] *Ericsson v. D-Link* (2014 Fed. Cir.), a jury awarded Ericsson damages for D-Link's infringing use of Ericsson's patents related to the 802.11(n) Wi-Fi standard, based on established license rates which were themselves tied to the entire value of the licensed products. On appeal, D-link argued that Ericsson should not have been allowed to base its damages calculation on the price of the end products. The U.S. Court of Appeals for the Federal Circuit held that:²¹⁶

Where multi-component products are involved, the governing rule is that the ultimate combination of royalty base and royalty rate must reflect the value attributable to the infringing features of the product, and no more.

[...]

When the accused infringing products have both patented and unpatented features, measuring this value requires a determination of the value added by such features. Indeed, apportionment is required even for non-royalty forms of damages: a jury must ultimately 'apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features' using 'reliable and tangible' evidence. Logically, an economist could do this in various ways—by careful selection of the royalty base to reflect the value added by the patented feature, where that differentiation is possible; by adjustment of the royalty rate so as to discount the value of a product's nonpatented features; or by a combination thereof. The essential requirement is that the ultimate reasonable royalty award must be based on the incremental value that the

216 [47] *Ericsson v. D-Link* (2014 Fed. Cir.), at 1226.

patented invention adds to the end product.

In [49] *Csiro v. Cisco Systems* (2015 Fed. Cir.), Cisco appealed the damages awarded by the district court for Cisco's infringing use of Csiro's patents related to the 802.11(n) Wi-Fi standard, arguing (among other things) that "the district court erred in not beginning its damages analysis with the wireless chip, which it found to be the smallest salable patent-practicing unit." The U.S. Court of Appeals for the Federal Circuit held that the:²¹⁷

[L]aw also recognizes that, under this apportionment principle, there may be more than one reliable method for estimating a reasonable royalty. This adaptability is necessary because different cases present different facts.

[...]

Recognizing that each case presents unique facts, we have developed certain principles to aid courts in determining when an expert's apportionment model is reliable. For example, the smallest salable patent-practicing unit principle provides that, where a damages model apportions from a royalty base, the model should use the smallest salable patent-practicing unit as the base.

[...]

In addition to the smallest salable patent-practicing unit principle, we have also explained that the entire market value rule is a narrow exception to this general rule derived from Supreme Court precedent in *Gar-*

217 [49] *Csiro v. Cisco Systems* (2015 Fed. Cir.), at 1301 to 1303.

retson. Under the entire market value rule, if a party can prove that the patented invention drives demand for the accused end product, it can rely on the end product's entire market value as the royalty base.

[...]

The rule Cisco advances — which would require all damages models to begin with the smallest salable patent-practicing unit — is untenable.

In Canada, the Court noted in obiter, in [51] *Arctic Cat v. BRP* (2016 FC 1047), that:²¹⁸

[420] There is not in this country jurisprudence similar to what has been developing in the United States in the last few years. The issue relates to the apportionment to arrive at a reasonable royalty, where the accused product consists of patented and unpatented elements. Thus, it is difficult to compare whole products where the benefits of the invention apply only to some elements.

In this case, Arctic Cat sought a reasonable royalty for BRP's allegedly infringing use of Arctic Cat's patent related to engine control modules and technology that improved the performance of direct injection engines for snowmobiles. The Court held:²¹⁹

[353] The burden of proof resides on the shoulders of the Plaintiff for the patentee must show by con-

218 [51] *Arctic Cat v. BRP* (2016 FC 1047), at paragraph 420.

219 [51] *Arctic Cat v. BRP* (2016 FC 1047), at paragraph 353.

For the interested reader, it would also be useful to review paragraphs 365 to 397 of the decision in *Arctic Cat v. BRP* (2016 FC 1047) where). There, the Court discusses in detail the reasons the various approaches, taken by the experts in the case, to the computation of a reasonable royalty did not meet the bar of basing compensation solely on features that can be attributed to the invention.

clusive evidence what the royalty rate should be. The difficulty in a case like this is of course that the commercial value of the invention is difficult to assess. Moreover, the Court must strive to compensate the claimed invention solely with respect to damages that can be attributed to the invention. It is therefore the burden of the Plaintiffs to give evidence that will separate from the profits realized by the infringer the damages that are as a result of the infringed invention. Where the invention is but one individual component of a multi-component product, the damages in the form of royalties must be in order to compensate the infringement of that individual component of the multi-component product that is captured by the invention. In effect, the royalty recognizes that the sales by the infringer are an illegal transaction which requires to be compensated. However, it is only the infringement that requires compensation.

6.4

THE ROYALTY RATE

Once the date of the negotiation (see Chapter 6.1) and position of the negotiating parties for purposes of the negotiation (see Chapter 6.2) have been determined, and the appropriate royalty base (see Chapter 6.3) has been established, various approaches exist to assessing the royalty rate that would emerge from a hypothetical licensing negotiation between the willing licensor (the plaintiff) and the willing licensee (the defendant) that would have taken place if the defendant were to not infringe and instead take a license from the plaintiff.

Each of these approaches seeks to compute a “sharing rule” – a way of splitting the parties’ joint net benefit (i.e., the defendant’s expected profits from taking a license less the plaintiff’s expected cost of granting a license) from licensing.²²⁰

- **Established royalty rates and comparable licenses** – this approach considers both past licenses by the plaintiff for the same, or similar, technology and royalty rates or “industry standard” licensing rates that third parties had agreed to in the past for comparable IP. These are discussed in Chapter 6.5;
- **Anticipated profits approach** – this approach quantifies the net incremental profit generated by the licensing (reflecting, as applicable, both the increase in profit to the defendant licensee as compared with its profits from an NIA and the negative effect on the profits of the plaintiff licensor), and bases a royalty on a hypothetical negotiation of how that benefit is to be shared. This is discussed in Chapter 6.6; and
- **Analytical approach** – this approach considers the difference between the profit margin that the defendant would have expected to earn with the benefit of the license and a normal profit margin. This is discussed in Chapter 6.7.

Under each of the above methods, there are factors that are commonly considered in assessing the appropriate adjustments to other licenses, or in assessing the appropriate relative profit sharing between the parties.

220 The benefits to the defendant from taking a license are the incremental profits it expects to make from using the plaintiff’s IP relative to the profits the defendant would earn from using the next best, commercially available NIA.

The costs to the plaintiff from granting a license include any profits it would expect to forgo (e.g., lost profits on lost unit sales or lost royalty revenues from other parties) and costs that it would incur from granting the license.

These factors were set out in [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464):²²¹

1. Transfer of technology.
2. Differences in the practice of the invention.
3. Exclusivity of the license.
4. Territorial limitations.
5. Term of the license.
6. Competitive technology.
7. Competition between licensor and licensee.
8. Demand for the product.
9. Novelty of the invention.
10. Compensation for research and development costs.
11. Displacement of business.
12. Capacity to meet market demand.

These factors are similar to the fifteen “Georgia-Pacific Factors” that the U.S. courts held should be considered in determining a reasonable royalty:²²²

1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
2. The rates paid by the licensee for the use of other patents comparable to the patent in suit.
3. The nature and scope of the license, as exclusive or non-exclusive, or as restricted or non-restricted, in terms of terri-

221 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraph 209.

222 [7] *Georgia-Pacific v. U.S. Plywood* (1970 S.D.N.Y.), at 1120.

tory or with respect to whom the manufactured product may be sold.

4. The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
5. The commercial relationship between the licensor and licensee, such as whether they are competitors in the same territory in the same line of business or are inventor and promoter.
6. The effect of selling the patented specialty in promoting sales of other products of the licensee, the existing value of the invention to the licensor as a generator of sales of his non-patented items and the extent of such derivative or convoyed sales.
7. The duration of the patent and the term of the license.
8. The established profitability of the product made under the patent, its commercial success and its current popularity.
9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.
10. The nature of the patented invention, the character of the commercial embodiment of it as owned and produced by the licensor, and the benefits to those who have used the invention.
11. The extent to which the infringer has made use of the invention, and any evidence probative of the value of that use.
12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable

businesses to allow for the use of the invention or analogous inventions.

13. The portion of the realizable profit that should be credited to the invention, as distinguished from non-patented elements, the manufacturing process, business risks or significant features or improvements added by the infringer.
14. The opinion testimony of qualified experts.
15. The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount that a prudent licensee – who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention – would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

In addition to the approaches described above, in the past, the courts have considered “rules of thumb,” either as the end result or as the starting point after which adjustments are made on account of the factors listed above.

For example, in [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464):²²³ (emphasis added)

[209] [...] the defendant’s expert, Mr. MacKillop, testified that in the technology industry generally, a reasonable royalty for patented technology would be approximately 25% to 33% of profit before tax.

223 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraphs 209, 211, 212, 214 and 215.

Mr. MacKillop then detailed a number of factors that would affect the specific percentage in each case [...]

[...]

[211] I am thankful to Mr. MacKillop for his helpful review of these factors. I found him to be a credible and persuasive witness, and I accept the principles as he stated them.

[212] Accordingly, having regard to all of the relevant circumstances and to the testimony of the two expert witnesses, I accept Mr. MacKillop's opinion that 25% of the plaintiff's profits is a reasonable royalty. [...]

[214] It is my opinion that the translation from a percentage of profits to a percentage of selling price should be made based on the profit margin of the product in issue using differential cost accounting principles.²²⁴ The parties agree that this is the appropriate method to calculate lost profits, and it would be unreasonable to have one profit margin for that issue and another for the question of royalty.

[215] I accept Mr. MacKillop's method of calculation, provided that one uses the appropriate figures for profit and selling price.[...]

In [29] *Jay-Lor v. Penta* (2007 F.C. 358):²²⁵

[137] [...] In *AlliedSignal*, the Court stated that a reasonable royalty for patented technology was be-

224 For further discussion on this topic, see Chapter 4.2.

225 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraphs 137 and 159.

tween 25% and 33.3% of the plaintiff's incremental profits before tax using differential cost accounting. Dr. Friedlander agreed that this royalty range applied to the manufactured goods market and is commonly considered without regard to the technology at issue. [...]

[...]

[159] Both Dr. Friedlander and Mr. Martindale accepted the range of 25% to 33.3% as an appropriate royalty (or sharing) range in this case. The question to be addressed is where in the range the royalty should be set on the “available indications” before me.

Until 2011, experts often used such a “rule of thumb.” One such rule of thumb was the so-called “25% rule,” which dictates that 25% of the profit from the sale of a patented product should go to the licensor and the other 75% should be kept by the licensee that manufactured and sold the product. Since 2011, the courts in both the U.S. and Canada have rejected this rule.

In [36] *Uniloc v. Microsoft* (2011 Fed. Cir.):²²⁶

This court now holds as a matter of Federal Circuit law that the 25 percent rule of thumb is a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical negotiation. Evidence relying on the 25 percent rule of thumb is thus inadmissible under Daubert and the Federal Rules of Evidence, because it fails to tie a reasonable royalty base to the facts of the case at issue.

226 [36] *Uniloc v. Microsoft* (2011 Fed. Cir.), at 1315 to 1318.

The patentee bears the burden of proving damages. To properly carry this burden, the patentee must sufficiently tie the expert testimony on damages to the facts of the case.

[...]

The 25 percent rule of thumb as an abstract and largely theoretical construct fails to satisfy this fundamental requirement. The rule does not say anything about a particular hypothetical negotiation or reasonable royalty involving any particular technology, industry, or party.

[...]

It is of no moment that the 25 percent rule of thumb is offered merely as a starting point to which the *Georgia-Pacific* factors are then applied to bring the rate up or down. Beginning from a fundamentally flawed premise and adjusting it based on legitimate considerations specific to the facts of the case nevertheless results in a fundamentally flawed conclusion.

[...]

To be admissible, expert testimony opining on a reasonable royalty rate must carefully tie proof of damages to the claimed invention's footprint in the market place. This court has sanctioned the use of the *Georgia-Pacific* factors to frame the reasonable royalty inquiry. Those factors properly tie the reasonable royalty calculation to the facts of the hypothetical negotiation at issue. [...] However, evidence

purporting to apply to these, and any other factors, must be tied to the relevant facts and circumstances of the particular case at issue and the hypothetical negotiations that would have taken place in light of those facts and circumstances at the relevant time.

In [44] *Varco v. Pason* (2013 FC 750):²²⁷

[391] [...] [A] significant part of Van Uden's evidence related to the royalty rate which should be used in the hypothetical negotiation of a royalty as a basis for a damages award. In that regard, Van Uden relied on a US theory that the starting point should be a 25% rate from which he discounted various factors to arrive at a "royalty rate".

[392] What was troubling is that Van Uden did not refer in his written or oral evidence to a decision of the United States Court of Appeals for the Federal Circuit, *Uniloc USA Inc et al v Microsoft Corporation*, which not just undercut, but destroyed this 25% rule. [...]

[393] It is not just that the 25% rule is not sustainable – a decision this Court would reach on its own – it is that the rule was a central plank in Van Uden's evidence, that he continued to rely on it in direct evidence. Only when challenged, did he acknowledge that the legal basis for the rule had been reversed. He knew about the decision; his counsel knew, opposing counsel knew (even this Court knew about the decision) but Van Uden failed to disclose

227 *Varco Canada Limited v. Pason Systems Corp.* (2013 FC 750.), at paragraphs 391 to 395.

this material fact until forced. He in fact hung on to the 25% rule even after its destruction in law.

[394] The absence of candor with this Court, the use of a legally infirm rule and the continued reliance on it, significantly impairs the witness' credibility and any weight which can be given to his evidence.

Another such rule is the Nash Bargaining Solution, an axiomatic solution proposed by John Nash to a formal, mathematical model of bargaining, which dictates that the "efficient" sharing rule would give each party its status quo profits (i.e., the profit each would earn from walking away from the bargain) plus an equal share of the total incremental benefit (i.e., total profits relative to the status quo) from reaching a bargain.²²⁸ In the context of a licensing negotiation, this would result in a royalty equal to 50% of the parties' combined incremental profits, i.e., the defendant's incremental profits from taking a license less the plaintiff's loss from granting the license. Put another way, the parties equally share the benefit.

Like the 25% rule, the Nash Bargaining Solution has been found to be arbitrary in the U.S. It has not been found as such in Canada, although the Federal Court of Canada has held that an application of the Nash Bargaining Solution must be tied to the relevant facts and circumstances of the case.

In [48] *VirnetX v. Apple* (2014 Fed. Cir.), the U.S. Court of Appeals for the Federal Circuit rejected the use of the Nash Bargaining Solution

228 Nash Jr., J. F. (1950). The Bargaining Problem. *Econometrica*, 18(2), 155-162.

Years after John Nash proposed his solution, economists showed that in a game theoretic model of strategic bargaining, if the parties to the bargaining problem have equal bargaining power, an equilibrium would be to equally split the incremental benefits of the bargain [see, e.g., Rubinstein, A. (1982). Perfect Equilibrium in a Bargaining Model. *Econometrica*, 50(1), 97-110.]

in quantifying a reasonable royalty for reasons similar to those it cited when it rejected the 25% rule:²²⁹

Having thus purported to determine those profits, [the plaintiff's expert Dr. Weinstein] then testified about how the parties would split those incremental profits. To do this, he began with the assumption that each party would take 50% of the incremental profits, invoking the Nash Bargaining Solution, and then adjusted that split based on "the relative bargaining power of the two entities."

Apple challenges both steps of Weinstein's analysis. First, Apple insists that Weinstein did not adequately isolate the incremental profits attributable to the patented technology [...]. And second, Apple argues that the invocation of a 50/50 starting point based on the Nash Bargaining Solution is akin to the "25 percent rule of thumb" that we rejected in *Uniloc* as being insufficiently grounded in the specific facts of the case. Because we agree with Apple on the second point, we need not reach the first.

In recent years, numerous district courts have confronted experts' invocations of the Nash Bargaining Solution as a model for reasonable royalty damages, with varying results.

For the reasons that follow, we agree with the courts that have rejected invocations of the Nash theorem without sufficiently establishing that the premises of the theorem actually apply to the facts of the case at

229 *VirnetX, Inc. v. Cisco Systems, Inc.*, 767 F.3d 1308 (Fed. Cir. 2014), at 1331 to 1334.

hand. The use here was just such an inappropriate “rule of thumb.”

[...]

The problem with Weinstein’s use of the Nash Bargaining Solution, though somewhat different, is related [to the problem with the 25% rule], and just as fatal to the soundness of the testimony. The Nash theorem arrives at a result that follows from a certain set of premises. It itself asserts nothing about what situations in the real world fit those premises. Anyone seeking to invoke the theorem as applicable to a particular situation must establish that fit, because the 50/50 profit-split result is proven by the theorem only on those premises. Weinstein did not do so. This was an essential failing in invoking the Solution. Moreover, we do not believe that the reliability of this methodology is saved by Weinstein’s attempts to account for the unique facts of the case in deviating from the 50/50 starting point. As we noted in *Uniloc*:

It is of no moment that the 25 percent rule of thumb is offered merely as a starting point to which the *Georgia-Pacific* factors are then applied to bring the rate up or down. Beginning from a fundamentally flawed premise and adjusting it based on legitimate considerations specific to the facts of the case nevertheless results in a fundamentally flawed conclusion.

[...]

We note that the Nash Bargaining Solution does offer at least one noticeable improvement over the 25% rule: where the 25% rule was applied to the entire profits associated with the allegedly infringing product, the Nash theory focuses only on the incremental profits earned by the infringer from the use of the asserted patents. But while we commend parties for using a theory that more appropriately (and narrowly) defines the universe of profits to be split, the suggestion that those profits be split on a 50/50 basis — even when adjusted to account for certain individual circumstances — is insufficiently tied to the facts of the case, and cannot be supported.

In [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending):²³⁰

A proper reasonable royalty rate, even under the Nash bargaining solution, must be arrived at by examining the relevant facts and circumstances of the situation at hand, as well as the character of the hypothetical negotiations that the parties would have engaged in at the relevant time considering those facts and circumstances. The relevant facts and circumstances include the availability of alternatives to the patented process, the relative bargaining strength of the parties, and the relationship between the parties. The creation of a legal fiction of a willing licensor and a willing licensee, in my view, does not demand that they be equally willing. One must inquire of each party how willing it is. Is this a marriage of equals or a shotgun wedding?

230 [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending), at paragraph 99.

6.5

ESTABLISHED ROYALTY RATES
AND COMPARABLE LICENSES

In *AlliedSignal Inc. v. du Pont Canada Inc.* ((1998) 78 C.P.R. (3d) 129), the Court held that “where the patentee has licensed its invention in the past, it is ‘almost a rule of law’ to assess damages in terms of a reasonable royalty [as opposed to a consideration of lost profits]; i.e., according to what the infringer would have paid if it had entered into a legitimate licensing agreement with the patentee.”²³¹

When the plaintiff has licensed its IP in the past, a reasonable royalty rate itself can, in certain circumstances, be determined either directly from or with reference to the licensing rates that the plaintiff has offered to previous licensees.

In *General Tire v. Firestone* (1976 UK House of Lords), the House of Lords of the United Kingdom held:²³²

Two classic cases under this heading are *Penn v. Jack* 14 L.T. 494, L.R. 5, Eq. 81 and *A.G. fur Autogene Aluminium Schweissung v. London Aluminium Co. Ltd.* (No.2) (1923) 40 R.P.C. 107. In *Penn v. Jack* the patentee was shown to have approached all users of the invention and to have successfully required the vast majority to pay him a royalty of 2/6d. per horse-power. The defendant was one of the few who refused and it was held that he should pay damages for infringement based on the accepted royalty rate on the basis that he might have expected to have got a licence

231 [23] *AlliedSignal v. du Pont Canada* (1998 FC CanLII 7464), at paragraphs 21 and 22.

232 [9] *General Tire v. Firestone* (1976 UK House of Lords), at pages 213 to 215.

at the same rate. The *Aluminium* case contains a clear statement by Sargent, J.:

... what has to be ascertained is that which the infringer would have had to pay if, instead of infringing the patent, he had come to be licensed under the patent. I do not mean by that that the successful patentee can ascribe any fancy sum which he says he might have charged, but in those cases where he has dealt with his property merely by way of licence, and there have been licences at certain definite rates, there *prima facie*, apart from any reason to the contrary, the price or royalty which has been arrived at by means of a free bargain between the patentee and the person desiring to use the patented article has been taken as being the price or royalty that presumably would have to be paid by the infringer. In doing that, it seems to me that the court is certainly not treating the infringer unduly harshly; he should at least, in my judgment, have to pay as much as he would in all probability have had to pay had he to deal with the patentee by way of free bargain in the way in which the other persons who took licences did in fact pay.

These are very useful guidelines, but the principle of them must not be misapplied.

[...]

The proper application [...] requires the judge assessing damages to take into account any licences actually granted and the rates of royalty fixed by them, to estimate their relevance and comparability, to apply them so far as he can to the bargain hypothetically to be made between the patentee and the infringer, and to the extent to which they do not provide a figure on which the damage can be measured, to consider any other evidence, according to its relevance and weight, upon which he can fix a rate of royalty which would have been agreed.

It is usually the case, however, that the plaintiff does not have any history of licensing the IP at issue. Nevertheless, the plaintiff or the defendant may have licensed or taken licenses to similar IP or IP related to products similar to the product at issue, or third parties in the relevant industry may have a history of licensing similar IP, and such “comparable licenses” from the relevant industry or “industry standard rates” can have probative value in assessing a reasonable royalty.

In considering royalty rates from the plaintiff’s historical licenses or from “comparable licenses,” it is important to assess whether those rates reflect the operating reality of the parties at the time of the hypothetical negotiation, including the time frame, market and competitive conditions, and outside options (e.g., an NIA) that would have existed at the time of the hypothetical negotiation between the plaintiff and the defendant. The *AlliedSignal* factors set out in Chapter 6.4, for example the term and exclusivity of the license, territorial limitations, availability of competitive technol-

ogy and whether the license involved a transfer of technology,²³³ would all be relevant in assessing whether the royalty rates from other licenses serve as valid benchmarks for the royalty from the hypothetical negotiation at issue.

Courts in Canada and the U.S. have offered judicial guidance on the use of established royalty rates and comparable licenses.

In *Jay-Lor v. Penta* (2007 FC 358) the Federal Court of Canada held:²³⁴

[127] One point that was raised was the use to be made of actual data on royalties. Mr. Martindale, an accounting expert produced by the Defendants, provided a chart containing information on seven royalties that he had located. Each of the arrangements was in respect of agricultural machinery [similar to the patent at issue]. The licensing agreements listed provided a range of licence royalties between 1% and 10% of sales. The information was obtained from a company called Royalty Source. Mr. Martindale described Royalty Source as “a company that tracks royalty rates and licence agreement transactions that are generally public in nature.” In his oral testimony, Mr. Martindale stated that:

The chart is a summary of the most relevant items. What I tried to do was marry the theoretical or the generally-accepted rule of thumbs, and in the late 1990s, early 2000s, on or about the infringement date, tried to establish what I might or what a reasonable person would try to

233 *AlliedSignal v. du Pont Canada* (1998 78 C.P.R. (3d) 129), at paragraph 209.

234 *Jay-Lor International Inc. v. Penta Farm Systems Ltd* (2007 FC 358), at paragraph 119.

gain as background information prior to going into a hypothetical or real negotiation. [...]

[128] At first blush, there is some attraction to using this information to assist the Court in reaching a reasonable royalty. Why not use real world data or industry norms? Unfortunately, in my view, the information in this chart is not useful. The problem with these data is that they are lacking in important details. Under cross-examination, Mr. Martindale acknowledged that he did not know:

- The market conditions that drove these concluded arrangements;
- What business the licensor was in;
- What different products the licensor sells;
- Whether the licensor and licensee are competitors or related companies;
- The term of the patents; and
- Whether the market is growing or shrinking.

[129] Also during cross examination, Mr. Martindale agreed that it would be incorrect “to rely on market transactions without adequate background to be the sole indicator of a royalty rate”. In his view, these royalty rates could be used as a “sanity check or to support other methodologies”. I agree with this assessment of the minimal usefulness of this information. It may provide a “sanity check”. Even then, it appears to me that one should prefer the results that are based on the application of a generally accepted methodology to the specific facts of the case at hand. Absent the relevant facts listed

above, there is little use that can or should be made of the data in the Royalty Source information bank.

Similarly, in the U.S. in [20] *Mobil v. Amoco* (1994 D. Del.), the District Court for the District of Delaware held that:²³⁵

In order for a patentee's negotiated royalties to constitute an "established" royalty they must meet five criteria:

1. they must be paid or secured before the infringement began;
2. they must be paid by a sufficient number of persons to indicate the reasonableness of the rate;
3. they must be uniform in amount;
4. they must not have been paid under threat of suit or in settlement of litigation; and
5. they must be for comparable rights or activity under the patent.

In [30] *Monsanto v. McFarling* (2007 Fed. Cir.), defendant McFarling challenged the royalty of \$40 per bag of seed awarded to Monsanto by a jury, arguing that it should have been limited to the "established royalty" of \$6.50 per bag that Monsanto charged licensees that purchased Roundup Ready seeds under its Technology Agreement. The U.S. Court of Appeals for the Federal Circuit held:²³⁶

An established royalty is usually the best measure of a "reasonable" royalty for a given use of an invention because

235 [20] *Mobil v. Amoco* (1994 D. Del.), at 1342.

236 *Monsanto Co. v. McFarling*, 488 F3d 973 (Fed. Cir. 2007).

it removes the need to guess at the terms to which parties would hypothetically agree. When the patentee has consistently licensed others to engage in conduct comparable to the defendant's at a uniform royalty, that royalty is taken as established and indicates the terms upon which the patentee would have licensed the defendant's use of the invention.

Monsanto has consistently licensed farmers to use its Roundup Ready technology pursuant to the terms of a standard license agreement. For the relevant years, Monsanto agreed to let soybean farmers use the patented traits in planting and growing soybean crops and to let them sell the harvested seeds as a commodity. In exchange, farmers agreed to pay Monsanto a Technology Fee and to refrain from planting Roundup Ready seed saved from a previous season's crop and from selling Roundup Ready seed from their crop to others for planting. Those promises ensured that the farmers had to purchase the Roundup Ready seed they planted in a given year from an authorized distributor. The distributor seed companies, some of which were owned by Monsanto and some of which were independent, also charged a fee for each bag of Roundup Ready soybeans they sold.

Mr. McFarling's infringing conduct consisted of planting patent-protected seeds in 1999 and 2000 without purchasing them from a seed company licensed or owned by Monsanto. Because Mr. McFarling neither paid Monsanto the Technology Fee nor purchased the Roundup Ready seed from an authorized distributor, the value to Monsanto of both performances provides one measure of the 'reasonable royalty for the use made of the invention

by the infringer.’ The parties agree that the amount of the Technology Fee was \$6.50 per 50-pound bag of Round-up Ready soybean seed for the pertinent years, 1999 and 2000. Because that fee does not take into account the added obligation imposed on all authorized licensees under the Technology Agreement — to purchase seed from an authorized seed store — the trial court was correct to refuse to treat the \$6.50 Technology Fee as the established royalty for a license comparable to the infringing conduct.

Monsanto in effect decided that under its standard licensing program it would extract \$6.50 in direct payment and would also extract an undertaking to buy seed from a seed company, which imposed an additional cost of \$19 to \$22 per bag on the farmers. The fact that Monsanto elected to allocate its licensing fees by obtaining a direct payment of \$6.50 and ensuring a payment to the seed companies of another \$19 to \$22 does not mean that the royalty for its standard license was only \$6.50. It means that, for a variety of economic reasons, Monsanto decided to split the royalty up into two parts and to direct part of the royalty to the third-party seed companies, which promoted and distributed Monsanto’s products. The out-of-pocket cost that the farmers paid for the right to use Monsanto’s technology was thus \$25.50 to \$28.50. In effect, the amount of that cost that can be characterized as a pure royalty payment was \$25.50 to \$28.50 minus the modest cost of cleaning and bagging the seeds and other transaction costs.

Picking \$6.50 as the upper limit for the reasonable royalty would create a windfall for infringers like McFarling. Such infringers would have a huge advantage over oth-

er farmers who took the standard Monsanto license and were required to comply with the provisions of the license, including the purchase-of-seed and non-replanting provisions. The evidence at trial showed that Monsanto would not agree to an unconditional license in exchange for a payment of \$6.50, and the explanation — that Monsanto would lose all the benefits it gets from having the cooperation of seed companies in promoting Monsanto's product and controlling its distribution — is a reasonable commercial strategy.

[...]

In determining the amount of a reasonable royalty, it was proper for the jury to consider not only the benefits of the licensing program to Monsanto, but also the benefits that Monsanto's technology conferred on farmers such as Mr. McFarling. Monsanto's expert testified at length regarding the valuation of Monsanto's damages. He began by estimating the value conferred on a farmer such as Mr. McFarling by the use of the Roundup Ready product. Because using conventional soybeans was the most logical alternative to either licensing or infringing, that value provided a reasonable basis for estimating the advantages conferred by the use of the patented technology.

[...]

In this case, we hold that the jury's verdict was supported by evidence and was not grossly excessive, particularly in light of the evidence of the savings Mr. McFarling achieved by his infringement, the benefits to Monsanto from requiring farmers to adhere to the terms of its standard licensing agreement, and the benefits conferred

by the patented technology over the use of conventional seeds.

In [16] *Trell v. Marlee* (1990 Fed. Cir.):²³⁷

Trell presented evidence [at trial] of its license agreement with Bewator Svensk Teleproduktion AB (Bewator), which provided for a royalty rate of 6 percent for the exclusive right to sell Trell's system in Europe. The district court concluded that 6 percent was the "established and reasonable royalty rate."

Marlee contends that the district court erred in concluding that the royalty payment under the Bewator license constituted proof of an established royalty. We agree. A single licensing agreement, without more, is insufficient proof of an established royalty. As we noted in *Hanson v. Alpine Valley Ski Area, Inc.*, for a royalty to be established, it "must be paid by such a number of persons as to indicate a general acquiescence in its reasonableness by those who have occasion to use the invention."

[...]

Thus, the district court erred in relying solely on the fee set forth in the Bewator license as a reasonable royalty to compensate for Marlee's infringement. A particular fee is not the correct measure of damages unless that which is provided by the patentee to its licensees for that fee is commensurate with that which the defendant has appropriated. Marlee's infringement related to only one aspect of Trell's invention, as compared with the scope of the

²³⁷ *Trell v. Marlee Electronics Corp.*, 912 F.2d 1443 (Fed. Cir. 1990), at 1445 to 1447.

Bewator license. The district court's apparent failure to consider the fact that the Bewator license was exclusive and that it encompassed the right to other inventions compels reversal.

[...]

Trell had the burden of persuading the court with legally sufficient evidence regarding the amount that should be awarded as a reasonable royalty. Having erroneously concluded that the Bewator license was proof of an established royalty, the district court appears to have fixed 6 percent as a reasonable royalty because of Marlee's failure to offer evidence that this rate was unreasonable. Marlee, however, did not have the burden of going forward with evidence to rebut proof of a royalty paid by another for an exclusive license involving additional inventions. We cannot sustain the district court's award on the ground that Marlee did not present evidence to show that a rate less than 6 percent would be reasonable. The record does not contain legally sufficient proof of an established rate or any evidence showing that 6 percent was a reasonable royalty.

In *Lucent v. Microsoft* (2009 Fed. Cir.), Microsoft challenged a jury's damages award to Lucent for Microsoft's infringing use of Lucent's date-picker patent (the "Day patent") on the basis that the licensing agreements that Lucent relied on did not offer "substantial evidence [to] support the jury's verdict of a lump-sum royalty payment of \$357,693,056.18."²³⁸ The U.S. Court of Appeals for the Federal Circuit held:²³⁹

The second Georgia-Pacific factor is "[t]he rates paid by the licensee for the use of other patents comparable to

238 [33] *Lucent v. Microsoft* (2009 Fed. Cir.), at 1324.

239 [33] *Lucent v. Microsoft* (2009 Fed. Cir.), at 1325 to 1332.

the patent in suit.” This factor examines whether the licenses relied on by the patentee in proving damages are sufficiently comparable to the hypothetical license at issue in suit. Subsumed within this factor is the question of whether the licensor and licensee would have agreed to a lump-sum payment or instead to a running royalty based on ongoing sales or usage.

[...]

Lucent relies on eight varied license agreements which purportedly support the jury’s lump-sum damages award. When we examine these license agreements, along with the relevant testimony, we are left with two strong conclusions. First, some of the license agreements are radically different from the hypothetical agreement under consideration for the Day patent. Second, with the other agreements, we are simply unable to ascertain from the evidence presented the subject matter of the agreements, and we therefore cannot understand how the jury could have adequately evaluated the probative value of those agreements.

Only four of the eight agreements purport to be lump-sum agreements. [...] Lucent’s brief characterizes the four agreements as covering “PC-related patents,” as if personal computer kinship imparts enough comparability to support the damages award. For the latter three, it is impossible for us, based on the record, to determine whether the agreements are at all comparable to the hypothetical agreement of the present suit. For the first agreement, what little explanation there is only underscores the differences between it and any

hypothetical agreement for the Day patent.

[...]

Lucent candidly admits in its brief that “none of the real world licenses introduced at trial arose from circumstances identical to those presumed to prevail in the hypothetical royalty negotiation.” Moreover, the testimony [of Lucent’s expert] belies Lucent’s claim of “present[ing] particularized expert testimony explaining how various differences between the real and hypothetical license negotiations ... would factor into the appropriate royalty for Microsoft’s infringement.” The [expert’s] testimony provides no analysis of those license agreements, other than, for example, noting the agreement was a cross-license of a large patent portfolio and the amount paid. Lucent had the burden to prove that the licenses were sufficiently comparable to support the lump-sum damages award. The law does not require an expert to convey all his knowledge to the jury about each license agreement in evidence, but a lump-sum damages award cannot stand solely on evidence which amounts to little more than a recitation of royalty numbers, one of which is arguably in the ballpark of the jury’s award, particularly when it is doubtful that the technology of those license agreements is in any way similar to the technology being litigated here.

Lucent also cites four running-royalty license agreements which purportedly provide substantial evidence supporting a lump-sum damages award of approximately \$358 million. A significant shortcoming of these agreements is their “running-royalty” nature, however. As we noted above, certain fundamental differences exist between

lump-sum agreements and running-royalty agreements. This is not to say that a running-royalty license agreement cannot be relevant to a lump-sum damages award, and vice versa. For a jury to use a running-royalty agreement as a basis to award lump-sum damages, however, some basis for comparison must exist in the evidence presented to the jury. In the present case, the jury had almost no testimony with which to recalculate in a meaningful way the value of any of the running royalty agreements to arrive at the lump-sum damages award.

[...]

[W]e see little evidentiary basis under *Georgia-Pacific* Factor 2 for awarding roughly three to four times the average amount in the lump-sum agreements in evidence. Here the award was \$358 million; there, the amounts were \$80, 93, 100, and 290 million. That some licenses were cross-licenses or commuted-rate licenses — which may warrant a higher damages award—does not fill the evidentiary lacunae. Again, it was Lucent’s burden to prove that the licenses relied on were sufficiently comparable to sustain a lump-sum damages award of \$358 million.

In [34] *ResQNet v. Lansa* (2010 Fed. Cir.), a district court awarded ResQNet a reasonable royalty for Lansa’s infringing use of ResQNet’s ‘075 patent claiming a method of communicating between a host computer and a remote terminal over a data network. On appeal, Lansa challenged the methodology used by ResQNet’s damages expert in determining this reasonable royalty:²⁴⁰

240 [34] *ResQNet v. Lansa* (Fed. Cir. 2010), at 869 to 873.

ResQNet's expert Dr. David determined the "starting point" for a hypothetical negotiation based on the first factor of the Georgia-Pacific framework — royalties received by the patentee from existing licenses. The first Georgia-Pacific factor requires considering past and present royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty. By its terms, this factor considers only past and present licenses to the actual patent and the actual claims in litigation. This court has long required district courts performing reasonable royalty calculations to exercise vigilance when considering past licenses to technologies other than the patent in suit.

Yet Dr. David used licenses with no relationship to the claimed invention to drive the royalty rate up to unjustified double-digit levels. Dr. David based his damages on seven ResQNet licenses, five of which had no relation to the claimed invention. These five re-branding or re-bundling licenses (hereinafter, the "re-bundling licenses") furnished finished software products and source code, as well as services such as training, maintenance, marketing, and upgrades, to other software companies in exchange for ongoing revenue-based royalties. These companies obtained the right to re-brand ResQNet's products before resale or bundle these products into broader software suites. While the specific numbers involved in these licenses are under a protective order, this court observes that two of them mentioned a top rate of 25%, two more a top rate of 30%, and still another a top rate of 40%. Notably, none of these licenses even mentioned the patents in suit or showed any other discernible link to the claimed technology. Dr. David tabulated an average of

the royalty ranges specified in these agreements, a number substantially higher than 12.5%.

The rates in the re-bundling licenses are not consistent at all with the other two licenses in the record. Those two “straight” licenses arose out of litigation over the patents in suit. One of them was a lump-sum payment of stock which Dr. David was unable to analogize to a running royalty rate. The other was an ongoing rate averaging substantially less than 12.5% of revenues.

In his own words, Dr. David recommended a rate for his hypothetical negotiation “somewhere in the middle” of the re-bundling licenses and the straight rate-based license on the claimed technology. Trial Tr. 34:7, May 21, 2007. He considered a few of the other Georgia-Pacific factors, but dismissed them because “[f]or the most part, the other factors have no real impact here.” *Id.* at 36:13-14. Thus, Dr. David calculated that a mid-range of 12.5% was the appropriate royalty rate. The inescapable conclusion is that Dr. David used unrelated licenses on marketing and other services — licenses that had a rate nearly eight times greater than the straight license on the claimed technology in some cases — to push the royalty up into double figures. The district court adopted Dr. David’s 12.5% royalty rate and set damages at \$506,305.

[...]

Dr. David’s decision to adjust his proposed rate downward to arrive at a (still unsubstantiated) starting point for the hypothetical negotiation resulted in a rate that was still more than twice the rate on the straight rate-based license that covered the claimed invention. Actually, Dr.

David's downward shift from the re-bundling royalties is an admission that his calculations are speculative without any relation to actual market rates at all. The first Georgia-Pacific factor, which Dr. David found to be controlling and which the district court in turn adopted, must consider licenses that are commensurate with what the defendant has appropriated. If not, a prevailing plaintiff would be free to inflate the reasonable royalty analysis with conveniently selected licenses without an economic or other link to the technology in question.

[...]

This court observes as well that the most reliable license in this record arose out of litigation. On other occasions, this court has acknowledged that the hypothetical reasonable royalty calculation occurs before litigation and that litigation itself can skew the results of the hypothetical negotiation. Similarly this court has long recognized that a reasonable royalty can be different than a given royalty when, for example, widespread infringement artificially depressed past licenses. And a reasonable royalty may permissibly reflect the fact that an infringer had to be ordered by a court to pay damages, rather than agreeing to a reasonable royalty.

[...]

In sum, the district court erred by considering ResQNet's re-bundling licenses to significantly adjust upward the reasonable royalty without any factual findings that accounted for the technological and economic differences between those licenses and the '075 patent. A reasonable royalty based on such speculative evidence violates the

statutory requirement that damages under §284 be “adequate to compensate for the infringement.” Thus, this court vacates the damages award and remands to the district court for a recalculation of a reasonable royalty in accordance with this opinion.

In *Ericsson v. D-Link* (Fed. Cir. 2014), a district court awarded Ericsson a reasonable royalty for D-Link’s infringing use of Ericsson’s patents related to the Institute of Electrical and Electronics Engineers, Inc., 802.11 Wi-Fi standards. On appeal, D-Link challenged the methodology used by Ericsson’s damages expert in determining this reasonable royalty, arguing that those damages calculations were, in part, based on licenses which were themselves tied to the entire value of the licensed products, even though the technology being licensed related to only a component of those products. The U.S. Court of Appeal for the Federal Circuit held:²⁴¹

We conclude that the expert testimony about which D-Link complains violated neither the rule from *Garretson* regarding apportionment, nor the evidentiary principle demanding an appropriate balance between the probative value of admittedly relevant damages evidence and the prejudicial impact of such evidence caused by the potential to mislead the jury into awarding an unduly high royalty. We find, accordingly, that the district court did not err by failing to exercise its discretion under Federal Rule of Evidence 403 to exclude the license testimony at issue here.

This court has recognized that licenses may be presented to the jury to help the jury decide an appropriate royalty award. Prior licenses, however, are almost never perfect-

241 *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201 (Fed. Cir. 2014), at 1227 to 1228.

ly analogous to the infringement action. For example, allegedly comparable licenses may cover more patents than are at issue in the action, include cross-licensing terms, cover foreign intellectual property rights, or, as here, be calculated as some percentage of the value of a multi-component product. Testimony relying on licenses must account for such distinguishing facts when invoking them to value the patented invention. Recognizing that constraint, however, the fact that a license is not perfectly analogous generally goes to the weight of the evidence, not its admissibility. In each case, district courts must assess the extent to which the proffered testimony, evidence, and arguments would skew unfairly the jury's ability to apportion the damages to account only for the value attributable to the infringing features.

As the testimony at trial established, licenses are generally negotiated without consideration of the [entire market value rule], and this was specifically true with respect to the Ericsson licenses relating to the technology at issue. Making real world, relevant licenses inadmissible on the grounds D-Link urges would often make it impossible for a patentee to resort to license-based evidence. Such evidence is relevant and reliable, however, where the damages testimony regarding those licenses takes into account the very types of apportionment principles contemplated in *Garretson*. In short, where expert testimony explains to the jury the need to discount reliance on a given license to account only for the value attributed to the licensed technology, as it did here, the mere fact that licenses predicated on the value of a multi-component product

are referenced in that analysis—and the district court exercises its discretion not to exclude such evidence—is not reversible error.

We do conclude, however, that, when licenses based on the value of a multi-component product are admitted, or even referenced in expert testimony, the court should give a cautionary instruction regarding the limited purposes for which such testimony is proffered if the accused infringer requests the instruction. The court should also ensure that the instructions fully explain the need to apportion the ultimate royalty award to the incremental value of the patented feature from the overall product.

6.6

ANTICIPATED PROFITS AND ECONOMIC APPROACHES

The anticipated profits and economic approaches determine a reasonable royalty based on the incremental profits the parties would have expected, at the time of the negotiation, to be generated by licensing.

In its application of an anticipated profits approach, the Court in [29] *Jay-Lor v. Penta* (2007 FC 358) considered only the incremental profits of the defendant.²⁴²

[150] Using the anticipated profits methodology, [the defendant] would negotiate a reasonable royalty by estimating its anticipated profits arising from the sale

242 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraph 150.

of the patented invention and then paying a portion of those profits to [the plaintiff]. Thus, the first step is to assess, as a percentage, what [the defendant] would have anticipated as a profit once it began selling [its product] with the patented technology. The key to the anticipated profits approach is an estimation of the anticipated economic benefit in the hands of the licensee. Going into the hypothetical negotiations, what profit would [the defendant] hope to make from the sale of the patented technology?

The Court in *Jay-Lor* also referred to the approach taken in *AlliedSignal*, which considered a royalty rate based on the plaintiff's incremental profits. This “AlliedSignal Approach” was described in [29] *Jay-Lor v. Penta* (2007 FC 358) as follows:²⁴³ (emphasis added)

[137] Since the first approach was the one used by the Court in *AlliedSignal*, it was seen as having some precedential value. In *AlliedSignal*, the Court stated that a reasonable royalty for patented technology was between 25% and 33.3% of the plaintiff's incremental profits before tax using differential cost accounting. Dr. Friedlander agreed that this royalty range applied to the manufactured goods market and is commonly considered without regard to the technology at issue.

[...]

[145] In *AlliedSignal*, Justice Heald concluded that a reasonable royalty was between 25% and 33.3% of the plaintiff's incremental profits before tax. Dr.

243 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraphs 137, 145 and 147.

Friedlander was directed by counsel for the Plaintiffs to apply this methodology. However, it is clear from his testimony that he would not normally use the *AlliedSignal* approach. His reasons for not doing so and for using an anticipated profits methodology are, in my view, persuasive. Dr. Friedlander's views are confirmed in the following exchange

[...]

THE WITNESS: [...] The real world uses anticipated profit. The key is always the anticipated economic benefit in the hands of the licensee. What we always attempt to do, is whether I am the licensor or the licensee, is we produce financial forecasts for the business and those are "anticipated". They're forecast numbers. They are always the one thing that's difficult to forecast is the future.

So you use whatever factors you have at hand, whatever hard data you have at hand, to try to develop a model of what the business will look like and see what the anticipated profit is, and as licensee then we look at it and say okay, this is the profit. This is the maximum we could afford to pay and yet make our required rates of return, and this is the minimum that we'd love to pay, and that's my range going in as licensee.

THE COURT: Yes.

THE WITNESS: The licensor, on the other hand, looks and models the business the same way, and looks at that profit and says this is probably the maximum that we can imagine getting, realistically, but this is what we'd like to get. There is usually -- you've got two ranges and there's going to be an overlap and somewhere in that overlap is going to be the number that is arrived at in the negotiation. The better negotiator will push it up to either the top of that range of overlap or it will go to the bottom, depending upon who's the best negotiator.

But it's always based upon anticipated economic benefit. That's the gut issue.

[147] [In *AlliedSignal* there] was no discussion in the trial of any other methodology or approach to calculating a reasonable royalty. Had Justice Heald been presented with another approach – such as the anticipated profits approach – he may well have accepted the logic of that approach. [...] Indeed, based on the expert testimony before me from the experts for both parties, I believe that the *AlliedSignal* approach of a calculation based on incremental profits before tax should be discarded. That is not to say that the approach might not be applicable in other situations; that will, of course, depend on the evidence in those cases. Further, the case is also useful for its list of factors to be used to determine where the royalty should fall within the 25% to 33.3% range. I note that Dr.

Friedlander had regard to these factors in the context of the anticipated profits approach.

The anticipated profits approach as described in *Jay-Lor* has been refined by what we will describe as the economic approach. This later approach was described by the Court in [2] *Merck v. Apotex* (2013 FC 751 lovastatin):²⁴⁴

[154] In this case, I was presented with only one expert – Dr. Christine Meyer – who was qualified as an expert to opine on “economic issues related to the determination of a reasonable royalty as a result of a hypothetical royalty negotiation”

[155] By way of general comment, I would remark that I found the methodology presented by Dr. Meyer to be reasonable. In particular, I would agree with Dr. Meyer’s characterization of two conceptual elements of the reasonable royalty analysis: (a) a one-time negotiation on the eve of the first infringement; and (b) the use of a framework taking into account the hypothetical licensee’s maximum willingness to pay (MWP) and hypothetical licensor’s willingness to accept (MWA) methodology, as she describes it.

[...]

[165] A critical determination in Dr. Meyer’s model is the bargaining range. To establish the range, we need to set two end points.

[166] First, what would be the highest royalty that would leave the Defendants better off by taking a li-

244 [43] *Merck v. Apotex* (2013 FC 751 lovastatin), at paragraphs 156 to 162.

cence? This level is referred to as the maximum willingness to pay or “MWP”. If a proposed royalty is lower than the MWP, Apotex would have the incentive to pay for a licence. However, if the proposed royalty is higher, Apotex would not have any motivation to negotiate further.

[167] The converse applies to Merck. What would be the lowest royalty that leaves the Plaintiffs better off by granting a licence? This level is referred to as the minimum willingness to accept or the “MWA”. Merck would have no incentive to accept anything below its MWA.

[168] If Merck’s MWA is lower than Apotex’s MWP, the hypothetical negotiations will work in a manner consistent with real world negotiations. As stated by Dr. Meyer, “a royalty anywhere within the range would allow each party to expect to benefit from the license”. Presumably, a willing patentee and a willing infringer with substantially equal bargaining power would agree to split the difference of the range to come up with a reasonable royalty. In Dr. Meyer’s opinion:

[I]t is economically reasonable to conclude that the parties would share equally in the gains from the license and that a reasonable royalty would fall at the mid-point of the bargaining range.

The economic approach was also adopted in [74] *Dow v. Nova* (2017 FC 350), which more explicitly described in its Judgment and Reasons the impact of NIAs on the defendant’s MWP and plaintiff’s MWA:²⁴⁵

245 [74] *Dow v. Nova* (2017 FC 350), at paragraphs 66 to 89.

[66] The hypothetical negotiation occurs on the eve of the first infringement on January 1, 2002. The negotiation encompasses numerous factors, but is primarily focused on Nova's anticipated profits from the sale of products using Dow's patented technology.

[67] Dr. Leonard and Dr. Heeb, the experts called on behalf of Dow and Nova respectively, agreed on the framework to be applied to the hypothetical royalty negotiation. The boundaries of the hypothetical negotiation are Dow's "minimum willingness to accept" ("MWTA"), having regard to the anticipated impact of Nova's sales of SURPASS [the defendant's infringing product] on Dow's sales of ELITE [the plaintiff's patented product], and Nova's "maximum willingness to pay" ("MWTP"), having regard to the profit that Nova would expect to gain from sales of SURPASS. This is the bargaining range of the negotiation. The difference between Dow's MWTA and Nova's MWTP is referred to as the "gains to trade" (i.e., the joint benefit of the hypothetical licence), which must be divided between the parties in a reasonable manner.

[68] Dr. Leonard and Dr. Heeb agreed that Dow's MWTA would be the profits that Dow expected to lose from licensing its technology to Nova, *i.e.*, the proportion of Nova's sales of SURPASS that would be diverted from Dow's sales of ELITE ("diversion ratio"). Dow would seek to recoup its profits on those lost sales.

[...]

[82] Both parties agree that Nova's maximum willingness to pay is the profit that Nova would expect to earn on SURPASS compared to the next best non-infringing alternative ("NIA"). The NIAs proposed by Nova are primarily pail and crate grade products.

[...]

[87] If Nova's MWTP is lower than Dow's MWTA of 8.8%, then there is no bargaining range between the parties. As Dr. Heeb stated, "[s]ince a bargain is compulsory in this hypothetical negotiation, the reasonable royalty rate is simply Dow's MW[T]A". Dr. Leonard did not dispute this approach. There is therefore no need to consider the division of gains to trade.

[88] Even if NIAs are not taken into account, then according to Dr. Heeb, Nova's MWTP is still lower than 8.8%. Accordingly, Nova's proposed NIAs have no bearing on the determination of the reasonable royalty.

[89] I therefore conclude that the appropriate rate for the reasonable royalty payable by Nova to Dow for the period 2004 to 2006, regardless of whether or not the pail and crate NIAs are taken into account, is 8.8%.

The economic approach to a reasonable royalty formally models the hypothetical negotiation as a game theoretic model of strategic bargaining. An equilibrium royalty rate is one in which each party is better off agreeing (given the other side's position) to the terms of the license rather than rejecting the license and instead going with its "outside option." That is, the economic approach looks at the full economic benefits and

costs that each of the parties would expect to incur from a license.²⁴⁶

The anticipated profits approach and the economic approach are the same in principle, except that the Court in *Jay-Lor* considered only the incremental benefit to the defendant from licensing (its maximum willingness to pay, or MWP). By contrast, the economic approach also considers the impact on the plaintiff's business and determines a minimum royalty rate that the plaintiff would accept (its minimum willingness to accept, or MWA). In cases where there would be no adverse impact on the plaintiff's business, for example where the plaintiff would not lose any sales as a result of the defendant's infringement, the economic approach and the anticipated profits approach as described in *Jay-Lor* would yield the same royalty rate.

Formally, the economic approach proceeds in two steps:

- The first step assesses the parties' benefits and costs from licensing, as compared with their "threat points" of walking away from the negotiation, to determine the bargaining range, which is bounded at the low end by the minimum amount that the licensor would be willing to accept and at the high end by the maximum amount that the licensee would be willing to pay.
- The second step assesses the parties' relative bargaining power to determine where, within the bargaining range, the likely outcome from the negotiation will lie.

²⁴⁶ See Chapter 5.2 for a discussion of incremental costs in the context of the defendant's profits. See Chapter 4.2 for a discussion of incremental costs in the context of the plaintiff's profits.

Step 1. Determining the Bargaining Range

The defendant's "threat point" at the hypothetical negotiation would be to not take a license and instead enter the marketplace using the next best, commercially available NIA,²⁴⁷ or if an alternative was not available, to wait until the expiry of the patent (the defendant's "outside option" or "status quo"). The benefit to the defendant from taking a license is the incremental profits it expects to earn if it were to use the patented invention, relative to the profits it would earn if it were to use the next best, commercially available NIA.²⁴⁸ The cost to the defendant is the royalty payment it will have to pay under the license.

$$\begin{aligned} \text{Defendant's Net Benefit} &= \text{Incremental Profits from Using Invention} \\ &\quad - \text{Royalty Payment Under License.} \end{aligned}$$

The defendant's MWP for a license is that royalty payment under which its net benefit would be zero, so it would be indifferent to the question of a license.

$$\text{MWP} = \text{Incremental Profits from Using Invention}$$

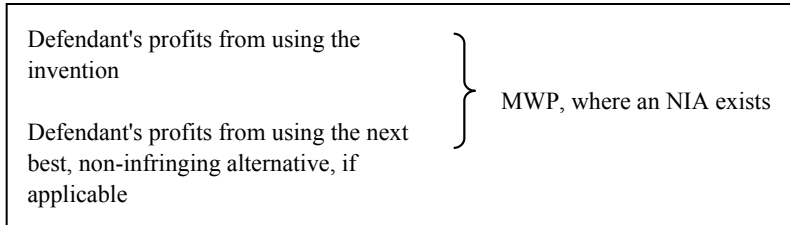
Put differently, the defendant's MWP is the difference between its profits from using the invention and its profits from using a next best NIA. This difference represents the defendant's incremental profits from the invention in cases where it has an NIA available to it. If the defendant would not have an NIA available to it, neither at the time of the hypothetical negotiation nor in the future, then

247 Another option for the defendant if an NIA was not available to it at the time of the hypothetical negotiation would be to try to develop an NIA. In this case, the defendant would likely have to incur research and development costs to commercialize an NIA, and also remain out of the market during the period of time required for it to develop that NIA.

248 That is, the benefit to the defendant is its incremental profits from using the patented invention less its profits from using an NIA. For a full discussion of the impact of an NIA on the profitability of the defendant (licensee), see Chapter 5.1.

its MWP would be its entire profits from the invention.²⁴⁹

The following illustrates the defendant's MWP:



The plaintiff's "threat point" at the hypothetical negotiation would be to not grant a license to the defendant, and instead to keep the technology exclusively to itself until the expiry of the patent, or to license the invention to someone else, if another licensee was available. The benefit to the plaintiff from granting a license is the royalty payment it will receive under the license. The opportunity cost to the plaintiff is the incremental costs it expects to incur or profits it expects to forgo by granting a license to the defendant for the patented invention.

$$\begin{aligned} \text{Plaintiff's Net Benefit} &= \text{Royalty Payment Under License} \\ &\quad - \text{Opportunity Costs from Licensing} \\ &\quad \text{Invention.} \end{aligned}$$

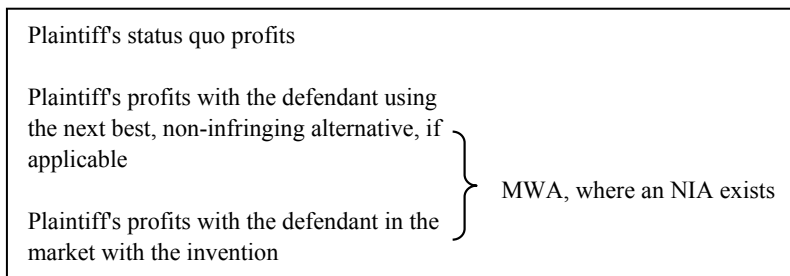
The plaintiff's MWA for a license is that royalty payment under which its net benefit would be zero, so it would be indifferent to the question of a license.

$$\text{MWA} = \text{Opportunity Costs from Licensing Invention}$$

²⁴⁹ If the defendant did not have an NIA available to it at the time of the negotiation, but would have had the prospect of developing one in the future, then its MWP would be its entire profits from using the invention during the period of time it would take to develop an NIA, plus the research and development costs of developing that NIA, plus the difference between its profits from using the invention and profits from using that NIA once the NIA became available.

If the defendant had an NIA available to it, the plaintiff's MWA is the difference between the profits it expects to earn if the defendant enters the market with that alternative and the profits it would earn if the defendant uses the invention. This difference represents the adverse impact on the plaintiff's profits from the defendant's use of the invention, in cases where the defendant has an NIA available to it. If the defendant did not have an NIA, then the plaintiff's MWA would be the difference between its status quo profits (i.e., where the defendant is not in the market) and its profits with the defendant competing in the market with the invention.²⁵⁰

The following illustrates this:



In assessing the plaintiff's minimum willingness to accept, it is important to keep in mind that a reasonable royalty is typically computed in cases where the defendant has made infringing sales but the plaintiff would not have (or cannot prove it would have) captured those sales even in the absence of infringement. Accordingly, the plaintiff's minimum willingness to accept should typically not include an element reflecting lost profits on lost sales. Nevertheless, the plaintiff may still expect to forgo profits by granting a license to the defendant as a result

²⁵⁰ If the defendant did not have an NIA available to it at the time of the negotiation, but would have had the prospect of developing one in the future, then the plaintiff's MWA would be the difference between its status quo profits and its profits with the defendant competing in the market with the invention during the period of time it would take to develop an NIA, plus the difference between the profits it expects to earn when the defendant enters the market with that alternative once the NIA became available and the profits it would earn if the defendant uses the invention.

of, for example, lost royalties on existing licenses granted to third parties or other lost licensing opportunities.

Step 2. Assessing the Parties' Bargaining Power

If the defendant's expected incremental profits from using the patented invention is greater than the plaintiff's expected increment costs from licensing the patented invention to the defendant, then a bargaining range exists and spans from the plaintiff's MWA to the defendant's MWP.

A bargaining range exists where within the bargaining range the ultimate royalty rate will land depends on the parties' relative "bargaining power." Accordingly, when a bargaining range exists, a detailed analysis of each party's respective bargaining power, incorporating the *Allied-Signal* factors discussed in Chapter 6.4, is warranted.

As the Court held in [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefactor, appeal pending):²⁵¹

A proper reasonable royalty rate, even under the Nash bargaining solution, must be arrived at by examining the relevant facts and circumstances of the situation at hand, as well as the character of the hypothetical negotiations that the parties would have engaged in at the relevant time considering those facts and circumstances. The relevant facts and circumstances include the availability of alternatives to the patented process, the relative bargaining strength of the parties, and the relationship between the parties. The creation of a legal fiction of a willing licensor and a willing licensee, in my view, does not demand that

251 [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefactor, appeal pending), at paragraph 99.

they be equally willing. One must inquire of each party how willing it is. Is this a marriage of equals or a shotgun wedding?

Conversely, if the defendant's expected incremental profits from using the patented invention are less than the plaintiff's expected incremental costs from licensing the patented invention to the defendant (i.e., the defendant's MWP is less than the plaintiff's MWA), then no bargaining range (or equilibrium royalty rate) exists.

In cases where this occurs, the Court has held, "Since a bargain is compulsory in this hypothetical negotiation, the reasonable royalty rate is simply [the plaintiff's] MWA."²⁵²

6.7

ANALYTICAL APPROACH

The intuition behind the analytical approach is that a reasonable royalty rate should split between the defendant and plaintiff the incremental profits that the infringer would have (on the date of the hypothetical negotiation) expected to earn, such that the defendant would retain its "normal profits" and the plaintiff would get the defendant's profits above those "normal" profits.

Specifically, a reasonable royalty rate under the analytical approach is calculated as the difference between the profit margin the defendant would have expected to earn from making use of the plaintiff's IP and the defendant's normal profit margin.

252 [74] *Dow v. Nova* (2017 FC 350), at paragraphs 66 to 89. See also [43] *Merck v. Apotex* (2013 FC 751 (lovastatin)).

An important difference between the analytical approach and the anticipated profits approach is the profit level to which the defendant's expected profit from making use of the patented invention is compared:

- Under the anticipated profits approach, the defendant's expected profits from making use of the patented invention are normalized by the profits it would expect to earn from using the next best, commercially available NIA (to the extent one exists).
- Under the analytical approach, the defendant's expected profits from making use of the patented invention are normalized by its "normal profits," typically taken to be the defendant's historical or the industry average margin on sales of similar (non-infringing) products at the time of the hypothetical negotiation.

If an NIA to the patented invention does not exist (or even if one exists, if it is not available to the defendant), then a royalty would reflect some portion of the defendant's entire expected profit under the anticipated profits approach, since those entire profits would be at risk if it did not take a license. Conversely, the analytical approach would assume that the defendant would still earn some "normal" level of profits.

The Court in [29] *Jay-Lor v. Penta* (2007 FC 358) provided a detailed description of how a reasonable royalty rate is calculated under the analytical approach:²⁵³

[138] As described by Dr. Friedlander, the starting point for the analytical approach is that the infringer, before infringing, had a certain profit margin and that, after infringement, his anticipated profit margin will increase. Since the increase is due to the patented

253 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraphs 138 to 140.

invention, the royalty payable to the licensor is this increased profit margin.

[139] [...] Dr. Friedlander's application of the analytical approach proceeded as follows:

- [The defendant] Penta's anticipated retail or dealer's gross margin was REDACTED% based on the Manufacturer's Suggested Retail Price (MSRP) of vertical feed mixers [the product at issue].
- Penta could reasonably expect to have a manufacturing gross margin (revenues minus cost of sales and research and development expenses) of about REDACTED%.
- By manufacturing and selling a vertical feed mixer using [the plaintiff] JAY-LOR's patented technology, it would be reasonable to expect Penta's profits to be approximately REDACTED% based on the profit both at the manufacturing level and at the retail level.
- Assuming that Penta would make 70% of their sales through distributors (where they would make only the REDACTED% margin as the manufacturer) and 30% through their own stores (where they would see the entire REDACTED% profit), the effective gross margin Penta would have seen would be about REDACTED% (that is, 70% of sales at REDACTED% margin and 30% of sales at REDACTED% margin).

[140] On the analytical approach, Dr. Friedlander concluded as follows:

Using the analytical approach, the reasonable royalty is considered to be the difference between the gross margin Penta was in fact experiencing, which I understand was approximately REDACTED% based on the financial documents shown to me and attached at Schedule B-17, and Penta's anticipated gross margin of REDACTED% explained above. This results in a difference in gross margins of approximately 20% between Penta's situation pre and post (alleged) infringement. In my opinion it is appropriate that the difference, which in this case is 20%, ought to be shared between licensor and licensee.

The analytical approach also has a long history of use in the U.S. In [8] *Georgia-Pacific v. U.S. Plywood* (1971 2d Cir.), a district ruling had (on the basis of a Special Master's report) awarded U.S. Plywood a reasonable royalty of \$50 per thousand square feet of Georgia-Pacific (GP) infringing sales of striated fir plywood. On appeal, GP argued that such a royalty would not have enabled it to realize a reasonable profit. The U.S. Court of Appeals for the 2nd Circuit held:²⁵⁴

[A]lthough we affirm the other findings, we feel that despite the trial court's professed intention to do so, it did not allow GP a reasonable profit after paying the suppositious royalty. This is a basic error which should be corrected. We would, in fact, be inclined

254 [8] *Georgia-Pacific v. U.S. Plywood* (1971 2d Cir.), at 299 to 300.

to remand for reconsideration were it not for the extraordinary length of time this litigation has already lingered and the willingness of the party ultimately paying the damages to have us dispose of the case. Accordingly, we turn to a redetermination of the award on the basis of the record before us.

Since the error was to leave GP no profit at all after payment of the suppositious reasonable royalty of \$50 per thousand square feet, we must first determine what would be a reasonable profit for GP after payment of the royalty. We note that the Master found, on the basis of GP's annual reports, that GP's average net profit on sales of all products during the period of infringement was slightly over nine per cent of sales. It follows that GP would have been willing to pay a royalty which, after payment of its other costs, would leave it nine per cent profit on sales of the licensed item. Since the trial court found that GP's "average realization" on those sales was \$159.41, such a profit would be \$14.35 [9% of \$159.41] per thousand square feet in the present case. The remainder is arithmetic:

	\$ per thousand square feet
GP's expected profit on the item:	\$50.00
−9% of profits on sales:	−14.35
assumed reasonable royalty:	<hr/> \$35.65

In *Tektronix v. United States* (1977 Ct. Cl.), a trial court had awarded Tektronix a reasonable royalty based on the difference between the infringer's (Hickok's) gross profits from selling its infringing product to

the U.S. government and its average company profit on all sales. The U.S. Court of Claims held:²⁵⁵

The negotiation formula which the trial judge borrowed from Georgia-Pacific is, as already mentioned, to start with the infringer's selling price, deduct its costs in order to find its gross profit, then allocate to the infringer its normal profit, and end up with the residual share of the gross profit which can be assigned to the patentee as its royalty. We utilize the same formula as the beginning of our supposititious negotiation, and likewise start with Hickok's proposed selling price — but thereafter our calculation differs from the trial judge's:

Hickok's proposed selling price	\$1,137
Costs:	
Direct or variable manufacturing	486
Fixed burden, marketing, administration, etc.	533
Costs subtotal	1,019
Gross profit	118
Hickok [Normal] Profit	31
Residual Share (7.65% of unit price)	87

The trial judge's computation [...] resulted in a residual share of 27.5% of the unit price, all of which he allocated to plaintiff as its reasonable royalty. We disagree with that result [...] principally because it understates the indirect costs of manufacture and thus inflates the residual share.

[...]

255 [10] *Tektronix v. United States* (1977 Ct. Cl.), at 349 to 350.

We do not, however, stop with the 7.65% of unit price which our own calculation produces for plaintiff's residual share. We think that a reasonable patentee in the position of plaintiff, which was realizing a profit in excess of 25% on its own non-Government sales of oscilloscopes, would have insisted on a somewhat higher royalty than 7.65%, and that a reasonable potential licensee would have agreed, in order to be able to sell the item without legal question — even if at a somewhat higher price than if no royalty were to be paid. Such a potential licensee, if reasonable, would recognize that plaintiff, which took the risks and bore the expense of developing the scopes and creating a market for them, was entitled to substantial compensation for those efforts and for its ingenuity in creating this important and effective instrument. But we do not believe that such a reasonable potential licensee would be willing, or could be expected to be willing, to pay as a royalty the 25% or so plaintiff was making in profit on its own non-Government sales of scopes. A portion of that 25% profit represented compensation, not for the patented idea itself, but for the efficiencies and risks of manufacture as well as the investment of other capital. Certainly that portion of plaintiff's profit is separate and apart from any compensation due it for use of its patents. In any event, a royalty of 25% is very high and unlikely to be paid by a willing licensee which is content to make a very low profit for itself.

We select 10% as the proper royalty rate. This rep-

resents our best judgment, on the material we have before us, of what reasonable “parties might well have agreed upon”.

In [13] *TWM v. Dura* (1986 Fed. Cir.), the district court had adopted a report of a special master awarding TWM a royalty on Dura’s infringing sales of suspensions that enabled trucks to engage an additional axle and wheels to carry heavy loads:²⁵⁶

The special master, citing Georgia-Pacific and Tektronix, used the so-called “analytical approach”, in which she subtracted the infringer’s usual or acceptable net profit from its anticipated net profit realized from sales of infringing devices.

Relying principally on a memorandum written by “Dura’s top management” before the initial infringement, the special master found that Dura projected a gross profit averaging 52.7% from its infringing sales. From that figure, she subtracted overhead expenses to get an anticipated net profit in the range of 37% to 42%. Subtracting the industry standard net profit of 6.56% to 12.5% from that anticipated net profit range, she arrived at a 30% reasonable royalty.

Dura says the special master erred as a matter of law in failing to analyze all factors delineated in Georgia-Pacific. Had she done so, says Dura, she would have found the “analytical approach” inapplicable. Unlike the situation in Georgia-Pacific, Dura argues, Turner [the inventor, who had assigned the patent to

256 [13] *TWM v. Dura* (1986 Fed. Cir.), at 899 to 900.

TWM] had an unproven product he was desperate to license to a company like Dura with marketing and manufacturing expertise, and there was a market leader with an established non-infringing product. Dura contends that it was error for the special master to rely on Dura's estimate of future profit in a purely speculative memorandum. Having reevaluated the Georgia-Pacific factors, Dura strenuously argues that the 30% royalty was "exorbitant" and "totally at odds with the result indicated by the other factors."

[...]

Dura has not persuaded this court that a 30% royalty does not reflect what a willing licensor and licensee would have agreed to in 1967, based on the present record. That Turner might have agreed to a lesser royalty is of little relevance, for to look only at that question would be to pretend that the infringement never happened. "It would also make an election to infringe a handy means for competitors to impose a 'compulsory license' policy upon every patent owner."

6.8

REASONABLE ROYALTY FOR PRE-GRANT PERIOD

Subsection 55(2) of the *Patent Act* states that, for the period before the patent is granted, "[a] person is liable to pay reasonable compensation to a patentee and to all persons claiming under the patentee for any damage sustained by the patentee or by any of those persons by reason of any act on the part of that person, after

the application for the patent became open to public inspection [...] and before the grant of the patent, that would have constituted an infringement of the patent if the patent had been granted on the day the application became open to public inspection.”²⁵⁷

In [63] *Baker Petrolite v. Canwell*, (2001 FC FCT 889, liability reversed on appeal 2002 FCA 158), the Court interpreted reasonable compensation as follows:²⁵⁸ (emphasis added)

[168] ... Neither counsel was able to cite any jurisprudence directly interpreting subsection 55(2) or its predecessor. That being said, the Supreme Court of Canada in *King, The v. Irving Air Chute*, at page 623, in interpreting a different provision of *The Patent Act, 1935* [S.C. 1935, c. 32] in which the expression [at section 19] “a reasonable compensation for the use thereof” appeared, wrote:

The principle applied in the course of administering a similar provision of the *Patents Act* of Great Britain is that reasonable compensation means such price or consideration “as would be arrived at between a willing licensor and a willing licensee bargaining on equal terms”

[169] Counsel for the plaintiffs referred me to comments on the concept of a reasonable royalty

²⁵⁷ *Patent Act*, section 55(2). There may be difficulties arising if the scope of the claims changes significantly after the patent application is laid open, but this is beyond the scope of this book. *Patent Act*, subsection 55(2).

²⁵⁸ *Baker Petrolite Corp. v. Canwell Enviro-Industries Ltd.*, ([2002] 2 FC 3, 2001 FCT 889), at paragraphs 168 to 171.

in *AlliedSignal Inc. v. Du Pont Canada Inc.* where Deputy Justice Heald wrote at page 176 under the heading “What is a reasonable royalty rate?”

A reasonable royalty rate is “that which the infringer would have had to pay if, instead of infringing the Patent, [the infringer] had come to be licensed under the Patent”: *Unilever PLC v. Procter & Gamble*, *Consolboard Inc. v. MacMillan Bloedel (Saskatchewan) Ltd.* The test is what rate would result from negotiations between a willing licensor and a willing licensee. [Citations omitted.]

[170] In the absence of any evidence whatsoever as to damages sustained and a rate that might result from negotiations of the nature cited by Deputy Justice Heald, counsel for the plaintiffs urged that damages should be equated with profits or income and reasonable compensation should be equated with a reasonable negotiated royalty rate.

[171] I find the cited case law and the submissions of counsel for the plaintiff to be unhelpful. The Court in *King, The v. Irving Air Chute* cited earlier, was interpreting a provision incorporating the expression “a reasonable compensation for the use thereof”. Here, by contrast, subsection 55(2) of the Act refers to “reasonable compensation for any damage sustained”. While the plaintiffs may well have sustained damage by reason of the actions of the defendants during the time between the laying

open of the patent application and the grant of the patent, no damage sustained and no *quantum* of damages were proved before me. Without evidence, I am not prepared to assume significant damage, as logical as such an assumption might be, or to equate reasonable compensation to some percentage, related to a reasonable royalty rate on the profits or income of Canwell and the city of Medicine Hat in the relevant period.

In [29] *Jay-Lor v. Penta* (2007 FC 358), the Court stated:²⁵⁹ (emphasis added)

[120] ... A plaintiff is also entitled to “reasonable compensation” for infringement during the laid open period. Reasonable compensation has been described as being in the nature of a reasonable royalty, the onus being on the party claiming to prove what a reasonable royalty would be. [...] It is obvious that recovery of reasonable compensation, pursuant to s. 55(2) of the *Patent Act*, may only be granted if the patent in question has issued, and, if challenged, has been held to be valid. Beyond *Baker Petrolite*, there is no jurisprudence discussing what is meant by “reasonable compensation” in s. 55(2).

[121] The Plaintiffs urge me to award damages on the lost sales for [the pre-grant period]. That is, the Plaintiffs seek the same type of damages for [the pre-grant period] as for the period after the grant of the ‘092 Patent.

259 [29] *Jay-Lor v. Penta* (2007 FC 358), at paragraphs 120 to 122.

[122] In my view, such an award is not warranted. In addition to relying on the comments of Justice Gibson in *Baker Petrolite*, I base this view on my reading of the relevant statutory provisions. For the period after the grant of the patent, s. 55(1) of the *Patent Act* provides that “a person who infringes a patent is liable . . . for all damage sustained by the patentee”. In contrast, s. 55(2) provides that a person is liable to pay “reasonable compensation . . . for all damage sustained by the patentee” during the laid open period. In s. 55(2), Parliament could have provided for the same assessment of damages as in s. 55(1). It did not do so. Accordingly, to give effect to the different words in the two provisions, I believe that the better view is that “reasonable compensation” during [the pre-grant period] must be something other than damages as contemplated by s. 55(1). It may be that there are other means to provide reasonable compensation beyond a royalty. However, in the case before me, no alternatives were presented. Thus, in this case, I intend to equate “reasonable compensation” to a “reasonable royalty.”

In [37] *Valence v. Phostech Lithium* (2011 FC 174), the court held “[r]easonable compensation is not identical to damages; rather it is in the nature of reasonable royalty.”²⁶⁰

In [76] *Frac Shack v. AFD Petroleum* (2017 FC 104), the Court awarded a reasonable royalty in respect of the pre-grant period, but this was on the basis that “[t]he Parties agree that a reasonable royalty would be the appropriate measure of compensation to the Plaintiffs during the Pre-Grant Period” rather than a decision of the Court.

260 [37] *Valence v. Phostech Lithium* (2011 FC 174), at paragraph 233.

U.S. law also allows for a plaintiff to seek a claim for pre-issuance damages, and explicitly defines the remedy to be a reasonable royalty. Under 35 U.S.C. § 154(d), “a patent shall include the right to obtain a reasonable royalty from any person who, during the period beginning on the date of publication of the application ... and ending on the date the patent is issued [... (A) ...] makes, uses, offers for sale, or sells in the United States the invention as claimed in the published patent application or imports such an invention into the United States [...] and (B) had actual notice of the published patent application.”²⁶¹

Assuming that reasonable compensation is interpreted to mean a reasonable royalty, then, in principle, all the notions from the above chapters would apply to quantifying a royalty as a remedy for the pre-grant period: a reasonable royalty would be the outcome of a hypothetical, one-time licensing negotiation between a willing licensor (the plaintiff) and a willing licensee (the defendant) that can be quantified relative to a royalty base that is congruent to the IP (discussed in Chapter 6.3), with a rate that is founded on either established license rates (discussed in Chapter 6.5), the “anticipated profits approach” (discussed in Chapter 6.6) or the “analytical approach” (discussed in Chapter 6.7).

For litigation involving infringement that has first occurred after patent issuance, the courts have held that the date for the hypothetical negotiation is taken to be (as discussed in 6.1) the “eve of first infringement.” However, in respect to a royalty for the pre-grant period, such a date is not as pronounced, since it is not clear what actions would have constituted infringement of a patent that was not yet issued.

The date of the hypothetical negotiation is important because (as discussed in Chapter 6.4) it determines the position of the negotiating parties. For example, an earlier hypothetical negotiation date can tend to lower the reasonable royalty because there will usually be greater

261 35 U.S.C. § 154.

uncertainty around the sales the defendant would make (and thus the value of the IP to the defendant) if it took a license, and the defendant may have to incur additional incremental costs (e.g., research and development costs) to successfully commercialize the technology. On the other hand, an earlier date for the hypothetical negotiation can also increase the royalty, because the defendant may be less likely to have an NIA available to it.

Conversely, a later date for the hypothetical negotiation, one that occurs after the IP has been commercialized, may increase the reasonable royalty, because the sales the defendant would make would be more certain, and any research and development costs associated with the patented invention would likely have been non-incremental “sunk costs” by that time. On the other hand, a later date for the hypothetical negotiation may also lower the royalty because the defendant may be more likely to have an NIA available to it (or at least, a greater prospect of developing one).

A plain reading of subsection 55(2) of the *Patent Act* finds that the statute reads “any act on the part of that person [...] that would have constituted an infringement of the patent if the patent had been granted on the day the application became open to public inspection.”²⁶² However, to the best of the authors’ knowledge, there is very little jurisprudential guidance on the date on which that negotiation would take place.

In [76] *Frac Shack v. AFD Petroleum* (2017 FC 104), where infringing sales were found to have pre-dated the date of patent issue, the question arose as to what constituted infringement which would influence the date of first infringement. In this case the Court concluded:²⁶³

262 [76] *Frac Shack v. AFD Petroleum* (2017 FC 104), at paragraph 314.

263 [76] *Frac Shack v. AFD Petroleum* (2017 FC 104), at paragraph 317.

[317] Mr. Harington [...] set the date of “first infringement” in March or April of 2011, when AFD started building their trailer [the product embodying the patented technology], rather than in September 2014, when the Defendant actually first infringed the ‘567 Patent [by making its first sale]. Based upon these considerations, he estimated that the royalty rate should be 10%.

[318] Ms. Basden stated that, for patented technology, a commonly considered royalty range is 25% to 33.3%, regardless of the technology at issue. She concluded that licencing to the Defendant would represent direct competition for Frac Shack; however, she noted that Frac Shack would have an interest in growing market awareness. Further, she acknowledged that the capital cost of making an AFD Frac Trailer is significant, such that the Defendant may not have agreed to a licence at a high royalty rate. Ms. Basden estimated that the royalty rate would have been negotiated at 29%.

[319] Mr. Reimer testified that, when the Defendant received the letter informing them of the fact that the ‘567 Patent was pending, the CEO of AFD, Parker McLean, did not stop developing the AFD Frac Trailer, nor did AFD consider negotiations with Frac Shack then or once the ‘567 Patent was granted. This evidence makes Mr. Harington’s position, that the appropriate date at which to consider negotiations is March or April 2011, unpersuasive.

Further, there has been no U.S. appellate review of the issue of the hypothetical negotiation date for a pre-issuance royalty. In [54] *Rosebud*

v. Adobe Systems (Fed. Cir. 2016), the first appellate reviews of the U.S. pre-issuances damages statute, the central question before the Court of Appeals for the Federal Circuit was whether an “actual notice of the published patent application” was a requirement to claim damages under 35 U.S.C. § 154(d), and not the quantification of the royalty.²⁶⁴

6.9

STANDARD ESSENTIAL PATENTS AND LICENSES ON FAIR, REASONABLE AND NON-DISCRIMINATORY TERMS

Standard setting is the process whereby innovators, practitioners and users come together to determine what constitutes a “technical standard.” Typically, this involves these parties working together with a standard-setting organization (SSO) to come to an agreement on which one from a number of alternative technologies is defined as the “standardized technology.” Indeed, most standards are complex and involve multiple different technologies. Patents adopted into the standard are referred to as standard-essential patents (SEPs).

As a general matter, the principles and methods described in the preceding chapters would apply to determining a royalty for SEPs. However, two issues that have arisen in this standard-setting context that are worth mentioning are “patent holdup” and “royalty stacking.”

To safeguard against the potential for “patent ambush,” whereby a patent holder conceals information during the standard-setting process about its patent portfolio, and subsequently asserts that its patents are infringed by use of the standard, many SSOs require that their members disclose any relevant patents during the standard-setting process.

²⁶⁴ [54] *Rosebud v. Adobe Systems* (2016 Fed. Cir.).

Further, to encourage widespread adoption of the standard and safeguard against the potential for opportunism, many SSOs typically require members whose patented technologies are included in a standard to license their patents on fair, reasonable and non-discriminatory (FRAND) terms. While FRAND licensing commitments are widespread across SSOs, such commitments typically do not define what is “fair, reasonable and non-discriminatory.”

To practice a standard technically, a user must read on all the patents that have been included in the standard. Accordingly, each of the holders of the patents included in the standard can (by enforcing the intellectual property rights to its patents alone) exclude any implementation not just from using the patent holder’s IP, but from the entire standard.

In this context of standard setting, the concern is that a patent holder may seek to opportunistically exploit the incorporation of its patented technology into a standard and demand supra-competitive royalties by “holding up” implementers that have already incurred sunk costs associated with specific investments that rely on the standard.²⁶⁵

The difficulty here is one of competing policy objectives. On the one hand, patents solve a social problem of underinvestment in innovation by granting temporary monopolies on inventive ideas. On the other hand, SSOs solve a different social problem by trying to facilitate social benefits from creating standards while simultaneously mitigating any market power created by the standard. Consequently, any application of IP principles should be mindful of these competing objectives.

Legal commentators have argued that such holdup behavior is anti-competitive and should be subject to regulatory and judicial scrutiny

265 Holdup is a more general concept that applies more broadly than the standard-setting context. In the broader context of IP, holdup can occur when the holder of a single patent (or a few patents) that is incorporated into a multi-component product demands supracompetitive royalties and tries to extract the entire value of the product (not just the incremental value contributed by its IP) by threatening to enforce the intellectual property rights to its patent(s) alone.

under applicable antitrust statutes.²⁶⁶ Further, some have argued that patent holders who have committed to SSOs to license their intellectual property on FRAND terms should not have the right to seek injunctions. In the U.S., some notable rulings on the issue of holdup are as follows:

In [28] *Broadcom Corp. v. Qualcomm Inc.* (2007 3d Cir.), Broadcom alleged that Qualcomm acted anticompetitively by committing to license its Wideband CDMA technology on fair, reasonable and non-discriminatory terms, so that it was adopted as part of the Universal Mobile Telecommunications System standard; and later, after implementers had locked in, by demanding non-FRAND royalties. The U.S. Court of Appeals for the 3rd Circuit held:²⁶⁷

Inefficiency may be injected into the standard-setting process by what is known as “patent hold-up.” An [SSO] may complete its lengthy process of evaluating technologies and adopting a new standard, only to discover that certain technologies essential to implementing the standard are patented. When this occurs, the patent holder is in a position to “hold up” industry participants from implementing the standard. Industry participants who have invested significant resources developing products and technologies that conform to the standard will find it prohibitively expensive to abandon their investment and switch to another standard. They will have become “locked in” to the standard. In this unique position of bargaining power, the patent holder may

266 In Canada, the Competition Bureau has included the issue of holdup in its *Enforcement Guidelines on Intellectual Property*. [See, Example 18 in Canadian Competition Bureau, *Enforcement Guidelines on Intellectual Property*, March 2016.]

267 [28] *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007).

be able to extract supracompetitive royalties from the industry participants.

[...]

We hold that (1) in a consensus-oriented private standard-setting environment, (2) a patent holder's intentionally false promise to license essential proprietary technology on FRAND terms, (3) coupled with an [SSO]'s reliance on that promise when including the technology in a standard, and (4) the patent holder's subsequent breach of that promise, is actionable anticompetitive conduct. This holding follows directly from established principles of antitrust law and represents the emerging view of enforcement authorities and commentators, alike. Deception in a consensus-driven private standard-setting environment harms the competitive process by obscuring the costs of including proprietary technology in a standard and increasing the likelihood that patent rights will confer monopoly power on the patent holder. Deceptive FRAND commitments, no less than deceptive nondisclosure of IPRs, may result in such harm.

In [45] *Apple Inc. v. Motorola, Inc.* (2014 Fed. Cir.), Apple argued that Motorola was not entitled to an injunction for infringement of its patent relating to packet information transmission over a cellular telecommunication system because Motorola's patent was a SEP, and thus Motorola had agreed to license it on fair, reasonable and non-discriminatory terms. The U.S. Court of Appeals for the Federal Circuit held that:²⁶⁸

268 [45] *Apple v. Motorola* (Fed. Cir. 2014).

To the extent that the district court applied a *per se* rule that injunctions are unavailable for SEPs, it erred. While Motorola's FRAND commitments are certainly criteria relevant to its entitlement to an injunction, we see no reason to create, as some amici urge, a separate rule or analytical framework for addressing injunctions for FRAND-committed patents. The framework laid out by the Supreme Court in *eBay*, as interpreted by subsequent decisions of this court, provides ample strength and flexibility for addressing the unique aspects of FRAND committed patents and industry standards in general. A patentee subject to FRAND commitments may have difficulty establishing irreparable harm. On the other hand, an injunction may be justified where an infringer unilaterally refuses a FRAND royalty or unreasonably delays negotiations to the same effect. To be clear, this does not mean that an alleged infringer's refusal to accept any license offer necessarily justifies issuing an injunction. For example, the license offered may not be on FRAND terms. In addition, the public has an interest in encouraging participation in standard-setting organizations but also in ensuring that SEPs are not overvalued. While these are important concerns, the district courts are more than capable of considering these factual issues when deciding whether to issue an injunction under the principles in *eBay*.

Applying those principles here, we agree with the district court that Motorola is not entitled to an injunction for infringement of the [patent at issue]. Motorola's FRAND commitments, which have

yielded many license agreements encompassing the [patent at issue], strongly suggest that money damages are adequate to fully compensate Motorola for any infringement. Similarly, Motorola has not demonstrated that Apple's infringement has caused it irreparable harm. Considering the large number of industry participants that are already using the system claimed in the [patent at issue], including competitors, Motorola has not provided any evidence that adding one more user would create such harm. Again, Motorola has agreed to add as many market participants as are willing to pay a FRAND royalty. Motorola argues that Apple has refused to accept its initial licensing offer and stalled negotiations. However, the record reflects that negotiations have been ongoing, and there is no evidence that Apple has been, for example, unilaterally refusing to agree to a deal. Consequently, we affirm the district court's grant of summary judgment that Motorola is not entitled to an injunction for infringement of the [patent at issue].

A second issue that has arisen in the context of standard setting is the concept of "royalty stacking."²⁶⁹ The idea is simple: if a practitioner must take a license from multiple parties to practice each and every one of the patents that have been incorporated to a technological standard, then, in principle, those licenses may "stack" such that the total royalty payments under all the necessary licenses is greater than the total value of the product embodying the standard.²⁷⁰

269 In principle, royalty stacking can occur in the broader IP context, for example, with a multi-component product.

270 Lemley, M. A., & Shapiro, C. (2006). Patent holdup and royalty stacking. *Tex. L. Rev.*, 85, 1991.

Accordingly, some commentators have argued that “the concern of royalty stacking requires that the court, to the extent possible, evaluate a proposed RAND rate in the light of the total royalties an implementer would have to pay to practice the standard.”²⁷¹

The first U.S. appellate review guidance on royalties for FRAND-encumbered SEPs was provided by the Court in [47] *Ericsson v. D-Link* (2014 Fed. Cir.). In this case, after years of licensing negotiations with several makers of devices compliant with the Institute of Electrical and Electronics Engineers’ 802.11 standards (more commonly known as “Wi-Fi”), Ericsson filed a patent infringement suit alleging these device makers infringed its patents that were essential to the Wi-Fi standard. A jury found Ericsson’s patents were valid and infringed by D-Link, and awarded Ericsson a reasonable royalty in the amount of approximately US\$10 million. On appeal, D-Link argued that Ericsson had acted in a manner inconsistent with its FRAND licensing commitments. The U.S. Court of Appeals for the Federal Circuit held:²⁷²

As with all patents, the royalty rate for SEPs must be apportioned to the value of the patented invention. When dealing with SEPs, there are two special apportionment issues that arise. First, the patented feature must be apportioned from all of the unpatented features reflected in the standard. Second, the patentee’s royalty must be premised on the value of the patented feature, not any value added by the standard’s adoption of the patented technology. These steps are necessary to ensure that the royalty award is based on the incremental value that the patented invention adds to the product, not any value added

271 [42] *In re Innovatio* (2013 N.D. Ill.), at 10.

272 *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201 (Fed. Cir. 2014), at 1232 to 1235.

by the standardization of that technology.

Just like modern electronic devices, technological standards include multiple technologies. We know that patents often claim only small portions of multi-component products and we have precedent which covers apportionment of damages in those situations. Similarly, SEPs can, and, often do, claim only limited aspects of the overall standard.

[...]

Just as we apportion damages for a patent that covers a small part of a device, we must also apportion damages for SEPs that cover only a small part of a standard. In other words, a royalty award for a SEP must be apportioned to the value of the patented invention (or at least to the approximate value thereof), not the value of the standard as a whole. A jury must be instructed accordingly. Our decision does not suggest that all SEPs make up only a small part of the technology in the standard. Indeed, if a patentee can show that his invention makes up “the entire value of the” standard, an apportionment instruction probably would not be appropriate.

Turning to the value of a patent’s standardization, we conclude that Supreme Court precedent also requires apportionment of the value of the patented technology from the value of its standardization. In *Garretson*, the Supreme Court made clear that, “[w]hen a patent is for an improvement, and not for an entirely new machine or contrivance, the patentee must show in what particulars his improvement has

added to the usefulness of the machine or contrivance. He must separate its results distinctly from those of the other parts, so that the benefits derived from it may be distinctly seen and appreciated.” In other words, the patent holder should only be compensated for the approximate incremental benefit derived from his invention.

This is particularly true for SEPs. When a technology is incorporated into a standard, it is typically chosen from among different options. Once incorporated and widely adopted, that technology is not always used because it is the best or the only option; it is used because its use is necessary to comply with the standard. In other words, widespread adoption of standard essential technology is not entirely indicative of the added usefulness of an innovation over the prior art. *Id.* This is not meant to imply that SEPs never claim valuable technological contributions. We merely hold that the royalty for SEPs should reflect the approximate value of that technological contribution, not the value of its widespread adoption due to standardization.

Because SEP holders should only be compensated for the added benefit of their inventions, the jury must be told to differentiate the added benefit from any value the innovation gains because it has become standard essential. Although the jury, as the fact finder, should determine the appropriate value for that added benefit and may do so with some level of imprecision, we conclude that they must be told to consider the difference between the added value of the technological invention and the added

value of that invention's standardization. Indeed, Ericsson admitted at oral argument that the value of standardization should not be incorporated into the royalty award.

[...]

In deciding whether to instruct the jury on patent hold-up and royalty stacking, again, we emphasize that the district court must consider the evidence on the record before it. The district court need not instruct the jury on hold-up or stacking unless the accused infringer presents actual evidence of hold-up or stacking. Certainly something more than a general argument that these phenomena are possibilities is necessary. Depending on the record, reference to such potential dangers may be neither necessary nor appropriate.

In this case, we agree with the district court that D-Link failed to provide evidence of patent hold-up and royalty stacking sufficient to warrant a jury instruction. If D-Link had provided evidence that Ericsson started requesting higher royalty rates after the adoption of the 802.11(n) standard, the court could have addressed it by instructing the jury on patent hold-up or, perhaps, setting the hypothetical negotiation date before the adoption of the standard. D-Link, however, failed to provide any such evidence. Absent evidence that Ericsson used its SEPs to demand higher royalties from standard-compliant companies, we see no error in the district court's refusal to instruct the jury on patent hold-up or to adjust the instructions expressly to take patent

hold-up into account. Indeed, as noted above, the court found that Ericsson complied with its FRAND obligations and did not demand an unreasonable royalty for use of its technology.

A jury, moreover, need not be instructed regarding royalty stacking unless there is actual evidence of stacking. The mere fact that thousands of patents are declared to be essential to a standard does not mean that a standard-compliant company will necessarily have to pay a royalty to each SEP holder. In this case, D-Link's expert "never even attempted to determine the actual amount of royalties Defendants are currently paying for 802.11 patents. In other words, D-Link failed to come forward with any evidence of other licenses it has taken on Wi-Fi essential patents or royalty demands on its Wi-Fi enabled products. Because D-Link failed to provide any evidence of actual royalty stacking, the district court properly refused to instruct the jury on royalty stacking.

7



SECTION

Common Considerations

This section lists factors that, on a case-by-case basis, may be relevant to either a computation of lost profits, an accounting of profits or a reasonable royalty.

While limitation periods are a relevant factor from a legal perspective, as these are not determined from an economic basis, they are beyond the scope of this book.

7.1

CURRENCY

Section 12 of the *Currency Act* states that “any reference to money or monetary value in any indictment or other legal proceedings shall be stated in the currency of Canada.”

The Supreme Court of Canada in [99] *Gatineau Power v. Crown Life Insurance* (1945 SCC SCR 655) referred to the “breach date rule,” which it described as “[i]n the ordinary case of a debt payable at a certain time, the date of payment becomes, in case of non-payment, the date of the breach or default.”²⁷³

In [23] *AlliedSignal v. du Pont* (1998 FC CanLII 7464), the Court stated:²⁷⁴

In my opinion, the circumstances of the case at bar do not fall within the breach-date rule, mainly because there is no date corresponding to the infringement of the patent, which occurred over a period of six years.

273 [99] *Gatineau Power v. Crown Life Insurance* (1945 SCC SCR 655), at page 658.

The “breach date rule” was previously laid down in *The Custodian v. Blucher* (1927 SCR 420) and in *S.S. Celia v. S.S. Volturmo* (1921 2 A.C. 544.), at 528.

274 [23] *AlliedSignal v. du Pont* (1998 FC CanLII 7464), at paragraphs 272 and 273.

Counsel for the defendant suggested that it would be appropriate to take the mid-point of each year and convert the amount owing per year at that point. In my opinion, this method is overly cumbersome, particularly when compared to the solution of converting the currency as at the date of judgment with respect to this report. In *Lee S. Wilbur & Co. v. "Martha Ingraham" (The)* (10 May 1989), Ottawa T-1114-87 (F.C.T.D.), Teitelbaum J. considered the application of the breach-date rule where there was no evidence of the appropriate date. In that case, he converted the currency as at the date of judgment. Although the facts of that case are not directly analogous to the present circumstances, I find that converting the currency as at the date of judgment with respect to this report is the only practicable solution.

More recently, the Court, in [74] *Dow v. Nova* (2017 FC 350), considered precedent cases but conducted a fact-specific analysis, stating:²⁷⁵

[185] Nova says that it is not possible to trace which funds were converted from U.S. dollars into Canadian dollars in order to pay Nova's ongoing Canadian dollar obligations. Nova combined the profits from the infringing SURPASS grades with all of its other money. The money was used for a variety of purposes, including building cash balances, paying down debt, paying dividends, converting to Canadian dollars to satisfy its Canadian dollar obligations and investing in capital expenditures. Nova argues that it is impossible to say whether or how the money that was gen-

275 [74] *Dow v. Nova* (2017 FC 350), at paragraphs 185 to 189.

erated from selling SURPASS was retained by Nova, and it therefore cannot be determined whether Nova retained the profits it made from the infringement in U.S. dollars.

[186] Dow points to the following evidence that Nova's profits on the infringing grades were received in U.S. dollars and largely retained or expended using that currency:

(a) As of October 1, 2008, the functional currency of Nova's Canadian operations was confirmed to be U.S. dollars. The U.S. dollar functional currency was chosen based on the assessment that the primary economic environment in which the company and its principal subsidiaries operate is the United States. The majority of sales of the infringing grades at issue in this reference took place after this date.

(b) As of 2009, Nova reviewed its significant purchase and sale contracts and, where possible, negotiated payments to be made in U.S. dollars in order to decrease the currency exposure for Nova's working capital balances. For example, in one agreement dated November 2009 between Nova and a major chemical company, there was a requirement that payments be made in U.S. dollars.

(c) Since 2009, transfers of ethylene from Nova's Western Olefins Division to Nova's Polyolefins Division have been in U.S. dollars.

(d) The majority of Nova's debt is held in U.S. dollars.

(e) Nova's parent company uses U.S. dollars as its functional currency.

[187] Nova maintained significant cash balances between 2006 and 2015. The cash balances increased from approximately \$74 million in 2008 to \$942 million in 2015. Nova did not provide the Court with a breakdown between U.S. and Canadian dollars, although it could easily have done so.

[188] The burden is on Nova to demonstrate that the profits it made from the infringing grades were converted into Canadian dollars, at what times and in what amounts. While I accept that some of the profits may have been used to acquire goods or services payable in Canadian dollars, Nova has provided no particulars. The preponderance of the evidence demonstrates that Nova retained the profits from the infringing grades primarily in U.S. dollars. Nova presumably used those profits to make investments in U.S. dollars, pay down U.S. dollar debt, pay dividends to its parent company in U.S. dollars, among other things.

[189] The evidence supports the conclusion that Nova's profits from the sale of the infringing grades were received and primarily retained in U.S. dollars. Nova has presented little evidence to the contrary. I am therefore satisfied that Nova's profits should be converted to Canadian dollars as of the date of the judgment.

Note that, consistent with the concept of putting the plaintiff in the same position in which it would have been had the wrong not occurred, it is possible that alternative treatment issues related to currency may be appropriate in certain circumstances.

Where, for example, the plaintiff historically, in the ordinary course of business, exchanged excess cash held in U.S. dollars back to Canadian dollars throughout the liability period, it may be appropriate to consider that the plaintiff would have likely done so on the additional profits that it would have generated, but for the defendant's infringement. Of course, in such a circumstance, a strict application of the above "breach date rule" may require consideration of different income tax and investment rates for the pre-judgment period, but each of these will need to be considered on a case-by-case basis.

Note that this section relates to the date of currency conversion where the entirety of the quantification was undertaken in a currency other than Canadian dollars. In cases where certain costs, for example the purchase of raw materials from overseas, were incurred within the damages period, those costs should be converted to Canadian dollars at the time that a payment would have been made in the ordinary course of business.

This need to focus on the specific facts for each item is highlighted in the supplemental decision in [75] *Dow v. Nova* (2017 FC 637), which addressed three items that the parties were not able to agree on following the initial Court ruling. One such item related to the date at which capital expenditures made by the defendant in Canadian dollars should be converted to U.S. dollars for the purpose of calculating annual capital depreciation. In this regard, the Court stated:²⁷⁶ (emphasis added)

276 [75] *Dow v. Nova* (2017 FC 637), at paragraphs 15 to 21.

[15] Pursuant to paragraph 5(b) of the Judgment in *Dow v Nova*, Nova may deduct a proportional amount of, inter alia, annual capital depreciation expenses for the PE2 plant, as well as ongoing capital costs for the PE2 plant, against the revenues derived from the sales of the infringing products for the period August 22, 2006 to December 31, 2015. The parties differ on when initial capital expenditures for the construction of the PE2 plant should be converted to USD for the purpose of calculating annual capital depreciation.

[16] Dow says that the appropriate date of conversion for initial PE2 plant construction costs is 2001, when the expenditure was incurred. Dow notes that Mr. Soriano generally converted expenditures reported in CAD to USD at the time they were incurred, except for the initial PE2 construction costs. In his calculation of initial PE2 plant construction costs, Mr. Soriano maintained capital expenditures in CAD, calculated the annual depreciation in CAD, and then converted the annual depreciation amount to CAD using the average exchange rate in the year of deduction.

[17] Dow complains that Mr. Soriano's approach results in a greater deduction for depreciation in USD than the costs Nova actually incurred in USD. Given the Court's finding that "[t]he preponderance of the evidence demonstrates that Nova retained the profits from the infringing grades primarily in U.S. dollars", Dow says that converting capital expenditures to USD at the time they were incurred best reflects Nova's economic reality.

[18] Nova responds that the methodology used by Mr. Soriano was not challenged by Dow on cross-examination. Mr. Hamilton did not take issue with his approach, or offer a competing opinion. According to Nova, standard accounting principles recognize capital-related expenditures as multi-year expenses. They represent the economic cost of consumed capital from the use of an asset.

[19] When the PE2 plant was constructed, Nova's functional currency was not yet USD. The Court's finding that Nova generally retained its profits from the infringing products in USD pertains to the period of infringement, and is not necessarily applicable to initial PE2 plant construction expenses.

[20] The PE2 plant was built over a number of years. Nova notes that the conversion rate in 2001 was unusually low: 1.55. This may be contrasted with a conversion rate of 1.38 in 1997, 1.48 in 1998, and 1.49 in 1999 and 2000. Nova maintains that it would be unjust to apply only the lowest conversion rate from the relevant period.

[21] There is a danger that imposing 2001 as the single point of conversion would be punitive, contrary to the purpose of an accounting of profits. Mr. Soriano's approach is reasonable, supported by the evidence, and unchallenged by the other expert witnesses who testified in this Reference. I therefore agree with Nova that it is the preferred approach.

7.2

HINDSIGHT

Damages and an accounting of profits are awarded after trial relating to a period of time where the defendant's infringement is an *ex post* fact. However, quantifying those damages or the accounting of profits requires an assessment of the but-for world, i.e., the counterfactual world that would have existed in the past had the defendant not infringed. The question arises, then, to what extent one can use hindsight and base the construction of the but-for world on actual events that transpired in the real world.²⁷⁷

The Supreme Court, in [104] *Cadbury Schweppes v. FBI Foods* (1999 SCC S.C.R. 142), citing [105] *Canson Enterprises v. Boughton* (1991 SCC S.C.R. 534), stated:²⁷⁸ (emphasis added)

In summary, compensation is an equitable monetary remedy which is available when the equitable remedies of restitution and account are not appropriate. By analogy with restitution, it attempts to restore to the plaintiff what has been lost as a result of the breach; *i.e.*, the plaintiff's lost opportunity. The plaintiff's actual loss as a consequence of the breach is to be assessed with the full benefit of hindsight. Foreseeability is not a concern in assessing compensation, but it is essential that the losses made good are only those which, on a common sense view of causation, were caused by the breach.

²⁷⁷ In addition to this chapter, we suggest that the reader refer to Chapter 6.4.

²⁷⁸ [104] *Cadbury Schweppes v. FBI Foods* (1999 SCC S.C.R. 142), at page 181.

The Supreme Court, in [105] *Canson Enterprises v. Boughton* (1991 SCC S.C.R. 534), citing *Guerin v. The Queen* (1984 SCC S.C.R. 335), continued with regard to the date from which hindsight is to be used, stating:²⁷⁹ (emphasis added)

A related question which must be addressed is the time of assessment of the loss. In this area tort and contract law are of little help. There the general rule is that damages are assessed based on the value of the shares as at the time of the wrongful act, in view of what was then foreseeable, either by a reasonable person, or in the particular expectation of the parties. Various exceptions or apparent exceptions are made for items difficult to value, such as shares traded in a limited market. The basis of compensation at equity, by contrast, is the restoration of the actual value of the thing lost through the breach. The foreseeable value of the items is not in issue. As a result, the losses are to be assessed as at the time of trial, using the full benefit of hindsight.

The principles underlying the use of hindsight in damages cases were discussed in [103] *Athey v. Leonati* (1996 SCC S.C.R.3 458), where the Court stated:²⁸⁰

[31] The respondents also sought to draw an analogy with cases where an unrelated event, such as a disease or non-tortious accident, occurs after the plaintiff is injured. One such case was *Jobling v. Associated Dairies Ltd.*, [1981] 2 All E.R. 752 (H.L.), in which the defendant negligently caused the plaintiff to suffer a back injury. Before the trial took place, it was

279 [102] *Canson Enterprises v. Boughton* (1991 SCC S.C.R. 534), at page 554.

280 [103] *Athey v. Leonati* (1996 SCC S.C.R.3 458), at paragraphs 31 and 32.

discovered that the plaintiff had a condition, completely unrelated to the accident, which would have proved totally disabling in a few years. Damages were reduced accordingly. In *Penner v. Mitchell* (1978), 89 D.L.R. (3d) 343 (Alta. C.A.), damages for loss of income for 13 months were reduced because the plaintiff had a heart condition, unrelated to the accident, which would have caused her to miss three months of work in any event.

[32] To understand these cases, and to see why they are not applicable to the present situation, one need only consider first principles. The essential purpose and most basic principle of tort law is that the plaintiff must be placed in the position he or she would have been in absent the defendant's negligence (the "original position"). However, the plaintiff is not to be placed in a position better than his or her original one. It is therefore necessary not only to determine the plaintiff's position after the tort but to assess what the "original position" would have been. It is the difference between these positions, the "original position" and the "injured position", which is the plaintiff's loss. In the cases referred to above, the intervening event was unrelated to the tort and therefore affected the plaintiff's "original position". The net loss was therefore not as great as it might have otherwise seemed, so damages were reduced to reflect this.

One area where the court has considered hindsight to be inappropriate is in the context of hypothetical royalty rate negotiations. One such consideration is where non-infringing alternatives did not exist at the time of the royalty rate negotiation. This issue is discussed in [43] *Mer-*

ck v. Apotex (2013 FC 751 lovastatin, aff'd 2015 FCA 171),²⁸¹ where the Court stated:²⁸²

[159] I see no principled reason to depart from Dr. Meyer's proposed one-time negotiation in this case. The fact that there were, as described by Apotex, two periods of infringement or that only 60% of the lovastatin was, in fact, infringing does not change the underlying premise of the hypothetical negotiations. That key premise is that, by entering into the licensing agreement, an infringer avoids all future acts of infringement, no matter how such infringement might occur or no matter how much infringement might take place. With a licence in hand, Apotex could have made every single batch of Apo-lovastatin API using the AFI-1 process. It was not faced with the uncertainty of whether Blue Treasure would or would not use the infringing AFI-1 or non-infringing AFI-4 process. Apotex could have mixed its non-infringing API with infringing API without a care. In my mind, there would have been economic efficiencies to be gained by a onetime licence.

[...]

[161] Moreover, Apotex's position that the two-phase infringement separated by an intervening period of non-infringement mandates a later date of negotiation is self-serving. Apotex knows now – although it did not know in November 1996 – that it would have the Health Canada “no objection” letter regard-

281 Note that this issue was not addressed by the Court of Appeal.

282 [43] *Merck v. Apotex* (2013 FC 751 lovastatin, aff'd 2015 FCA 171), at paragraphs 159 to 161.

ing its notifiable change to the AFI-4 process in February 1997. Thus, if the hypothetical negotiations were held on the eve of the second infringing period, risk connected to issues of regulatory approval of the AFI-4 process would be close to zero, thus decreasing any negotiated royalty. A party to the hypothetical negotiations should not be able to gain an advantage from structuring his infringement to benefit from after-the-fact knowledge of regulatory decisions.

The issue of the use of hindsight, and the risk of hindsight bias, in royalty rate negotiations, and how that differs from its use in a lost profits computations, was also addressed by the Court in [55] *Eurocopter v. Bell Helicopter* (2017 FC 170):²⁸³

[283] While causation is a necessary ingredient in an account of profits analysis, it is less obvious in case where the Court is asked to reconstruct a hypothetical negotiation for the conclusion of a license agreement taking place on the eve of first infringement of a valid patent. Where the patentee has been allowed to seek an accounting of profits, the patentee is only entitled to that portion of the infringer's profits which is causally attributable to the use of the invention (*Lubrizol Corp v Imperial Oil Ltd*, 1996 CanLII 4042 (FCA), [1996] 3 FC 40, [1996] FCJ No 454 (FCA), rev'g [1994] FCJ No 1441 (FCTD) [*Lubrizol*]; *Celanese International Corp v BP Chemicals Ltd*, [1999] RPC 203, (1999) 22(1) IPD 22002 (Pat Ct) at para 37 [*Celanese*]; *Monsanto Canada Inc v Schmeiser*, 2004 SCC 34 (CanLII) [2004] 1 SCR 902 at para 101). In

283 [55] *Eurocopter v. Bell Helicopter* (2017 FC 170), at paragraphs 283 and 295.

such a case, the calculation is made *ex post* with the full benefits of hindsight. (Siebrasse 2004).

[295] The fact that Bell was able to develop the Production gear at some posterior date does not allow the Court to infer that Bell would have done so on the eve of first infringement of the '787 Patent. It would simply be too easy to allow infringers of a valid patent, to retroactively rewrite history to escape their liability to pay damages by bringing out scenarios that were never considered or unrealistic on the eve of first infringement. This is not a policy statement, but an observation based on the rule of law and due process. The rules of evidence are there to protect the right of each party to fairly present their case before the Court. In the case at bar, Bell is claiming to have had NIA(s) that were not yet known (the Production gear) or had been earlier discarded (the I-Beam gear). This raises a question of credibility. This is where the evidence of Bell is unreliable and speculative. In other words, if a look into what transpired in the "real world" is acceptable to a certain point, it must not translate itself in some "hindsight bias", which can be defined as the inclination, after an event has occurred, to see the event as having been predictable, despite there having little or no objective basis for predicting it (N. J. Roese and K.D. Vohs' "Hindsight bias" (2012) 7:2 Perspectives on Psychological Science at pages 411426).

In situations such as a hypothetical royalty rate negotiation, where hindsight is not explicitly included, the negotiation should, however, still take into account subsequent events that were reasonably foreseeable at the time of the negotiation. This question of the "pure" use of

ex ante knowledge, as compared to *ex post* knowledge, or hindsight, as well as the concept of the “book of wisdom,” was discussed at length in [55] *Eurocopter v. Bell Helicopter* (2017 FC 170), which, while unique to the facts of that case, sets out the principles:²⁸⁴

[285] [...] Most frequently, in a “damages award”, to determine the maximum amount which the infringer would have paid and the patentee would have accepted, courts refer to a “pure *ex ante*” approach, based on whatever information would have been available to the parties. The conventional rationale for the *ex ante* approach is that it preserves the patent incentive system by ensuring that the patentee is no worse off (but also no better off) than it would have been, but for the infringement.

[286] As noted by the learned academic and author, Norman Siebrasse, “[t]he hypothetical negotiations which form the basis for the reasonable royalty take place before the patent is used, and so the price the willing licensee would pay would depend on the anticipated profit from the use of the patent”, and “[t]he fact that the benefit was not actually realized does not mean that the licensee would not have agreed to pay a royalty at the time of the initial use”. Accordingly, the reasonable royalty should be calculated on the basis of that anticipated profit. [...]

[...]

[290] Conversely, the *ex ante* approach can sometimes result in awards that reflect the parties’ erroneous “*ex*

284 [55] *Eurocopter v. Bell Helicopter* (2017 FC 170), at paragraphs 285 to 307.

ante” expectations. In this context, Siebrasse proposes to explore a new Canadian perspective in the hypothetical negotiation which is not far from the recourse in the United States to the “book of wisdom”: “[...] some commentators have proposed a ‘pure *ex post*’ approach which aspires to recreate the bargain the parties might have reached as of some later date, such as the date of judgment. This approach uses more accurate information about the technology’s actual value, but (contrary to sound innovation policy) it also would enable the patentee to capture some of the patent’s holdup value.”

[291] With respect to this *ex post* approach, the US Supreme Court, per Justice Cardozo, stated in *Sinclair Refining Co v Jenkins Petroleum Process Co* (1933), at 698: “[A] different situation is presented if years have gone by before the evidence is offered. Experience is then available to correct uncertain prophecy. Here is a book of wisdom that courts may not neglect. We find no rule of law that sets a clasp upon its pages, and forbids us to look within.”

[292] More recently, in Canadian jurisprudence, Justice Snider stated in *JayLor* at paragraph 151, that “[f]or purposes of the hypothetical negotiations, both parties are assumed to know all of the facts”, including “the actual financial information that has come available through [the] litigation and over time.” Similarly, in *Apotex Inc v Takeda Canada Inc*, 2013 FC 1237, at paragraph 21, Justice Phelan stated that: “The better approach is to mirror as much as possible real world circumstances – to use history as the basis of the calculation of the hypothetical world. In this case the parties start from the premise that real world events post

Apotex's NOC give the basis upon which to then work out what likely would have happened if Apotex had not been held back approximately one year."

[293] [...] At this point, while this Court understands that it may make inferences based on post events, it cannot reconstruct the hypothetical negotiation taking place on the eve of first infringement in ignorance of the totality of the evidence (pre and post) on record. It may also be appropriate to have a reality check with actual profits made by the infringer where such evidence exists on the record. Such *ex post* facto evidence may be used to corroborate the calculations made by the experts with respect to anticipated profits on the eve of first infringement. But this recourse to the evidence is limited.

[294] Using "the actual financial information that has come available through [the] litigation and over time" (Jay-Lor at para 151) is one thing, but reconstructing the bargaining position of the parties, based on a predictive model tainted by questionable inferences made *ex post* facto, is another. A presumption is an inference drawn by the law or the Court from a known fact, while presumptions which are not established by law are left to the discretion of the Court which shall take only serious, precise, and concordant presumptions into consideration. Inferences must be grounded on evidence, but the evidence itself must be reliable. There is a fundamental element of uncertainty and chance in the real world. The fact that the farmer was able to catch the fox who had killed his chicken the week before does not mean that he will be able to do so in the future or that he would have done so a year earlier. The trier of

fact would like to know more about the farmer's various methods, his test and fail experiences, etc. before drawing any sort of conclusion.

[295] [...] It would simply be too easy to allow infringers of a valid patent, to retroactively rewrite history to escape their liability to pay damages by bringing out scenarios that were never considered or unrealistic on the eve of first infringement. This is not a policy statement, but an observation based on the rule of law and due process. The rules of evidence are there to protect the right of each party to fairly present their case before the Court. In the case at bar, Bell is claiming to have had NIA(s) that were not yet known (the Production gear) or had been earlier discarded (the I-Beam gear). This raises a question of credibility. This is where the evidence of Bell is unreliable and speculative. In other words, if a look into what transpired in the "real world" is acceptable to a certain point, it must not translate itself in some "hindsight bias", which can be defined as the inclination, after an event has occurred, to see the event as having been predictable, despite there having little or no objective basis for predicting it

[296] Although this principle is not directly addressed in Mr. Heys' report, Dr. Schwartz addressed the book of wisdom in his testimony. During his examination in chief, Dr. Schwartz engaged in the following exchange with the Court (Transcript Volume 7 at page 215) [Emphasis added]:

JUSTICE MARTINEAU: Because you're at the eve of the infringement. Both parties are there to negotiate in

good faith what would be a transfer of what you could speak as being practising the patent without any infringing risk.

MR. SCHWARTZ: That's right, although what makes it both interesting and complicated is that, in the course of that analysis, there is a principle that we call the book of wisdom which says, in effect, we're going to inform that hypothetical negotiation by what actually happened. Not that we're going to have it driven by, but if it turns out, for example, that the parties' expectations are so out of line from what actually happened in the marketplace, either under-performing or over-performing, whatever it might be, that we're going to factor that actual performance back in so that when we get a compensatory result, it actually is consistent with what really happened. And that's one of the challenges here because the hypothetical negotiation is exactly as you described. It's a negotiation that would transfer a licence from Airbus to Bell that would assume that Bell could use it for whatever was agreed to. [Emphasis added]

[297] On cross-examination, counsel for Airbus questioned Dr. Schwartz with respect to the book of wisdom (Transcript Volume 8 at page 183 and following):

MR. NITOSLAWSKI: And what the book of wisdom principle is, as I understand it, is you look to current events, what happens in 2014, '15, '16, to inform what happened at the hypothetical negotiation back in 2005. Is that my correct understanding of the book of wisdom?

DR. SCHWARTZ: Not quite. It's not just current events. The way I would characterize it is you look at what actually happened not necessarily giving more weight to any one time period or another, although that depends on the facts of the particular situation, but you're informing the negotiation by recognizing what actually took place.

MR. NITOSLAWSKI: What actually happened. And here what actually happened is that there were only 21 infringing landing gear.

DR. SCHWARTZ: Yes.

MR. NITOSLAWSKI: That were never sold.

DR. SCHWARTZ: Yes.

MR. NITOSLAWSKI: So in fact what we're looking at in the hypothetical negotiation with the assistance of the book of wisdom is a development licence. Never any sales.

DR. SCHWARTZ: The problem with that is that you're essentially changing the construct of the negotiation. I understand the point that you're making, but you're changing the construct of the negotiation.

MR. NITOSLAWSKI: Sir, aren't you changing the construct of the negotiation by saying that the parties would negotiate a licence based on units sold but no, they weren't sold, so we'll pay it anyway because they weren't sold, but they were made. Isn't that changing the construct of the negotiation?

DR. SCHWARTZ: I don't think so.

MR. NITOSLAWSKI: Okay. So coming back to my suggestion that what the parties, with the benefit of the book of wisdom, negotiated as a development licence, does that not justify a lump sum rather than a running royalty based on sales, which never occurred?

DR. SCHWARTZ: You've asked me that question before, I'll answer it again. I will stick with the same answer. I think

that the running royalty is the more appropriate answer. But if you ask me is there a possibility that they might agree to pay 101,000, I can't exclude that possibility. I still believe that the more likely outcome is the running royalty, but I can't exclude the possibility of the lump sum were the parties to agree that it was a development licence. I can't exclude that possibility.

[298] As can be seen, Dr. Schwartz's analysis is somewhat result driven. While at times, Dr. Schwartz resorts to an *ex post* approach in reconstructing the hypothetical negotiation taking place on the eve of first infringement in the fall of 2005, on the other hand, he continues to use the saved incremental costs of developing a NIA (assumed to include the non-existent Production gear at the time of the hypothetical negotiation) based on projected sales of Bell 429 helicopters incorporating the twenty-one infringing Legacy gears which were never sold to any customers but were, according to the uncontradicted evidence, exclusively used by Bell for its own purposes, including obtaining the certification of the Bell 429 and promoting sales of the Bell 429 (resulting in a number of LOIs). This biased methodology produces the running royalty model advocated by Dr. Schwartz.

[299] On the other hand, the plaintiff would have clearly looked for a higher rate of license, considering the high demand for the Bell 429. Under the book of wisdom, the plaintiff has submitted, as an alternative, that Airbus would likely have accepted to enter into a

“license for development” for a minimum amount of \$2 million (Airbus’ final argument at paras 196-204/ Counsel’s Eyes Only; Transcript Volume 10 at pages 78-79). Although the defendant has greatly benefited from the research and development accomplished by Airbus with the “Moustache” gear, the words “license for development” are somewhat confusing.

[300] First, from an *ex ante* perspective it is very doubtful that Bell would have agreed on such “development license” in light of the jurisprudential exception to infringement: “the idea is that producing a patented product is not infringement if it is done for the purposes of experimentation and testing; *Micro Chemicals Ltd v Smith Kline & French Inter-American Corp*, 1971 CanLII 180 (SCC), [1972] SCR 506 and *Merck & Co v Apotex Inc*, [2006] FCJ 671, 2006 FC 524 (CanLII)”) (2012 FC Judgment at para 54). On the flip side, the experimental exception was dismissed as a valid defence to the infringement action in the first phase of the trial because “Bell did not construct, used or sold the Legacy gear solely for uses reasonably related to the development and submission of information required by law” (2012 FC Judgment at para 268).

[301] Second, we are not in a context where Eurocopter was ever obliged by law to agree on the terms of a compulsory license granted to Bell to develop a non-infringing alternative resulting from an unauthorized use of the patented landing gear. Be that as it may, the incremental cost of developing a “clean sheet” non-infringing alternative should have a significant impact on the determination of a reasonable

royalty. Accordingly, the specific circumstances of the case point more toward a “license to use”, rather than “license for development”.

[302] While this Court cannot find any valid NIA that would have been available at the time of the hypothetical negotiation and/or would have properly fit with the entire design of the Bell 429 (except possibly the Conventional gear with a weight penalty of at least 16 lbs), this does not mean (sic) that it should ignore “real world” events that arose after the fall of 2005, and in particular, that only twenty-one Legacy gears were manufactured and used by Bell, that no Bell 429 equipped with the infringing Legacy gear has been delivered to customers, and that a number of LOIs for the Bell 429 were secured prior to the development of the Production gear.

[303] Apparently, the teachings of the “book of wisdom” seem to have somewhat softened the unrealistic position advocated in Mr. Heys’ report. At the end of the trial, there were suggestions that since the Legacy gear was never incorporated in Bell 429 helicopters sold to clients, the plaintiff would have more willingness to grant a license to make and use the Legacy gear in order to facilitate the testing and the certification process of the Production gear.

[304] In current practice, a reasonable royalty is assessed by determining the incremental profit due to the patented invention as compared with the next best non-infringing alternative, and then splitting that incremental profit between the parties. See Norman Siebrasse and Thomas F. Cotter “A New Frame-

work for Determining Reasonable Royalties in Patent Litigation” (2014) Florida Law Review 34 at page 21). However, a profit based on methodology proves to be useless in the present case since there have been no delivery of Bell 429 helicopters equipped with the infringing Legacy gears. Be that as it may, this does not mean that there should be no value attributed to the invention since it was nevertheless used at the benefit of Bell during the three year infringement period, while no compensation for the infringing use has ever been proposed by Bell or accepted by Airbus in the contrary case.

[305] Although the parties have attempted to determine the value of the Legacy gear in the mind of the customer for Bell 429, no real value was proposed for the patented Legacy gear and all its features for Bell, especially its beneficial weight, which was preferred for the final design of the Bell 429 helicopter in 2005. However, if we look in the future, it appears that weight savings continued to be a live issue. As appears from the 2012 Presentation (exhibit P117 at page 15/Counsel’s Eyes Only), Bell was willing to invest approximately [redacted in original] on a three year period to save [redacted in original] lbs off their aircraft. There is a 16 lb economy between the Legacy and the Production gears (this excludes the 10 lbs or so economy resulting from the elimination of the wire cutter).

[306] As a starting point for discussions, it would not be unreasonable for Airbus to assume, in the context of the hypothetical negotiation, that the value of the infringing gear would roughly represent [redacted

in original] of the projected investment [redacted in original] for Bell, who was prepared to invest such amount, while still looking to recover profit in totality with the sales of the new Bell 429 helicopter. As seen in *AlliedSignal*, the Court has, in the past, turned to indirect evidence of what might have been considered reasonable, to lead to a 25-33.3% royalty rate, based on higher or lower factors. At such, the Court finds that, on the eve of the first infringement, it would not be unreasonable for the plaintiff to ask for a greater range of royalty considering the great value Bell has for lighter aircrafts. A split of 75%25% between Bell and Airbus would represent \$800,000 and may give a general idea of the range of reasonable propositions respectively made in a hypothetical negotiation.

[307] Resorting to the book of wisdom and considering the totality of the evidence, the Court finds that a figure of approximately \$500,000 in compensatory damages falls within the range of acceptable outcomes of a hypothetical negotiation taking place in the fall of 2005 for the payment of a royalty payment corresponding to the infringing use of twenty-one Legacy gears.

For further discussion concerning the book of wisdom, see Chapter 6.2.

7.3

INCOME TAXES

For lost profits, the foundational objective of a computation of monetary remedies is to restore the party that has sustained injury and loss to the financial condition in which it would have been had the wrong not taken place. As described further below, an award of a monetary remedy in Canada will be taxable in the hands of the plaintiff; accordingly, in order to put the plaintiff in the same position it would have been, the damages must be computed on a pre-tax basis.

As to the taxability of monetary awards, the issue was addressed in [109] *Transocean Offshore v. Canada* (2005 FCA 104), which stated:²⁸⁵ (emphasis added)

“Part I of the Income Tax Act...taxes every resident of Canada on all profits earned from a business or property anywhere in the world. The concept of “profit” is very broad, but it is not broad enough to include capital receipts. Thus, the question addressed in these cases was whether a payment made to a landlord as damages or settlement of the termination of a lease is income or a capital receipt. For the purposes of Part I of the Income Tax Act, the answer to that question requires the application of a judge-made rule, sometimes called the “surrogatum principle”, by which the tax treatment of a payment of damages or a settlement payment is considered to be the same as the tax treatment of whatever the payment is intended to replace. Thus, an amount paid as a settlement or as damages is income if it is paid as compensation for lost future rent (Grader, Monart, Reusse Construction, cited above). It is a

285 [109] *Transocean Offshore v. Canada* (2005 FCA 104), at paragraph 50.

capital receipt if it is compensation for a diminution of capital of the recipient.”

Similarly, for an accounting of profits, the object is to place the defendant in the position it would have been in had it not infringed. As the inverse of the tax treatment in the hands of the plaintiff, the payment of a monetary remedy is deductible for income tax purposes in the hands of the defendant and, accordingly, in order to put the defendant in the same position it would have been in, the profits of the defendant must be computed on a pre-tax basis.

The leading case in this respect is [105] *65302 British Columbia Ltd. v. The Queen* (1999 SCC SCR 804). The findings in this case are summarized in Income Tax Bulletin IT467-R2 dated November 13, 2002, which states:²⁸⁶

In *65302 British Columbia Ltd. v. The Queen*, [2000] 1 CTC 57, 99 DTC 5799, the Supreme Court of Canada allowed as a deductible expense an over-quota levy incurred by the taxpayer in respect of its egg-producing hens. The following general principles are found in the reasons for this decision:

- The characterization of a levy as a “fine” or “penalty” is of no consequence (*i.e.*, does not make it any less deductible), because the income tax system does not distinguish between levies (which are essentially compensatory in nature) and fines and penalties (which are punitive in nature).
- The deduction of a fine or penalty cannot be disallowed solely on the basis that to allow it would be considered contrary to public policy.
- Prohibiting the deductibility of fines and penalties is incon-

286 Tax Bulletin IT467-R2, dated November 13, 2002.

sistent with the practice of allowing the deduction of expenses incurred to earn illegal income.

- In order for a fine or penalty to be deductible in computing income from a business or property, paragraph 18(1)(a) of the Act requires that it be incurred for the purpose of gaining or producing income from that business or property.
- Paragraph 18(1)(a) contains no requirement that a fine or penalty must be unavoidable in order for it to be deductible.
- Notwithstanding that a fine or penalty may have been incurred for the purpose of gaining or producing income from a business or property within the meaning of paragraph 18(1)(a), its deductibility can nevertheless be disallowed by another provision in the Act.

More recently, the issue of whether the conduct of the taxpayer attempting to deduct the expense should be considered when assessing the deductibility of the expense was addressed in [118] *CIBC v. Canada* (2013 FCA 122), where the Court found in favour of the taxpayer, stating:²⁸⁷

[65] The Crown submits that the [*obiter dictum* in [108] *65302 British Columbia Ltd. v. The Queen* (1999 SCC SCR 804)] affords a basis for its argument that the deduction of an expense incurred because of conduct that is “egregious or repulsive” may be prohibited by paragraph 18(1)(a). In my view, the Crown’s submission is based on a misinterpretation of the *obiter dictum*..... I do not accept that Justice Iacobucci, having rejected the notion that

287 [118] *CIBC v. Canada* (2013 FCA 122), at paragraphs 65, 78 and 79.

the Courts may superimpose on paragraph 18(1)(a) a non-legislated public policy test, would accept in the very same case the proposition that the Courts nevertheless may superimpose on paragraph 18(1)(a) a non-legislated requirement that the taxpayer's conduct not be "egregious or repulsive".

[...]

[78] In my view, subsection 9(1) does not harbour an implicit morality test that could deny the deduction of a claimed business expense that is deductible under well accepted business principles and passes all of the specific statutory tests for deductibility.

[79] It is true that in determining whether a particular amount is deductible in computing the income of a business for income tax purposes, it may be necessary to consider whether there is a sufficient factual connection between the amount in issue and the business in respect of which the deduction is claimed. That is implicit in the word "profit" in subsection 9(1) of the *Income Tax Act* because "profit" ordinarily means the difference between the revenue of a business and the expenses incurred to derive the revenue, and therefore the determination of "profit" necessarily imports the well accepted business principles that must be applied in determining permissible deductions. ...

7.4

PRE-JUDGMENT
INTEREST – DAMAGES

The rulings of the courts setting out the bases for pre-judgment interest (PJI) tend to differ between damages (including reasonable royalty) and an accounting of profits. For this reason, while we are including both side by side in this section, we have also summarized the case law for each separately, and this section addresses those relating to damages.

The Federal Courts Act states, at section 36, that:

Pre-judgment interest — cause of action within province

36 (1) Except as otherwise provided in any other Act of Parliament, and subject to subsection (2), the laws relating to prejudgment interest in proceedings between subject and subject that are in force in a province apply to any proceedings in the Federal Court of Appeal or the Federal Court in respect of any cause of action arising in that province.

Prejudgment interest — cause of action outside province

36 (2) A person who is entitled to an order for the payment of money in respect of a cause of action arising outside a province or in respect of causes of action arising in more than one province is entitled to claim and have included in the order an award of interest on the payment at any rate that the Federal Court of Appeal or the Federal

Court considers reasonable in the circumstances, calculated

(a) where the order is made on a liquidated claim, from the date or dates the cause of action or causes of action arose to the date of the order; or

(b) where the order is made on an unliquidated claim, from the date the person entitled gave notice in writing of the claim to the person liable therefor to the date of the order.

Exceptions

(4) Interest shall not be awarded under subsection (2)

(a) on exemplary or punitive damages;

(b) on interest accruing under this section;

(c) on an award of costs in the proceeding;

(d) on that part of the order that represents pecuniary loss arising after the date of the order and that is identified by a finding of the Federal Court of Appeal or the Federal Court;

(e) where the order is made on consent, except by consent of the debtor; or

(f) where interest is payable by a right other than under this section.

Where the plaintiff alleges that it has suffered consequential damages in the form of lost investment opportunities, then that should be considered as a separate head of damages as discussed in Chapter 3.9, in which case PJI is not awarded pursuant to section 36(4)(f) of the *Federal Courts Act*. This issue was discussed in [32] *Eli Lilly v. Apotex* (2009 FC 991 cefaclor, aff'd 2010 FCA 240), where the Court stated at the liability phase that:²⁸⁸

[666] By operation of para. 36(4)(b) of the Federal Courts Act, interest cannot be awarded by virtue of subs. 36(2) on interest accruing under s. 36. This, the Courts have determined, precludes prejudgment compound interest from being awarded on damages (Merck & Co. (FCA)).

[667] However, that is not to say that the reference which will deal with the quantification of damages or profits (depending on Lilly's election) cannot award compounded pre-judgment interest (even at an elevated rate) as an element of compensation, provided it is adequately proven by Lilly. When so awarded, interest becomes part of a damage award and is not itself an award of interest.

In [61] *Beloit v. Valmet-Dominion* (1997 FCA CanLII 6342), the Court stated:²⁸⁹

Before us, the focus of the appellants' contention on this issue, as we understand it, was upon the failure

288 [32] *Eli Lilly v. Apotex* (2009 FC 991 cefaclor, aff'd 2010 FCA 240), at paragraphs 666 and 667. Note that the award subsequently made at the reference in [46] *Eli Lilly v. Apotex* (2014 FC 1254 cefaclor, appeal pending) was made pursuant to the exception in section 36(4)(f) and has been discussed in Chapter 3.9.

289 [61] *Beloit v. Valmet-Dominion* (1997 FCA CanLII 6342).

by the Trial Judge to apply the proper legal test in making the award and not upon whether there was a factual justification for the award.

We are all of the view that there is, in law, no legal test which mandates the award of compound interest pre- and post-judgment to a successful patentee in an infringement action. Acceptance of such a thesis would imply a rejection of the discretionary nature of the award.

Thereafter, the Supreme Court, in [106] *Bank of America v. Mutual Trust* (2002 SCC 43), provided a comprehensive discussion of the award of PJI in a damages context. Incorporating the relevant sections of this ruling would require including substantially the entire ruling herein, which, for brevity, we will not do. Accordingly, the reader is encouraged to refer to this case.²⁹⁰ The Court concluded, however, that:²⁹¹

[44] Compound interest is no longer commonly thought to be, in the language quoted in *Costello*..., usurious or to involve prohibitively complex calculations. Compound interest is now commonplace. Mortgages are calculated using compound interest, as are most other loans, including such worthy endeavours as student loans. The growth of a company or a country's gross domestic product over a period of years is often stated in terms of an annually compounded rate. The bank rate, which garners much attention as an indicator of the health and direction of the economy, is a compound interest rate. It is for reasons such as these that the common law now in-

290 See <https://www.canlii.org/en/ca/scc/doc/2002/2002scc43/2002scc43.html>.

291 [106] *Bank of America v. Mutual Trust* (2002 SCC 43), at paragraphs 44, 45 and 55.

corporates the economic reality of compound interest. The restrictions of the past should not be used today to separate the legal system from the world at large.

[45] If the court was unable to award compound interest on the breach of a loan which itself bore compound interest, it would be unable to adequately award the plaintiff the value he or she would have received had the contract been performed. To keep the common law current with the evolution of society and to resolve the inconsistency between awarding expectation damages and the courts' past unwillingness to award compound interest, that unwillingness should be discarded in cases requiring that remedy for the plaintiff to realize the benefit of his or her contract.

[...]

[55] An award of compound pre- and post-judgment interest will generally be limited to breach of contract cases where there is evidence that the parties agreed, knew, or should have known, that the money which is the subject of the dispute would bear compound interest as damages. It may be awarded as consequential damages in other cases but there would be the usual requirement of proving that damage component.

The ruling in *Bank of America* was subsequently interpreted in [108] *Elders Grain v. M/V Ralph Misener* (2004 FC 1285), which stated:²⁹²

292 [108] *Elders Grain v. M/V Ralph Misener* (2004 FC 1285), at paragraphs 9 and 10.

[9] For the reasons that follow, I am not prepared to make the award sought by the defendants. For this conclusion, I need only refer to paragraph 55 of the Reasons of Major J. in *Bank of America Canada*, *supra*, where he states:

An award of compound pre and post judgment interest will generally be limited to breach of contract cases where there is evidence that the parties agreed, knew, or should have known, that the money which is the subject of the dispute would bear compound interest or damages. It may be awarded as consequential damages in other cases but there would be the usual requirement of proving that damage component.

[10] Although this is a breach of contract case, there is no evidence before me that the plaintiffs “agreed, knew, or should have known, that the money which is the subject of the dispute would bear compound interest as damages”. Therefore, this case falls in Major J.’s second category of cases, *i.e.* those cases where proof of compound interest, as a component of damage, must be made. As the defendants have not adduced any proof on that count, their claim for compound interest must fail.

The issues of the PJI rate and compounding were discussed in [25] *Merck v. Apotex* (2006 FC 524 lisinopril, aff'd 2006 FCA 323), where the Court stated:²⁹³

[240] An award of pre-judgment interest is appropriate. There has been no reason demonstrated why such an award should be refused. Such interest should not be compounded. The rate of such interest should be calculated separately for each year since infringing activity began at the average annual bank rate established by the Bank of Canada as the minimum rate at which the Bank of Canada makes short-term advances to the banks listed in Schedule 1 of the Bank Act R.S.C. 1985, c.B-1.

[241] Post-judgment interest follows at the rate of five percent (5%) established by the Interest Act R.S.C. 1985, c.I-15 s. 4.

This ruling was upheld on appeal in [26] *Merck v. Apotex* (2006 FCA 323 lisinopril), which further elaborated on the principles, stating:²⁹⁴

[139] Subsection 36(5) of the FCA permits the Court to consider the conduct of the proceedings or any other relevant consideration in determining the entitlement to and the rate of pre-judgment interest. That subsection states:

36. . . .

(5) The Federal Court of Appeal or the Federal Court may, if it considers it just to do so,

293 [25] *Merck v. Apotex* (2006 FC 524 lisinopril, aff'd 2006 FCA 323), at paragraphs 240 and 241.

294 [26] *Merck v. Apotex* (2006 FCA 323 lisinopril), at paragraphs 139 to 144.

having regard to changes in market interest rates, the conduct of the proceedings or any other relevant consideration, disallow interest or allow interest for a period other than that provided for in subsection (2) in respect of the whole or any part of the amount on which interest is payable under this section.

[140] Judicial discretion as to the appropriate rate and period for which interest will run is said to assist the court in controlling the litigation process and to avoid inappropriate compensation (see *Wellcome Foundation Ltd. v. Apotex Inc.* (1992), 40 C.P.R. (3d) 361 (F.C.T.D.), at page 366). In this case, Hughes J. found [at paragraph 229] that Merck and Astra “essentially threw in the towel and left this action to proceed in a leisurely fashion.” It seems obvious to me that the Judge was considering subsection 36(5) when he exercised his discretion and set the pre-judgment interest rate as set out above.

[141] I would also note that section 3 of the *Interest Act* is applicable only when there is no provision made in an applicable statute or in an agreement and no mechanism is provided by which a rate can be fixed. That section reads as follows:

3. Whenever any interest is payable by the agreement of parties or by law, and no rate is fixed by the agreement or by law, the rate of interest shall be five per cent per annum.

[142] It follows that the application of the *Interest Act* in this case depends upon the occurrence of two

factors, namely, that interest be payable by law and that no rate of interest is fixed by law.

[143] With respect to the issue of whether the rate of interest here is fixed by law, the words “fixed by law” should be given a liberal construction (see *British Pacific Properties Ltd. v. Minister of Highways & Public Works*, [1980] 2 S.C.R. 283). In essence, whether a statute under which interest is payable prescribes the rate or whether the rate is remitted to a judge for determination, the rate ultimately awarded arises under law and is said to be “fixed by law.” Section 3 of the *Interest Act*, therefore, does not apply to the present case and Hughes J. correctly fixed the interest rate accordingly. I am satisfied that he did not err when he awarded pre-judgment interest at the average annual rate established by the Bank of Canada.

[144] With respect to whether interest should be compounded, paragraph 36(4)(b) [as am. by S.C. 1990, c. 8, s. 9] of the FCA provides a complete answer. It states:

36. . . .

(4) Interest shall not be awarded under subsection (2)

. . .

on interest accruing under this section; (sic)

7.5

PRE-JUDGMENT INTEREST –
ACCOUNTING OF PROFITS

The rulings of the courts setting out the bases for PJI tend to differ between damages (including reasonable royalty) and an accounting of profits. For this reason, while we are including both side by side in this section, we have summarized the case law for each separately, and this section addresses those relating to an accounting of profits.

The Court of Appeal, in [59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524), provides a comprehensive summary and description of PJI in an accounting of profits context, stating:²⁹⁵ (emphasis added)

It has been held in a number of Canadian cases that the infringer of a patent has to be treated as the plaintiff's trustee and as a defalcating trustee who committed a species of fraud so that the awarding of compound interest is appropriate in such cases. See *Teledyne Industries, Inc. et al. v. Lido Industrial Products Ltd.* (1982), 68 C.P.R. (2d) 204 (F.C.T.D.); *Ductmate Industries Inc. v. Exanno Products Ltd.* (1987), 15 C.I.P.R. 115 (F.C.T.D.). In the United States, where the accounting remedy was abolished in 1946, 69 C.J.S. Patents, s. 357, at p. 1098. a reference can also be found to this notion of a guilty trustee which, on established principles of equity, cannot take advantage of his own wrong. *Westinghouse Electric and Manufacturing Company v. Wagner Electric and Manufacturing Company*, 225 U.S. 604 (1912), at p. 620.

295 [59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524).

There is no doubt that the analogy between an infringer and a trustee is an imperfect one. However, it is one that the courts, in their struggle to achieve equity, devised at a time when the awarding of pre-judgment interest was not permitted at common law. See for example in England, s. 3(1) of the *Law Reform (Miscellaneous Provisions) Act, 1934* [(U.K.), 24 & 25 Geo. 5, c. 41], which changed the law and allowed for prejudgment interest in the recovery of debt or damages, but prohibited the charging of interest on interest. Similar reform began in Canada in the 1970s. See Dianne Saxe, [cad170]Judicial Discretion in the Calculation of Prejudgment Interest[cad186] (1985-86) 6 Adv. Q. 433, at pp. 435-436. For a review of the common law history on the issue of interest, see *McGregor on Damages*, 15th ed., Sweet and Maxwell Ltd., London, 1988, p. 573. but was emerging in equity. It eventually led, in this latter case, to the compounding of interest because compound interest became a modern reality and the reality of business life. The modern reality is that interest paid or earned on deposits or loans is compound interest. Indeed, the British Columbia Law Reform Commission and the Ontario Law Reform Commission have both recommended that there be, at common law, a general entitlement to compound interest. See their respective reports, *Report on the Court Order Interest Act*, Law Reform Commission of British Columbia, 1987, *Report on Compensation for Personal Injuries and Death*, Ontario Law Reform Commission, 1987. In its *Report on Prejudgment Compensation on Money Awards: Alternatives to Interest*, No. 47, 1982, the Manitoba

Law Reform Commission saw no valid economic reason to refuse to award compound interest.

In my view, bearing in mind this reality and the need to achieve equity in the accounting of profits, the awarding of compound pre-judgment interest as deemed earnings on the profits is the rule, subject to a Court's discretion to mitigate it or to award only simple interest in appropriate circumstances. The good faith of the infringer is certainly a criterion that a judge can take into account in the exercise of his discretion.^{31*}^{fnote³¹} Éditions JCL Inc. c. 91439 Canada Ltée, 1994 CanLII 3518 (FCA), [1995] 1 F.C. 380 (C.A.). Other factors could include the highly debatable validity of the patent claim or the fact that compounding the interest may reach beyond equity into the realm of punishment.

The Court, in [59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524), also addressed the period over which PJI was to be awarded:²⁹⁶

The appellant complains that the reviewing Judge awarded the pre-judgment interest from the date of the receipt of the profits in September 1983 to the date of the judgment confirming the referee's report. In its opinion, this interest should have ended with the liability judgment on March 20, 1986.

This contention is without merit. A judgment in an action for infringement is not complete until the amount of damages is established or, in a case of an account of profits, these profits have been accounted

296 [59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524).

for and the judgment rendered on the report of the person designated to take accounts.

The appellant complains that it suffered some prejudice from the fact that the referee took more than two years to file his report while pre-judgment interest was accruing in the meantime. In my view, this complaint overlooks the fact that the respondents have been deprived of that money during that period of time while the appellant had it. Furthermore, it fails to understand that compound interest, in this context, is not a penalty: it simply is a recognition of reality.

Finally, the Court, in [59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524), also considered whether the rate should be, in that case, the Canadian or an American rate:²⁹⁷

The appellant submitted that there was no reasonable basis on which to presume that it would have used the contract profits in the course of its business in place of funds borrowed at prime rate. Such submission, in my view, ignores the fact that the burden is on the appellant to account for the earnings on the profits, failing which an estimated amount has to be established with the assistance of presumptions. As my colleague Hugessen J.A. said in *Beloit Canada Ltée/Ltd. v. Valmet Oy*, (1992), 45 C.P.R. (3d) 116 (F.C.A.), at p. 119. there is “no reason in principle why a patentee, whose property has been wrongly appropriated through infringement, should not recover *all* the profits, direct and indirect, derived by the infringer from his wrongful infringement.”

297 [59] *Reading & Bates v. Baker Energy* (1994 FCA CanLII 3524).

In determining the amount of earnings on profits, it is sensible to assume that the person who has improperly enjoyed the profits would have made the most beneficial use of them. One such beneficial use would have been for the appellant to utilize these monies in their own trading operations or to help their subsidiaries, if any. See *Wallersteiner v Moir* (No. 2), [1975] 1 All ER 849 (C.A.), at pp. 855-856, *per* Lord Denning M.R. Therefore, I can find no fault with the referee's recommendation that the profits bear interest at the chartered bank rate on prime business loans.

In this regard, the appellant submits that it is the U.S. rate of interest which should have been used to determine the amount of secondary benefits. In its view, the referee and the reviewing Judge wrongly assumed that the profits would have been employed in Canada as the respondent Reading & Bates Horizontal Drilling Ltd. is a Canadian company. In support of its submission, the appellant stresses the fact that it is an American company headquartered in Texas and would have most likely repatriated its profits in the United States. Moreover, if it had borrowed money, it would likely have done so at home.

I see, in this case, nothing wrong in using the Canadian rate of interest to compute the appellant's earnings on its profits. The contract was performed in Canada and was payable in Canadian dollars. This is not a case where the contract was payable in American dollars. Furthermore, the cause of action arose in Canada, the proceedings were instituted in Canada and the decisions of the referee and reviewing Judge ordered the disgorgement of the appellant's profits

in Canadian dollars. As Professor Waddams rightly points out, courts should act prudently in awarding interest at a foreign rate as it could be over-compensatory for a plaintiff to recover judgment in foreign currency and pre-judgment interest at Canadian rates where these exceed the foreign currency rate. S. M. Waddams, *The Law of Damages*, 2nd ed., Canada Law Book Inc., Toronto, 1993, at pp. 7-39 and 7-40. The opposite is also true. It would be under-compensatory here for the plaintiff to be given judgment in Canadian dollars and pre-judgment interest at the American rate which is lower than the Canadian rate.

Accounting of profits awards have not varied significantly from the ruling in *Reading & Bates*, although the question of the relevance of income taxes in the calculation has arisen twice in recent cases. First, in [73] *AstraZeneca v. Apotex* (2017 FC 726 omeprazole), the Court stated:²⁹⁸

[220] The parties do not disagree that a profits-on-profits allowance should be applied to AstraZeneca's profits entitlement. They differ only as to the amount and method of calculating the rate. AstraZeneca seeks prime plus two percent compounded annually. Apotex argues for simple interest at the bank rate.

[221] The burden on this issue rests with Apotex: see *Reading & Bates Construction Co v Baker Energy Resources Corp* (1994), 58 CPR (3d) 359 at p 375, 175 NR 225 (FCA) [*Reading & Bates* FCA].

298 [73] *AstraZeneca v. Apotex* (2017 FC 726 omeprazole), at paragraphs 220 to 232.

[222] An award of interest on profits is not a matter of complete discretion. Such a recovery represents an accounting for the additional profit the infringer made from the use of the wrongfully acquired funds: see *Teledyne Industries, Inc v Lido Industrial Products Ltd* (1982), 68 CPR (2d) 204 at p 226, [1982] FCJ No 1024 (QL) (FCTD).

[223] Where it is not possible to know precisely how the infringer put its profits to use, it will be assumed to have made “the most beneficial use of them”: see *Reading & Bates FCA* at p 376 and *Adir v. Apotex Inc*, 2015 FC 721 at para 146, 482 FTR 276 [*Perindropril* (sic) FC]. In that situation the Court will estimate the return based on relevant investment or borrowing proxies. Compounded interest is the presumptive approach: see *Reading & Bates FCA* at p 374.

[...]

[227] To the extent Apotex relies on financial interactions with related companies as proof of its return, I reject that approach.

[228] The decision of my colleague Justice Jocelyne Gagné in *Perindropril* (sic) FC, above, provides useful guidance about how to best apply the authorities to a very similar set of facts. As with the case at hand, Justice Gagné could not trace the profits earned by Apotex from its sales of perindopril. She observed that most of the relevant authorities have used prime plus one or two percent as proxies for a return on profits. She also observed that Apotex operates in a highly prof-

itable environment. In the result, she awarded the compounded prime rate against Apotex. She applied slightly higher rates to the award against Pharmachem, consistent with its higher costs of borrowing (prime plus one-half and prime plus one, both compounded).

[229] In my view the benchmark rate for profits-on-profits in cases like this one has consistently been set at the prime rate or slightly higher, compounded annually. On the other hand, there is very little recent authority utilizing a rate as high as prime plus two percent. In this case, I fix the rate at prime compounded annually.

A. Tax Effects on Profits-on-Profits

[230] Ms. Frederick acknowledged in her report that a deduction for income tax would be warranted on her profits-on-profits assessment. Nevertheless, she made no adjustment for tax because Apotex did not disclose its income tax returns for the relevant period. 2017 FC 726 (CanLII)

[231] Under cross-examination it was suggested to Ms. Frederick that she could have applied a stipulated corporate tax rate to obtain an appropriate adjustment. She disagreed, saying that Apotex operates in a complex tax environment where generous research and development tax credits are available and where assumptions are unwarranted [see Transcript pp 306-8].

[232] On this issue, I agree with Ms. Frederick. Apotex could have avoided any uncertainty by producing its tax returns and it declined to do so...

Similarly, in [74] *Dow v. Nova* (2017 FC 350), the Court stated:²⁹⁹

[168] Dow argues that the applicable rate of pre-judgment interest should be the profits made by Nova as a result of reinvesting the profits it gained from the infringement, which it describes as “profits on profits”. According to Dow, because Nova did not track the profits made by reinvesting the profits from the infringing products, the applicable rate should be Nova’s weighted annual cost of borrowing. Dow says that this is a reasonable proxy for Nova’s “profits on profits”. Dow’s accounting expert, Mr. Hamilton, analysed Nova’s debt management to determine how Nova might have reinvested the profits from the infringing grades, and the financial rate of return earned by Nova on these investments. Mr. Hamilton concluded that Nova’s weighted average annual cost of borrowing, ranging from 5.1% to 8.4%, would be a reasonable mid-range approach to estimating the profits that Nova earned on the reinvestment of its infringing profits.

[169] Interest is recoverable in an accounting of profits (*Beloit Canada Ltée/Ltd v Valmet Oy*, [1995] FCJ No 733 at para 37 (CA) [*Beloit* 1995]). The Court must decide the rate of interest to be applied and whether the interest should be compounded or not. The Court’s jurisdiction in equity and s 55(1) of the *Patent Act* allow it to award compound interest (*Bank of America Canada v Mutual Trust Co*, 2002 SCC 43 (CanLII) at para 41; *Eli Lilly and Co v Apotex Inc*, 2014 FC 1254 (CanLII) at paras 115-116 [*Eli Lilly*]).

299 [74] *Dow v. Nova* (2017 FC 350), at paragraphs 168 to 171 and 174.

[170] In this case, both experts agreed that Nova's profits should be calculated using annual compounding. This is consistent with the jurisprudence (see *Teledyne* at para 20; *Beloit* 1995 at para 37).

[171] In the words of Justice Hugessen, a patentee should recover “*all* the profits, direct and indirect, derived by the infringer from his wrongful infringement” [emphasis original] (*Beloit* 1992 at para 10; see *Beloit* 1995 at para 37). In *Reading & Bates*, Justice Letourneau held that a defendant “has to account both for the profits and their subsequent use as the plaintiff is entitled to both” (at para 16). Dow emphasizes “and their subsequent use” to advance its position that the applicable rate of interest should be Nova's weighted annual cost of borrowing. Dow says where there is no clear evidence of the actual profits on profits, the defendant will be deemed to have benefited from the profits on the infringing sales

[...]

[174] Both Mr. Soriano and Mr. Hamilton agreed that if the award of interest is compounded, it should take tax effects into account. However, neither expert included these calculations in his report. Mr. Hamilton explained that he did not include tax effects in his calculations because the resulting amounts were not material. He said that in his experience, courts do not consider the tax effects of compounded interest. In *Eli Lilly*, Justice Zinn stated at paragraph 119: “[a]ny discounting of compound interest by the court on this record would be nothing more than mere speculation.” Given the lack of guidance from the expert

witnesses called by both parties, I reach the same conclusion in this case.

The relevance of income taxes arises when considering the investment benefit that the infringer would have been able to obtain from the wrongful income. For example, assuming an effective 25% income tax rate, had the infringer earned additional income of \$100, which it is required to pay to the plaintiff, it would not, in fact, have been able to invest the full \$100, as it would have been required to pay income taxes of 25%, or \$25, on that income. Accordingly, it would only have had \$75 to invest in its business or pay down debt.

Similarly, if the period over which the PJI is to be computed exceeds one year, then the notion of compounding contemplates that the infringer would have been able to take the interest that it earned (or avoided) in that year and invest that, together with the original wrongful income, in the second year. Again, as with the original \$100 which it wrongfully obtained, the interest that it earned in the second year would likewise have been subject to income tax and would not all be available in the subsequent years. The same issue would apply for each year of the compounding period. The question of income taxes, once the rate is known, is relatively straightforward for a financial expert to consider, but as indicated above, the consideration of income taxes, as with the award of PJI on a compounded or simple basis, as well as the rate, is at the court's discretion.

8



SECTION

Listing and Citations of Referenced Cases

The above sections are organized by topic and this section provides a brief overview of each of the cases referenced with a list of relevant topics on which the case provides guidance.

To assist the reader in identifying the nature of the monetary remedies in each case and the chronology of the cases, we have listed all cases cited in this book in date sequence within the following categories:

- Patent Cases (Damages) – where lost profits and/or a reasonable royalty was awarded by the court
- Patent Cases (Accounting of Profits) – where lost profits and/or a reasonable royalty was awarded by the court
- Trademark
- Copyright
- Patent Medicine (Notice of Compliance) Section 8
- Other – including non-IP cases, cases where the defendant was found to have not infringed and cases where, as of the date of writing, the defendant has not yet elected between damages and an accounting of profits.

ABBREVIATED CASE REFERENCE	FULL CASE CITATION
Patent Cases (Damages)	
[1] Meters v. Metropolitan Gas Meters (1911 Court of Appeal of England and Wales)	Meters Ltd. v. Metropolitan Gas Meters Ltd., 28 R.P.C. 157 (1911)
[2] Watson, Laidlaw v. Pott (1914 House of Lords)	Watson, Laidlaw & Co. Ltd. v. Pott Cassels, and Williamson (1914), 31 R.P.C. 104
[3] Electric Chain v. Art Metal Works (1933 SCC S.C.R. 581)	Electric Chain v. Art Metal Works, [1933] SCR 581 (SCC)
[4] Sinclair Refining Co v. Jenkins Petroleum Process Co (1933 USSC)	Sinclair Rfg. Co. v. Jenkins Co., 289 U.S. 689 (1933)
[5] Colonial Fastener v. Lightning Fastener (1937 SCC)	Colonial Fastener Co. v. Lightning Fastener Co., 1936 CanLII 26 (SCC), [1937] S.C.R. 36
[6] The King v. Irving Air Chute (1949 SCC)	The King v. Irving Air Chute, [1949] SCR 613 (SCC)

ABBREVIATED CASE REFERENCE	FULL CASE CITATION
[7] Georgia-Pacific v. U.S. Plywood (1970 S.D.N.Y.)	Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970)
[8] Georgia-Pacific v. U.S. Plywood (1971 2d Cir.)	Georgia-Pacific Corp. v. U.S. Plywood-Champion Papers Inc., 446 F.2d 295 (2d Cir. 1971)
[9] General Tire v. Firestone (1976 UK House of Lords)	General Tire & Rubber Co. v. Firestone Tyre & Rubber Co. Ltd. [1976] R.P.C. 197
[10] Tektronix v. United States (1977 Ct. Cl.),	Tektronix, Inc. v. United States, 552 F.2d 343 (Ct. Cl. 1977)
[11] Panduit v. Stahl Bros (1978 6th Cir.)	Panduit Corp. v. Stahl Bros. Fibre Works 575 F.2d 1152 (1978) (Court of Appeals, 6th Cir.)
[12] Domco v. Armstrong (1983 FC C.P.R. (2d) 70)	Domco Industries Ltd. v. Armstrong Cork Canada Ltd. et al. (1983), 76 C.P.R. (2d) 70
[13] TWM v. Dura (1986 Fed. Cir.)	TWM Mfg. Co., Inc. v. Dura Corp. (Fed. Cir. 1986)
[14] Rite-Hite v. Kelley (1989 Fed. Cir.)	Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538 (Fed. Cir. 1995)
[15] State Industries v. Mor-Flo (1989 Fed. Cir.)	State Industries, Inc. v. Mor-Flo Industries, Inc., 883 F.2d 1573 (Fed. Cir. 1989)
[16] Trel v. Marlee (1990 Fed. Cir.)	Trel v. Marlee Electronics Corp., 912 F.2d 1443 (Fed. Cir. 1990)
[17] Brooktree v. Advanced Micro Devices (Fed. Cir. 1992)	Brooktree Corp. v. Advanced Micro Devices, Inc., 977 F.2d 1555 (Fed. Cir. 1992)
[18] Wang Laboratories v. Toshiba (1993 Fed. Cir.)	Wang Laboratories, Inc. v. Toshiba Corp., 993 F.2d 858, 26 U.S.P.Q.2d 1767 (Fed. Cir. 1993)
[19] Unilever v. Procter & Gamble (1993 Fed. Cir.)	Unilever PLC v. Procter & Gamble Inc. ((1993), 47 C.P.R. (3d) 479)
[20] Mobil v. Amoco (1994 D. Del.)	Mobil Oil Corp. v. Amoco Chemicals Corp., 915 F. Supp. 1333 (D. Del. 1994)
[21] Gerber v. Lectra (1995 UK Patents Court, aff'd)	Gerber Garment Technology Inc. v. Lectra Systems Ltd., 1995 R.P.C. 383 (1995)
[22] Gerber v. Lectra (1997 UK Court of Appeal)	Gerber Garment Technology Inc. v. Lectra Systems Ltd., 1997 R.P.C. 443 (1997)
[23] AlliedSignal v. du Pont Canada (1998 FC CanLII 7464)	AlliedSignal Inc. v. du Pont Canada Inc., (1998) 78 C.P.R. (3d) 129
[24] Harris Corp. v. Ericsson Inc. (2005 Fed. Cir.)	Harris Corp. v. Ericsson Inc., 417 F.3d 1241 (Fed. Cir. 2005)
[25] Merck v. Apotex (2006 FC 524 lisinopril, aff'd 2006 FCA 323)	Merck & Co., Inc. v. Apotex Inc., 2006 FC 524
[26] Merck v. Apotex (2006 FCA 323 lisinopril)	Merck & Co., Inc. v. Apotex Inc., 2006 FCA 323
[27] Applied Medical Resources v. U.S. Surgical (2006 Fed. Cir.)	Applied Medical Resources v. U.S. Surgical, 435 F.3d 1356 (Fed. Cir. 2006)
[28] Broadcom v. Qualcomm (2007 3d Cir.)	Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297 (3d Cir. 2007)
[29] Jay-Lor v. Penta (2007 FC 358)	Jay-Lor International Inc. v. Penta Farm Systems Ltd., 2007 F.C. 358
[30] Monsanto v. McFarling (2007 Fed. Cir.)	Monsanto Co. v. McFarling, 488 F.3d 973 (Fed. Cir. 2007)
[31] Cornell University v. Hewlett-Packard (2009 N.D.N.Y.)	Cornell University v. Hewlett-Packard Co., 609 F.2d 279 (N.D.N.Y. 2009)

ABBREVIATED CASE REFERENCE	FULL CASE CITATION
[32] Eli Lilly v. Apotex (2009 FC 991 cefaclor, aff'd 2010 FCA 240)	Eli Lilly and Company v. Apotex Inc., 2009 FC 991
[33] Lucent v. Microsoft (2009 Fed. Cir.)	Lucent Technologies, Inc. v. Gateway, Inc., 580 F.3d 1301 (Fed. Cir. 2009)
[34] ResQNet v. Lansa (2010 Fed. Cir.)	ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860 (Fed. Cir. 2010)
[35] Boston Scientific v. Cordis (2011 D. Del)	Boston Scientific Corp. v. Cordis Corp., 777 F. Supp. 2d 783 (D. Del. 2011)
[36] Uniloc v. Microsoft (2011 Fed. Cir.)	Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292 (Fed. Cir. 2011)
[37] Valence v. Phostech Lithium (2011 FC 174, aff'd 2011 FCA 237)	Valence Technology Inc. v. Phostech Lithium Inc., 2011 FC 174
[38] Valence v. Phostech Lithium (2011 FCA 237)	Valence Technology Inc. v. Phostech Lithium Inc., 2011 FCA 237
[39] Eurocopter v. Bell Helicopter (2012 FC 113)	Eurocopter v. Bell Helicopter Textron Canada Limitée, 2012 FC 113
[40] LaserDynamics v. Quanta (2012 Fed. Cir.)	LaserDynamics, Inc v. Quanta Computer, Inc. (Fed Cir 2012)
[41] Eurocopter v. Bell Helicopter (2013 FCA 219)	Bell Helicopter Textron Canada Ltée v. Eurocopter, société par actions simplifiée, 2013 FCA 219
[42] In re Innovatio (2013 N.D. Ill.)	In re Innovatio IP Ventures, LLC Patent Litigation, Case, No. 11 C 9308, 2013 WL 5593609 (N.D. Ill. Oct. 3, 2013)
[43] Merck v. Apotex (2013 FC 751 lovastatin, aff'd 2015 FCA 171)	Merck & Co. Inc. v. Apotex Inc., 2013 FC 751
[44] Varco v. Pason (2013 FC 750)	Varco Canada Limited v. Pason Systems Corp., 2013 FC 750
[45] Apple v. Motorola (2014 Fed. Cir.)	Apple Inc. v. Motorola, Inc., 757 F.3d 1286 (Fed. Cir. 2014)
[46] Eli Lilly v. Apotex (2014 FC 1254 cefaclor, appeal pending)	Eli Lilly and Company v. Apotex Inc., 2014 FC 1254
[47] Ericsson v. D-Link (2014 Fed. Cir.)	Ericsson, Inc. v. D-Link Systems, Inc., 773 F.3d 1201 (Fed. Cir. 2014)
[48] VirnetX v. Apple (2014 Fed. Cir.)	VirnetX, Inc. v. Cisco Systems, Inc., 767 F.3d 1308 (Fed. Cir. 2014)
[49] Csiro v. Cisco Systems (2015 Fed. Cir.)	Csiro v. Cisco Systems, Inc., 809 F.3d 1295 (Fed. Cir. 2015)
[50] Merck v. Apotex (2015 FCA 171 lovastatin)	Merck & Co. Inc. v. Apotex Inc., 2015 FCA 171
[51] Arctic Cat v. BRP (2016 FC 1047)	Arctic Cat Inc. v. Bombardier Recreational Products Inc., 2016 FC 1047
[52] Elbit Systems v. Selex (2016 FC 1129)	Elbit Systems Electro-optics Elop Ltd. v. Selex ES Ltd., 2016 FC 1129
[53] Janssen v. Teva (2016 FC 593 levofloxacin)	Janssen Inc. v. Teva Canada Limited, 2016 FC 593
[54] Rosebud v. Adobe Systems (2016 Fed. Cir.)	Rosebud LMS Inc. v. Adobe Systems Inc., 812 F.3d 1070 (Fed. Cir. 2016)
[55] Eurocopter v. Bell Helicopter (2017 FC 170)	Airbus Helicopters S.A.S. v. Bell Helicopter Textron Canada Limitée, 2017 FC 170
[56] Teva v. Janssens (2018 FCA 33 levofloxacin)	Teva Canada Limited v. Janssen Inc. and Daiichi Sankyo Company, Limited, 2018 FCA 33

ABBREVIATED CASE REFERENCE	FULL CASE CITATION
Patent cases (Accounting of Profits)	
[57] Teledyne v. Lido (1982 FC 68)	Teledyne Industries, Inc. et al. v. Lido Industrial Products Ltd. (1982), 68 C.P.R. (2d) 204 (F.C.T.D.)
[58] Beloit v. Valmet (1994 FC 78)	Beloit Canada Ltée/Ltd. v. Valmet Oy (1994), 78 F.T.R. 86, 55 C.P.R. (3d) 433 (F.C.T.D.)
[59] Reading & Bates v. Baker Energy (1994 FCA CanLII 3524)	Reading & Bates Construction Co. v. Baker Energy Resources Corp., [1995] 1 FC 483, 1994 CanLII 3524 (FCA)
[60] Lubrizol v. Imperial Oil (1996 FCA CanLII 4095)	Lubrizol Corp. v. Imperial Oil Ltd., [1996] 3 F.C. 40
[61] Beloit v. Valmet-Dominion (1997 FCA CanLII 6342)	Beloit Canada Ltd. v. Valmet-Dominion Inc., [1997] 3 FC 497, 73 CPR (3d) 321
[62] Wellcome Foundation v. Apotex (1998 FC CanLII 8270)	Wellcome Foundation Limited v. Apotex Inc., 1998 CanLII 8270 (FC)
[63] Baker Petrolite v. Canwell (2002 FC FCT 889, liability reversed on appeal 2002 FCA 158)	Baker Petrolite Corp. v. Canwell Enviro-Industries (2002) 2 F.C. 3, 12 C.P.R. (4th) 193
[64] Monsanto v. Schmeiser (2004 SC 34)	Monsanto Canada Inc. v. Schmeiser, [2004] SCC 34
[65] ADIR v. Apotex (2008 FC 825 perindopril, aff'd 2009 FCA 222)	Laboratoires Servier, Adir, Oril Industries, Servier Canada Inc. v. Apotex Inc., 2008 FC 825
[66] Monsanto v. Rivett (2009 FC 317, aff'd 2010 FCA 207)	Monsanto Canada Inc. and Monsanto Company v. Charles Rivett, 2009 FC 317
[67] Monsanto v. Rivett (2010 FCA 207)	Charles Rivett v. Monsanto Canada Inc. and Monsanto Company 2010 FCA 207
[68] Lundbeck v. Apotex (2013 FC 192 escitalopram)	Apotex Inc. v. H. Lundbeck A/S, 2013 FC 192
[69] AstraZeneca v. Apotex (2015 FC 671 omeprazole)	AstraZeneca Canada Inc. v. Apotex Inc., 2015 FC 671
[70] ADIR v. Apotex (2015 FC 721 perindopril, reversed in part 2017 FCA 23)	ADIR and Servier Canada Inc. v. Apotex Inc. and Apotex Pharmachem Inc., 2015 FC 721
[71] Bayer v. Cobalt/Apotex (2016 FC 1192)	Bayer Inc. v. Cobalt Pharmaceuticals Company and Bayer Inc. v. Apotex Inc., 2016 FC 1192
[72] ADIR v. Apotex (2017 FCA 23 perindopril)	Apotex Inc. v. ADIR, 2017 FCA 23
[73] AstraZeneca v. Apotex (2017 FC 726 omeprazole)	AstraZeneca Canada Inc. v. Apotex Inc., 2017 FC 726
[74] Dow v. Nova (2017 FC 350)	Dow Chemical Company v. Nova Chemicals Corporation, 2017 FC 350
[75] Dow v. Nova (2017 FC 637)	Dow Chemical Company v. Nova Chemicals Corporation, 2017 FC 637
[76] Frac Shack v. AFD Petroleum (2017 FC 104)	Frac Shack Inc. v. AFD Petroleum Ltd., 2017 FC 104
Trademark	
[77] Oakley v. Jane Doe (2000 CanLII 15963)	Oakley, Inc. v. Doe, 2000 CanLII 15963 (FC)
[78] Ragdoll v. Jane Doe (2002 FC 918)	Ragdoll Productions (UK) Ltd. v. Jane Doe, [2003] 2 FCR 120, 2002 FCT 918
[79] Louis Vuitton v. Yang (2007 FC 1179)	Louis Vuitton Malletier S.A. v. Yang, 2007 FC 1179

ABBREVIATED CASE REFERENCE	FULL CASE CITATION
[80] Louis Vuitton v. 486353 B.C. Ltd (2008 BCSC 799)	Louis Vuitton Malletier S.A. v. 486353 B.C. Ltd., 2008 BCSC 799
[81] Louis Vuitton v. Singga (2011 FC 776)	Louis Vuitton Malletier S.A. v. Singga Enterprises (Canada) Inc., 2011 FC 776
[82] Chanel v. Lam (2016 FCA 111)	Annie Pui Kwan Lam v. Chanel S. De R.L. Chanel Limited and Chanel Inc., 2016 FCA 111
Copyright	
[83] Microsoft v. 1276916 Ontario Ltd. (2009 FC 849)	Microsoft Corporation v. 1276916 Ontario Ltd., 2009 FC 849
[84] Trader v. CarGurus (2017 ONSC 1841)	Trader v. CarGurus, 2017 ONSC1841
Patent Medicine (Notice of Compliance) Section 8	
[85] BMS v. Canada (2005 SCC 26)	Bristol-Myers Squibb Co. v. Canada (Attorney General), [2005] 1 SCR 533, 2005 SCC 26
[86] Apotex v. Merck (2008 FC 1185 alendronate, aff'd 2009 FCA 187)	Apotex Inc. v. Merck & Co. Inc., [2009] 3 FCR 234, 2008 FC 1185
[87] Apotex v. Merck (2009 FCA 187 alendronate)	Apotex Inc. v. Merck & Co. Inc., [2010] 2 FCR 389, 2009 FCA 187
[88] Apotex v. Merck (2011 FCA 329 norfloxacin)	Merck Frosst Canada & Co. v. Apotex Inc., 2011 FCA 329
[89] Teva v. Sanofi-Aventis (2011 FCA 149 ramipril)	Teva Canada Limited v. Sanofi-Aventis Canada Inc., 2011 FCA 149
[90] Apotex v. Merck (2012 FC 1418 alendronate)	Apotex Inc. v. Merck Canada Inc., 2012 FC 1418
[91] Apotex v. Sanofi-Aventis (2012 FC 553 ramipril, aff'd 2014 FCA 68, aff'd 2015 SCC 20)	Apotex Inc. v. Sanofi-Aventis, 2012 FC 553
[92] Teva v. Sanofi-Aventis (2012 FC 552 ramipril, aff'd 2014 FCA 67)	Sanofi-Aventis Canada Inc. v. Teva Canada Limited, 2012 FC 552
[93] Apotex v. Takeda (2013 FC 1237 pantoprazole)	Apotex Inc. v. Takeda Canada Inc., 2013 FC 1237
[94] Teva v. Sanofi-Aventis (2014 FCA 67 ramipril)	Teva Canada Limited v. Sanofi-Aventis Canada Inc., 2014 FCA 67
[95] Apotex v. Sanofi-Aventis (2014 FCA 68 ramipril, aff'd 2015 SCC 20)	Apotex Inc. v. Sanofi-Aventis Canada Inc., 2014 FCA 68
[96] Teva v. Pfizer (2016 FCA 161 venlafaxine)	Pfizer Canada Inc. v. Teva Canada Limited, 2016 FCA 161
[97] Teva v. Pfizer (2017 FC 332 pregabalin)	Teva Canada Limited v. Pfizer Canada Inc., 2017 FC 332
Other	
[98] The "Mediana" (1900 House of Lords)	The Owners of the Steamship "Mediana" v. The Owners and Crew of the Lightship "Comet," [1900] A.C. 113
[99] Gattineau Power v. Crown Life Insurance (1945 SCC S.C.R. 655)	Gattineau Power Co. v. Crown Life Insurance Co., [1945] SCR 655
[100] Stoke-on-Trent City Council v. W. & J. Wass Ltd (1988 UK Court of Appeal)	Stoke-on-Trent City Council v. W. & J. Wass Ltd., [1988] 1 WLR 1406 at 1416
[101] Snell v. Farrell (1990 SCC S.C.R. 311)	Snell v. Farrell [1990] 2 S.C.R. 311
[102] Canson Enterprises v. Boughton (1991 SCC S.C.R. 534)	Canson Enterprises v. Boughton, 1991 S.C.R. 534
[103] Athey v. Leonati (1996 SCC S.C.R.3 458)	Athey v. Leonati, 1996 S.C.R.3 458

ABBREVIATED CASE REFERENCE	FULL CASE CITATION
[104] Cadbury Schweppes v. FBI Foods (1999 SCC S.C.R. 142)	Cadbury Schweppes Inc. v. FBI Foods Ltd., [1999] 1 SCR 142
[105] 65302 British Columbia Ltd. v. The Queen (1999 SCC S.C.R. 804)	65302 British Columbia Ltd. v. Canada, [1999] 3 S.C.R. 804
[106] Bank of America v. Mutual Trust (2002 SCC 43)	Bank of America Canada v. Mutual Trust Co., 2002 SCC 43
[107] Whiten v. Pilot Insurance (2002 SCC 18)	Whiten v. Pilot Insurance Co., 2002 S.C.R. 1 595, 2002 S.C.C. 18
[108] Elders Grain v. M/V Ralph Misener (2004 FC 1285)	Elders Grain Co. Ltd. v. M/V Ralph Misener (Ship), 2004 FC 1285
[109] Transocean Offshore v. Canada (2005 FCA 104)	Transocean Offshore Ltd. v. Canada, 2005 FCA 104
[110] Mustapha v. Culligan (2008 SCC 27)	Mustapha v. Culligan of Canada Ltd. [2008] 2 S.C.R. 114, 2008 SCC 27
[111] AstraZeneca v. Apotex (2011 FC 505 esomeprazole)	AstraZeneca Canada Inc. v. Apotex Inc., 2011 FC 505
[112] R. v. Maybin (2012 SCC 24)	R. v. Maybin [2012] SCR 30, 2012 SCC 24
[113] Clements v. Clements (2012 SCC 32)	Clements v. Clements, 2012 SCC 32
[114] Southcott v. Toronto Catholic District School Board (2012 SCC 51)	Southcott Estates Inc. v. Toronto Catholic District School Board, 2012 SCC 51
[115] CIBC v. Canada (2013 FCA 122)	Canadian Imperial Bank of Commerce v. Canada, 2013 FCA 122
[116] Apotex v. Canada (2017 FCA 73 trazodone)	Apotex Inc. v. Canada, 2017 FCA 73
[117] Bayer v. Apotex (2018 FCA 32 drospirenone)	Apotex Inc. v. Bayer Inc. and Bayer Pharma Aktiengesellschaft, 2018 FCA 32

Lord Buckley once stated that the valuation of a claim is “one that is not capable of being mathematically ascertained by any exact figure.” However, to compensate a plaintiff with a monetary remedy, courts have developed a number of “practical working rules which have seemed helpful to judges in arriving at a true estimate of the compensation which ought to be awarded against an infringer to a patentee.” The purpose of this book is to assist those involved in the quantification of monetary remedies by summarizing those practical working rules as supported by the most recent Canadian case law, with reference to select international case law.

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