

Report to the Civil Rules

Committee on rules 53.09

and 53.10

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1 Executive Summary

1. Our subcommittee has conducted the quadrennial review mandated by s. 66(4) of the *Courts of Justice Act*¹. That section requires the Rules Committee to review the following:
 - a) “the discount rate to be used in determining the amount of an award in respect of future pecuniary damages” (s. 66(2)(p));
 - b) “the method of calculating the amount to be included in an award of damages to offset any liability for income tax on income from investment of the award” (s. 66(2)(v)); and
 - c) “the prejudgment interest rate with respect to the rate of interest on damages for non-pecuniary loss” (s. 66(2)(w)).
2. A first draft of this report of the subcommittee was submitted to the Civil Rules Committee on April 27, 2020. This 2021 report though, is intended to be a standalone one. Much of the text of the 2020 draft appears again in this one.
3. The 2020 draft was posted on the Court of Appeal’s website. Further input was solicited, both from the original stakeholders who had made submissions and from others who had not done so.
4. We received additional submissions. Some came from organizations who had provided input to the first report and other feedback was from organizations (such as The Advocates’ Society and the Federation of Ontario Law Associations) that had not done so. We have considered those submissions and have provided some limited responses in this updated version of the report.

¹ RSO 1990, c C.43.

5. We also heard from the Attorney General, Doug Downey. He wrote to Justice Kathryn Feldman, Chair of the Rules Committee, on July 29, 2020. In the letter, the Attorney said that he trusted that “the Civil Rules Committee, in putting forward potential changes, will carefully consider the best and most recent economic and actuarial evidence that is available”. He went on to express a concern that “the subcommittee’s recommendations were not adjusted to account for these changed circumstances and were largely based on stakeholder submissions and economic/actuarial models that predate COVID-19.” He added that he believed “that these pre-pandemic models do not reflect the best evidence available” and that, as a result, he was “not able to support the proposed changes at this time”.
6. As a result of the Attorney General’s comments, we sought and obtained funding from his Ministry to re-hire the two experts who had already assisted us: Dr. Douglas Hyatt and Dr. Christopher Bruce. With their help, we looked for post-COVID “economic and actuarial” evidence bearing on our evaluation of the discount rate question.
7. The Rules Committee Chair wrote to the Attorney General during the summer of 2020 and asked for direction from him regarding the sort of evidence that he wanted the Rules Committee to consider.
8. On February 17, 2021, the Ministry sent to us a document entitled, “COVID-19 Financial impacts documents (003)”. The first sentence said: “The economic impact of COVID-19 is discussed in several Ministry of Finance publications, linked below with descriptions”. The body of the document contained links to eight Ontario government websites and had short descriptions of the information to be found there. The eight sites were:
 - a) Ontario Economic Accounts

- b) Ontario Employment Report
 - c) Ontario Demographic Quarterly
 - d) Ontario Population Projections
 - e) Ontario Quarterly Finances
 - f) Ontario Budget
 - g) Ontario Fall Economic Statement
 - h) Ontario's Long-Term Report on the Economy
9. Our discussion of the Attorney General's input has been added at § 5.1 below, as part of a larger section (§ 5) in which we collected and discussed information, from various sources, relating to the impact of COVID-19.
10. Generally speaking, nothing that we heard or read about the possible fallout from COVID-19 caused us to change our original views. So far as we were able to determine, the main effect of COVID-19 on the future of the province's economy has been to add even more uncertainty. Our findings are discussed in more detail below.
11. In this revised version of our report, we have attempted to address, to the extent possible, the concerns raised by the Attorney General. We have also responded to some of the additional input received from stakeholders. Much of the report though, remains unchanged from the April 27, 2020 draft.
12. The one change that we have made to our recommendations is to put forward, for the consideration of the Rules Committee, a "Plan B" alternative to the those that we originally made regarding the discount rate.
13. We have suggested that if the Rules Committee wishes to preserve the existing two-tier approach to the discount rate, the first year (up to 15 years after trial) could remain essentially as is (with the removal of the 0% floor and the ½% adjustment).

For that “Plan ‘B’” alternative, we propose that the second-tier (post-15 years) discount rate be set, for now, at 1.0% per annum. The reasoning underpinning that recommendation is discussed in § 6.4 below.

14. The Advocates’ Society made some points about the process followed by the rule 53 subcommittee that we think warrant further consideration. We agree that, going forward, more detailed policies and protocols should be established for the work of the discount rate subcommittee. Those might include:

- a) a larger subcommittee;
- b) an adequate budget;
- c) possible changes to the composition of the subcommittee. For example, should there be members from outside the Civil Rules Committee? Or from outside the legal profession and the judiciary?

15. A brief section has been added to this report to address those issues (see § 9 below).

1.1 Discount rate

16. The greatest part of this subcommittee’s time—by far—was devoted to consideration of the discount rate, contained in r. 53.09(1) of the Rules of Civil Procedure. In part, that is because our review began soon after a similar process in the United Kingdom that culminated in two sets of major changes to the corresponding provisions in that country. We have been able to observe both the process that led to the UK’s reforms and some of the consequences of those reforms.

17. The main problem that we have had to deal with in relation to the discount rate has been deciding what rates of return plaintiffs should be assumed to receive on the investment of awards of damages. The second component of the discount rate—inflation—was, until recently, thought to be fairly stable at 2.0% per annum. As discussed in § 5 below though, a great deal of uncertainty about inflation has been

introduced by COVID-19 since mid-March, 2020. The Consumer Price Index plunged in 2020. As of February, 2021, it had risen by 1.1% from the same month in 2020. The question of what inflation will look like in the future has only added to the difficulty of coming up with an appropriate discount rate.

18. After taking into account the UK experience, detailed submissions of Ontario stakeholders, the approach that has historically been taken to the discount rate problem in this province and the input of our own experts, we have come to the conclusion that establishing a discount rate that will operate fairly in personal injury cases is a challenging task, probably more so than was recognized in the past. The difficulty arises mainly from the nature of the problem: it requires that the Civil Rules Committee predict the economic future of Ontario and Canada. Past attempts to do so have not been very successful (through no fault of any of the Rules Committees over the years). Rates of return on investments have sometimes outpaced those provided for in r. 53.09(1) (such as during the 1980s) and sometimes have been less than what was contemplated by the rule (now, for example).

1.1.1 A new approach

19. We maintain the recommendation, made in the April 27, 2020 draft of this report, that consideration be given to a new approach to quantifying damages for what are inherently uncertain losses: ones in the future. Possible candidates for such an approach include structured settlements or periodic reviews of awards of damages for future losses. There might also be other approaches—or some combination of approaches—that would work.
20. Reforms of that order are probably beyond the mandate of the Civil Rules Committee and would require legislative change. We have not attempted to formulate specific proposals for those revisions because our five-person

subcommittee has nothing like adequate resources to study the various options. Future subcommittees should be better-resourced (see § 9).

1.1.2 *Pro tempore* changes to r. 53.09(1)

21. We recognize that such change, if it happens, will take time. In 2020 and 2021, the Ontario government has already had its hands more than full, dealing with the fallout of COVID-19. Even with the advent of vaccinations, we are likely to be dealing with the fallout of the pandemic (economic and social) for some time.
22. In the meantime, we must consider how r. 53.09(1) can be improved. The input that we have received has made it clear that there is a fundamental policy question that must be addressed: is the discount rate, established by r. 53.09(1), meant to reflect estimated returns that plaintiffs will *actually* be able to achieve from investments of their awards of damages or to provide a mechanism for discounting damages to present value on the basis of a *notional* rate of return, such as that of real return Government of Canada bonds? If the latter, a large number of plaintiffs are likely to be overcompensated. But if the present value is computed on the basis of returns that a “prudent investor” should be able to realize, some plaintiffs will be undercompensated. The higher the assumed rates of return, the larger the number of undercompensated plaintiffs is likely to be.
23. The answer to this policy question will then affect the other aspects of the discount rate problem.
24. In our view, it was never contemplated that the present value calculation provided for by r. 53.09(1) would be based on plaintiffs assuming a particular level of risk in investing their damages awards. We believe that the philosophy underlying the rule has been and remains one of *restitutio in integrum*, such that discounting to present value should assume that plaintiffs will take on only a very low level of risk in

investing their awards. (In theory, plaintiffs should not have to assume any risk at all. But that theory would be difficult to implement in practice.)

25. In the April 27, 2020 draft of this report, we recommended that the present two-tier discount rate return to a single tier. We suggested that the discount rate should be established using a somewhat modified version of the present first-tier system (the first 15 years after trial), which is based on an average of yields from Government of Canada real return bonds for a six-month period in the year before the trial.
26. While we have not changed the views on this subject that we expressed in our initial draft report, we recognize that a sudden move from a discount rate of 2.5% to a much lower and potentially negative one would give rise to substantially increased future liabilities for defendants. Bearing that in mind, the Civil Rules Committee might wish to consider an alternative approach in which the present two-tiered system is maintained. If that were to be done, we would suggest that the post-15 year discount rate be reduced from 2.5% to 1.0 percent. That rate would, of course, be reviewed when r. 53.09 is next examined under the *Courts of Justice Act*.
27. We would eliminate both the present ½% reduction of the rate (from what it would otherwise be) and the prohibition against negative discount rates.
28. We do not favour using different discount rates for different types of damages, as some stakeholders have suggested. (It has also been proposed that the ½% reduction be maintained for certain types of losses, which is a different approach to the same objective. We do not favour that suggestion either, as discussed below.)
29. The point has been made with us, that the cost of certain types of damages, such as medical services, inflates at a rate faster than that of goods. While we accept that the cost of services tends to increase more rapidly than the cost of goods, we do not feel that that warrants separate treatment of damages made up of the cost of “services”.

(Although inflation, one of the few aspects of this issue that had not seemed to present much of a problem throughout the early course of our work, has emerged, in 2020 and 2021, as a potentially more significant issue.)

30. We have also suggested some revised language to make r. 53.09(1) clearer.

31. Finally, we mean to discourage, as much as possible, departure from the discount rate established by r. 53.09(1). We worry that any “threshold” that is set for having a court fix a different discount rate in a particular case (e.g., “exceptional circumstances”), no matter how high, will be viewed as an invitation, in all cases, to try to set the discount rate on the basis of evidence. Largely for that reason, we are inclined to introduce a provision in r. 53.09(1) that makes the application of the rule mandatory. We recognize that that is a somewhat “rough and ready” approach. But then, so is discounting future losses to present value.

1.2 Prejudgment interest on non-pecuniary general damages

32. Rule 53.10 provides that the “prejudgment interest rate on damages for non-pecuniary loss in an action for personal injury is 5 per cent per year”. The purpose of that rule, when it was introduced in 1990, was to ensure that prejudgment interest on damages for non-pecuniary loss would be calculated at a rate *lower* than the one for other damages, in recognition of the fact that damages for non-pecuniary loss are effectively indexed to inflation. (In 1990, the rate of prejudgment interest provided for under s. 128 of the *Courts of Justice Act*, for other types of damages, was in the range of 12–13 percent per annum.)

33. We recommend that rule 53.10 be reworded to set the rate of prejudgment interest as provided for under s. 128 of the *Courts of Justice Act*, minus inflation, the latter as determined by reference to the Consumer Price Index.

34. The rate of prejudgment interest on non-pecuniary damages in personal injury actions arising out of motor vehicle accidents has already been withdrawn from r. 53.10 by s. 258.3(8.1) of the *Insurance Act*, R.S.O. 1990, c. I.8. Entitlement to non-pecuniary damages in those types of cases though, is subject to some specific statutory provisions that warrant special treatment. We feel that there is no reason for prejudgment interest on non-pecuniary damages in other types of cases to be awarded on the basis of what has become a preferential rate (contrary to the original purpose) and one which, because the underlying damages are effectively indexed to inflation, results in double compensation.
35. Supplementary submissions from some stakeholders, received in mid-2020, noted that awards of non-pecuniary damages are not actually indexed to inflation. So, for example, an award of damages for a broken collar made in 2021 cannot be calculated on the basis of an award in 1997 for the same sort of injury, adjusted by the intervening change in the CPI index.
36. However, we remain of the view that while most awards of non-pecuniary damages are not literally indexed to inflation, indirectly, they are. The upper limit of such awards is so indexed. And we feel that it remains the case that awards for lesser amounts are indirectly indexed to inflation, in that the scale for such awards continues to reflect the value of a dollar at the time of the award.
37. This issue is discussed in § 7 below.

1.3 Gross-up

38. If r. 53.09(1) [discount rate] is modified as we have recommended, r. 53.09(2) should also be updated. In that case, that would mean adjusting the language of that rule to correspond with the language of r. 53.09(1).

2 Discount rate (r. 53.09(1))

2.1 How r. 53.09(1) works now

39. This section of our report will look at the nature of the “discount rate” problem.

Then, in the following section, we will summarize and discuss the significant changes that the British government chose to make to the discount rate used in England and Wales (known there as the “Ogden rate”) in 2017 and again in 2019. We will describe why we do not believe that that approach is one that we should follow in Ontario.

40. Our report will then discuss the submissions that were made to us by various Ontario stakeholders and the advice received from the two experts engaged to assist our subcommittee. We will also address the supplementary submissions of stakeholders, the input of the Attorney General and the additional investigations done in response to the concerns that he raised.

41. We will then set out our recommendations.

2.1.1 Introduction

42. In order to evaluate what changes, if any, should be made to r. 53.09(1), it is important to understand how that rule works now.

43. Under the present system, damages for future loss are discounted to present value² using one rate for the first 15 years after trial and another rate for post-15 year losses.

44. The rate established by r. 53.09 for the second period (after 15 years) is 2.5 percent. (The history of how we came to use a rate of 2.5% is outlined in § 2.7 below.)

45. The rate for the first period or “tier” (i.e., the first 15 years after trial) is more complicated. It is discussed in the next section.

² The concept of “present value” is discussed in § 2.2.

2.1.2 The rate for the first tier (the first 15 years after trial)

46. The present wording of the rule used to determine the “first-tier” rate is as follows:

53.09 (1) The discount rate to be used in determining the amount of an award in respect of future pecuniary damages, to the extent that it reflects the difference between estimated investment and price inflation rates, is,

(a) for the 15-year period that follows the start of the trial, the greater of,

(i) the average of the value for the last Wednesday in each month of the real rate of interest on long-term Government of Canada real return bonds (Series V121808, formerly Series B113911), as published in the Bank of Canada’s *Weekly Financial Statistics* for the period starting on March 1 and ending on August 31 in the year before the year in which the trial begins, less ½ per cent and rounded to the nearest 1/10 per cent, and

(ii) zero.

47. As discussed in § 6.10 below, the phrase “estimated investment” in the first part of r. 53.09(1) is somewhat inexact or even ambiguous. We have suggested new wording. But in practice, the general idea is that the discount rate will reflect the difference between (a) the estimated return on investment (of the award of damages) and (b) the estimated price inflation rate. (What the rule refers to as “price inflation rate” is measured, in Ontario, by the Consumer Price Index. The concept of inflation is discussed in § 2.3 below.)

48. The discount rate set out in r. 53.09(1)(a)(i), before adjustment, is “the average of the value for the last Wednesday in each month of the real rate of interest on long-term Government of Canada real return bonds (Series V121808, formerly Series B113911), as published in the Bank of Canada’s *Weekly Financial Statistics* for the period starting on March 1 and ending on August 31 in the year before the year in which the trial begins.”

49. “Real return bonds” are a form of bond, issued by the Government of Canada. They are discussed in more detail in § 2.4 but generally speaking, they, like other

government bonds, represent a form of loan³ made to the federal government. The bond promises a certain rate of return or “coupon”. (The most recent real return bond, maturing in 2050, has a coupon of 0.5 percent per annum. The one that is, at present, used for purposes of establishing the first-tier discount rate matures in 2044 and has a coupon of 1.5 percent.) That fixed rate of return is paid periodically, over the life of the bond.

50. The other component of bonds (not just real return bonds), apart from the coupon, is the “yield”, which is a proportion of the price of the bond.
51. “Yield” is the return paid to the holder of the bond. (Technically, the yield is the quotient of the coupon divided by the price paid for the bond. The coupon remains fixed, for a particular bond issue, but the yield varies with price.) There is an inverse relationship between the *price* of a bond and the *yield* of that bond. The higher the price paid (even for investors purchasing at the time of issuance), the lower the yield. This will be discussed further below. It is an important concept because the discount rate that is derived by the procedure set out in r. 53.09(1)(a) is based on yield.
52. “Value”, as used in r. 53.09(1)(a)(i), is probably also a poor choice of words. Its meaning, in this context, is not obvious. But in practice, what r. 53.09(1)(a)(i) refers to to as “value” is the *yield* on bonds in the specified series.⁴ Yield varies from day to day (with fluctuations in market price) but r. 53.09(1)(a)(i) provides that the discount

³ Technically, a “loan”, other than one that is securitized, such as a mortgage, is different from a “bond”. Non-securitized loans are not readily “traded” or transferred to others, as bonds are. Still, a bond is like a loan, in that the investor gives the government the use of money for a period of time in exchange for a specified return on the investment.

⁴ As discussed in § 2.8.3.1, it does appear that the Robins subcommittee, which first used the word “value” in r. 53.09(1)(a), was referring to the average yield of these bonds over a specified period.

rate will be set on the basis of a six-month average yield (referred to in the rule as “value”), using the period from March to August of the year before the trial.

53. The distinguishing feature of a real return bond is that unlike other long-term government bonds, its coupon is indexed to inflation. The coupon (and therefore, the yield) of such bonds tends to be less than those of other government bonds, even after inflation is taken into account. (See paragraph 132 below for a brief discussion of one of the possible explanations for this: the “insurance premium” paid for the inflation-indexing feature of real return bonds.)
54. As mentioned above, there is an inverse relationship between a bond’s market price and its yield. For example, right now (April, 2021), the most recent yield on the real return bond maturing in 2044, as of April 19, 2021, was 0.34 percent. (It was 0.33% when we prepared the April 27, 2020 draft of this report.) That means that the price being paid for that particular real return bond is almost four and a half times its face value. ($1.5 \text{ coupon} \div 0.34 \text{ current yield} = 4.41$).
55. A \$1,000 bond with a coupon of 1.5% pays interest of \$7.50 semi-annually until maturity. For the bond referred to in r. 53.09(1)(a)(i), maturity is in 2044. The principal of the bond (\$1,000) would then be repaid to the investor.
56. Over the last year, the bond market (and the stock market) have been volatile in the wake of COVID-19.
57. Bond prices rose dramatically in the first half of March, 2020 because of greatly increased demand, producing very low and even negative yields, in which investors would receive *less* money than they originally paid for the bond. Even yields on the “gold standard” US Treasury bonds, dropped well below 1.0% for the first time.
58. The reason for such high demand for bonds (with the concomitant upward pressure on price and downward pressure on yields) is that government bonds have

traditionally been seen as a very safe or “low risk” form of investment. (Although that proposition is starting to be questioned in an era that has seen negative bond yields.) The demand comes not so much from individuals as from financial institutions, such as banks and insurance companies, which are required to have substantial amounts of liquid capital.

59. In 2020 and 2021, not only has there been the “flight to safety” phenomenon (in which investors seek to lower risk) but, as well, central banks have purchased bonds to try to stimulate their countries’ economies. The recent (early-2021) increase in bond yields is partly explicable by central banks divesting themselves of assets acquired as part of their economic stimulus measures.
60. At present, r. 53.09(1)(a)(i) employs the yield (or “value”, to use the word that appears in the rule itself) on real return bonds as the basis for setting the discount rate for the first 15 years after trial. Rather than the yield for the 2044⁵ real return bond on a particular day, the first-tier discount rate is derived from an average of yields, taken over a specified six-month period (the last Wednesday in each month for the period from March 1 to August 31 in the year before the year in which the trial begins). A particular series of bonds is specified (“series V121808, formerly Series B113911”).
61. So, to summarize, the first-tier discount rate is based on an average of the *yields* or *effective* rates of return on the series of the Government of Canada’s real return bonds that matures in 2044 over a particular six-month period for the year before the trial. The yield, in turn, is a reflection of the market’s treatment of the specified bond, during that period.

⁵ See paragraph 36; the real return bond maturing in that year is the one used by the rule to set the first-tier discount rate.

62. It must also be remembered that it is not necessary to do a second calculation to subtract inflation in order to arrive at the “real return”: that adjustment is already built into the coupon (and therefore, the yield) for the real return bond.
63. The last step in the calculation mandated by r. 53.09(1)(a), in its present form, is to apply the $\frac{1}{2}\%$ *per annum* reduction provided for by the rule, unless to do so would produce a rate less than zero. Although formerly, there was nothing to prevent negative discount rates (the r. 53.09(1)(a) rate was, in fact, negative in 2013), the present wording of the rule establishes a “floor” of 0% per annum, below which the rate cannot fall. We recommend that that “floor” be removed (see § 6.5).
64. Why reduce the first-tier rate even more, potentially to a negative number, by applying the $\frac{1}{2}\%$ reduction? The rationale for that reduction is an historical one, outlined in §§ 2.7.3 and 2.7.4 below. The reduction was originally set at 1.0% by the Robins subcommittee⁶, to address some perceived negative features of real return bonds. That reduction was then halved in 2013 and now stands at $\frac{1}{2}$ percent.
65. A number of stakeholders’ submissions (on the defence side) have pressed for the complete elimination of the r. 53.09(1)(a) reduction. It can be argued that the reduction makes some sense if the aim is to try to remove as much risk for plaintiffs as possible. But if that is the objective, the rate itself could probably be calculated in a way that achieves that policy. Otherwise, there is no obvious reason to retain it. We have recommended that it be eliminated.

⁶ See § 2.7.3.

2.1.2.1 What information can be gleaned from the yield on real return bonds that is of general application?

66. It is not entirely clear what inferences can be drawn about the future of investment returns *other than* real return bonds from historical data about the yield of that particular type of bond.
67. As explained above, the bond yield is the quotient of the coupon (1.5% for the real return bond maturing in 2044) divided by the current price. So, knowing the yield for, say, March, 2019 (0.40 percent per annum) allows us to infer that in that month, the market price of this bond was 3.75 times its coupon ($1.5 \div 0.40 = 3.75$). Thus, to buy a \$1,000 real return bond at face value would then have cost \$3,750. By August, 2019, when the yield had fallen to 0.15 percent, that would mean that the price had risen tenfold from the time of issuance, so a bond that originally cost \$1,000 would have cost \$10,000 then. The coupon would remain the same throughout: 1.5 percent.
68. The progress of yields on this series of real return bonds from January 2, 2016 to April 15, 2021 is shown (in blue) in the graph below, taken from the Bank of Canada's website. The yields on 10-year bonds, over the same period is also shown (in red), for purposes of comparison:

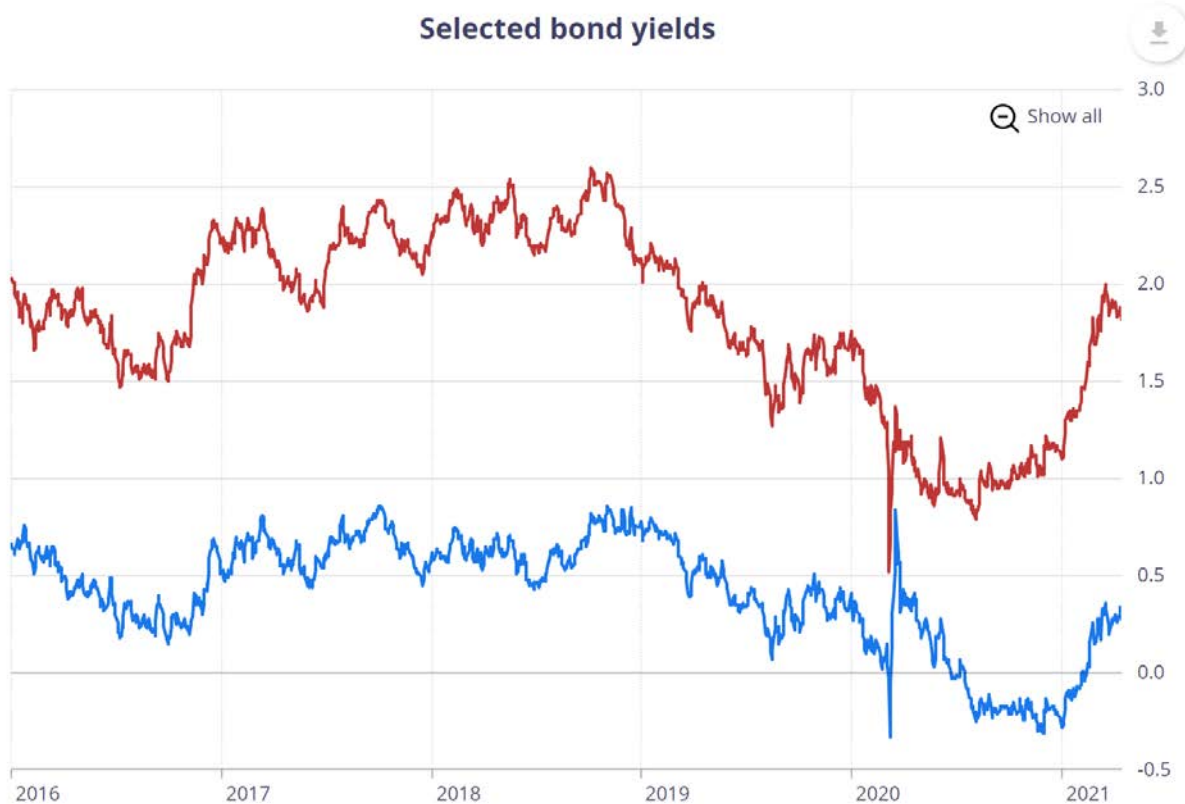


Figure 1

69. As can be seen, the yield has trended generally downward for the period from 2019 to date, although there has been some upward movement since the middle of 2020.

After a state of emergency was declared in Ontario in March, 2020, the yield increased massively almost overnight, from -0.33% to 0.71.0%. In fact, all GOC bonds exhibited similar trends at that time.

70. This snapshot of bond yields is a bit misleading though, as it only begins in 2016. In a paper written in November, 2020 on behalf of the Federal Reserve Bank of San Francisco, speaking of the historical yield of Canadian real return bonds, the authors included the following chart, showing yields of such bonds back to the beginning of 2000:

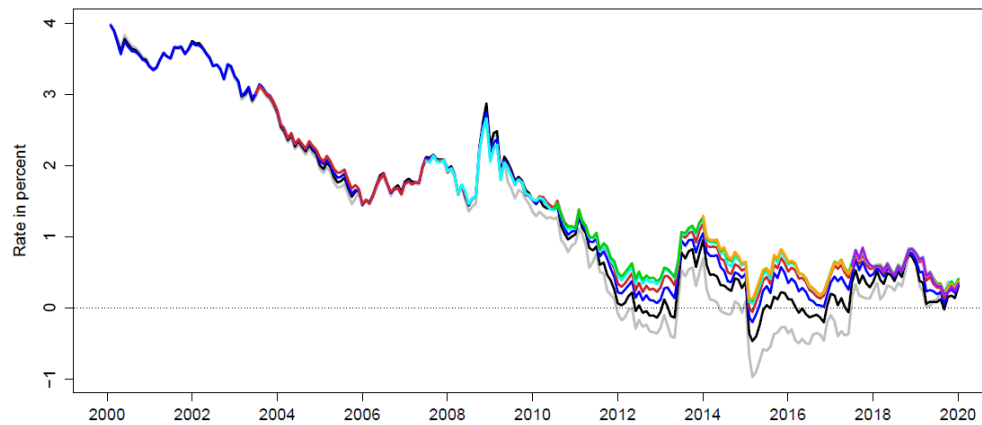


Figure 4: **Yield to Maturity of Canadian Government Real Return Bonds**

Illustration of the yield to maturity of the Canadian real return bonds considered in this paper covering the period from January 31, 2000, to December 31, 2019.

Figure 2

71. A similar downward trend can be seen for the nominal (and real) yields of 10-year GOC bonds:

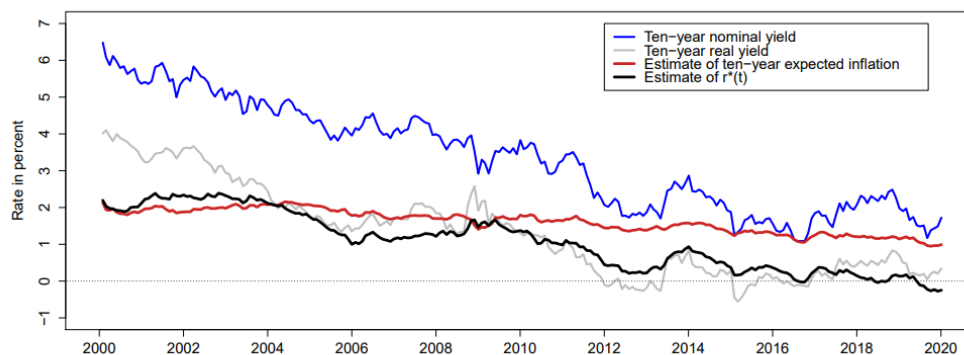


Figure 1: **Long-Term Nominal and Real Yields and an Estimate of Ten-Year Expected Inflation and r^***

Figure 3

72. (“ r^* ” or “ r star”, shown in Figure 3, refers to something called the “natural” or “neutral” rate of interest. It is discussed in § 5.4.1 below.)

73. The authors of the Federal Reserve Bank of San Francisco paper observed a “significant persistent decline in real yields” for the period under consideration:

The significant persistent decline in real yields over this 20-year period is clearly visible. Canadian long-term real yields were close to 4 percent in the early 2000s and have dropped to close to zero by the end of our sample. One empirical question is to what extent this decline represents a drop in the natural real rate or is driven by other factors such as liquidity or other risk premiums.⁷

74. Thus, while there have been times, over the last 20 years, in which real return bond yields have moved upward, from 2016 to 2019, the trend has generally been downward. In early 2021, it is moving up again, somewhat.

75. 2020 was a period of extreme volatility. In March, 2020, the yield was as low as -0.33% but nine days later, reached 0.84 percent. The former meant that the price of the bond had increased dramatically, implying very high demand.

76. The point of all of this is that the yield of bonds, including real return bonds, provides some information about how the market views the economic future. It is less clear what it tells us about the distant future.

2.1.3 The second tier (beginning 15 years after trial)

77. As mentioned above, the discount rate for the second tier, post-15 years from trial, is much simpler: it is currently set at 2.5 percent. That rate is not based on real return bonds or indeed, on any external source. No matter what economic circumstances might exist at the time of trial and no matter what the coupon or yield of real return bonds (or any other form of bond) might then be, the second tier rate established by r. 53.09(b) will be 2.5 percent. Conceptually, that rate represents the expected “real rate of return” on the investment of plaintiffs’ awards of damages: the amount by

⁷ Christensen, Jens E., Rudebusch, Glenn D. and Rudebusch, Shultz, Patrick J., “Accounting for Low Long-Term Interest Rates: Evidence from Canada”, Federal Reserve Bank of San Francisco Working Paper Series (November, 2020), p. 8. See also our brief discussion of the “neutral rate” or what is referred to here as the “natural real rate” in § 5.4.1.

which their returns from the investment of their damages for future losses will exceed inflation as measured by changes in the Consumer Price Index.

78. Like much of r. 53.09(1), the use of 2.5% as a discount rate has a long history, going back to r. 267a of the former Rules of Practice. It was enacted on October 1, 1980: see paragraphs 156 ff.
79. The 1992 Osborne discount rate subcommittee justified the continued use of the 2.5% rate on the basis of that group's expectations of what the returns on various long-term Government of Canada bonds were likely to be, as discussed in § 2.7.2. Ever since, that rationale has underlain the use of 2.5% as a discount rate: that the economy will always eventually return to what has been considered the "normal" spread between returns and inflation: 2.5 percent.
80. Of course, right now, even leaving aside real return bonds, the yields of long-term, non-indexed Government of Canada bonds are less than 1½% and have been since early 2020: see Figure 1 on page 22.
81. The Consumer Price Index in December, 2020 was 0.7% (meaning that it had increased by that amount over the previous 12 months). That is well below the Bank of Canada's target rate of 2.0 percent per annum:

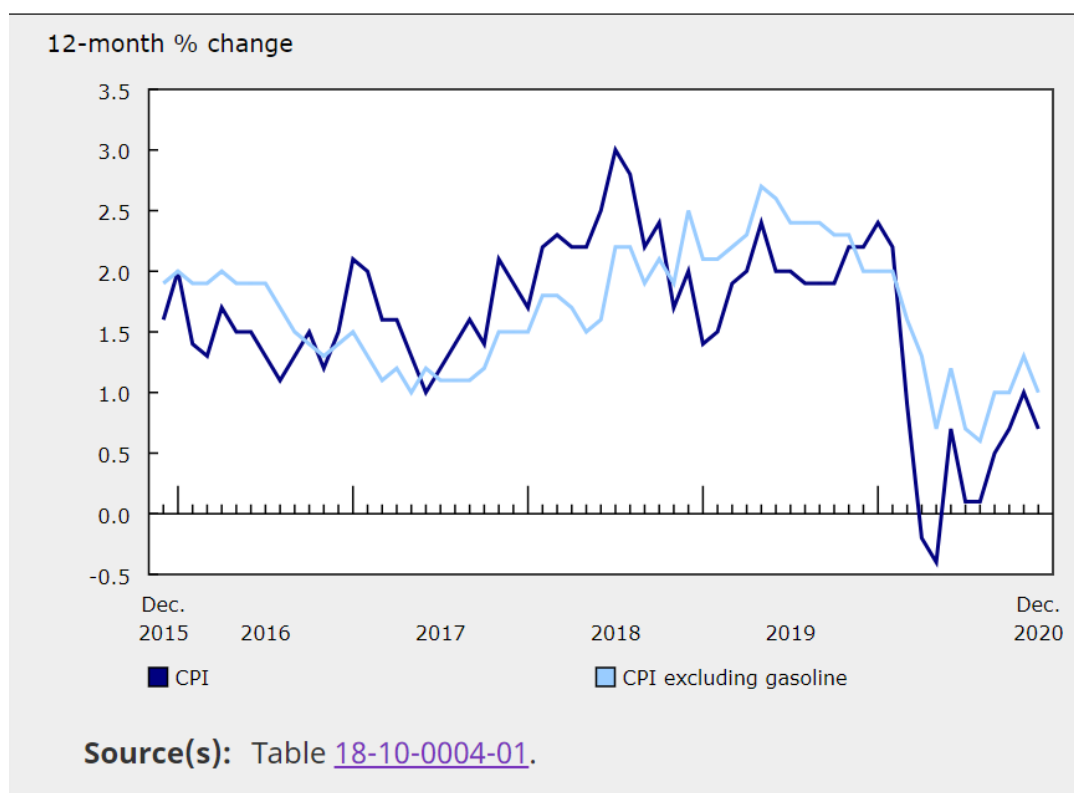


Figure 4

82. As mentioned above, the rate had risen to 1.1% per annum by February, 2021: still well below the Bank of Canada's target rate.
83. Thus, the "real return" on long-term bonds with nominal yields of less than 2.0% would be negative if the conventional rate of inflation of 2.0% were used. Right now (April, 2021), the real returns on 10-year bonds would be negative if an inflation rate of 2.0% were assumed (as the nominal yield on those bonds was 1.45% on April 15, 2021).
84. Therefore, it remains the case, as we said in the first draft of this report, that there is quite a discrepancy between the "normal" amount by which returns have historically been assumed to outpace inflation and the *actual* relationship between the two in 2020 and 2021. That fact brings into question the use of 2.5% per annum as a discount rate if the rationale for that rate is meant to be what it originally was:

to reflect the amount by which the return on long-term Government of Canada bonds will exceed the rate of inflation.

85. We have recommended that the “second tier” rate be eliminated: see § 6.2 below.

But now, we have also put forward an alternative approach that would see two tiers preserved (§ 6.4). For that “Plan ‘B’” approach, we have suggested that the post-15 year rate being set at 1.0% instead of 2.5 percent.

2.2 Present value

2.2.1 What is “present value”?

86. Rule 53.09(1) provides a mechanism by which future losses can be discounted to “present value”. That, in turn, allows a trial judge to make a lump sum award that will compensate the plaintiff for those future losses, taking into account both the erosion of the award by inflation and the income that investment of the award can be expected to generate.

87. In the submission made to our subcommittee by the Canadian Institute of Actuaries, an American case was quoted as to the rationale underlying a present value calculation:

Exact actuarial computation should result in a lump-sum, present-value award which if prudently invested will provide the beneficiaries with an investment return allowing them to regularly withdraw matching support money so that, by reinvesting the surplus earnings during the earlier years of the expected support period, they may maintain the anticipated future support level throughout the period and, upon the last withdrawal, have depleted both principal and interest.⁸

88. This passage probably represents at least a valid aspirational approach to the problem.

89. Present value is one example of the “time value” of money.

⁸ *Canavin v. Southwest Airlines* (1983) 148 Cal. App. 3d 512, 521 [196 Cal. Rptr. 82], quoted at pp. 11–12 of CIA submission.

90. Discounting a stream of payments over a given period in the future involves a calculation of the amount that, paid now, will equal that stream of payments and that will be exhausted at the end of the specified future period. It is meant to take into account two things: (1) the income or “return” on the investment of a capital sum; and (2) the erosion of the value of that return and of the capital, caused by inflation.
91. The difference between the gross rate of return on the investment (“the nominal rate”) and the rate of inflation is the “real rate of return”.
92. Through its history, the subcommittees that have reviewed r. 53.09 (and r. 267a of the former *Rules of Practice* before it) have approached this calculation (at least in part) on the assumption that the nominal rate of return assumed to be achievable will exceed the rate of inflation, on average, by about 2.5% per annum.⁹ That assumption has been carried forward into the present version of the r. 53.09 discount rate for losses after 15 years: they are to be discounted to present value using a rate of 2.5% per annum. Given the Government of Canada’s inflation-targeting policy, in effect since 1991, the assumption implicit in that provision is that nominal rates of return for the long-term (post-15 years) will be about 4.5 percent (2.5% return plus inflation of 2.0 percent).
93. (As discussed in § 2.7.1, the rate of return originally used was the yield on long-term Government of Canada bonds. That was in the days before real return bonds (which were introduced in 1991), although the latter have never been used to establish the discount rate for the period beginning 15 years after trial.)

⁹ See historical discussion in § 2.8 as well as § 2.1.1.2.

2.2.2 PV function in Microsoft Excel

94. To calculate the present value of a future stream of payments, those payments must be “discounted”. That is the role of the discount rate.
95. In order to discount to present value, so that a lump sum award can be made, it is necessary to know:
- a) the period over which the future stream of payments will be made;
 - b) the amounts of the periodic payments to be made in the future; and
 - c) the discount rate.
96. The discount rate, in turn, is made up of the difference between the assumed rate of return on an investment today over the specified period (the “nominal rate”) and the erosion of that return by inflation, over the same period.
97. Present value is readily calculated (at least in simple cases), using software. Microsoft’s spreadsheet program, Excel, is undoubtedly the one most frequently used.
98. Excel has a built-in “function” called “PV” which calculates present value based on inputs from the user. As an example, the following would discount an annual future loss of \$37,500 for 22 years, at a discount rate of 2.5 percent. The result (\$628,703) is the amount that, paid today, would equal the value of that future loss.

Function Arguments

PV

Rate	2.5%	↑	= 0.025
Nper	22	↑	= 22
Pmt	-37500	↑	= -37500
Fv		↑	= number
Type		↑	= number

= 628702.9965

Returns the present value of an investment: the total amount that a series of future payments is worth now.

Rate is the interest rate per period. For example, use 6%/4 for quarterly payments at 6% APR.

Formula result = \$628,703.00

[Help on this function](#) OK Cancel

Figure 5

99. (If the discount rate in the above example were lowered from 2.5% to minus 0.75%, as was done in the UK in 2017¹⁰, the present value would rise from \$628,702 to \$900,634, an increase of more than 40 percent. So, the choice of discount rate can make a big difference to the result.)

Function Arguments

PV

Rate	-0.75%	↑	= -0.0075
Nper	22	↑	= 22
Pmt	-37500	↑	= -37500
Fv		↑	= number
Type		↑	= number

= 900633.8284

Returns the present value of an investment: the total amount that a series of future payments is worth now.

Rate is the interest rate per period. For example, use 6%/4 for quarterly payments at 6% APR.

Formula result = \$900,633.83

[Help on this function](#) OK Cancel

Figure 6

¹⁰ See § 3.5.

100. Thus, *calculating* present value is very easy, provided that the variables are all known.¹¹ In the case of awards of damages for future pecuniary loss, trial courts decide on the length of the future period and the amounts of the periodic losses to be compensated. The trier of fact also decides which the losses are to be compensated and in what amounts.

101. As discussed in § 2.3 below, estimating inflation has not been difficult for the last 25 years or so (although it might not now be entirely safe to assume that inflation will remain stable or even that it will be continue to be measured in the same way, as discussed in the following section). But for most of that time, the trickiest part of the present value calculation has been settling on the other variable: the nominal rate of return.

2.3 Inflation

102. At the time that r. 267a (the predecessor to the present r. 53.09) was first enacted, on October 1, 1980, inflation was an important aspect of western economies.

103. “Inflation” refers to increases in the cost of goods and services. (Or, viewed from the other end of the prism, inflation is the devaluation of the currency required to purchase those goods and services, such that it requires more currency to buy them.)

104. It can readily be seen that it would be important to assess the impact of inflation on an award of damages to compensate for future losses. If the cost of goods and services were expected to increase by, say, 15% in twenty years, the purchasing power of a dollar awarded at trial would be correspondingly less if it were meant to cover losses incurred at that future point. For that reason, an award of damages at trial, covering that twenty-year period, would have to be adjusted upward, to

¹¹ The calculation becomes more complicated when the losses in question start and end over different periods or if the amount to be paid periodically varies. And, of course, if different rates of interest and inflation are used, that would also add to the complexity of the calculation.

ensure that the plaintiff received the appropriate level of compensation for his or her losses, recognizing that the cost of the various items to be purchased will rise.

105. “Deflation”, of course, is the opposite: a decline in the cost of goods and services over time (or an increase in purchasing power of currency). Were that to happen, a dollar awarded at trial would buy *more* in the future, requiring a *downward* adjustment in an award of damages to compensate for future losses.

106. In Canada, inflation is tracked by the Consumer Price Index. Detailed information is available from Statistics Canada on its website. The following general description appears on that page:

The Consumer Price Index (CPI) is an indicator of changes in consumer prices experienced by Canadians. It is obtained by comparing, over time, the cost of a fixed basket of goods and services purchased by consumers. Since the basket contains goods and services of unchanging or equivalent quantity and quality, the index reflects only pure price change.

The CPI is widely used as an indicator of the change in the general level of consumer prices or the rate of inflation. Since the purchasing power of money is affected by changes in prices, the CPI is useful to virtually all Canadians. Consumers can compare movements in the CPI to changes in their personal income to monitor and evaluate changes in their financial situation.¹²

107. In the April, 2020 draft of this report, we had said that we would not discuss inflation or CPI in detail, for two reasons, described below. However, a year later, for the first time in decades, the prospect of increased inflation is a real concern. So, we have added a bit to this section.

108. But we begin with the reasons that we did not address inflation in much detail in the first draft of this report.

109. First, in 1991, the Government of Canada (“GOC”) and the Bank of Canada adopted an inflation-targeting policy aimed at keeping the medium-term growth of

¹² Consumer Price Index, Description

<<https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2301>>

CPI at about 2.0% per annum.¹³ That policy has been largely successful and has been renewed several times since. Other western economies have also adopted inflation-targeting policies, with similar results. Thus, over the last 25 years, inflation in Canada has not been the volatile variable that it had sometimes been before inflation-targeting.¹⁴

110. Secondly, some commentators have questioned whether the “basket of goods and services” used to determine CPI reflects current economic reality. (Recall the comment by the Bank of Canada, quoted in paragraph 106 above, that “the basket contains goods and services of *unchanging or equivalent quantity and quality*” [Emphasis added]. As discussed below, that proposition is not necessarily valid in 2021.)
111. In other words, is CPI measuring the right things and is it measuring them accurately? The Economist magazine, in a special edition on the global economy, published in October, 2019, had a section about inflation that was entitled, “The End of Inflation? Inflation is losing its meaning as an economic indicator”. A related article¹⁵ in the same issue quoted a study by Stanford University that had “found that even excluding clothing, for which tastes are fickle, 44% of online sales in a database produced by Adobe Analytics, a computing company, were of goods that did not even exist in the previous year.”¹⁶ Another study estimated that “in a typical year, 40 percent of the basket [of consumer goods used to estimate CPI] are goods

¹³ “The inflation target is expressed as the year-over-year increase in the total consumer price index (CPI)”: <https://www.bankofcanada.ca/core-functions/monetary-policy/inflation/>

¹⁴ But see paragraphs 80 to 82.

¹⁵ “Alexa, how much is it? Technological progress is making inflation statistics an unreliable guide to the economy”.

¹⁶ The Economist, October 10, 2019, “The world economy’s strange new rules”.

created in the last four years and 20 percent are goods that disappear in the next four years".¹⁷

112. Likewise, some have questioned the distortion of CPI produced by the number of services that are now provided for free, such as Google and Facebook.¹⁸ The following observation was made in the same October, 2019 special edition of the Economist:

The explosion in the provision of free services is usually cited as a reason to doubt the accuracy of GDP. But it is as big a problem for inflation. First, free services sometimes replace ones that were previously paid for, which puts new-product bias on steroids. Second, if consumers derive a greater share of their well-being from things that come free, inflation ceases to be a good measure of the cost of living or of the purchasing power of incomes.¹⁹

113. The Bank of Canada published a Staff Discussion Paper about inflation in 2020.²⁰ The paper noted that, by the end of 2019, inflation had been at about the target rate of 2.0% per year, but for much of the period from 2011 to 2019, it had been below target, not just in Canada but in other advanced economies (a phenomenon sometimes referred to as "lowflation"):

¹⁷ Kryvtsov et al., footnote **Error! Bookmark not defined.**, citing Broda and Weinstein (2010).

¹⁸ Although a frequently-heard Internet trope is that "If you're not paying for it, you're not the customer, you're the product."

¹⁹ *Supra*, footnote **Error! Bookmark not defined.**

²⁰ Kryvtsov, Okeksiy and MacGee, James, "Has the Inflation Process Changed? Selective Review of Recent Research on Inflation Dynamics", Bank of Canada Staff Discussion Paper (November 27, 2020).

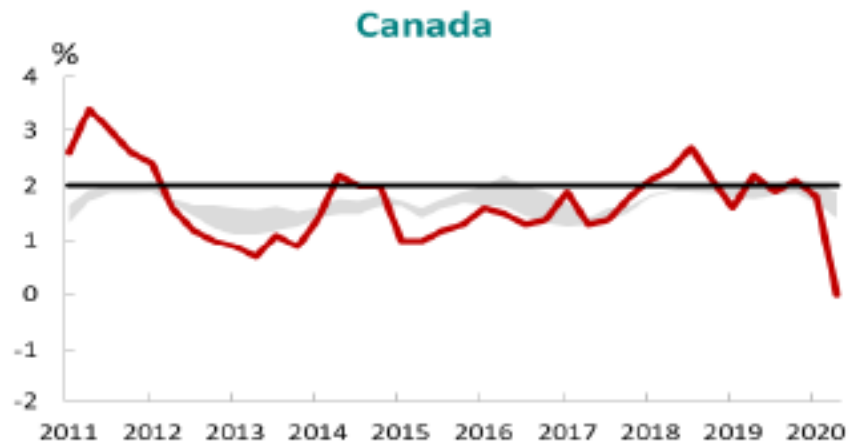


Figure 7

114. The authors concluded that “measured inflation is decoupling from its traditional fundamentals and that a re-evaluation of how prices are measured is needed.”²¹
115. Solving the problems of whether inflation-targeting is a policy that should continue and whether CPI is still a valid way to measure inflation are obviously far beyond what our subcommittee can hope to accomplish. For the time being, it can be said that the GOC’s 1991 policy has resulted in the rate of inflation having stabilized at or close to 2.0% since then (until recently, perhaps, as can be seen in Figure 7 above). The February, 2020 report of the University of Toronto’s Policy and Economic Analysis Program (“PEAP”), entitled “Long-term Outlook for the Canadian Economy: National Projection Through 2050”, predicted inflation holding steady at 2.0% for the entire future period covered by the report, starting in 2021 and ending in 2050.

²¹ Ibid., p. 12.

116. Likewise, in the economic forecasts provided to us by the Ministry of the Attorney General, long-term inflation is assumed to be 2.0% per annum: see § 5.1 below.

117. PEAP released an updated report in November, 2020. There, it predicted a downturn in the rate of inflation before a return to “normal” in 2023²²:

2020	0.60
2021	1.60
2022	2.20
2023	2.00
2024	2.00
2025	2.00
2026	2.00

Figure 8

118. The April 27, 2020 draft of this report included a discussion of commentary then taking place, as to whether inflation would be very high or very low. That discussion has mostly been omitted from this draft. The omission is not because the problem has been solved but because it has not. The important point, for us, is that it can no longer be taken as a given that inflation will remain at 2.0 percent.

119. The April 18, 2020 edition of *The Economist* included an interesting discussion of inflation. It noted that although inflation “seemed a fixture of the economic landscape in the 1970s, changes to policy and the structure of the global economy since have ushered in four decades of ever meeker growth in prices.”²³

²² PEAP Memo 2020-8 November 10, 2020, “Updated Economic Forecast for Canada, New Forecast for Ontario - Clear as Mud”.

²³ “Covid-19 could lead to the return of inflation—eventually”, *The Economist*, April 18, 2020. Both *The Economist* and the *Financial Times* articles referred to a paper entitled “Macroeconomic Implications of COVID-19: Can Negative Supply Shocks Cause Demand Shortages?” by Veronica Guerrieri, Guido Lorenzoni, Ludwig Straub and Iván Werning (April 2, 2020): https://cpb-us-w2.wpmucdn.com/voices.uchicago.edu/dist/6/2265/files/2020/04/covid19_supply_demand1.pdf. That article postulated that a shock to supply, such as that experienced during a pandemic, can lead to reduced demand. (Of course, so can consumers having no money to spend.)

120. Various factors could result in a sharp inflationary spike. Those include the return to production of a variety of goods and services not being produced now, “massive stimulus programmes”, possible eventual increases in taxes on the wealthy, leaving more disposable income in the hands of the less well-off and the possibility that governments will no longer give the same priority to keeping inflation at a steady — and low — rate.
121. The February 13, 2021 edition of *The Economist* had an article entitled, “How rising inflation could disrupt the world’s economic policies: The debate is hotting up”. The discussions stemmed largely from the Biden administration’s \$1.9trn economic stimulus. The publication commented on the problems that would result from high inflation colliding with low interest rates: “Higher rates also hold deep implications for markets. Almost everything about today’s financial landscape is premised on central banks keeping interest rates low for a long time. Cheap money lies behind the idea that the government can spend however much it likes — including, say, on Mr Biden’s planned infrastructure bill — and underpins today’s sky-high stock market values and abundant credit.”²⁴
122. Three days earlier, the *Financial Times* editorial board had written that “[t]he Fed must be mindful of mounting inflation worries”. It said:
- Making economic policy in the midst of extreme uncertainty is about balancing risks. If Congress, and the Fed, do too little then it could bring on yet another decade of economic weakness, declining living standards and political turmoil. If they do too much — as Summers and Blanchard suggest — then there is the potential for the kind of high inflation experienced in the 1970s followed by the painful disinflation of the 1980s. Neither would leave the US in a happy place.²⁵
123. But in response, other commentators have ridiculed the notion that there is any possibility of a return to 1970s inflation. Binyamin Appelbaum (author of the book

²⁴ *The Economist*, February 13, 2021.

²⁵ *Financial Times*, February 10, 2021.

referred to at paragraph 142.c) below) said that worries about runaway inflation represent “a tired refrain that seems to be sung mostly by those whose views were forged during the stagflationary 1970s. But we live in an era of anemic inflation, and changes in the economic landscape since the ’70s have significantly reduced the chances of a revival, including the watchfulness of the Federal Reserve, workers’ loss of bargaining power and the effects of globalization.”²⁶

124. According to a report in the *Financial Post*, present Bank of Canada Governor, Tiff Macklem “has made it clear that he is far more concerned about disinflation than he is about losing his grip on prices, a stance that was supported by Statistics Canada’s latest update of the Consumer Price Index this week.”²⁷
125. If inflation does, in fact, rise substantially above 2.0% in the future and if interest rates remain low, that would give rise to a discount rate scenario that we have not really considered. (It would *prima facie* indicate a much lower discount rate.)
126. And, of course, hyperinflation would suggest the need for a much *higher* discount rate unless interest rates were also to experience correspondingly large increases.
127. The Bank of Canada itself is predicting that CPI inflation will “rise temporarily to around 2 percent in the first half of the year [2021], as the base-year effects of price declines at the pandemic’s outset — mostly gasoline — dissipate. Excess supply is expected to weigh on inflation throughout the projection period. As it is absorbed, inflation is expected to return sustainably to the 2 percent target in 2023.”²⁸

²⁶ “Inflation Isn’t Lurking Around the Corner. This Isn’t the 1970s”, Appelbaum, Binyamin, *New York Times*, February. 16, 2021.

²⁷ “Why Canada should be paying attention to the brawl over inflation in U.S. economics establishment”, Carmichael, Kevin, *Financial Post*, February 19, 2021.

²⁸ “Bank of Canada will hold current level of policy rate until inflation objective is achieved, continues quantitative easing”, Bank of Canada press release, January 20, 2021.

128. To predict the long-term future, we would need to recognize that very low inflation or even deflation might occur for several years, perhaps to be followed by high rates of inflation not seen since the 1970s. We are very sceptical about the likelihood of the latter though. Central banks have been adjusting monetary policy for 30 years in order to manage inflation and would certainly intervene aggressively to try to head off a return to out-of-control inflation.
129. Neither the subcommittee nor the experts retained to advise it tried to come to grips with what a discount rate would look like if inflation were to drop far below the government's 2.0% target, become deflationary or rise far higher than the traditional 2.0% rate. Since we are recommending a transition to a different system, we have not gone back to our experts or stakeholders to ask them for their comments about a discount rate in a low-inflationary, deflationary or high inflationary world. But it might be the world in which we will be living.

2.4 Real return bonds

130. Real return bonds have already been discussed, to some extent, in § 2.1.2 above. They are used to establish the discount rate under r. 53.09(1)(a), for the first 15 years following the trial. Such bonds, issued by the Government of Canada, are indexed to inflation, so the specified "real" rate of return is protected against inflationary devaluation, whatever the rate of inflation might be until maturity of the bond. The coupon is paid, upon maturity, in inflation-adjusted dollars.
131. Because of that feature, real return bonds are sometimes described as a "very low risk" or even "no risk" form of investment.²⁹ (Dr. Douglas Hyatt, one of the advisors to our subcommittee, does not subscribe to that view. However, his disagreement

²⁹ See, for example, MacQueen, Alexandra, "No defined benefit pension? How to save for retirement", The Globe and Mail, December 14, 2017: <https://www.theglobeandmail.com/globe-investor/how-should-those-without-db-pensions-save-for-retirement/article37236202/>

has more to do with the variability in the *yield* of RRBs that are bought in the market sometime after issuance. He does not suggest that there is any real risk of default by the GOC on payment of the coupon, the specified rate of return.)

132. As will be seen in § 2.8, in the UK, the discount rate had previously been set on the basis of its own sovereign, inflation-indexed bonds, known as “index-linked gilts” or “ILGs”. Those were explicitly recognized by the UK government as a “very low risk” form of investment in establishing its own approach to the discount rate. The UK has since chosen a different methodology, in which it bases its discount rate on the rate of return produced by a particular assumed portfolio of “low risk” (but not “*very* low risk”) investments, over a defined investment period.
133. A more detailed explanation of real return bonds is available at a website entitled “Real Return Bonds”.³⁰ (Although the Bank of Canada has information on its own website about real return bonds, the above web page was the one to which the Bank itself directed us.) That site mentions that there is an “insurance” component built into real return bonds on account of the inflation-indexing benefit that the product includes. In effect, the rate of return on such bonds is not just net of inflation, but also net of what is, in effect, an insurance premium paid for the inflation protection:

RRB [“real return bond”] yield = regular bond yield - anticipated inflation - insurance against inflation changes.

The insurance component thus *decreases* RRB yields compared to regular bonds. This insurance component, also known as the inflation risk premium, is hard to precisely estimate, but may be in the vicinity of half a percent.³¹

134. That is a consideration seldom referred to in discussions of real return bonds and their use in establishing the discount rate. If real return bonds are to be used as a measurement of future real returns, it might be arguable that this “insurance

³⁰ https://www.finiki.org/wiki/Real_Return_Bonds

³¹ *Ibid.*

premium” should be backed out. We said in the original draft of this report that since no one has raised this issue with us³², we did not intend to address it further. But now, the issue *has* been raised in supplementary submissions by IBC and we have addressed it in § 5.3.6.3.1.

135. Another possible distortion in the real rate of return established by real return bonds is a “liquidity premium”. Investors in assets not easily sold may require compensation for and added risk that they assume by investing in illiquid assets.
136. In a recent study of Canadian real return bonds by the Federal Reserve Bank of San Francisco (see footnote 7 above), the authors were looking for an explanation for falling interest rates and said:
- Declining term, inflation risk, and liquidity risk premiums could also play a role in reducing long-term yields, and one advantage of a financial modeling approach is that it allows for explicit risk premiums to account for the new lower normal in interest rates. In particular, as price inflation has become better anchored at low levels in many countries, the inflation risk premium has likely declined (e.g., Wright, 2011, and Bauer et al., 2014).³³
137. The conclusions reached in that report were to the effect that even taking into account factors such as liquidity premiums, long-term interest rates will remain low in the future:

Given the historic downtrend in yields in recent decades, many researchers have investigated the factors pushing down interest rates. Much of this work has focused on the steady-state level of the safe short-term real interest rate based on macroeconomic models and U.S. data. Instead, we consider a finance-based decomposition of interest rates from empirical dynamic term structure models estimated on a sample of standard Canadian nominal bond yields combined with the prices of Canadian inflation-indexed bonds. By adjusting for both RRB liquidity premiums and nominal and real term premiums, we uncover investors’ expectations for the underlying frictionless real short rate for the five-year period starting five years ahead. This measure of the natural rate of interest exhibits a gradual decline over the past two decades that accounts for about two thirds of the general decline in

³² Although in its submissions, IBC’s consultant expressed the view that real return bonds are misleading about the rate of inflation: see paragraphs 283, 296 ff.

³³ Christensen et al., footnote **Error! Bookmark not defined.**, p. 1.

Canadian yields. Specifically, as of the end of December 2019, the CLR-L model estimate of r_t is -0.25 percent, a decline of almost 2 and a half percentage points since the beginning of 2000. Furthermore, model projections that exploit the estimated factor dynamics suggest that this measure of the natural rate is more likely than not to remain near its current low level for the foreseeable future.³⁴

138. We pause here to note that the observations made in the passage quoted above chime with ones that we have seen in a variety of other contexts, discussed in this report. A number of commentators have noted the long-term, secular decline of interest rates in general. That is one reason that we are very hesitant to set a long-term discount rate based on the notion that real interest rates in the future will be what they were in the past.

2.5 Consequences of setting discount rate

139. It is important to keep in mind that what the Rules Committee decides to do with the discount rate issue might have significant consequences, not just for the personal injury community but for the Ontario and even national economy. When the UK government lowered its discount rate (the “Ogden rate”) in March, 2017, overnight, from 2.5% to minus 0.75%, the effects were substantial. Insurers were instantly under-reserved and were required to restate their earnings. Insurance premiums rose.

140. Somewhat the same thing apparently happened in the UK during the summer of 2019, when the Ogden rate was raised. It had been expected to be increased from minus 0.75% to a rate between 0% and 1.0% and instead, it moved up to minus 0.25 percent. Again, share prices of insurers fell and premiums rose. (Even though the discount rate had been raised, which would reduce insurers’ damages payments, the increase was less than the companies had been expecting.)

³⁴ Christensen et al., footnote **Error! Bookmark not defined.**, pp. 37–38.

141. It is largely on the basis of this sort of potential disruption (and the persistent uncertainty about the future) that we have decided to propose an alternative approach to the discount rate, whereby the two-tier system would be preserved for now, but the second-tier rate would be lowered from 2.5% to 1.0 percent.

2.6 Will the future be like the past?

142. Our predecessors were told (see § 2.7) that over the longer term, nominal interest rates were likely to exceed inflation by about 2.5 percent. Today, we are still living with that view of the world, for post-15 year losses. We do not believe that experience has borne out the predictions that were provided to past subcommittees.³⁵

143. Even before coronavirus was on the horizon, various articles and books had suggested that economists had been quite mistaken in their macroeconomic assessments since World War II. For instance:

- a) “The Boom Was A Blip: Getting Used to Slow Growth” (Ruchir Sharma, May/June, 2017 Foreign Affairs). In his article, Mr. Sharma said that economic growth that was seen in the decades after the Second World War occurred because of conditions that will not be reproduced: “Between the end of World War II and the financial crisis of 2008, the global economy was supercharged by explosive population growth, a debt boom that fueled investment and boosted

³⁵ In an interesting article in the New Yorker on April 21, 2020, Nassim Nicholas Taleb—he of “Black Swan” fame—was interviewed. He heaped scorn on those who believe that the future will resemble the past: “if Taleb is chronically irritated, it is by those economists, officials, journalists, and executives—the ‘naïve empiricists’—who think that our tomorrows are likely to be pretty much like our yesterdays. He explained in a conversation that these are the people who, consulting bell curves, focus on their bulging centers, and disregard potentially fatal ‘fat tails’—events that seem ‘statistically remote’ but ‘contribute most to outcomes, by precipitating chain reactions, say.” In the same article, Taleb rejected the notion that Covid-19 is a “black swan”, claiming that he, Bill Gates and others predicted it. (Avishai, Bernard, “The Pandemic Isn’t a Black Swan but a Portent of a More Fragile Global System”, The New Yorker, April 21, 2020.)

productivity, and an astonishing increase in cross-border flows of goods, money, and people. Today, all three trends have begun to sharply decelerate: families are having fewer children than they did in the early postwar years, banks are not expanding their lending as they did before the global financial crisis, and countries are engaging in less cross-border trade.”

- b) *The Rise and Fall of American Growth: The U.S. Standard of Living Since the Civil War* (Robert J. Gordon). In this widely-discussed 2016 book, Prof. Gordon theorized that the explosive economic growth from the 19th century to the mid-20th century was a one-time phenomenon that will never happen again.
- c) *The Economists' Hour* (Binyamin Appelbaum). Mr. Appelbaum is an editorial writer at the New York Times who has covered economic issues for about ten years. His 2019 book's thesis can be gleaned from the title of a review in the Financial Times: “From financial crisis to inequality — how economists got it wrong.” Economists were also taken to task severely by one of their own in *How Economics Professors Can Stop Failing Us: The Discipline at a Crossroads*.³⁶
- d) “The World Economy's Strange New Rules: The Economist Special Report on the World Economy” (October 12, 2019) That edition of the Economist magazine, referred to at paragraph 111 above, focused mainly on inflation losing its meaning as a concept and the factors that have contributed to that. For example, the “Phillips curve” was thought to show an inverse relationship between the rate of unemployment and the rate of inflation: when one went up, the other went down. The article said that at the time (2019), both unemployment and inflation were low and economists (and central banks) were not sure why.

³⁶ Payson, Steven, (2018), Lexington Books.

- e) Two recent books have postulated that the “population bomb” that was discussed in Paul Ehrlich’s 1971 book³⁷ is now reversing.³⁸ If true, this is likely to affect the entire system of capitalism, which is based on growth: more consumers, more investment, more productivity. Perhaps that is now changing.
144. On top of those issues has come COVID-19. More than any other single economic factor in our lifetimes, it has introduced huge uncertainty.
145. An April 19, 2020 article in the Financial Times, “Coronavirus creates biggest economic uncertainty in decades”,³⁹ underscored the hazy picture for the economic future. The following graph, which appeared in the article, shows the spread between the 25th and the 75th percentiles of forecasts of GDP growth. Until recently, the dispersion was very narrow. The gap shown in that article was much wider, indicating a much bigger range from the top to the bottom of analysts’ predictions of the future:

³⁷ Ehrlich, Paul, *The Population Bomb* (1971), MacMillan.

³⁸ The two books, *The Human Tide: How Population Shaped the Modern World* by Paul Morland (2019), PublicAffairs and *Empty Planet: The Shock of Global Population Decline* by Darrell Bricker and John Ibbitson (2019), Signal, are discussed in Karabell, Zachary, “The Population Bust Demographic Decline and the End of Capitalism as We Know It”, *Foreign Affairs*, September/October, 2019.

³⁹ Wigglesworth, Robin.

Macroeconomic uncertainty is the highest in modern history

Dispersion in GDP quarterly growth forecasts (gap between 25th and 75th percentile, % points)

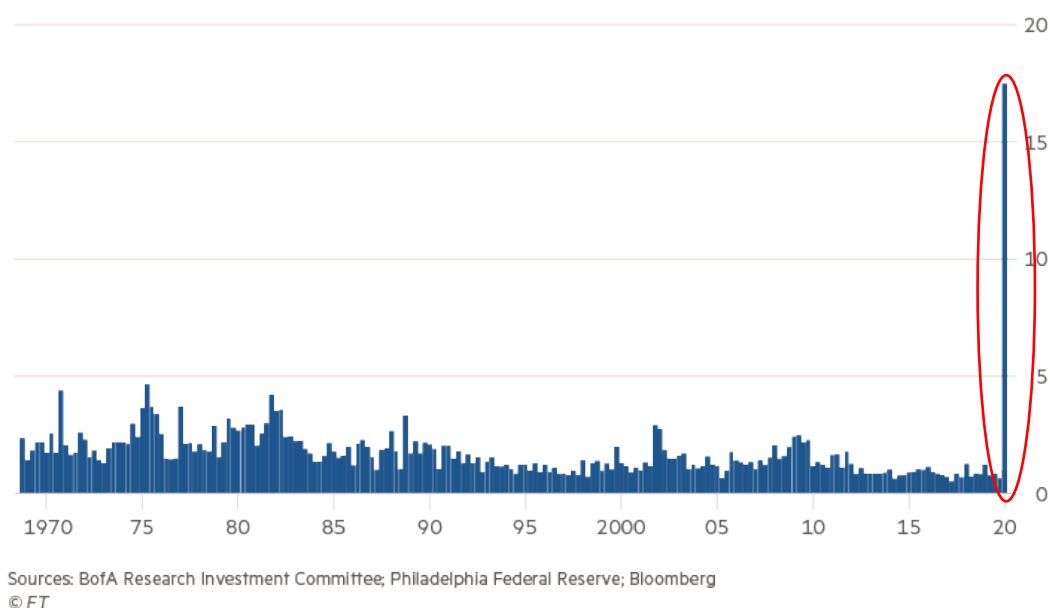


Figure 9

146. That level of uncertainty probably extends to other economic forecasting, not just GDP.

2.6.1 Schmelzing paper on history of real interest rates

147. In January, 2020, the Bank of England published a paper entitled, “Eight centuries of global real interest rates, R-G, and the ‘suprasecular’ decline, 1311–2018”. The author, Paul Schmelzing, undertook the ambitious task of evaluating global “real” rates of interest (i.e., net of inflation) from medieval times to the present. He disagreed with the conventional wisdom, that while “real rates” might display eccentricities in the short term, they stabilize back to “normal” over the long-term. Rather, he found that “currently depressed sovereign real rates are in fact converging ‘back to historical trend’ — a trend that makes narratives about a ‘secular stagnation’ environment entirely misleading, and suggests that —

irrespective of particular monetary and fiscal responses — *real rates could soon enter permanently negative territory.*"⁴⁰ [Emphasis added]

148. The following rather startling table illustrates Mr. Schmelzing's findings about real interest rates over history, beginning in the year 1310 (!) and ending in 2018:

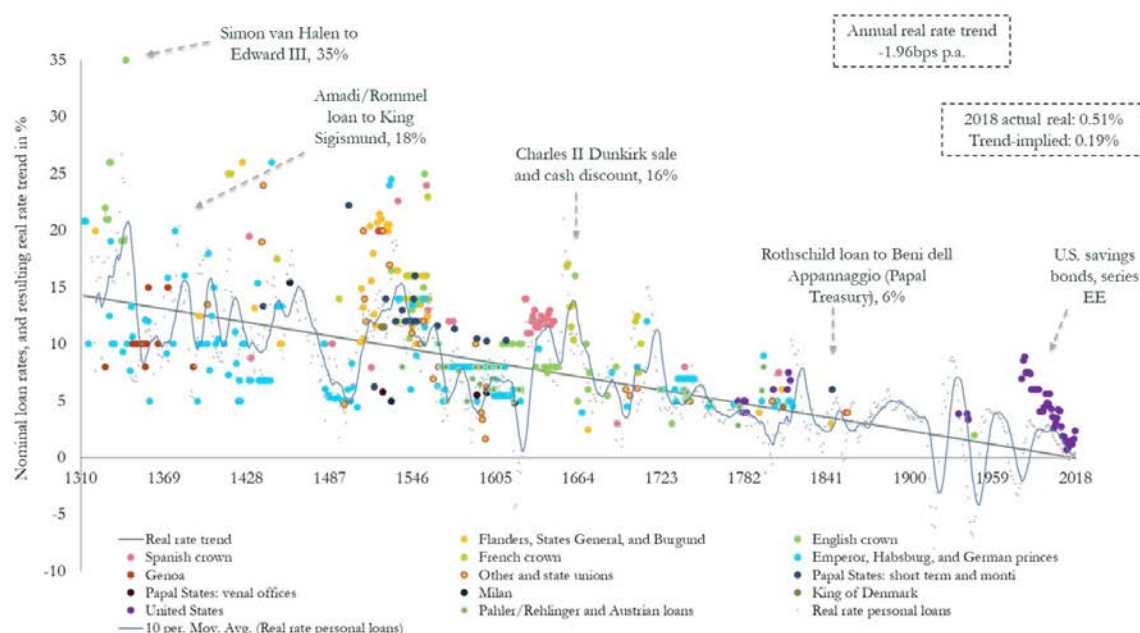


Figure 10

149. The Schmelzing paper generated a lot of media discussion. The Irish Times, for instance, referred to it as “a statistical tour-de-force” and added that “[i]f Schmelzing is right, Larry Summers, promoter of the ‘secular stagnation’ thesis, is also wrong.

⁴⁰ “Secular stagnation” is a term popularized by Larry Summers, former U.S. Treasury Secretary. In a 2016 article in *Foreign Affairs*, entitled “The Age of Secular Stagnation: What It Is and What to Do About It”, he described the concept this way: “The economies of the industrial world...suffer from an imbalance resulting from an increasing propensity to save and a decreasing propensity to invest. The result is that excessive saving acts as a drag on demand, reducing growth and inflation, and the imbalance between savings and investment pulls down real interest rates.” However, Mr. Summers thought that secular stagnation was a problem that could be overcome by the appropriate “expansionary fiscal policy”.

Anyone expecting bond yields to ‘normalise’ is also wrong because their definition of normal is wrong.”⁴¹

150. Likewise, in January, 2020, The Economist ran a story about Schmelzing’s work:

Mr Schmelzing’s conclusions pose an even starker challenge to central bankers. If the historical trend continues, by the late 2020s global short-term real rates will have reached permanently negative territory. By the late 21st century, long-term rates will have joined them. Even unconventional monetary policies, which rely on driving down long-term rates, would then lose traction. Any hopes for nominal rates of 2.0% or more, in the long-term, may prove to be a pipe dream.⁴²

151. Once again, neither our subcommittee nor the Civil Rules Committee as a whole can determine whether long-term real interest rates will ever return to anything like 2.5% or whether “negative [real] interest rates are the ‘new normal’ with 30% of the world’s government bonds trading at sub-zero yields”, as some have suggested.⁴³

152. It can be said that Mr. Schmelzing is not a voice in the wilderness.⁴⁴ As noted in Figure 2, RRB yields have gone down significantly since 2000. The authors of the recent Federal Reserve Bank of San Francisco article concluded that rates will remain low for the foreseeable future (see para. 73). But no one can possibly know. And compensating Ontario plaintiffs on the basis of a 2.5% discount rate—or really, *any* forecast of the future—risks an incorrect valuation of the damages meant to compensate for future losses.

⁴¹ Johns, Chris, “Relax Paschal, stop trying to run a budget surplus” (Irish Times, January 12, 2020).

⁴² “Capital in the 14th century: New research suggests that secular stagnation is centuries old”, The Economist, January 9, 2020.

⁴³ White, James and Haghani, Victor, “Negative Interest Rates and the Perpetuity Paradox”, (November 19, 2019). Available at SSRN: <https://ssrn.com/abstract=3489992> or <http://dx.doi.org/10.2139/ssrn.3489992>.

⁴⁴ One of the papers about the economic effects of COVID-19 that we reviewed drew on Schmelzing’s analysis: see paragraph 544.

2.7 Previous r. 53 subcommittees

153. It is instructive to look at the work done by previous rr. 53.09 and 53.10 subcommittees.
154. We have at least some of the papers (including the final reports) of the subcommittees that were chaired by Justice Coulter Osborne, whose report was dated May 15, 1992, and Justice Sydney Robins, whose report was issued in February, 1998.
155. We also have a little information about what we believe was the first r. 53 subcommittee: the one chaired by Associate Chief Justice Morden in 1980. (Although at that time, it would have been the r. 267a subcommittee.) However, that information comes from the later reports of Justices Osborne and Robins. We do not have Associate Chief Justice Morden's own report.

2.7.1 Morden subcommittee (1980)

156. We do not have any documents from this period, but the work of Associate Chief Justice Morden is mentioned in the reports of Justices Osborne (1992) and Robins (1998), discussed below. The Morden report was apparently entitled something like, "Report of the Special Committee on Fixing Capitalization Rates in Damages Actions".⁴⁵
157. The following summary of the work of the Morden Committee is taken from Justice Osborne's report in 1992.
158. The former r. 267a of the Rules of Practice came into force on October 1, 1980. It provided for a legislated discount rate of 2.5% per year. That approach was the result of the recommendations of what Justice Osborne referred to as "the 1980

⁴⁵ The Morden report was referred to in the Robins and Osborne reports using slightly different but fairly similar titles.

special committee”, made up of Jack Carr, an economics professor, and Murray Segal and Ronald M. Walker, both of whom were actuaries.

159. The following is Justice Osborne’s summary of what led to the enactment of r. 267a:

The 1980 special committee compared the rate of interest on long-term riskless investments, as measured by the average yield to maturity on long-term Government of Canada bonds, with the annual percentage increases in prices and wages and salaries over the 50-year period from 1930 to 1979.

The 1980 special committee concluded that the real rate of interest in Canada (i.e. the excess of the rate of interest on long-term Government of Canada bonds over the long-term rate of price increases) would be in the range of 2% to 3% per year for the foreseeable future. The committee’s “best single point estimate” was 2½% per year.

The 1980 special committee specifically recommended that “Provision should be made for reconsidering and possibly changing any rule that is struck at regular intervals in the future—such as every 5 years or so—in the light of emerging experience and evolution in economic and actuarial forecasting techniques and methods.”⁴⁶

160. Justice Osborne noted that “[w]ith minor changes in language, Rule 267a was carried forward as Rule 53.09 in the 1985 Ontario Rules of Civil Procedure.” The original wording of r. 53.09 was:

The discount rate to be used in determining the amount of an award in respect of future pecuniary damages to the extent that it reflects the difference between estimated investment and price inflation rates is 2½% per year.

2.7.2 Osborne subcommittee (1992)

161. The subcommittee used to be quite a bit larger than it is now. The 1992 version was made up of the following nine individuals, in addition to Justice Osborne, who acted as Chair:

Mr. Justice Wilson D. Griffiths

Mr. Justice Joseph W. O’Brien

Madam Justice Jean L MacFarland

Earl A. Cherniak, Q.C.

⁴⁶ Pages 3–4.

Kenneth E. Howie, Q.C.

R. Bruce Lawson, Q.C.

John I. Laskin

Craig Perkins

W.S. Wigle, Q.C.

162. The subcommittee was appointed by then-Associate Chief Justice Morden (who, as noted above, chaired the 1980 subcommittee and also served as a member of the 2013 subcommittee).

163. The 1992 subcommittee was not only twice the size of the current version, it also had much more expert assistance:

Jack L. Carr (Professor in the Department of Economics, University of Toronto)

Robert Collins (An actuary with Actrex Partners)

James Pesando (Professor at the Institute for Policy Analysis, University of Toronto)

Douglas E. Purvis (Professor in the Department of Economics, Queen's University)

Murray Segal (An actuary with Eckler Partners)

164. This “advisory committee” delivered a report to the members of the 1992 subcommittee. It was dated December 19, 1990. Dr. Carr delivered his own “minority” report.

165. Interestingly, the advisory committee recommended the adoption of a two-tier discount rate such as we have now but the subcommittee unanimously rejected that recommendation. In its view, “such an approach is not practical because of its complexity”. (Prof. Carr had opposed the two-tier system.)

166. Justice Osborne noted that “no one member of the advisory committee thought it [a two-tier system] was a good idea,” which seems rather surprising, given that the majority of the advisory committee apparently *did* recommend it.

167. Justice Osborne noted that the majority report of the advisory committee was the product of some significant internal disagreements. He said that “[i]ndeed, the

report candidly acknowledged that ‘the conclusions mentioned in this report do not necessarily represent the individual views of each one of us but rather, in those areas where we did differ, the best compromises that we could arrive at in such a manner that none of us would be so uncomfortable as to prevent signing the report.’”⁴⁷

168. Justice Osborne summarized the conclusions in the majority report. In so doing, he mentioned that actual economic experience in the 1980s had not accorded with the projected discount rate. Real interest rates had exceeded the estimate of 2½% per year—by a considerable margin—and at the time, it appeared that that situation would continue. But Justice Osborne said that in the longer term, rates would return to “normal”:

In dealing with the discount rate, the advisory committee report recognized that in hindsight the 1980 projected rate⁴⁸ of 2½% per year has been too low for the 1980’s in which the rate averaged out at 5.20% per year. The report concluded that on balance the best projection that can be made now is that the real rate of interest in Canada will likely continue to exceed its long-term historical average (2.42% per year during the 60-year period from 1930 to 1989) for a limited number of years in the future, but that in the longer term there are insufficient grounds to indicate a substantial change. The report then recommended that Rule 53.09 be amended to provide a “two-tier excess of investment over price inflation rates at the levels of 4½% per year up to and including December 31, 1999 and 3% per year thereafter”.⁴⁹

169. Prof. Carr was said to have “recommended a discount rate in the range of 2½% to 3%—giving equal weight to the historical 60-year average, a 2.5% rate was warranted; concentrating on the last 20 to 30 years argued for a 3% rate. He had a slight preference for the 3% rate.”⁵⁰

170. Because of the disagreement within the advisory committee, the r. 53 subcommittee sought input from each of the various individual members. One group argued for a discount rate as high as 5% but was willing to settle for 3 percent.

⁴⁷ Report of Osborne subcommittee (1992) (“Osborne report”), p. 8.

⁴⁸ This seems to be a reference to the real rate of return, which was the basis of the discount rate.

⁴⁹ Osborne report, p. 8.

⁵⁰ *Ibid.*, pp. 8–9.

Another preferred a rate of 2.5%, on the basis that “while the discount rate may well fluctuate considerably from year to year and even from decade to decade, ‘it will most likely still average out in the long-term future at its long-term past average of around 2½% per year.’”⁵¹ The latter reasoning was accepted by the 1992 subcommittee.

171. As noted above, the 1992 subcommittee agreed with one group of the advisory committee, that the discount rate should be set at 2.5 percent. In so doing, it was opting for the more conservative of the two opinions expressed by members of the advisory committee: that is to say, the one that projected a lower rate of return on the investment of damages awards. The subcommittee’s own analysis of the discount rate issue was extremely brief: only two paragraphs.
172. Justice Osborne concluded his report by voicing the subcommittee’s disapproval of “the practice of some trial judges of departing from the legislated discount rate in the exercise of their discretion. This only serves to undermine the purpose of a fixed rate.”⁵²
173. The latter undoubtedly still represents the prevailing view, at least among the judiciary. It is certainly the view of our subcommittee.
174. It does not appear that the issue of whether the discount rate should be based on the investments that would actually be made by plaintiffs or should be derived from a very low-risk external rate, was even discussed. (At least not in the context of the discount rate: it *was* discussed in relation to the gross-up factor (which the 1992 subcommittee was also considering).) Interestingly, Justice Osborne’s report said, of the latter issue, “[a]ll members of the Sub-Committee were firmly of the view that

⁵¹ *Ibid.*, p. 9.

⁵² *Ibid.*, pp. 14–15.

plaintiffs should not be exposed to the risks of equity investments even to the extent of one-third of an award for future care costs.”⁵³ Applying that reasoning to the discount rate would suggest that the rate is not meant to reflect *actual* anticipated returns.

175. Thus, it would appear that the 1992 subcommittee would have been philosophically inclined to afford to plaintiffs as much protection against risk as possible. This is a key issue that the Rules Committee will have to confront in considering what to do about the discount rate in 2021.

176. The majority of the advisors to the Osborne subcommittee noted that the discount rate had been set at 2.5% on the basis of the 1980 subcommittee’s analysis, which had looked at “the excess of the rate of interest as measured by the average yield to maturity on long-term Government of Canada bonds over the annual percentage increases in the Consumer Price Index in this country for each of the 50 years from 1930 to 1979 inclusive...and annual averages of those excesses over various groupings of 5, 10, 25 and 50 year periods.”⁵⁴ So, the rate of 2.5% was based on an historical analysis. (The government bonds used for the purpose were not real return bonds, as that product was only introduced in 1991. It deals with both the rate of return and the rate of inflation. The approach taken in 1980 would have involved looking at the “average yield to maturity” of long-term GOC bonds⁵⁵ and, as a second calculation, reducing those rates by an assumed factor for inflation in order to arrive at a “real return”.)

⁵³ *Ibid.*, p. 13.

⁵⁴ Page 3 of majority advisory committee report.

⁵⁵ Over the period 1930 to 1979: p. 3 of majority advisory committee report.

177. It was noted that the predictions that led to the discount rate being set at 2.5% in 1980 had turned out to be off the mark, by a lot. The rate should have been higher because actual returns were higher:

With the advantage of perfect hindsight at this point in time, it is obvious that unforeseen emerging events have proven the 1980 projection of a net discount rate of 2½% per year to have been too low by a significant margin for the decade of the 1980's in which it averaged out at 5.20% per year or slightly more than 4% per year more than the 1970's average of 1.11 % per year after a drop in that previous decade of about 2.0% per year from the 1960's average of 3.13% per year. A shift of such magnitude and more over a 10 year period has, however, also happened in the past.⁵⁶

178. The authors of the majority advisory report to the Osborne subcommittee went on to make an observation that is as relevant now as it was then:

By definition it is impossible to make advance predictions of unexpected future changes in the relationship between such key economic factors as interest and inflation rates.⁵⁷

179. Recognizing the impossibility of predicting the future, the majority said that assumptions would have to be made (and obviously, that remains true). That group believed that the real rate of interest would likely continue to exceed its long-term historical average “for a limited number of years in the future”. But its members did not think that there was evidence warranting “a substantial change in the more long-term future expectations.”⁵⁸

180. It was for that reason (an anticipated short-term aberration in the spread between returns and inflation, followed by a longer-term reversion to more historically “normal” figures) that a two-tier approach was recommended. The majority recommended a discount rate of 4½% for the initial period (only about a year), followed by a rate of 3.0 percent.

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*, p. 4.

⁵⁸ Osborne report, p. 8.

181. The majority noted that the Canada Pension Plan had employed a two-tier approach, in which it had been “assumed that the real rate of interest would grade from 6.1% per year in the first year following the effective date of that valuation down to 2½% per year in the tenth and subsequent years.”⁵⁹
182. One other interesting historical point: it appears to have been in the majority’s advisory report that the phrase, “excess of investment over price inflation rates” was first used. That phrase found its way into r. 53.09. We have proposed that it be changed slightly (see § 6.10 below).
183. The minority report, written by Dr. Jack Carr (who had been one of the architects of the establishment of the 1980 rate) rejected a proposed increase in the discount rate to 4½% in the short-term, followed by a reduction to 3.0 percent. As the majority had done, Dr. Carr emphasized the uncertainty inherent in predicting the future:
- The fact of the matter is that there is no quantifiable measure today of the real interest rates on investments with maturities of 10, 20 or 30 years. In addition, even if one thought the real interest rate was ‘high’ now, there is no objective evidence (presented in the majority report) to suggest it will stay high for the next 10 years and then decrease. To justify a rule to be used for the next 4 or 5 years one needs clear-cut evidence to support this rule. If all one has is the considered opinion of experts, unsupported by evidence, then I feel there is no basis for the application of a rule.⁶⁰
184. Dr. Carr reviewed the historical data and noted their “substantial volatility”. He said though, that “[l]ooking at 10 year averages it can be seen that each succeeding decade always reverses the trend of the preceding decade.” [Emphasis in original] For that reason, he doubted the validity of basing the discount rate on actual rates of return. He said that “[f]or a discount rule to be established real interest rates should exhibit stability.” [Emphasis in original]⁶¹

⁵⁹ *Ibid.*, p. 5.

⁶⁰ Page 1 of minority report.

⁶¹ *Ibid.*, pp. 2–3.

185. Dr. Carr felt that looking at the last ten years of data would produce unreliable and aberrant results. He favoured using a single rate that was based on historical data over a much longer period (he recommended 20 to 30 years although he said that 60 years could be used).⁶² On that basis, he recommended that the rate be set somewhere in the range of 2.5% to 3.0 percent.

2.7.2.1 *Comment*

186. As can be seen from the above, both the majority and the minority of the advisory committee to the 1992 rule 53.09 subcommittee thought that the future, while somewhat unpredictable, would eventually resemble the past. The two camps differed on the weight to be given to the experience of the late 1970s and the 1980s, which both groups seemed to view as aberrations.⁶³

187. It is also noteworthy that when the 1992 subcommittee and their advisors looked back over the previous decade, they concluded that the discount rate of 2.5% that had been established in 1980 had been much too low. Actual real rates of return were considerably higher over that period. The necessary conclusion is that during the 1980s, defendants routinely paid more in damages for future losses than they should have.

2.7.3 Robins subcommittee (1998)

188. The 1998 subcommittee was also appointed by Associate Chief Justice Morden. That group was chaired by Justice Sydney L. Robins. The members were:

Colin L. Campbell, Q.C. (later, Justice Campbell)

Douglas W. Goudie, Q.C.

Barry Percival, Q.C.

⁶² Dr. Carr might have balked at looking at data as far back as medieval times, as was done in the Schmelzing study, referred to at paragraph 118.

⁶³ That period, of course, pre-dated the Government of Canada's inflation-targeting policy which began in 1991. This is discussed in § 3.2.

Peter Kryworuk

189. The Robins subcommittee sought input from stakeholders, which the Osborne subcommittee appears not to have done. The submissions were attached as appendices to Justice Robin's report but unfortunately, they were not included with the version of the report that we have been able to retrieve.
190. The 1998 subcommittee consulted two experts: Dr. Thomas Wilson, described as "a Professor with the Institute of Policy Analysis, University of Toronto" and Ian Durrell, "an actuarial/pension consultant with Dion, Durrell & Associates Inc." They too prepared a memorandum that was attached as an appendix to Justice Robins' report, but we do not have it either.
191. That subcommittee seems to have been the first to review the use of 5% per annum as the rate to be used for prejudgment interest on non-pecuniary general damages (rule 56.10). The latter rule was enacted in 1990, but it had not been mentioned in Justice Osborne's 1992 report. (The prejudgment interest issue is dealt with in § 7 below.
192. Justice Robins' report makes for interesting reading, for two reasons. First, it is apparent that his subcommittee encountered very much the same sorts of issues and problems that we are now seeing in 2021. Secondly, it would appear that it was the 1998 subcommittee that developed the language of rule 53.09(1). Later changes only tinkered a bit with that language, but did not depart from it very much.
193. Justice Robins noted that "there is a split in opinion on whether Rule 53.09(1) should be changed. Some of those who made submissions were firmly of the view that the discount rate of 2.5% per year should be continued while others were equally firm in the view that recent economic experience dictates that this rate be

changed.”⁶⁴ Although Justice Robins did not identify, in the report itself, the stakeholders who had made submissions (that information would have appeared in the missing appendices to his report), it seems very likely that the opinions divided along partisan lines, as happened in 2013 and 2020-2021.

194. Justice Robins said that there was a consensus among those who had made submissions that although a 2.5% discount rate might have been justified in 1980 by the historical real rate of return from 1930–1979, “the economic data demonstrates that the original 1980 projection of a net discount rate of 2.5% for the period 1980 to date has been low by a significant margin.”⁶⁵

195. As a result, the Robins subcommittee concluded that “the current rule generates an inequity and should be changed”. The two choices that were considered were: (a) an increase to the existing fixed rate; or (b) “seek to develop a flexible method of calculating the discount rate on a periodic basis, so as to provide a reasonable level of certainty to litigants and yet be responsive to changing economic conditions.”⁶⁶

196. The subcommittee concluded that raising the rate would be only a short-term solution to “the unfairness created because recent real rates of interest have been significantly greater than 2.5%”. The reason was that that unfairness “could be repeated should real rates of interest fall below any new discount rate selected.”⁶⁷ So, the subcommittee decided to recommend a two-tiered approach.

197. A big influence on that decision was the 1991 introduction, by the Government of Canada, of real return bonds. Justice Robins said that that product had improved the

⁶⁴ Report of the Robins subcommittee (1998) (“Robins report”), p. 7.

⁶⁵ Robins report, p. 6.

⁶⁶ *Ibid.*, p. 8.

⁶⁷ *Ibid.*

ability to estimate future real rates of return. He added that “these bonds can serve as a benchmark for determining real rates of return.”⁶⁸

198. Real return bonds have been discussed in more detail in § 2.4 above. How they are used, at present, in r. 53.09(1)(a) is dealt with in § 2.1.2 above. Despite Justice Robins’ hopefulness, it is not really clear that real return bonds afforded any better way of estimating future real rates of return than had long-term bonds and estimated inflation. They do give us some idea of what the Bank of Canada expects long-term real interest yields to be.
199. Ultimately, the Robins subcommittee did recommend a two-tier discount rate, with the rate for the first 15 years being set by reference to Government of Canada real return bonds.
200. The two consultants to the Robins subcommittee recommended a two-tier rate with the first one being for a period of 25 years. (Thomas Schinbein, an Ontario actuary who has also provided some input to our subcommittee, recommended a 15-year period “switching point” (as the UK Government Actuary calls the point of transition to the second tier) instead and that is what the Robins subcommittee ultimately chose.)
201. The consultants recommended that the real rate of return for the initial period be determined by the yield for real return bonds (some consultants suggested a period of 25 years and others 15 years), “reduced by a quarter point and then rounded down to the nearest eighth of a point”.
202. It was noted that there were “economic and risk factors” associated with real return bonds. The latter were said to include illiquidity⁶⁹, an “overstated rate” and

⁶⁸ *Ibid.*

⁶⁹ See paragraph 126.

“unfavourable tax treatment”. The subcommittee concluded that a reduction of one percent from the real rate would be an appropriate adjustment to adjust for these “economic and risk factors”. (Given that real return bonds were already “very low risk” investments, the Robins subcommittee’s downward adjustment to the discount rate appears to have been aimed at removing risk altogether.)

203. It would perhaps be useful to quote the specific concerns, expressed by the Robins subcommittee, that led to the one-percent downward adjustment, since the latter has been something of a bone of contention:

However, the use of real return bonds for the purpose of fixing the discount rate raises a number of concerns. These relate to certain economic and risk factors involved in their use which may be summarized as follows:

- (1) While real return bonds are fully linked to changes in the Consumer Price Index, the real interest rate contains a significant premium to reflect the economically insufficient status of the bonds to individual investors, due to the fact that:
 - (a) real return bonds are not traded as frequently or in as many denominations as other bonds, thereby resulting in a relative degree of illiquidity and an overstated rate; and
 - (b) the return from these bonds receives unfavourable tax treatment.⁷⁰
- (2) Real return bonds would not likely be an appropriate investment vehicle in their current form for most plaintiffs receiving a pecuniary award.
- (3) The published yields on real return bonds are based on a large volume of trades which cannot be achieved by an individual “retail investor”.⁷¹

204. For the second tier (i.e., after 15 years), the Robins subcommittee concluded that since “long-term historical data indicates real returns of 2.0% to 3%, the existing 2.5% per year discount rate should be used.”⁷²

⁷⁰ We believe that this refers to the fact that coupon payments and inflation compensation must be included annually as income, even though the inflation compensation will not be paid until maturity. If inflation were to be high, there could be significant tax owing by the holder even though the inflation compensation has not yet been paid.

⁷¹ *Ibid.*, p. 9.

⁷² *Ibid.*, p. 10.

205. Justice Robins' report contained a section that dealt with "productivity".

Interestingly, his subcommittee concluded that:

[T]he empirical evidence confirms that average wages and salaries have consistently increased at a faster pace than general price inflation when measured over extended periods of time in the past. Mr. Murray Segal, in his submissions expressed the opinion that the average remuneration of the average worker will continue to outpace general price inflation by the long-term historical average rate of about 1.0% to 2.0% per year in the long-run future.⁷³

206. Ultimately, the Robins subcommittee accepted a recommendation made by Dr. Jack Carr (who was presumably one of those who had made submissions to the subcommittee), that productivity was too specific to individual plaintiffs to justify a change formulating a rule for general productivity.

207. Our subcommittee has received some submissions to the effect that the cost of some services (health care expenses, for instance) will increase at a rate faster than that of the Consumer Price Index (and faster than that of wage growth). Justice Robins dealt briefly with that head of damages too. (Evidently, it had also been suggested that the discount rate should be adjusted to take into account health care costs increasing at a rate faster than that of the CPI.) He declined to do so, saying, "[a]t this stage, it is not feasible to mandate any type of general productivity factor in respect of the component of future care claims that involve human services."⁷⁴

208. The issue of whether discount rates should vary with the type of damages is dealt with in § 6.6 below.

209. As will be discussed in § 2.8 below, in setting its discount rate, the UK has taken into account "damages inflation" which it has quantified at 1.0% per annum. However, that adjustment applies across the board, to all types of damages.

⁷³ *Ibid.*, p. 17.

⁷⁴ *Ibid.*, p. 19.

2.7.3.1 Comment

210. As can be seen, the recommendations of the Robins subcommittee formed the basis of the approach that is still used today for r. 53.09. Unfortunately, because we do not have the appendices that were originally attached to the report, it is not always clear exactly what led to the decisions that were made.
211. There are several noteworthy aspects to the report though.
212. First, the text of the Robins report said that “the use of real return bonds constitutes an appropriate basis by which to measure the real rate of interest”.⁷⁵ The report also noted that “real return bonds would not likely be an appropriate investment vehicle in their current form for most plaintiffs receiving a future pecuniary award”.⁷⁶ Those statements suggest that the Robins subcommittee was looking to real return bonds as a basis for drawing conclusions about real interest rates generally, not on the assumption that such bonds would *actually* be purchased by plaintiffs.
213. On the other hand, the downward adjustment of 1.0% that the subcommittee chose to recommend was to compensate for the risk factors listed in paragraph 201 above. That might mean the opposite: that the subcommittee *was* thinking in terms of actual investment in real return bonds.
214. Overall, we think that the Robins subcommittee did not proceed on the basis of actual purchase of real return bonds, although it probably also did not assume that *no* plaintiffs would actually enter into such an investment.
215. Secondly, the Robins subcommittee used the phrase, “the yield rate on real return bonds”. Although the report contains no analysis of the meaning of the

⁷⁵ *Ibid.*, p. 10.

⁷⁶ *Ibid.*, p. 9.

“yield” versus the “coupon” of real return bonds,⁷⁷ it did refer to “the published yields on real return bonds” being “based on a large volume of trades which cannot be achieved by an individual investor”.⁷⁸ The reference to “published yields” does tend to suggest that the subcommittee had in mind the sort of information about bond yields that is outlined in § 2.4 above (which, in turn, reflects the market price for those bonds, divided into the coupon). However, the suggestion that the yield is something that could be “achieved” by an investor might represent a misunderstanding of the information that “bond yields” conveys.

216. Still, the wording of r. 53.09(1) that was proposed by the Robins subcommittee does tend to point to the subcommittee having intended that the first-tier of the discount rate be set based on *yield* of real return bonds because the report referred to “the average of the month end values of the real rate of interest on long-term Government of Canada real return bonds”.⁷⁹

217. The Robins subcommittee proposed that the first-tier rate be set using a 12-month average for the period ending August 31 of the year preceding the year in which the trial commences. It did not explain why that period was chosen. The period was later shortened to six months, as discussed in the next section.

2.7.4 Cavanagh subcommittee (2013)

218. Associate Chief Justice Dennis O’Connor struck the subcommittee that reported in 2013. He asked Stephen Cavanagh to chair that subcommittee. Bringing the work of the r. 53.09 subcommittees full circle, former Associate Chief Justice John Morden was a member of the 2013 subcommittee, as were practitioners C. Kirk Boggs and Michael Shannon. (None of the subcommittee’s members, apart from Mr. Cavanagh,

⁷⁷ As to which, see § 2.1.1.1.

⁷⁸ *Ibid.*, p. 9.

⁷⁹ *Ibid.*, p. 11.

was a member of the Rules Committee. There was a deliberate effort to include, on the subcommittee, members who would represent the interests of the defence and plaintiffs' bar. That was why Mr. Boggs and Mr. Shannon participated.)

219. The 2013 subcommittee was advised by Dr. Peter Dungan, an economics professor at the University of Toronto (and one of the authors of the "PEAP" report, referred to at paragraph 115 above).
220. The report of the 2013 subcommittee really amounted to tinkering with the language of r. 53.09. The main issue then under consideration was a schism that had arisen in the caselaw about how the two-tiered rate provided for in the rule was intended to operate.
221. The 2013 subcommittee agreed that the wording of the rule was ambiguous. Based on advice from its consultant, it elected to adopt one of the two competing interpretations. Dr. Dungan proposed language to revise r. 53.09, to make that clear. That language was enacted and appears in the present version of the rule.
222. Another issue that had arisen in 2013 was that, on a couple of occasions, the discount rate, calculated on the formula that then existed, had dropped below zero. Based on the advice received from the subcommittee's consultant, that was thought to be an aberration. For that reason, the language of the rule was changed to provide that the discount rate could not be less than zero.
223. Since then, negative interest rates have become much more common and, in the view of some, long-term real rates could be below zero.⁸⁰ Also, the discount rate in the UK has been negative since 2017. The 2020 subcommittee does not see a

⁸⁰ At the time of updating this report in February, 2021, the Bank of England is directing banks to prepare to implement negative interest rates by the end of the summer of 2021: FT Adviser, Tew, Imogen, February 4, 2021, "Banks given 6 months to prepare for negative interest rates".

principled reason to prohibit a negative discount rate. It therefore recommends that the “floor” be removed from r. 53.09(1) (see § 1 below).

224. The other changes recommended by the 2013 subcommittee had to do with the fine-tuning of the discount rate, as it then existed. So, rounding of the rate, otherwise calculated, had been to the nearest $\frac{1}{4}$ of a percent. On the recommendation of Dr. Dungan, the rounding became to the nearest one-tenth of a percent.
225. The downward adjustment of the select period rate was reduced from one percent to $\frac{1}{2}$ percent. (See paragraphs 200 ff. for the genesis and rationale of that adjustment. It would appear, based on input to our subcommittee, that the reasons that led to that approach being taken at the time are not well understood today.)
226. Finally, a change was made to how the first-tier rate was derived. It was revised from the original Robins subcommittee’s twelve-month to a six-month average of rates, with the objective of basing the rate for that first-tier on more current rate data.
227. The submissions provided to the 2013 subcommittee by stakeholders were fairly general and, to a large extent, followed predictable partisan lines. As a result, the 2020 subcommittee asked for and received much more comprehensive submissions from stakeholders. (See § 3 for discussion of 2020 stakeholder submissions about the discount rate and § 5.3 for supplementary submissions.)

2.8 The British approach

228. This portion of our report is an attempted analysis of the approach that has been taken in the UK, which led to its discount rate—the “Ogden Rate”—being set, in the summer of 2019, at minus 0.25 percent. As has been pointed out to us by Dr. Hyatt, there are some important differences between how the discount rate is dealt with in Ontario and in the UK, such that they are not directly comparable. Still, there is sufficient overlap to make a look at the UK solution worthwhile.

229. The first section of this analysis will describe the statutory framework within which the UK Ogden Rate is set.

230. The second section will evaluate the report to the Lord Chancellor of the Government Actuary, Martin Clarke, dated June 25, 2019. Finally, the third section will comment on what the Lord Chancellor actually did.

2.8.1 The British legislation

2.8.1.1 *The Civil Liability Act, 2018*

231. Section 10 of the UK *Civil Liability Act, 2018* (“CLA 2018”) mandates how awards of damages for future losses are to be discounted to present value. The first part of it reads as follows:

PART 2	
PERSONAL INJURY DISCOUNT RATE	
10	Assumed rate of return on investment of damages
(1)	Before section 1 of the Damages Act 1996 (assumed rate of return on investment of damages) insert—
A1	Assumed rate of return on investment of damages: England and Wales
(1)	In determining the return to be expected from the investment of a sum awarded as damages for future pecuniary loss in an action for personal injury the court must, subject to and in accordance with rules of court made for the purposes of this section, take into account such rate of return (if any) as may from time to time be prescribed by an order made by the Lord Chancellor.
(2)	Subsection (1) does not however prevent the court taking a different rate of return into account if any party to the proceedings shows that it is more appropriate in the case in question.
(3)	An order under subsection (1) may prescribe different rates of return for different classes of case.
(4)	An order under subsection (1) may in particular distinguish between classes of case by reference to—
	(a) the description of future pecuniary loss involved;
	(b) the length of the period during which future pecuniary loss is expected to occur;
	(c) the time when future pecuniary loss is expected to occur.
(5)	Schedule A1 (which makes provision about determining the rate of return to be prescribed by an order under subsection (1)) has effect.
(6)	An order under this section is to be made by statutory instrument subject to annulment in pursuance of a resolution of either House of Parliament.”

Figure 11

232. As can be seen, this statutory provision departs somewhat from the Ontario approach. For example, it expressly allows for different rates to be used for different types of cases, one of the changes that some stakeholders have urged upon us.

233. Schedule A1 to the CLA 2018 contemplates reviews of the Ogden Rate (“The Assumed Rate of Return On Investment of Damages: England and Wales”) every

five years. After the first review (which took place in 2019), subsequent ones are to be done by the Lord Chancellor, who is to consult an “expert panel established for the review”⁸¹ and the Treasury.

234. (As discussed above, the “rate of return” is one of the two components of discounting to present value. It is the “nominal rate”, in the sense of being the rate of return without consideration of inflation. When the latter is factored in, the resulting rate is referred to as the “real rate”).

235. Schedule A1 to the CLA 2018 makes it clear that the UK approach is based on assumptions as to what claimants will *actually* do with their awards of damages. Subsections 4(2), 4(3) and 4(5) describe the approach that is to be taken:

- (2) The Lord Chancellor must make the rate determination on the basis that the rate of return should be the rate that, in the opinion of the Lord Chancellor, a recipient of relevant damages could reasonably be expected to achieve if the recipient invested the relevant damages for the purpose of securing that—
 - (a) the relevant damages would meet the losses and costs for which they are awarded;
 - (b) the relevant damages would meet those losses and costs at the time or times when they fall to be met by the relevant damages; and
 - (c) the relevant damages would be exhausted at the end of the period for which they are awarded.
- (3) In making the rate determination as required by sub-paragraph (2), the Lord Chancellor must make the following assumptions—
 - (a) the assumption that the relevant damages are payable in a lump sum (rather than under an order for periodical payments);
 - (b) the assumption that the recipient of the relevant damages is properly advised on the investment of the relevant damages;
 - (c) the assumption that the recipient of the relevant damages invests the relevant damages in a diversified portfolio of investments;
 - (d) the assumption that the relevant damages are invested using an approach that involves—
 - (i) more risk than a very low level of risk, but
 - (ii) less risk than would ordinarily be accepted by a prudent and properly advised individual investor who has different financial aims.

...

⁸¹ The “expert panel” is made up of the Chief Actuary and four other members. The latter are to include a member with experience as an actuary, one with experience of managing investments, one with experience as an economist and one with experience in consumer matters as relating to investments. No lawyers or judges, apparently.

- (5) In making the rate determination as required by sub-paragraph (2), the Lord Chancellor must—
- (a) have regard to the actual returns that are available to investors;
 - (b) have regard to the actual investments made by investors of relevant damages; and
 - (c) make such allowances for taxation, inflation and investment management costs as the Lord Chancellor thinks appropriate.

Figure 12

236. As can be seen, the Ogden Rate is based on somewhat of an objective test: what the recipient of an award could *reasonably* be expected to achieve with an investment of the award. It is based on “the *actual* returns that are *available* to investors”.

[Emphasis added]

237. However, while establishing the Ogden Rate is said to be “for the purpose of securing that...[*inter alia*] the relevant damages would meet the losses and costs for which they are awarded”, the approach that has *actually* been taken recognizes that the rate will only produce a high *probability* of ensuring that any particular plaintiff will be fully compensated. It is known in advance that statistically, a certain proportion of plaintiffs will not, in fact, receive full compensation. This is discussed in the next section.

238. What is immediately apparent is that the British have chosen to address the discount rate in a way that departs quite a bit from what Ontario has (at least implicitly) done. It is also quite different from what the UK itself had done before 2019.

239. Inherent in the Ontario approach has been the principle of “full compensation” but not “overcompensation”. Ontario has undoubtedly not met that objective consistently but at least that is what we have tried to do.

240. In the UK, the Ogden Rate was set with an express acknowledgment that what would be achieved was compensation for *most* of claimants’ losses. (Or perhaps, “most of the losses of most claimants” would be a better way of putting it.)

241. That approach certainly has its proponents, including some of the stakeholders who made submissions to our subcommittee. But we feel that if that is how compensation for future losses is to be done in Ontario, there should be an explicit decision made and an acknowledgment of that fact.

2.8.2 The report of the Government Actuary (June, 2019)

242. The 2019 change in the UK Ogden Rate was made on the basis of the report of the Government Actuary Department (“GAD”).

243. The GAD’s advice to the Lord Chancellor was said to have been based on “a representative claimant profile whereby regular future damages costs are to be met over a 43-year period through the investment of a portfolio of assets constructed according to the mid-range portfolio of those suggested in responses to [the Lord Chancellor’s] Call for Evidence”. Thus, in deciding what discount rate to recommend, GAD assumed a 43-year period of compensation and simulated returns on an assumed portfolios of assets (the composition of which varied somewhat, depending on whether the time horizons were long or short).⁸²

244. The 43-year period and the “representative claimant” resulted from the UK government’s December, 2018 “Call for Evidence”. That evidence was to be used as the basis for determining the “actual investments made by claimants” and “actual returns that are available to claimants”. In a paper published on July 15, 2019, the results of that Call for Evidence were summarized. There were 40 responses: 13 from the insurance industry, 14 from the legal profession, six from financial advisors, three from the health sector and four from other experts.

245. The rationale for the GAD’s selection of a 43-year loss period is set out below:

⁸² The reason that a 43-year period was used was that the UK’s “Call For Evidence” indicated that on average, the duration of investments by plaintiffs ranged from 40-45 years. So, the GAD picked a mid-point value (43) and used it for all of its calculations: see page 34.

In order to set a single PI discount rate applicable to all circumstances, it is necessary to make assumptions regarding the length of time over which damages are applicable and the representative claimant will be investing.

This is because return expectations can be different over different time periods – for example over the short term they might (as now) be lower than over a much longer term. Therefore, the choice of a PI discount rate for a claimant with a shorter damage profile (eg an elderly claimant) will be different to that for a claimant with a longer damage profile (eg an infant).⁸³

246. The GAD's 43-year assumed period of loss was the result of its decision to compromise between the 30-year period suggested by "investment managers and claimant lawyers" and the 40–45 year period advocated by "insurers and the Institute and Faculty of Actuaries". (Obviously, the end result was much closer to the latter. In fact, in his report to Parliament, the Lord Chancellor, to whom the GAD has submitted its report, loaded the dice a bit on this issue. He said that the 43-year period was "supported by responses to the Ministry's Call for Evidence, suggesting the average duration for serious personal injury cases was between 40 and 45 years." No mention was made by the Lord Chancellor of the 30-year period that had been suggested by investment advisors and plaintiffs' lawyers.)

247. Unsurprisingly, the summary noted that "[t]he views and material submitted often reflected the competing interests and differing perspectives of those representing claimants and defendants. They helped illustrate the complexity of the discount rate setting process, in terms of the multiplicity of factors and economic variables which are at play and must be taken into account."⁸⁴ In other words, the submissions were heavily partisan. We have had the same experience, although that was to be expected.

⁸³ Page 39.

⁸⁴ "Setting the Personal Injury Discount Rate: Summary of Responses to the Call for Evidence" (Ministry of Justice, July 15, 2019), p. 5 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/816711/setting-the-personal-injury-discount-rate-summary-of-responses.pdf)

248. The GAD said that this “analytical approach” was aimed at “deriving the net expected return, which if used as the PI [personal injury] discount rate would give a 50% likelihood of the representative claimant having full compensation for their loss (hereinafter referred to as having ‘sufficient funds’ to meet their needs).” As discussed below, the rate that was actually established was based on a downward adjustment to the one that the GAD calculated would yield a 50% probability of full compensation. But even the adjustment that was made did not attempt to arrive at a 100% probability of full compensation.

249. The Government Actuary said, in the introduction to the report: “I expect this portfolio to produce an annual net return of CPI+0.25% pa [per annum] over the period but, in practice, it may produce more or less than that with equal likelihood. If the PI discount rate were set at this level, there would be an even or ‘50:50’ likelihood that the investment outcomes would be enough to meet all the needs in the future.”

250. That would seem to mean that the GAD did not see the Ogden Rate’s objective to be one of calculating the amount that, discounted to present value, would *fully* compensate all plaintiffs (or even fully compensate the *majority* of plaintiffs) for all of their future losses.

251. The GAD made it clear though, that the Rate could be adjusted in favour of plaintiffs (“claimants”) by lowering the initial rate of CPI+0.25% pa. It calculated that a reduction of 0.25% pa (to CPI + 0.0% pa) “would correspond to broadly a 60% likelihood that the representative claimant’s investment outcomes are enough to meet all the needs in the future, and around a 70% likelihood of the representative claimant being able to meet at least 90% of their needs”. A reduction to CPI-0.5% pa was determined to produce (approximately) a 70% probability that the representative claimant’s investment outcomes would meet all of his or her future

needs and an 85% probability of that claimant being to meet at least 90% of those needs.

252. And so on. The more the discount rate is lowered, the more likely it is that “the representative claimant” would be fully compensated. But the risk of overcompensation would also rise. That is a “zero sum game”, unfortunately. The question is, where to draw the line?

2.8.2.1 “Damages inflation”

253. The GAD commented on “damages inflation”:

There was no evidence or clear consensus from the Call for Evidence as to the varying levels of inflation that apply to different award components or in what proportions. It is fair to say therefore that the assumed level of inflation remains open to judgement but that some aspects are likely to be linked to general consumer prices (ie CPI linked) and some aspects linked to movements in earnings.

In the absence of any firm evidence, I therefore believe it reasonable to assume that claimant’s damages inflate at CPI+1.0% pa and have accordingly included this in my analysis.⁸⁵

254. “Damages inflation” is not something that has been built into our discount rate. It postulates that the losses for which damages are awarded as compensation will inflate at a rate faster than that of the Consumer Price Index. The resulting adjustment of 1.0% by the GAD reduces the discount rate by that percentage, below what it would otherwise be (and thus, increases the damages award). As can be seen in the quoted passage though, the adjustment was made without much of an evidentiary basis.
255. Some of the stakeholders who made submissions to our subcommittee advocated that an adjustment be made for “damages inflation” of certain types of awards of damages, particularly those relating to health care expenses. That issue is discussed in § 6.6 below.

⁸⁵ Page 37.

2.8.2.2 Two-tier system

256. The GAD considered the use of a two-tier system, such as r. 53.09 now uses. In fact, it recommended switching to a two-tier system using the same “switching point” (as the GAD called it) that we do: 15 years.⁸⁶ It felt that a two-tiered approach would be “likely to more closely match the pattern of expected future investment returns which at the present time, are characterised by lower short-term investment returns but much higher long-term rates.”⁸⁷
257. Ultimately, the GAD did not recommend immediate adoption of the two-tier system, but only because that would represent “a significant departure from current practice”. It did, however, calculate the probability of “the representative claimant” being fully compensated, using various discount rates and a 15-year “switching point” (i.e., the point at which the first tier ends and the second begins). Those have not been set out here but, as with the single tier rate, the probability of “the representative claimant” being fully compensated was well below 100 percent but would increase as the rate is lowered.
258. The 2020 draft of this report included a discussion about “inverted yield curves” that has been omitted from this version. That phrase describes the situation when yields of long-term investments are less than those of short-term ones. Inverted yield curves are often thought to be harbingers of recession.
259. That discussion has been omitted because inverted yield curves have been less of a factor than they were a year ago.

⁸⁶ Page 26.

⁸⁷ The report said that “there are good technical reasons to adopt a dual rate structure, however I have not thoroughly considered wider implications of implementing such a rate and would recommend that the Government considers the impact and practicalities of such an approach should you consider its adoption.”

260. In the wake of sharply increasing yield curves and concerns about inflation, there has recently been discussion of possible central bank intervention to cap long-term yields, a measure known as “yield curve control”.⁸⁸ Thus, it is possible that the use of a typical yield curve might prove to be unreliable for reasons different than those (inverted curves) raised in the previous draft of this report.
261. The GAD report did include a section in which it modelled a two-tier approach. Ultimately, that was not used, but as discussed in the next section, the Lord Chancellor also commented favourably on the two-tier system, so it is possible—perhaps even likely—that the UK might move to it in the future. To be clear, the discussion in this section does not reflect what the UK has actually done.
262. Briefly, the GAD’s “short term discount rate” (the first 15 years, as in Ontario) was assumed to be “after deductions for tax, expenses and damage inflation, of between CPI-1.0% to CPI-0% pa depending on the investment approach and assumptions made.”⁸⁹
263. The long-term rate used in this analysis was higher. As mentioned above, this is consistent with the GAD assumption of a normal yield curve. The Government Actuary said: “I have presented results assuming that a long-term PI discount rate of CPI+1.5% pa would apply. Whilst other long-term rates are plausible, I believe that CPI+1.5% pa would be a reasonable balanced estimate of the long-term return on a low risk portfolio and simplifies the residual options to simply choosing a short-term rate in order to achieve the desired outcomes.”⁹⁰

⁸⁸ “Surging inflation may force Fed to resort to yield curve-control”, McCormick, Liz, Bloomberg (February 9, 2021).

⁸⁹ Page 27.

⁹⁰ *Ibid.*

264. The result, had the two-tier approach been used, would have been that post-15 year awards would have been discounted to present value using a more aggressive rate than the one used for “first-tier” losses. But in the end, a one-tier approach was used.

2.8.2.3 The GAD’s approach

265. The GAD’s objective was to derive “the net expected return, which if used as the PI discount rate would give a 50% likelihood of the representative claimant having full compensation for their loss (hereinafter referred to as having ‘sufficient funds’ to meet their needs)”.⁹¹ This is important: the rate that was to be used as a starting point was meant to produce only a 50% probability of full compensation for what was considered to be a “representative claimant”.⁹² The GAD went on to note that that rate could then be adjusted to change the probabilities (which was, in fact, done), but that that would create its own set of problems:

To safeguard claimants from the likelihood of not being able meet their needs, it may be considered appropriate to set the PI discount rate lower than the net expected portfolio return. This would result in a higher expectation that the award will be enough to meet future needs. However, too low a PI discount rate may be considered unreasonable from the perspective of those responsible for meeting the claim, such as insurers and their policyholders or public sector bodies and those risks must be carefully balanced.⁹³

266. The above passage encapsulates the discount rate problem. If the rate is adjusted downward (from one calculated, in this case, to produce a 50% chance of full compensation), the probability of full compensation will rise. But insurers are more

⁹¹ Page 5.

⁹² It is hard to reconcile this objective of a 50% probability of full compensation with a statement on the first full page of the report, saying that “[a]wards of damages for claimants with serious and long-term injuries are intended to provide victims of life-changing events with *full and fair financial compensation* for all the expected losses and costs caused by their injuries.” [Emphasis added]

⁹³ Page 6.

likely to think the adjustment unreasonable because the risk of overcompensation in a certain number of cases will also rise.

267. Prior to the enactment of the Civil Liability Act 2018 on December 20, 2018, the discount rate in the UK had been determined using a methodology somewhat similar to our present r. 53.09, at least to the approach used in Ontario for the first 15 years of loss. The rate was set with reference to average yields on “index-linked gilts” (“ILGs”), which are bonds that are indexed to inflation, akin to the real return bonds of the Government of Canada that are used to set the discount rate under r. 53.09 for the first 15 years after judgment.⁹⁴

268. Inflation-indexed government bonds are usually considered to carry “very low risk”, at least if the word “risk” is understood to mean risk of default on the stipulated rate of return.⁹⁵ With the enactment of the Civil Liability Act 2018, the UK government moved explicitly to a system in which discount rates would be set on the basis of what a plaintiff could reasonably expect to achieve if his or her award were invested in a “low risk” portfolio. That was defined, in the legislation, to mean “more risk than a very low level of risk but less risk than would ordinarily be accepted by a prudent and properly advised individual who has different financial aims.”

269. Needless to say, the move from “very low risk” to “low risk” carries with it greater potential reward but also greater risk.

⁹⁴ As described in a 2013 paper issued by the UK Ministry of Justice, entitled “Damages Act 1996: The Discount Rate Review of the Legal Framework”, the discount rate “the discount rate is set by reference to the expected rates of return on certain types of safe investments” and had been set at 2.5% per annum since 2001: https://consult.justice.gov.uk/digital-communications/damages-act-1996-the-discount-rate-review-of-the/supporting_documents/damagesact1996discountrateconsultation.pdf

⁹⁵ Although on March 9, 2020 Lebanon defaulted, for the first time, on one of its own government bonds: “For the first time, Lebanon defaults on its debts”, *The Economist*, March 12, 2020.

270. But it is important to note that the increase from “very low” to “low” risk was only one of three important changes made by the 2018 legislation. The rate was to be set based on the results of the “Call for Evidence”, which was intended to shed light on claimants’ real world experiences. And the third change was that the rate was to reflect what a claimant could *reasonably* be expected to earn.
271. Although the GAD recognized that setting the discount rate involves assumptions about the future⁹⁶, the “Call For Evidence” generated only information about the past (or at best, the present).
272. The GAD ran 2,000 “Monte Carlo”⁹⁷ simulations to determine the probability of under- or over-compensation at various discount rates. From that exercise, it came up with the following probability distribution:

⁹⁶ “Determining the PI discount rate relies on assumptions about the future which may or may not be borne out in practice. These assumptions are matters of judgement and there are other assumptions that could be equally appropriate.” (Page 13)

⁹⁷ These are computer simulations aimed at modelling risk. Typically, there will be a number of variables in a scenario that is being evaluated. Each variable is assigned a probability or a probability distribution and the model is run thousands of times, with the variables interacting with each other, according to the specified probabilities. The results provide a distribution of probabilities of the various possible outcomes. A variety of software programs (the best-known third-party program is probably Palisade’s “@Risk”: https://www.palisade.com/decisiontools_suite/) will perform this sort of analysis. The GAD used two proprietary programs, referred to in the report as “Economic Scenario Generators”. As it happens, a book was published on March 17, 2020, entitled *Radical Uncertainty: Decision-Making Beyond the Numbers*, by John Kay and Mervyn King (Norton, 2020). One of the authors is a former governor of the Bank of England and the other a leading academic. They have strongly criticized the notion that risk is as readily quantifiable as Monte Carlo and other statistical analysis tools suggest.

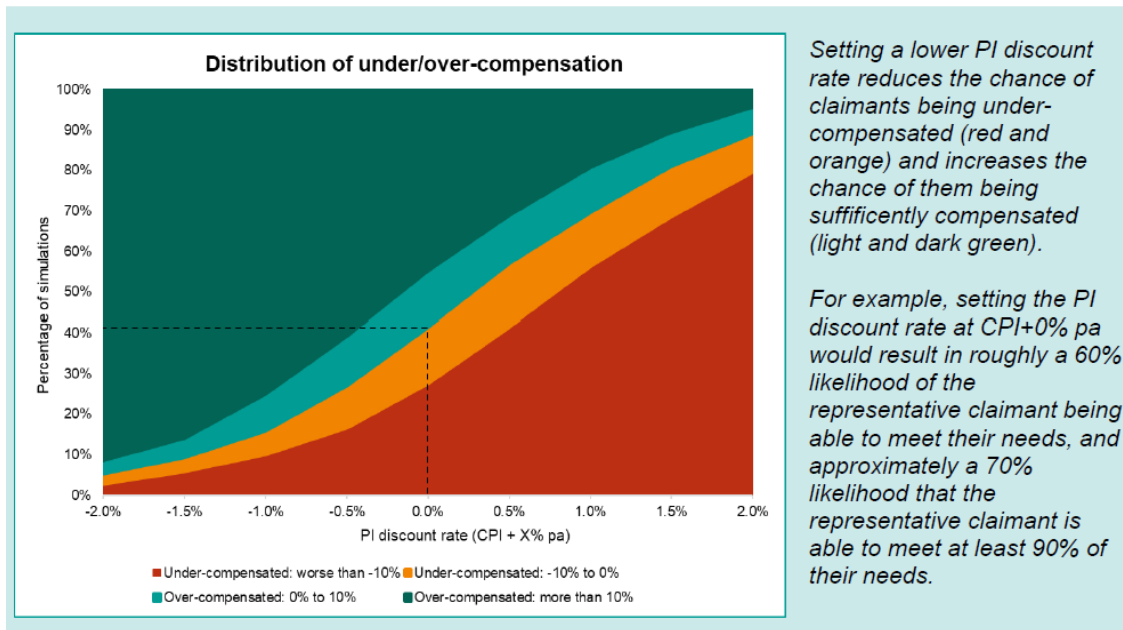


Figure 13

273. As can be seen in Figure 13 above, when the discount rate is set very low (on the x-axis, where the lowest value is minus 2.0%, in the above example), the probability of undercompensation (the red and orange portions of the graph) is also very low (although not zero). But the probability of overcompensation (light green and dark green) is then very high (about 92 percent). Conversely, with a discount rate of plus 2.0% (the far right of the x-axis), the reverse is true (about an 80% chance of some undercompensation).

274. The GAD determined the discount rate on the basis of information generated by the “Call For Evidence” about the range of returns obtained by those who responded. Although it acknowledged that the responses demonstrated “a wide mix of allocations”, it concluded that the range of low-risk portfolios was 30% allocation to growth assets at “the cautious end of the spectrum” and 55% at the other end of the spectrum. It chose the mid-point: 42.5% as the assumed allocation of growth assets.

275. Again, the GAD conducted “Monte Carlo” analyses as to the probable returns on investment, using various assumptions with respect to investment period as well as the high, low and median allocations of growth assets in the assumed portfolios.

276. Chapter 9 of the GAD’s report began with a heading that arguably would not instill confidence: “The analysis shown in Section II is based on a number of assumptions. There are plausible alternative views for all of the factors affecting the investment profile, which would inevitably alter the PI discount rate chosen.”⁹⁸ A number of variables were looked at. They are not summarized here, as, unsurprisingly, some would result in larger returns and others, lower ones. Not all of that analysis was based on the Call for Evidence. For example, the Government Actuary said, “[i]n my analysis I have assumed that claimants investing over shorter or longer periods take less risk or more risk respectively than the representative claimant. Whilst this assumption is reasonable, there was no evidence collected from the Call for Evidence to this effect.”⁹⁹

2.8.3 The UK government’s decision

277. The UK government announced its decision with respect to reforming the Ogden Rate on July 15, 2019. The rate was raised, from minus 0.75% (at which it had been set in 2017) to minus 0.25 percent.

278. Then-Lord Chancellor David Gauke described the process leading to the setting of the rate in a way that is probably both accurate and, for that reason, suggestive of unreliability:

I emphasise at the outset that, while the reforms enacted last year have provided a clearer legislative framework for this process, the procedure for setting the discount rate remains a complex and technical one. It involves making a series of assumptions and judgements in considering the evidence and economic variables that apply. *Some*

⁹⁸ Page 57.

⁹⁹ Page 60.

*of these judgements are finely balanced and involve making predictions about the future which are inherently uncertain.*¹⁰⁰ [Emphasis added]

279. The Lord Chancellor accepted the Government Actuary's "calculated" rate of plus 0.25% but said that it was only "a starting point for [his] determination rather than an end point". He reviewed some different scenarios and the associated probabilities of full or partial compensation. Ultimately, the rate was adjusted downwards by one percent,¹⁰¹ to minus 0.25 percent. That is still the rate today. It is scheduled to be reviewed in 2024.

280. Unsurprisingly, insurers were unhappy (although they did welcome the rate having been raised from minus 0.75 percent). As the Financial Times reported on July 19, 2019:

Insurance companies have already had to adjust their reserves to take account of the new rate. On Tuesday, Hastings [a British insurer] said that it had been reserving on the basis that the rate would be between zero and 1 per cent. To take account of the government's latest change, the company said it would have to take a one-off £8.4m hit to its profits.¹⁰²

281. The fallout in 2019 was more understated than in 2017 though, when the previous reduction—from 2.5% to minus 0.75%—was announced. Then, some insurers' profits for fiscal 2016 were halved. Premiums were estimated to rise, on average, by £65 per year.¹⁰³

282. Stephen Cavanagh of our subcommittee made contact with the individuals at the Government Actuary's Department who deal with the personal injury discount rate. In April, 2020, Mr. Cavanagh had a videoconference with the Chief Actuary,

¹⁰⁰ Personal Injury Discount Rate – Outcome of Review; Statement placed by the Rt Hon David Gauke MP, Lord Chancellor, in the libraries of the Houses of Parliament on 15 July 2019, paragraph 5.

¹⁰¹ Reminiscent of our own downwards adjustment in r. 53.09(1)(a).

¹⁰² Ralph, Oliver, "Insurers hit back over Ogden rate change: Industry association ABI says government's impact assessment was 'misleading'", Financial Times, July 19, 2019.

¹⁰³ "UK insurers: discount day", Financial Times, February 27, 2017.

Insurance and Investment and one of his colleagues, as well as with two representatives of the UK's Ministry of Justice.

283. The UK people were (and undoubtedly, still are) closely monitoring the economic situation there. The next review of the UK discount rate is not scheduled to happen until 2024 and they did not anticipate that that timetable would be accelerated, at least not until the future economic outlook becomes clearer.
284. They did indicate that the fallout from the 2017 and 2019 adjustments to the discount rate had not been as fevered as some of the media reports had indicated.
285. The UK¹⁰⁴ is looking at increasing the use of “periodic payment orders” (“PPOs”), which appear to be similar to our structured settlements. Amusingly, those who spoke with Mr. Cavanagh noted that everyone involved in the process was in favour of using PPOs, “except plaintiffs and defendants”. They said that plaintiffs tend to want all of their damages awards at once and defendants (insurers) want to close their files, quickly and permanently.
286. Almost all of the assumptions on which the GAD report was based are now at least in question. If the British government were to undertake the task of setting the discount rate today, it is very doubtful that it would have come to the same conclusions. The notion that plaintiffs who invest their damages awards would realize a gain greater than that of a “low risk” investment is now very open to challenge. We will not try to speculate on what the government of another country might do under dramatically different circumstances. But we expect that the review of the Ogden Rate that is scheduled to take place in 2024 will be considerably less *pro forma* than the UK government might originally have expected.

¹⁰⁴ More accurately, England and Wales. Scotland and Northern Ireland deal with discount rate issues separately.

2.8.4 Ways in which the UK discount rate is not directly comparable to the rate established under r. 53.09

287. It is important to bear in mind that the discount rate established in the UK in 2019 (– 0.25%) is not derived in the same way as the Ontario rate and so, is not directly comparable. (Although its objective is basically the same as ours: to present value awards of damages for future losses.) Among the differences are the following:

- a) One of our advisers, Dr. Hyatt, has pointed out that the UK economy was hit harder by the 2008 financial crisis than was Canada;
- b) Perhaps partly for that reason, its long-term government bonds have generated lower returns than Canada's (and still do).¹⁰⁵ That would tend to make the UK rate lower than ours, if bond yields were still used there to set the discount rate;
- c) The UK rate is now based on an estimate of returns that a representative plaintiff would receive from a low risk mixed portfolio of assets, over a 43-year horizon. Setting the rate on that basis was done using the results of a "Call For Evidence". We do not do that in Ontario. In part, that is because we have no equivalent of the UK's "Call For Evidence";
- d) It was evidently considered acceptable in the UK for the rate to be one that was projected to result in about one-third of plaintiffs being undercompensated;
- e) Built into the UK rate is an adjustment for damages inflation, taxes and expenses, all totalling 1.75%. None of those is adjusted for in the discount rate in Ontario. The result in the UK is to lower the discount rate by 1.75% from what it would otherwise have been; and

¹⁰⁵ As of this update, in April, 2021, 10-year government bonds in the UK had a yield of 0.9% while, at the same time, the yield in Canada was 1.5 percent.

- f) The UK discount rate is based on its own CPI. In April, 2021, the rates were 0.4% in the UK and 1.1% in Canada.

2.8.5 Discussion

288. One of the changes implemented in the UK is one that has also been urged upon us in some of the submissions that we received—basing the discount rate on assumptions about how plaintiffs will actually invest their awards of damages. (The GAD stopped short of using the “reasonable investor” as a benchmark. Its standard was something less than that.) Whether to follow such a “real world” approach is an important policy decision that the Rules Committee must make. We do not recommend that an objective or “reasonable investor” approach be used in r. 53.09(1), at least not now.
289. The 2019 Ogden Rate represented a philosophical change in the UK. The previous approach more closely resembled our own, in that the rate was set based on an external source: ILGs. In 2017, this resulted in the rate dropping to minus 0.75 percent.
290. The new approach, begun in 2019, was meant to be more “evidence-based” and more reflective of returns that plaintiffs could reasonably expect to achieve.
291. If the Civil Rules Committee were inclined to follow a similar approach, several additional steps should probably be taken. First, as can be seen from the discussion above, the 2019 UK approach explicitly recognized that a certain number of plaintiffs would be undercompensated by the new Ogden Rate. We feel that before endorsing such an approach, the Rules Committee should recognize that that method of calculating the discount rate would result in less than full compensation for most plaintiffs (while, at the same time, reducing the risk of overcompensation).

292. Secondly, we feel that a change to the 2019 UK approach (or something like it) should be supported by evidence, as the UK's evaluation was. As discussed above (see § 2.8.2 above), the UK issued a "Call for Evidence". The responses guided the Government Actuary in the choice of a period of loss (43 years) for a "representative claimant" as well as the composition of a "low risk" portfolio of investments and an expected rate of return on those investments.
293. We feel that a move to an "evidence-based" discount rate should be preceded by a "Call for Evidence" of our own. As we are not recommending that approach, we have not attempted to define what sort of evidence should be gathered.
294. Apart from the philosophical change in course, from at least an ideal of *restitutio in integrum* to one of undercompensation of a significant number of plaintiffs, the UK's "Call for Evidence" produced results from various stakeholders that seem to have varied widely and often along partisan lines. The GAD selected a point from within those ranges, saying only that it considered its selection to be "reasonable". The Lord Chancellor, in turn, endorsed the GAD's selections as being "reasonable" but, in neither case were parameters of "reasonableness" given.
295. The evidence about damages inflation was admitted to be of rather poor quality and the assumed damages inflation rate (CPI+1.0% pa) seems to have been arrived at somewhat arbitrarily.
296. Finally, the adjustment to the baseline rate that was made by the Lord Chancellor, reducing the GAD's "calculated" rate from 0.25% (which was estimated to produce a 50–50 chance of full compensation) to minus 0.25% also seems to have been done through a non-rigorous approach. (Although, in fairness, the same criticism could be levelled at our own downward adjustment of ½% in r. 53.09(1)(a).)

297. Even taking into account these possible shortcomings and the philosophical change to an “evidence-based” approach, the UK still arrived at a discount rate of minus 0.25 percent. Some of the discount rates that have been suggested to our subcommittee have been as high as 3.5 percent. Even taking into account the factors that make the UK and Ontario rates, to some extent, “apples and oranges” (see § 2.8.4 above), were the Rules Committee to set the r. 53.09 rate that high, it might be said to be out of step with even the more defence-oriented approach that the UK has now adopted.

3 Submissions of stakeholders

298. In this section, we have summarized the submissions that we received from the stakeholders. This part of the report is mostly unchanged from the 2020 draft.

299. In the summer of 2020, we received supplementary submissions from many of those from whom we had received initial input. We also received some submissions from some new sources.

300. We have discussed the supplementary submissions in § 5.3 below.

3.1 Should the discount rate be based on how plaintiffs are likely to invest?

301. On one level, this is a key issue. To what extent, if at all, should the discount rate try to anticipate what plaintiffs will *actually* do with their awards? The answer to that question will have a strong effect on the discount rate that is chosen.

302. On another level, it really does not make much difference. In the view that we take, setting the discount rate on the basis of the returns that plaintiffs can actually earn involves as much crystal ball gazing as does setting the rate based on real return bonds and is therefore unreliable, for somewhat the same reasons. (There would be a further level of uncertainty introduced by the need for evidence of the different variables, were an evidence-based approach to be used.)

303. There is, perhaps, a misconception (or at least, a conceptual disagreement) about the role that is currently played by GOC real return bonds under r. 53.09(1)(a). Many of the submissions and advice that we have received proceeded on the basis that rates of return on real return bonds are being used as a predictor of what plaintiffs will *actually* earn on the investment of their damages awards in real return bonds. In fact, that is probably almost never the case. Very few individuals actually purchase real return bonds. (Some of these issues were raised in the report of the Robins subcommittee: see discussion at paragraphs 200ff.
304. Likewise, in the course of discussions with our own subcommittee's experts, the point was made that there is a secondary market for real return bonds (i.e., after being purchased from the GOC, they are bought and sold by investors, at various prices. The government also "reopens" auctions on these bonds at certain points after their issue.) The "coupon" of the bond does not change (although the payment on maturity is in inflation-adjusted dollars), so that the person holding the bond will only receive returns based on the stipulated rate. But as can be seen on a Bank of Canada website¹⁰⁶, the "yield" of real return bonds in the secondary market (reflecting the coupon *and* the purchase price of the bond) changes on a daily basis.
305. To try to anticipate capital gains and losses by any individual plaintiff, on an assumption about the amount that he or she might be expected to earn by trading in real return bonds, strikes us as an impossible and unrealistic task.
306. Even in the UK, where insurers also argued for the rate to be based on returns that are actually achievable in the real world, using a mixed portfolio of investments, the government initially did not accept that suggestion. In the course of its 2017 consultations about reforming the discount rate from its then-level of 2.5%,

¹⁰⁶ <https://www.bankofcanada.ca/rates/interest-rates/canadian-bonds/>

proponents of the “mixed portfolio” approach said that the use of the UK index-linked gilts was an unrealistic standard to use for setting the rate.

307. The UK Lord Chancellor rejected that approach and endorsed the continued use of ILGs. In a statement to Parliament, given on February 27, 2017, then-Chancellor Elizabeth Truss explained her reasoning:

I am aware that issues have been raised as to whether ILGs (or a portfolio containing 100% ILGs) continues to represent a realistic or the appropriate basis for arriving at the discount rate, in part because changed economic circumstances have had an impact on the demand for ILGs. In particular, the case has been made by a number of respondents to the consultation exercises that it might be more appropriate and realistic to use a ‘mixed portfolio’ approach (in which other securities feature). I acknowledge that those arguments have some merit. However, I am not persuaded by them. I consider that a faithful application of the principles in *Wells v Wells*¹⁰⁷ leads to the 100% ILGs approach as the best way, in the current markets, of ensuring that there is “no question about the availability of the money when the investor requires repayment of the capital and there being no question of loss due to inflation.” *The mixed portfolio approach in contrast runs counter to these principles by requiring the assumption by the investor of a greater degree of risk.*¹⁰⁸ [Emphasis added]

308. Two years later, in 2019, the same government (but a new Chancellor) took a different view. It endorsed the establishment of the discount rate on the basis of “low risk” investments rather than “very low risk”, which ILGs were considered to be. Then-Chancellor David Gauke said:

I must assume that the relevant damages are payable in a lump sum (rather than under an order for periodical payments), I must assume that the recipient of the relevant damages is properly advised on the investment of those damages, and that they invest in a diversified portfolio of investments. I must also assume that the sums are invested using an approach which involves more risk than very low risk, but less risk than would ordinarily be accepted by a prudent and properly advised individual investor who has different financial aims.¹⁰⁹

¹⁰⁷ The then-leading UK case on discount rates: [1999] 1 AC 34.

¹⁰⁸ Discount rate: statement placed by The Rt Hon Elizabeth Truss MP, Lord Chancellor, in the libraries of the Houses of Parliament on 27 February 2017 (paragraph 9).

¹⁰⁹ Personal Injury Discount Rate – Outcome of Review; Statement placed by the Rt Hon David Gauke MP, Lord Chancellor, in the libraries of the Houses of Parliament on 15 July 2019 (paragraph 8).

309. Still, the two statements quoted above provide a good overview of the two sides of this debate. The fact that two Conservative governments came to such different conclusions over a space of only two years, seemingly for policy reasons, illustrates the volatility of the issue. The stakeholders who made submissions to our subcommittee also divided along somewhat predictable lines on this issue, as discussed below.

3.1.1 Canadian Medical Protective Association (“CMPA”)

310. CMPA’s submission was the most detailed of those that we received: 113 pages, including reports from five consultants. Its supplementary submissions from the summer of 2020 were also the longest that we received.

311. Its recommendations were based on what “an average prudent investor” would do with a lump sum award of damages. It advocated that two fixed discount rates be used. For investment horizons of more than ten years, it proposed a rate of 3.5 percent (which implies a nominal rate of return of 5.5% per annum if inflation is assumed to remain at about 2.0% per annum. As discussed in § 2.3 above, the latter assumption might now be open to question.) For shorter-term losses of less than ten years, it suggested a rate “in the range of 2 percent” (implying an assumed rate of return of 4% per annum).

312. CMPA’s alternative submission, if the existing two-tier model were to be retained, was philosophically similar: based on rates of return considered to be actually achievable if the award were invested in a mixed portfolio. Under that approach, CMPA proposed that the first “tier” be set at 2.0% and the second at 3.5 percent.

313. CMPA’s approach would go one step further than the UK government did in 2019. As set out in the passage quoted in paragraph 306 above, the latter expressly steered clear of setting the discount rate on the basis of the risk that “would

ordinarily be accepted by a prudent and properly advised individual investor who has different financial aims". The current UK approach is to assume "low risk" investment, while CMPA's recommendations would probably be characterized as an assumption of "moderate risk". It might be true (although we do not have evidence, one way or the other) that the majority of plaintiffs would, indeed, invest in that fashion. In the wake of COVID-19 though, the result of that assumption is almost certainly not what CMPA expected it to be when its submission was made.

314. Setting the discount rate based on that assumption would involve accepting a higher risk of undercompensation along with the assumed higher returns.

315. CMPA would shorten the first tier from 15 to 10 years, "to more accurately reflect investment practices likely to be followed by the plaintiff and returns readily available to the average, prudent investor".¹¹⁰

3.1.2 Insurance Bureau of Canada ("IBC")

316. IBC discouraged setting the discount rate on the basis of "how each individual recipient will invest their award." However, it did advocate use of a "profile for the investment of the award by a 'typical' recipient under the assumption that it is appropriate for the investment of awards to be in instruments that are secure and therefore, conservative in the sense they carry a low risk level."¹¹¹ That approach would resemble, somewhat, the UK's "representative plaintiff" and a "low risk" versus a "very low risk" model.

317. However, IBC took issue with the use of real return bonds to set the discount rate. The actuarial firm that assisted it (Eckler Consultants + Actuaries) undertook an analysis of real return bonds and "nominal" (i.e., not inflation-indexed) Government of Canada bonds and concluded that the actual rate of inflation is distorted by real

¹¹⁰ CMPA submission, p. 15.

¹¹¹ IBC submission, p. 7.

return bonds. As an alternative, IBC's consultant suggested that the discount rate be set using a nominal GOC bond and that that rate of return then be reduced by the target rate of inflation (2.0%: see § 2.3 above).

318. Eckler's rationale was that "[t]he nominal government bonds are more broadly traded than real return bonds and because of their nature would not require adjustments for either an illiquidity premium or tax treatment."¹¹²

319. This implies that Eckler and IBC were considering government bonds as investment vehicles in which plaintiffs would *actually* invest their awards.

320. It could be that the "distortion" of which Eckler spoke is the cost of the "insurance" that has sometimes been thought to be built into real return bonds. Having now looked at the "insurance premium" issue, we are not persuaded that any adjustment to the discount rate is warranted on that account. See discussion in § 5.3.6.3.1 below.

3.1.3 Health Insurance Reciprocal of Canada ("HIROC")

321. HIROC's submission was brief. On this issue (whether the discount rate should be set based on how plaintiffs will actually invest), HIROC was concerned about the consequences of an "over-cautious" approach and the resulting increases in the cost of health care. It referred to the Goudge report¹¹³ and drew support from it for the proposition that the rate should be based on "a determination of what a reasonable rate of return is for plaintiffs who are expected to follow and benefit from prudent investment advice."¹¹⁴

¹¹² IBC submission, p. 10.

¹¹³ See § 2.13.2.

¹¹⁴ HIROC submission, p. 2.

3.1.4 Canadian Institute of Actuaries (“CIA”)

322. CIA recommended “[t]hat the discount rate be fixed without assumptions as to how claimants invest damages awards.”¹¹⁵

323. As its rationale for this approach, CIA relied on what was said in “the UK consultation”.¹¹⁶ The latter was relied upon for the proposition that “the object of the award of damages for future expenditure is to place the injured party as nearly as possible in the same financial position as he or she would have been in but for the accident.”

324. However, the document to which CIA was referring was written in 2017. In 2019, the UK Government Actuary’s Department (“GAD”) instead recommended a different approach, one in which, statistically, about one-third of plaintiffs would receive less than full compensation and 78% would receive at least 90% of full compensation. (The principle underlying the CIA recommendation might still be valid, but the current UK evaluation probably should not be relied on in support of it.)

3.1.5 Ontario Trial Lawyers Association (“OTLA”)

325. OTLA’s submission did not address this question directly. But its recommendation was that the discount rate be set using the recent average yield rates established for real return bonds:

In OTLA’s view, a simple and just solution is readily available. The Government of Canada regularly sets yield rates on real return bonds known as Government of Canada Benchmark Long-term Real Bonds, published every Wednesday by the Bank of Canada. Utilizing an average return from this index of, say the prior six or twelve months, would restore justice to the discount rate applicable each year. This will also mean that the discount rate is regularly adjusted based on objective market data.¹¹⁷

¹¹⁵ CIA Summary of Recommendations

¹¹⁶ Government Actuary’s Department, Technical Bulletin, Personal Injury Discount Rate (Sept. 7, 2017).

¹¹⁷ OTLA submission, p. 3.

326. The “objective market data” to which OTLA is referring in the last sentence of the passage from its submission, are presumably the Bank of Canada yields on real return bonds. It is doubtful though, that it can be said that the Bank of Canada “regularly sets yield rates on real return bonds”, as was stated in the passage quoted above. It is the market that sets yield rates, based on the demand for such bonds which, in turn, affects the price and thus, the yield. The Bank of Canada just publishes that information.

327. OTLA’s submission seems to contemplate that plaintiffs would *actually* invest in real return bonds or at least, in some form of government bonds. See, for example, the report of its expert, Dr. Eli Katz, who said: “the idea behind a lump sum award is that by purchasing an appropriately tailor-made portfolio of government bonds, an individual can match future (lost) income.”¹¹⁸

3.2 Two-tiered rate system

328. The stakeholders who made submissions to our subcommittee were divided on this issue: CMPA, IBC and CIA advocated continuing with a two-tier system while OTLA recommended using a single rate. HIROC referred to the Goudge report in support of returning to a single rate.

329. In essence, the argument in favour of a two-tier system is that the rate during the first, shorter period can be matched more precisely to recent economic conditions. Past data are known and the short-term future can probably be predicted with greater confidence.

330. OTLA’s consultant said that a single rate should be used, but it is not clear on what basis that suggestion was made. Its consultant (JK Economics Inc) seems to have believed that if a single rate were set with reference to rates of return on real

¹¹⁸ Report of JK Economics Inc., October 23, 2018, p. 4.

return bonds, that would ensure a fair result. Certainly, one aspect of the “unfairness” to which OTLA points is the 2.5% rate used for post-15 year losses. Its consultant said, “the rules broadly ignore the actual current real interest rates, which are what a victim of an injury or medical malpractice has to work with in securing future cash flows from an award. This, in our view, is unfair.”¹¹⁹

331. But unfairness can work in the other direction too. Insurers overpaid on claims during the 1980s, when the discount rate did not reflect real interest rates.

3.3 How should the rate(s) be set?

332. To some extent, this topic overlaps with the one dealt with in § 3.1, “Should the discount rate be based on how plaintiffs are likely to invest?” In this section, we are going to focus more on the mechanics.

3.3.1 CMPA

333. As discussed in § 3.1.1, CMPA favoured setting both rates on the basis of returns achievable through the investment of damages awards in diversified portfolios consisting of equities and bonds.

3.3.2 IBC

334. IBC proposed a two-tiered approach, with the second tier to be a fixed rate, as it is now. Its consultant, Eckler, acknowledged the difficulty of predicting the future but proposed a rate of 2.25 percent for the post-15 year period. With respect to the first tier, Eckler recommended that the existing formula be “improved”. As has already been mentioned, Eckler’s view was that real return bonds overstate the rate of inflation. It thought that a better approach would be to use the estimated yield of a nominal (i.e., non-indexed) Government of Canada bond and to subtract from that

¹¹⁹ *Ibid.*, p. 2.

rate 2.0% per annum, derived from the government's inflation target. (To repeat, assuming that rate of inflation might now be open to question: see § 2.3 above.)

335. Eckler made the interesting point that using Government of Canada bonds with maturity dates of "over 10 years" to predict returns for the future 10 to 30 years would have been a very unreliable approach in the past and that, in fact, there is often "a negative correlation between the two".¹²⁰

336. Its suggested second-tier rate of 2.25% was based on an historical analysis of the returns on long-term Government of Canada bonds, going back to the 1930s.

Whether that is a valid approach depends, to a large extent, on the extent to which it is true that the future is likely to resemble the past. As discussed in § 2.6 above, we think there is reason to doubt that it will.

3.3.3 HIROC

337. As mentioned already, HIROC referred to Justice Goudge's report. HIROC definitely felt that the discount rate(s) should be set with regard to what plaintiffs would actually do with their awards. In its submission, it expressed the hope that a meeting of major stakeholders might be convened by the Rules Committee, in order to try to resolve competing views.

3.3.4 CIA

338. CIA's suggested approach appears to have been to maintain a two-tiered approach and for the rates to be derived as they are now. It supported, by long-term historical data, the continued use of a 2.5% rate. Its submission referred to "the expectation that economic conditions will revert to historic norms".¹²¹ As discussed

¹²⁰ IBC submission, p. 5.

¹²¹ CIA submission, p. 9.

in § 2.7 above, past subcommittees dealing with the discount rate did so on the basis of a very similar expectation of the future.

339. CIA felt that while real interest rates have declined well below 2.5% in recent years, they had been higher than that, going further back in history. For that reason, CIA warned that “reversals in persistent real interest rates toward a historic norm have a precedent, suggesting that a decision to depart from historical norms should be made cautiously.”¹²²

340. Even if the proposition in the previous paragraph were true (and we entertain considerable doubt that it is), it strikes us that it would be cold comfort to a party—especially a plaintiff who will only ever have one court case—to say that overcompensation or undercompensation in their particular case will even out with an opposite adjustment in some future case. Also, the notion of “historic norms” is a very contextual one. Looking at the post-World War II period, for instance, does not necessarily reflect any “norm”.¹²³ The Schmelzing analysis¹²⁴ would suggest that, over a much longer period, the “norm” has been a gradual downward trend in real interest rates.

3.3.5 OTLA

341. OTLA’s preferred approach has already been discussed: see § 3.1.5 above.

3.4 Should the ½% adjustment continue to be made?

342. Unsurprisingly, CMPA and IBC submitted that the ½% reduction should be eliminated. The other stakeholders have not commented but presumably, OTLA would prefer to retain it.

¹²² CIA submission, p. 10.

¹²³ See paragraph 137.

¹²⁴ See § 2.6.1.

343. The defence rationale for removing the ½% adjustment is captured in CMPA's submission:

The discount rate for the first tier under Rule 53.09(1)(a) is calculated based on the average of the rates on long-term Government of Canada real return bonds in the 12 months prior to the date of trial. The Rules require, however, that this average rate be adjusted downward by ½ percentage point and rounded to the nearest 1/10 of a per cent. This requirement has no basis in actual investment practices and further perpetuates the risk of unjust enrichment.

The Subcommittee of the Civil Rules Committee on Rules 53.09 and 53.10 suggested in 2011 that this was intended to "provide a "buffer" for plaintiffs". There is no evidence to suggest a discount rate based on real return bonds requires an adjustment to ensure plaintiffs are appropriately compensated. As discussed above, CPC, Professor Shum Nolan, and JSCP agree that the proposed investments are already inappropriate, given that plaintiffs would not invest exclusively in a real return bond portfolio, given the higher returns available at similar levels of risk using a diversified portfolio.¹²⁵

[Footnote omitted]

344. Other defence stakeholders made similar points.

3.5 Should negative discount rates be permitted?

345. At present, the discount rate for the first 15 years cannot be less than zero. That was a change that was introduced in 2013, after the discount rate had sometimes become negative.

346. CMPA said, "[t]o the extent that the downward adjustment to the rate is removed and more realistic investment vehicles are considered, we do not foresee the issue of a negative discount rate in the current economic climate. We therefore hesitate to propose any changes to this Rule at the present time without any factual context."¹²⁶

347. IBC favoured retaining the floor.¹²⁷

¹²⁵ CMPA submission, pp. 15–16.

¹²⁶ CMPA submission, p. 18.

¹²⁷ IBC submission, p. 11.

348. CIA agreed that negative discount rates are “defensible theoretically” but that it would be “difficult for the public to comprehend”.¹²⁸ We agree, although the latter statement is broadly applicable to negative interest rates too.¹²⁹ Since the phenomenon of negative rates has become more widespread, there have been a number of commentaries about the “cognitive dissonance” thereby produced.¹³⁰

349. OTLA saw no reason to continue to prevent negative discount rates. We agree.

3.6 Should there be judicial discretion to set different discount rates for different types of damages?

350. The CIA felt that judicial discretion to alter the r. 53.09(1) discount rate should remain. It gave as an example “compensating for lost wages where one individual is in a declining industry with few productivity gains, compared to an individual in a growth industry.”¹³¹ The main situation in which that group thought that the exercise of such discretion might be called for was in cases involving productivity gains that warrant a different treatment.

351. But CIA was generally opposed to having multiple discount rates, for different types of damages, saying, “the future cost of care includes many items that are related to wage inflation, rather than the purchase of goods. This reduces any justification for having a separate discount rate. Further, a separate discount rate has the disadvantage of adding complexity to the calculation and to the communication of the result.”¹³²

¹²⁸ IBC submission, p. 21.

¹²⁹ A 2015 article in *The Economist* about negative interest rates was entitled “Bankers v mattresses”, referring to the notion that simply holding onto cash might be seen as more attractive than paying a bank to hold it and return a smaller amount.

¹³⁰ Schneider, Stefan, “Negative interest rates and their effect on humans”, Deutsche Bank Talking Point, August 23, 2019; Tett, Gillian, “The downside of negative interest rates”, *Financial Times*, October 9, 2019.

¹³¹ CIA submission, p. 22.

¹³² *Ibid.*, p. 21.

352. CMPA opposed judicial discretion, on the basis that the efficiencies of having a rule would thereby be jeopardized.

353. IBC did not express a view.

354. OTLA was in favour of a different rate being used for certain types of damages, not on the basis of an exercise of judicial discretion but using a pre-set rate. It recommended a “long-term labour productivity growth” adjustment (subtraction) of 0.9%. The example in its submission, assuming a real return bond yield of 0.64% was as follows:

$$D = \text{Benchmark Long-term RRB yield} - \text{Long-term labour productivity growth} = 0.64\% - 0.9\% = -0.26\%$$

355. In other words, assuming a real return bond yield of 0.64% (which, of course, has already been adjusted for inflation, as derived from the CPI) and reducing that yield further by 0.9% on account of labour productivity growth would result in a discount rate of -0.26% that OTLA would apparently want to see used for damages with a wage component.

356. Its rationale was its allegation that wages tend to increase at a rate faster than that of prices, with the result that a higher rate of inflation should be assumed for them. That would result in a lower discount rate for those damages.

4 Subcommittees' advisors

357. Both of the experts who advised our subcommittee (Dr. Douglas Hyatt and Dr. Christopher Bruce) initially proceeded on the basis of how plaintiffs would actually invest their awards and how much risk it was reasonable to expect them to assume. That appears to be their approach when they are providing expert evidence about the discount rate (such as in Alberta). (Dr. Hyatt advised us that even when they have been experts on the opposite sides of cases, the two had “never disagreed” on what the discount rate should be.)

358. Based on the discussions that we had, our advisors' approaches seem to have been driven by the fact that real return bonds are rarely purchased by individuals. Most plaintiffs, they felt, would invest in some combination of stocks and bonds that would generate a greater return, albeit with more risk. The question, in their minds, was how much risk it is reasonable to expect plaintiffs to assume.

359. Over the course of our discussions, we ultimately asked our advisors not to opine on this question. That was partly because it is really a philosophical or policy decision to be made by the Civil Rules Committee (and ultimately, the Attorney General), whether to set the discount rate on the basis of investments that plaintiffs will *actually* make. The other reason for asking the experts not to base their opinions on potential returns by real world plaintiffs is that, unlike in the UK, we have no evidence as to what those returns should be considered to be.

360. As a result, we asked our advisors for their input on how the discount rate should be set if the returns that might realistically be achieved through investment in stocks and/or bonds are ignored.

361. Both Dr. Hyatt and Dr. Bruce conferred with the subcommittee at a meeting in October, 2019. Dr. Hyatt attended in person and Dr. Bruce by telephone. They provided further input by telephone and emails after that meeting. They were consulted a second time in 2020.

4.1.1 Dr. Douglas Hyatt

362. Dr. Hyatt provided a number of preliminary comments about the discount rate problem. He and Stephen Cavanagh of our subcommittee had a number of email exchanges and spoke at some length on several occasions. As a result of those discussions and subsequent discussions, Dr. Hyatt reformulated his opinion somewhat and provided a written memorandum dated February 12, 2020, in which he summarized his views.

363. The following are some comments about specific statements made by Dr. Hyatt in his memorandum, to try to minimize any misunderstandings.

- *“Simply stated, government debt markets in the UK and Canada have followed fundamentally different paths since the financial crisis, and the market interest rates on government debt instruments are very different between the two countries (specifically, interest rates payable on government debt instruments are lower in the UK than those in Canada).”* (Page 1) This is true: see § 2.8.4 above.
- *“The UK PI rate is not directly comparable to the Ontario Rule 53.09(1) discount rate because the PI rate makes allowances for real wage increases, inflation above CPI for certain extraordinary costs, investment management fees and for taxes.”* (Page 2) This is true at present. Section 4(5)(c) of Schedule A1 (“Assumed Rate of Return On Investment of Damages: England and Wales”) to the UK’s Damages Act 1996 requires that in setting the discount rate, the Lord Chancellor “make such allowances for taxation, inflation and investment management costs as the Lord Chancellor thinks appropriate.” However, that only came into force on December 20, 2018. We are unsure whether there was a corresponding provision before that. For that reason, it is not certain that the increase of 1.75% in the calculation that appears in the second full paragraph of page 3 of Dr. Hyatt’s report is correct, although it might be.¹³³ That calculation would be valid now though, subject to the comments that Dr. Hyatt made at the bottom of page 2, about the difference in approaches between the two countries.
- *“I note that the UK review looked favourably upon the Ontario two-tier discount rate, but felt further research was necessary before adopting the approach for the UK).”* (Page 2) The UK Government Actuary Department did not go quite that far. It would be fair to

¹³³ That is, “if one was to add back the 1.75 percent for taxes, inflation risk and investment management fees”. It is that addition that is in doubt.

say that it looked favourably on a two-tier system and is, in fact, actively considering a move to such a system right now. But the only reference to Ontario in the GAD report was in a review of various “switching points” between the first and second tiers.¹³⁴

- *“Yield curve inversions are relatively rare and have been prescient at foreshadowing recessions. When investors anticipate a recession, a common response is to buy safe 10-year bonds, thereby bidding up the price of bonds and bidding down the yields. Again, inverted yield curves are rare, and in my opinion, determining a long-term interest rate based on bond yields in an inverted yield curve environment is imprudent.”* Also true. However, events might be considered to have overtaken this discussion of inverted yield curves. As of March, 2021, the yield curve for bonds was no longer inverted, as shown in the following graph:¹³⁵

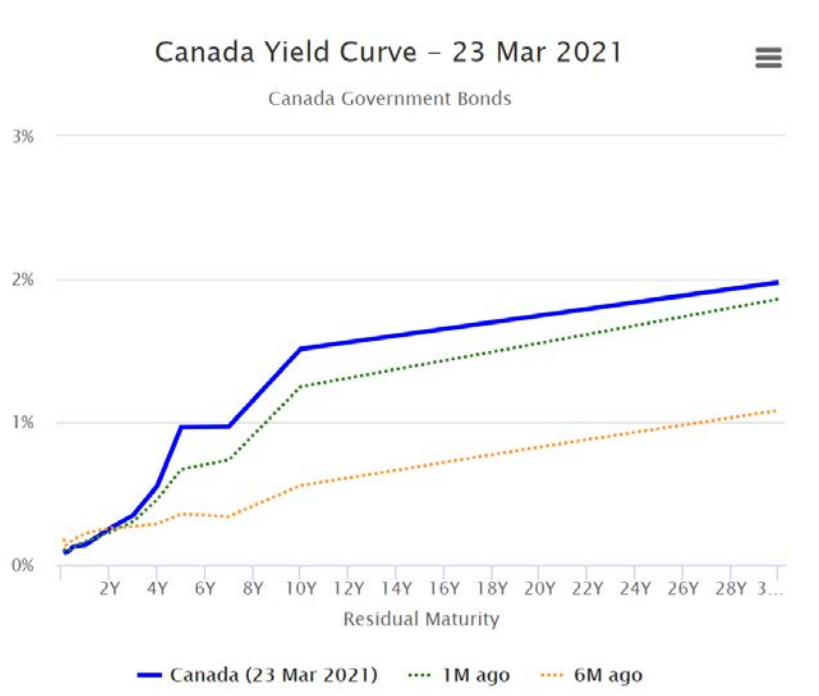


Figure 14

¹³⁴ Government Actuary's report, *supra*, para. 3.19.

¹³⁵ www.worldgovernmentbonds.com

364. On page 7 of his memorandum, Dr. Hyatt outlined his thinking with respect to the post-15 year rate: “Unlike previous iterations of the Rule which set a fixed second-tier discount rate, the second tier rate could be based upon a formula that allows a measured response to possible changes in longer term interest rate trends, be it higher, lower or reversion to the mean.” [Emphasis in original]

365. Dr. Hyatt then discussed possible approaches to the long-term rate that should be used for the second (post-15 years) period:

In my opinion, the Rule 53.09(1) discount rate should use the current formula for the first 15 years (but not reduced by 0.5 percent) with the language revised to refer to the correct data series and the reference to the *Weekly Financial Statistics* publication (that the Bank of Canada no longer produces) removed. The post-15-year discount rate should be fixed at 2.3 percent.

366. (“The correct data series” just refers to the fact that the language of the existing rule no longer refers to the real return bond series actually in use.)

367. His suggested rate of 2.3% for the post-15 year period appears to have come from a recent (February, 2020) publication authored by colleagues of his at the University of Toronto’s Rotman School of Business’s Policy and Economic Analysis Program (“PEAP”).¹³⁶

368. As Dr. Hyatt observed, the PEAP paper did not comment directly on future yields of real return bonds. But it did project future nominal returns on 10-year GOC bonds and on anticipated CPI. Dr. Hyatt said that “[t]he difference between the 10-year yield and CPI inflation is a reasonable proxy for the real rate of return on government bonds.”¹³⁷ The real return rate, thus constructed (and using a CPI rate of 2.0%), would rise to 2.3% in 2023 and remain at that level to 2050 (the end of PEAP’s projection horizon).

¹³⁶ Already mentioned at paragraphs 313 and 314.

¹³⁷ Page 8.

369. (As discussed in § 2.3 above, the assumption that inflation will continue to be about 2.0% might now need to be reconsidered.)
370. Dr. Hyatt also supported his 2.3% rate recommendation by looking at the average yield on real return bonds from September 1, 1993 to August 31, 2019. Setting the second-tier discount rate on that basis, he said, would translate into a rate of 2.4 percent.
371. Finally, Dr. Hyatt looked again at the UK approach and, translating it into Ontario values, arrived at a long-term rate of 3.25 percent. He explained the fact that that would exceed his proposed long-term rate by 0.95% by noting that:
- The analytical/judgement-based approach (rather than a simple average of past yields) followed by the UK Government Actuary to establish the second term rate arrived at rate that is 0.95 percent greater than the PEAP rate, which, in part, reflects that the UK assumes that plaintiffs would invest their awards in a low risk diversified portfolio, but not exclusively government bonds.¹³⁸
372. Dr. Hyatt did not think that use of different discount rates, for different heads of damages, could be justified on the basis of productivity or inflation of wages at rates different than those of CPI.
373. In a preliminary report to us, Dr. Hyatt addressed the question of health care expenses rising at a rate faster than that of CPI. Essentially, it was his view that if a particular sector of the economy (such as health care workers) becomes more productive by, say, 2.0%, a wage increase of 2.0% creates “no upward pressure on the real cost of health care services. As a result, the price of health care services will increase at the overall rate of inflation in spite of the fact that the health care providers received wage increase in excess of the rate of inflation”. He also went on to say that “[f]inally, economic theory would suggest that rapidly growing prices in

¹³⁸ Page 10.

one sector of the economy will induce economic (and political) responses to mitigate those price increases.”¹³⁹

4.1.2 Dr. Christopher Bruce

374. Dr. Bruce too would have set the rate on the basis of returns that could be achieved in the market, but having been asked not to make any assumptions about what plaintiffs would actually do, his preference was for a single rate, using “the benchmark rate that is published by the Bank. It reflects a kind of average rate that investors can expect.”¹⁴⁰

375. Dr. Bruce added that if that course of action were followed, he would suggest “that the Committee include a section in which it explains why it has chosen to use the most risk-free investment available. That is, why does the Committee believe that the plaintiff should not have to accept any risk, even when that would seem, in some sense, to be reasonable (given that the average investor seems to be willing to accept at least some risk).”¹⁴¹

5 Impact of COVID-19 on our assessment

376. This section of our report is entirely new. It is aimed at responding to the concerns raised by the Attorney General, in response to the April, 2020 draft of this report. The Attorney felt that we had not adequately considered the major economic consequences that would result from COVID-19.

377. The April, 2020 draft of this report was written at a time when COVID-19 had been with us for only a little over a month. To the extent then possible, we did take the pandemic into account. Not much was known though.

¹³⁹ Draft copy of preliminary comments on submissions of stakeholders by Dr. Douglas Hyatt, September 3, 2019.

¹⁴⁰ Email, C. Bruce to S. Cavanagh, January 9, 2020.

¹⁴¹ *Ibid.*

378. In response to the Attorney General's questions, we have undertaken further analysis, discussed below. But the end result is that our conclusions have not changed very much, other than, perhaps, that they are attended by an even higher level of uncertainty than they were a year ago.

5.1 Information from Attorney General

379. We asked the Attorney to direct us to any economic data that he felt we should review. In February, 2021, we received a document containing links to various websites of the Ontario government. We were advised that the document had been put together with the assistance of the Ministry of Finance and consisted of a list of publicly available documents that might assist the subcommittee in evaluating the impacts of COVID-19 on the Canadian economy.

380. In the body of the document, there were links to seven Ontario government websites. Below each link was a short description of the information to be found at that site.

381. For the most part, we did not find that the data in the Ontario document helped us very much. The websites to which we were directed were such things as "Ontario Economic Accounts", "Ontario Employment Report" and "Ontario Population Projections".

382. One of the seven sites did appear to have some information bearing on the discount rate issue. It was "Ontario's Long-Term Report on the Economy". The link that we were given was to the second of three chapters in a document entitled "Long-Term Report on the Economy". That chapter was "Economic Trends and Projections". The subsections of the chapter had headings such as "Moderating Growth of the Labour Force", "Continued Productivity Growth", "Slowing Economic Growth Driven by Demographics", "Long-Term Growth Projections" and "Other Perspectives on Long-Term Growth".

383. The document related mostly to projected GDP growth. But table 2.2 was, we felt, of some relevance:

Table 2.2
Key External Economic Assumptions
(Annual Average)

	1982–2019	Long-Term Projection
Rest-of-Canada Real GDP (Per Cent Change)	2.2	2.0
U.S. Real GDP (Per Cent Change)	2.7	2.0
Canadian Dollar (Cents US)	80.1	83.2
90-Day Treasury Bill Rate (Per Cent)	4.8	2.7
10-Year Government of Canada Bond Rate (Per Cent)	6.0	3.5
U.S. 90-Day Treasury Bill Rate (Per Cent)	3.9	2.7
10-Year U.S. Government Bond Rate (Per Cent)	5.7	3.5
U.S. Real West Texas Intermediate Oil Price (2019 US\$ per Barrel)	56.7	64.3

Sources: Statistics Canada, Bank of Canada, U.S. Energy Information Administration, Federal Reserve and Ontario Ministry of Finance.

Figure 15

384. This table (entitled “Key External Economic Assumptions”) shows what the “10-Year Government of Canada Bond Rate” (which presumably means the yield of that bond). The first column shows the average yield for the years 1982 to 2019: 6.0 percent. The second column shows “Long-Term Projection”: 3.5 percent.

385. The other part of this document that was relevant to our work related to forecast inflation. It stated that “Ontario annual consumer price index (CPI) inflation is projected to be at the Bank of Canada’s 2.0% target range, on average, over the long-term projection.”

386. We made further inquiries of the Attorney General’s office. In particular, we requested any working documents that the Ministry of Finance might have to support a forecast of a long-term yield on 10-year GOC bonds of 3.5 percent. We also

asked what was meant by “long-term”. Finally, we inquired whether the Ministry had any additional information to support its forecast of 2.0% inflation.

387. We heard back from MAG in early March, 2021. We were told that:

- a) The phrase “long-term” in the document meant “a 20-year outlook after the recovery from the COVID-19 pandemic”. (As can be seen immediately, the problem with that timeline will be figuring out when it starts.)
- b) Not surprisingly, the prediction of 2.0% inflation was based on the Bank of Canada’s stated intention to continue its policy of targeting annual inflation at 2.0 percent.
- c) The forecast yield of 3.5% for 10-year Government of Canada bonds (see Figure 15) was said to have been “consistent with the average of three external private-sector forecasters who produce long-term economic forecasts (Conference Board, University of Toronto and Oxford Economics) that the Ministry of Finance tracks as part of its long-term Ontario survey”.

388. We asked for the data from the three forecasters. On April 15, 2021, we were given the three sets of forecasts. They are discussed briefly in the next section.

5.1.1 Professional forecasts of long-term yields on 10-year GOC bonds

389. As we have said, 3.5% is the average of forecasted yields on 10-year Government of Canada bonds made by the three private organizations employed by the Ministry of Finance (see Figure 15). The forecasts were made, in two of three cases, for the period 2026–2045. In the other case, the period was 2026–2040. (By implication, 2026 is presumably the year in which the Ministry anticipates there will have been a recovery from COVID-19: see paragraph 385.a) above.)

390. One of the three organizations forecast a yield of 4.3% for the entire period, the second predicted a yield of 3.2% up to 2040 and the third's forecast yield was 2.9% to 2045. (The yield for the latter was slightly less for the first year, 2026.)
391. The average yield for almost every year was 3.5 percent. There was a different average (3.6%) for 2041 to 2045 because one of the three organizations had not made any forecast for those years.
392. The last four pages of the 5-page document sent to us by MAG were almost entirely redacted. Having seen these sorts of documents elsewhere, we assume that the redacted portions contain other economic data, about such things as GDP, unemployment, personal savings, etc. We assume that MAG did not consider that that data would be helpful to us.
393. But in fact, except perhaps in one way, we did not find even the unredacted forecasts to be of much assistance for purposes of setting a discount rate for the longer term. Most noteworthy about the three forecasts was the extent of the variation among them. In particular, compared with the first organization, the forecasts yields of the other two were only about two-thirds and three quarters.
394. The discrepancy between the forecasts of the two organizations, other than the one that had the highest yield, exhibited less variation: one was about 90% of the other.
395. As we have said, it was the extent of the disagreement in the three organizations' forecasts that was most significant for us. It underlined (again) how unpredictable future interest rates are.
396. It should also be remembered that the three professional forecasts sent to us by MAG were of *nominal* yields on 10-year Government of Canada bonds. Reducing two of the three forecasts by the 2.0% rate of inflation that the Ministry of Finance

has accepted in the documents sent to us would produce a discount rate of less than 2.0 percent.

5.1.2 Other MAG economic data

397. We recognize that everything in the world of economics is interconnected so, at one level, the various websites to which the Attorney General directed us do relate to interest and inflation. For example, changes in the demography of the population of the province will affect inflation. An aging population and a smaller work force certainly feed into the future rate of inflation and the real interest rate.

398. As another example, a decline in GDP (as has happened around the world since the onset of the pandemic) would normally be expected to reduce inflation.

399. But our subcommittee is not equipped to draw specific conclusions about long term rates of interest or inflation from projections about GDP growth, labour force penetration, demographic changes, increased longevity or other similar economic data.

400. As noted in the previous section, the figure that the government is using as a projected “long term” yield for 10-year GOC bonds is 3.5 percent. The Ministry of Finance document that contains that forecast yield shows the historical average yield of that bond (since 1982) to be 6.0 percent. But it is instructive to look at a chart of the progress of that yield since 1982, to see how that average came to be:

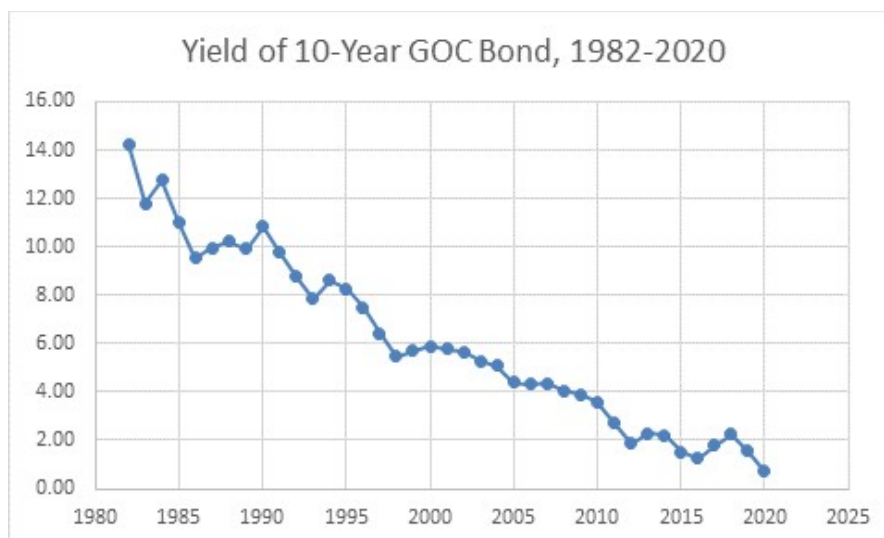


Figure 16

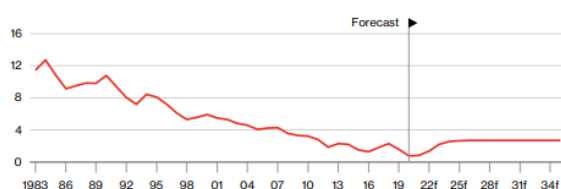
401. As is apparent, the yield trended fairly steadily downward, for a long time, even before COVID.
402. In the last ten years, the highest that that yield has reached was 3.32% (in 2011). Its average yield has been 1.8% during that time and has been as low as 0.46% percent (August, 2020). So, while a projected “long term” yield of 3.5% might be justifiable, the rationale is not self-evident from the MOF document.
403. The Conference Board of Canada, one of the private forecasters upon which the Ministry of Finance has relied, has been less bullish about long-term bond yields. While it too thinks they will go up, it still forecasts *real* interest of only about 0.7 percent. The following was taken from a February 18, 2021 Conference Board paper entitled, “Challenges Ahead: Canada’s Post-Pandemic Fiscal Prospects”.

Moreover, the outlook for bond yields is a key concern for the fiscal outlook. Even if the Bank of Canada maintains its policy of keeping interest rates near zero until at least 2023, longer-term bond yields are expected to rise more quickly than short-term yields in an environment that has seen a massive addition to government debt, both in Canada and globally. It is possible that the sheer magnitude of Canada's debt could lead investors to demand higher yields on government long-term bonds. Government of Canada 10-year bond yields are forecast to rise to 2.7 per cent by 2026, up from their current yields of about 0.7 per cent. While that is a substantial increase, real interest rates (which take into account inflation) will be around 0.7 per cent, still far below historical norms. (See Chart 4.) While nominal yields on 10-year bonds will increase over the long term, it is assumed that inflation will return to the 2.0 per cent mark, up from current levels of about 1.0 per cent.

Chart 4

Bond yields to rise

(Government of Canada 10-year bond rate, per cent)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Provinces and territories pay a premium on their bonds above that of the federal government due to their higher risk. As interest rates rise once the current crisis ends, this higher premium will put significant additional strain on debt-financing costs, which are already burdensome for several provinces. Consequently, the provinces and territories will see debt-financing costs rise steadily through the long term. On an aggregate basis, interest costs currently eat up 6.6 per cent of provincial/territorial revenues. But that share will increase to 8.8 per cent by 2024–25 and to 13.6 per cent by 2034–35. This will strain the ability of provincial/territorial governments to deliver on other programs, such as social services, health, and education.



The Conference Board of Canada 10

Figure 17

404. (Even the Conference Board's forecast of nominal yields on 10-year bonds—about 2.7%—would also suggest a reversal of a long, steady, downward trend, shown, for example, in Figure 3, on page 23.)
405. Perhaps, as the Conference Board excerpt suggests, the thinking is that bondholders will demand higher yields due to the massive increase in public debt that the province will experience (in common with other advanced economies).
406. In the most recent forecast from PEAP to which we have had access, yields of 10-year bonds were projected to reach 3.7% in 2024, then 4.3% after that. That would be an even more dramatic reversal of the historic trend. However, the PEAP forecast that we have extends only as far as 2026, so it does not cover the same period as does

the Ontario “Economic Trends and Projections” paper. (And, as noted in paragraph 385.a) above, it is not entirely clear to what period Ontario’s “long term” forecast applies.)

407. If we were to assume that the Ontario government’s forecast of long-term 10-year yields of 3.5% is accurate, the Ministry is also assuming inflation of 2.0%, which would imply a real interest rate of 1.5 percent. So, even using those figures (the reliability of which we question, as discussed in the previous section), our “Plan B” second tier discount rate of 1.0% (see § 6.4 below) would not be far off the mark. If inflation were to rise a bit above 2.0% (or if yields were to come in slightly less than these forecasts), we would be very close to or at real interest of 1.0 percent.

5.2 Consultations with experts

408. We sought and obtained permission to consult our two experts again with respect to the Attorney General’s concerns.

5.2.1 Dr. Douglas Hyatt

409. Dr. Hyatt obtained and provided to us PEAP’s updated 2020 forecast (see paragraph 404 above). Its predictions are summarized there. Although PEAP considered that “uncertainties abound”, it is still predicting a return to target inflation (2.0%) by 2023, continuing to 2026 (the end of its forecast period in that report).

410. It forecast the yield on 10-year Government of Canada bonds to be low for the next few years (below 1.0%) but rising to 1.8% in 2023 and then rising to 4.3% by 2025 and remaining at that rate in 2026.

411. Dr. Hyatt also spoke with Dr. Peter Dungan, the head of PEAP, and provided us with some additional comments, based on that discussion.

412. In his view and in that of Dr. Dungan, the hands-on activism of central banks in recent years (following the financial crisis of 2007–2008 and then again after COVID-19 struck), is unlikely to continue. At the time of his memo to us (October, 2020), Dr. Hyatt noted that central banks had been aggressively buying up long-term bonds, which drove yields down. He predicted that that would not go on and indeed, experience in early 2021 has borne out his forecast.
413. Dr. Hyatt noted that various sources of savings—Chinese and other Asian countries’ ownership of foreign countries’ bonds as well as the savings of oil companies and baby boomers—have all been diminishing. Global investment has been declining for years but, he predicted, would rise substantially in the wake of COVID, flowing into targeted industries. He shared PEAP’s view that very low real interest rates are a short-term anomaly and that they will rise in future.
414. He also referred us to a paper by former Bank of Canada Governor David Dodge which Dr. Hyatt said “is one of the best things that I’ve seen with respect to what’s changed, what hasn’t changed and what could change.”¹⁴²
415. The Dodge paper is indeed a provocative one. Mr. Dodge emphasized how important it is that Canada vastly increase the digitization of every aspect of its economic life: judicial system, health care, education, resource extraction and manufacturing. As the oil and gas sector declines in importance, productivity gains, he said, must be found in other sectors in order to attract investment.
416. To the extent that Canada fails to take the steps that he has recommended, Mr. Dodge pointed out that investors will require a risk premium on their investments in this country. That will manifest itself in higher interest rates.

¹⁴² Dodge, David, “Two Mountains To Climb: Canada’s Twin Deficits and How to Scale Them”, Public Policy Forum (September 14, 2020).

417. In the present context, Mr. Dodge emphasized “the radical uncertainty about the economic future of the post-COVID world”. Regarding interest on 10-year GOC bonds, he said that if a recovery were to be “firmly established”, it would be realistic to expect the yield on such bonds to “return to 2019 levels (2.3% on 10-year Canada bond) although not all the way back to its 2007 level (4.5%).”

5.2.2 Dr. Christopher Bruce

418. Dr. Bruce noted that COVID-19 has produced a demand for savings, driving up bond prices and therefore, reducing yields. There is no doubt that this has happened: the federal government purchased a large quantity of bonds in 2020. The sale of those bonds that has begun in 2021 has had the reverse effect, increasing yields.

419. To the extent that the pandemic produces the sort of psychological “negative shock” discussed in a paper by Kozlowski et al, (discussed beginning at paragraph 564.e) below), Dr. Bruce felt that those fears might cause investors to flee to safety, increasing the demand for bonds (and therefore, the price and, at the same time, lowering the yields).

420. Dr. Bruce pointed to the fact that the Government of Canada has taken steps to keep interest rates low (such as by large-scale purchasing of bonds and holding down the “overnight rate” used for loans among financial institutions).

421. Dr. Bruce felt that the short-term reduction in interest rates produced by the pandemic and the government’s response to it is likely to bounce back. But when and by how much, in his view, depends on how shaken consumers and investors are by what has happened. Fear might cause greater savings and investment in low-risk (and low-return) vehicles. Greater investor confidence would cause movement in the opposite direction.

422. Dr. Bruce passed along interest rate predictions from three sources: the Congressional Budget Office in the United States, the Conference Board of Canada and PEAP. He said that the three organizations predicted a return to “historical” interest rates on 10-year bonds which he said they estimated to be about 4.5% in nominal terms, 2.2% in real terms.

423. He concluded his note to us by saying of those projections, “I find this assumption difficult to support, given that interest rates had fallen to 0 percent in nominal terms in the years preceding the pandemic. Why choose 2.2 percent real when recent evidence suggests 0 percent? None of them addressed this question.”

5.3 Supplementary submissions of stakeholders

424. In this section, we have discussed the supplementary submissions received from stakeholders in 2020. For the most part, those submissions dealt with the discount rate but to some extent, they also addressed prejudgment interest on non-pecuniary damages.

5.3.1 Federation of Ontario Law Associations (July 23, 2020)

5.3.1.1 *Discount rate*

425. The FOLA committee thought that the discount rate that we proposed should be adjusted in the case of Personal Support Workers (“PSW”). It suggests that the existing ½% reduction, which we recommended eliminating, be maintained for this particular future care item.

426. We do not agree, for a number of reasons.

427. FOLA’s premise was that plaintiffs with serious injuries are likely to require a lot of “hands on care, typically from a PSW, on a daily basis”. It then stated that “[t]he cost for providing this hands-on care does not increase by the cost of living. Consider, as an example, PSW hourly wage rates.”

428. The authors of FOLA's submission said that the starting rate of pay for PSWs is typically two or three dollars above minimum wage. They noted that the minimum wage in Ontario increased by 21% in 2018, from \$11.60 to \$14.00 per hour and that that increase also resulted in higher wages for PSWs. FOLA said that PSWs earn \$2.00 to \$3.00 more than minimum wage.
429. Assuming that PSWs earn \$3.00 more than both the old and new minimum wages, their pre-2018 rate would be \$14.60 ($\$11.60 + \3.00) and post-2018, \$17.00 ($\$14.00 + \3.00). The increase from \$14.60 to \$17.00 is 21.43 percent. Thus, by implication, the wages of PSWs rose by about 21.43% after 2018.
430. According to an Ontario government table, the minimum wage increased again on October 1, 2020, to \$14.25 per hour. But that was an increase of only 1.79 percent over the previous rate. On an annualized basis (since the former rate was in place for 2.75 years and assuming the same duration for this increase), it would be even less: 0.65 percent.
431. If it is assumed that the wages of PSWs will continue to outpace the minimum wage by about \$3.00, their wages would have been \$17.25 as of October 1, 2020. That would be an increase of only 1.47 percent over the previous wage, assumed to have been \$17.00.
432. FOLA seems to have taken it as a given that income of personal support workers will increase at a rate greater than that of inflation, as measured by the Consumer Price Index. While that might have happened in 2018, we do not feel that it would be legitimate to infer either that the minimum wage will continue to rise at that rate or that, even if it did, there would be a linear relationship between such increases and the earnings of PSWs.

433. According to [this article](#) in the Ottawa Citizen¹⁴³, the increase announced for 2019 would have been the biggest in forty years. (The new wage referred to in the article was \$15.00, so it would appear that the one that was actually implemented was a bit less.)
434. FOLA's argument on this issue appears to hinge on the notion that the 2018 increase in the Ontario minimum wage produced a corresponding increase of the same magnitude (more than 21%) in the earnings of PSWs: "If a catastrophically injured person required 10 hours of PSW support per day, and settled the future care claim on an assumed hourly rate of \$13.00, increasing annually by the cost of living, that person could find themselves seriously undercompensated when the minimum wage unexpectedly increased by nearly 21%."
435. Stopping there, the quoted proposition does not contemplate ongoing increases in the earnings of PSWs of 21% (or indeed, any increases at all). The point being made is that if damages had been assessed based on earnings of PSWs prior to 2018, that expense would have been undervalued by about 21 percent if the loss was actually going to be incurred after the increase. If FOLA's contention is that increases of that size are likely to happen in the future and will directly affect the earnings of PSWs, the "undercompensation factor" would actually be much greater. But they do not appear to be saying that; they are focused on that single 2018 increase to the minimum wage.
436. (For purposes of this discussion, we have assumed that FOLA's figures regarding the earnings of PSWs are accurate and are related to the Ontario minimum wage in the way they have said. But we have not investigated those issues ourselves.)

¹⁴³ The article is not dated.

437. Recall that some stakeholders proposed that certain expenses, typically ones relating to health care, should be discounted to present value using a rate lower than the basic discount rate. The rationale for that approach is that those expenses are likely to inflate at a rate greater than that of CPI. In effect, the calculation for those sorts of expenses would assume a rate of inflation higher than that of the basic discount rate, such that the “real return” would be eroded more than it is for other types of expenses.
438. FOLA has not suggested that losses relating to the cost of services of PSW workers should be calculated on the basis of the rate at which those expenses are expected to inflate in the future. Instead, as mentioned above, it has suggested that the present $\frac{1}{2}\%$ reduction in the discount rate, otherwise derived, be maintained for that one type of expense. There is no indication, in the FOLA submission, that it has done any calculation that would show that a $\frac{1}{2}\%$ adjustment corresponds with the adjustment that would be required for inflation at a rate greater than CPI. It seems to be more of a “rough and ready” adjustment.
439. What FOLA has suggested is basically a variation on the argument that has already been made to us: that labour-related costs, particularly in the health care field, will inflate at a rate greater than CPI because of productivity. FOLA’s submission is confined to the labour-related costs of a single type of worker. Also, the response that it proposed (retaining the $\frac{1}{2}\%$ adjustment) is different from the one that has been proposed by stakeholders such as OTLA, which involved modifications to the discount rate itself for specific types of damages.
440. So, for instance, in OTLA’s submission to our subcommittee, its expert proposed two discount rates, saying, “[f]or lost income and labour-intensive costs (such as attendant care) the rate determined in i. should be reduced by 0.9% per annum. This allows for the long-term trend in labour productivity.”

441. Leaving aside all of the above though, there is a more fundamental problem with FOLA's submission on this issue. If the "cost" (to a plaintiff) of purchasing the services of a PSW is going to increase at a rate greater than that of general inflation, that is not a discount rate issue. The issue is one of proving to the trier of fact what those future "costs" will be. The discount rate is not meant to do that work; it adjusts for income earned on the damages award paid now and for the erosion in the purchasing power of that award on account of inflation.
442. Once the trier of fact has determined what the future expenses will be, the required periodic stream of payments can be discounted to present value. Thus, if FOLA's predictions about the increases in wages of PSWs prove to be correct, it would up to plaintiffs' lawyers to introduce evidence to that effect at trial.
443. The last problem that we have with what FOLA has proposed is that it would give special treatment to one particular type of expense by conferring a downward adjustment of $\frac{1}{2}$ percent to the discount rate that would otherwise apply. We have a hard time seeing how we could justify such treatment for that expense and not extend it to other labour-related expenses. (And that leaves aside the fact that there is no demonstrable correlation between the *actual* rate of inflation of that expense and the $\frac{1}{2}\%$ adjustment and the problem that calculating future losses is not what the discount rate is for.)
444. Extending that sort of special treatment to one particular type of expense is also likely to undermine our preference for avoiding evidence being called at trial on discount rate issues (see § 6.8 below).
445. FOLA also had substantial submissions with respect to our proposed reforms to the rate of prejudgment interest on non-pecuniary damages. Those have been summarized and discussed in § 7 below.

5.3.2 Canadian Institute of Actuaries (July 30, 2020)

446. This group had submissions about several aspects of the draft report.

5.3.2.1 Two-tier system

447. The CIA favoured retention of at least a two-tier system. Its basis for taking that position is that the such an arrangement is fairer to plaintiffs. CIA mentioned that long-term investments tend to produce higher yields and that that is the basis for the existence of a “yield curve”. Such yields, it said, are not available to plaintiffs with only short-term losses and it would be unfair to penalize those with long-term losses by denying to them the returns that the nature of such losses should make available.

448. CIA went further and said that it would be even more equitable to have a discount rate for *each* year of loss:

Even greater equity between plaintiffs would be provided by interest rates specified by a full yield curve. A full yield curve expands the number of tiers from two to 30 or more by specifying a separate interest rate for each individual year of payment. [p. 2]

449. It pointed to the fact that such an approach is commonly used by pension funds and post-retirement benefit plans. However, CIA did not suggest on what basis those annual discount rates should be set.

450. Overall, we view this submission as a variant on one that we have already heard and considered: that plaintiffs will earn more on their investments than the yields on real return bonds provide for.

5.3.2.2 Long-term forecasts

451. While CIA acknowledged that it is difficult to establish a discount rate for a loss that only starts fifteen years in the future, its view is that that is not really necessary. It said that plaintiffs with losses extending into the second-tier period would be “most likely to develop and implement an investment plan for the proceeds of a damages award soon after the proceeds are received. And this investment plan is

based on market terms on offer at that time, not at the time of future payments.”

[p. 3]

452. CIA gave as an example the following:

As an illustration, where the plaintiff receives an award in 2020 to provide for lost income or care expenses that are paid in 2045, the plaintiff does not need to forecast the yields that will be available for investments initiated in 2045 (or 2040 or 2030). The only investment to be made is in 2020. And the financial markets in 2020 readily provide fixed interest rates for bonds that deliver cash in 2045. [p. 3]

453. Of course, yield curves change regularly, as reflected by the Bank of Canada bond yields. In apparent recognition of this, CIA suggested that for longer-term losses, “one merely looks up rates for the various time horizons 15 years and greater, and then calculates an average of those rates.” [p. 3]

454. There are, we think, a number of issues with this approach although, in principle, it proceeds on the same basis as the recommendation in our draft report.

455. It would not be normal for a plaintiff to invest today in the expectation of receiving all of his or her cash in 2045 or in any other year. Rather, there would more typically be a need for cash during the entire period (i.e., the period beginning either at the date of judgment or beginning 15 years in the future). That is the approach taken by structured settlements, which usually provide for a stream of income and for lump sum payments at various intervals.

456. Second, it is unclear which bond yields CIA had in mind. Bank of Canada bond yields, apart from real return bond yields, are not adjusted for inflation. While the rate of inflation has been treated as more or less a constant for many years (2% per annum), there is now some uncertainty whether that that will continue to be the case over the next few years. Thus, even if multiple future bond yields were used as the basis for the discount rate, the real rate of return might be less certain.

457. Real return bonds, of course, already have inflation compensation built in. The yields of those bonds were negative through most of the second half of 2020.
458. The furthest into the future that real return bond yields are set is about 30 years. A young plaintiff with a major injury will might well have a “loss horizon” that extends further than that. There would not be any bond yields to use specifically for that far-off period, in the way that CIA is proposing.
459. Also, while CIA’s suggested approach corresponds with that in our draft report in that it appears to be based on real return bond yields (or at least long-term bond yields), it does not address the concerns of other stakeholders, such as CMPA, about stock market returns typically being greater than those of bonds. Rather, CIA seems to assume that a plaintiff would enter into an “investment plan” soon after an award of damages is made and that that award should be discounted to present value on the basis of one or more long-term bond yields. That approach, in the view of the defence bar, results in a windfall to plaintiffs.

5.3.2.3 *“Present value” vs. “actuarial present value”*

460. CIA took issue with the idea that calculating present value is not necessarily a task that requires an actuary. It distinguishes between “present value” and “actuarial present value”. The point made is that a simple “present value” calculation (which can be performed using the “PV” function in Microsoft Excel or even with a pocket calculator) is for a specified period or term and a specific stream of payments. CIA notes, very fairly, that plaintiff’s losses do not typically begin on one specific date and end on another one, years in the future. Rather, the losses are periodic ones that occur over time.
461. To address that feature of personal injury damages, CIA suggested that two approaches could be taken. One would be to base the present value calculation on “the present value of an annuity certain”, using life expectancy statistics applicable

to the general population. The second, which it says is “more precise”, is to calculate present value “for each payment in the stream and then recognize the uncertainty in the length of the stream of payments by applying the probability of each payment being made”. [p. 4] The latter is apparently the “actuarial present value” method (“APV”), according to CIA.

462. CIA goes on to say that the “present value of an annuity certain” approach favours plaintiffs and that “Actuarial Standard 4250.01, promulgated by the Actuarial Standards Board in Canada, requires that actuaries use the APV method when calculating the capitalized value of future amounts payable in respect of an individual.” [p. 5]
463. It is certainly true that a simple Excel present value calculation is not appropriate where there are multiple periods or “terms” of losses that need to be present-valued, nor where the payment stream fluctuates. The calculation can still be done but it is more complicated and is really a series of calculations.
464. We agree with CIA that, in those cases (which would model more closely actual personal injury claims), a calculation must be made “for each payment in the stream”.
465. CIA then discussed a further adjustment to be made in a personal injury case, to reflect “the probability of each payment being made”. While such an adjustment might be appropriate for a life insurer or a pension fund that has to calculate future liabilities that are contingent on the life spans of the recipients of the insurance or the pension payments, we are not aware of such a “present value” calculation being done of “probability of payment” in the context of future damages.

5.3.2.4 *Alternatives to Government of Canada bond yields*

466. CIA suggested that the committee might want to consider using, as a basis for the discount rate, data other than yields of real return Government of Canada bonds. That is because, it said, those yields “are no longer a close representation of market conditions”. [p. 5]

467. It suggested that rates be set on the basis of “how plaintiffs actually invest their awards” or some other “measure of market yields, less influenced by active management by the central bank”. [p. 5]

468. This is an issue that was discussed in some detail in the draft report. It arose with our experts and with many of the stakeholders. It involves a philosophical decision as to where the risk of an uncertain future should fall. We have concluded that plaintiffs ought not to be asked to take on any significant risk, such that those risks, to the extent that they cannot be eliminated, should fall on defendants. But the fact that anyone has to assume risk is one of the problems inherent in the existing system.

5.3.2.5 *Allowance of judicial discretion to depart from r. 53.09(1)*

469. CIA felt that judges should be able to depart from the rate set by the rule, in appropriate cases. Essentially, it argues that various factors can cause the application of the discount rate in the Rules of Civil Procedure to produce incorrect results.

470. This too is largely a policy decision that has already been discussed in the draft report. If evidence were to be permitted on the issue of the present value calculation of future losses, that would undermine (even more) having an established discount rate in the first place.

5.3.3 *Ontario Trial Lawyers Association (July 31, 2020)*

471. OTLA was fairly happy with the approach to the discount rate taken by the subcommittee in its draft report. Much of OTLA’s supplementary submission

repeats the position that it took in the original document. Its central point, unsurprisingly, is that “any prospective changes to this Rule must start from a single focus: *ensuring that the injured person will have the continued means to purchase the supports and services reasonably required in the future*”. [p. 1, emphasis in original]

472. OTLA’s criticisms of the draft report related to the areas in which its original submissions were not taken up.

5.3.3.1 Discount rate

473. In relation to the discount rate, the only issue raised was the fact that a separate discount rate was not adopted for health care expenses. OTLA suggests that the subcommittee enlist assistance from “an economist who specializes in health economics”.

474. We have not chosen to take that step.

5.3.3.2 Prejudgment interest

475. On this issue, the recommendations in the draft report did not favour OTLA’s constituency. It commented that “there was not enough analysis in the Report to justify such a radical change to the current system” [p. 2] Most of OTLA’s supplementary submission is aimed at preserving the current 5% interest rate on non-pecuniary general damages.

476. As we have said, FOLA made submissions to similar effect about prejudgment interest. Those are discussed in § 7 below.

477. OTLA said that the introduction of the recommended changes to r. 53.10 (dealing with prejudgment interest on non-pecuniary general damages) during COVID-19 “will have the unintended effect of delaying settlements, increasing the requirement for court intervention (leading to increased costs and delays in the judicial system)

and, ultimately, unduly disadvantaging the plaintiff to the benefit of the defendant.”
[p. 2]

478. It is not clear on what basis OTLA thinks that the consequences set out are likely to arise. We are unsure why “court intervention” would be required as a result of a change in the rate of prejudgment interest.

479. Certainly, the proposed change would favour defendants. But we do not consider that that is a reason not to make it. Our proposed changes to the discount rate would, for now at least, be to the benefit of plaintiffs but equally, we do not view that as a reason not to make them.

480. Like FOLA, OTLA argued that general damages are not, in fact, “indexed to inflation”. That issue is discussed in §7.2.2 below. While OTLA’s and FOLA’s claim is technically true, we think it is not accurate in practice.

481. Much of OTLA’s submission on this point was to the effect that lowering the rate of interest from 5% would remove an incentive to settlement because insurers will have less reason settle early. Encouraging settlement is, at most, an indirect consequence of prejudgment interest. It is not the reason for having interest in the first place. If it were, why not establish an even higher rate of prejudgment interest?

482. We found the Court of Appeal’s analysis of this subject in *McLeod* much more persuasive.

5.3.4 The Advocates’ Society (July 30, 2020)

483. The submission of the Advocates’ Society was very brief: only three pages.

Because the Advocates’ Society has members from both the plaintiffs’ and defence bar, it took no position on very partisan issues such as the appropriate discount rate and the rate of prejudgment interest on non-pecuniary general damages. It did

establish a task force to consider the recommendations in the draft report and responded to some of those.

484. The Advocates' Society argued:

- a) For maintaining judicial discretion in setting the discount rate. Essentially, this argument was based on the existence of the very uncertainties that underlay our recommendation that the discount rate is, by its nature, a poor predictor of the future. The Advocates' Society felt that maintaining some ability for judges to "fix" problems in exceptional cases would make just outcomes more likely. The Society thought that a one-tier discount rate and not having different discount rates for specific goods and services made the preservation of judicial intervention even more important. As discussed in § 6.8 below, we came to a different conclusion.
- b) That the removal of the zero "floor" on the discount rate in r. 53.09 "should be undertaken thoughtfully, and on notice, given its potential impact". The rationale for that recommendation was that allowing negative discount rates could significantly affect such things as insurers' reserves. That is true—that is exactly what happened in the UK—but it is not really a negative discount rate that produces that result. It is the magnitude of the change from the present rate to whatever the rate is to become. At present, the rate for the first fifteen years is 0.0% so but for the present "floor", any downward movement would lead to a negative rate. That would not necessarily affect insurers' reserves significantly. It would be a large change in the rate that might have that effect. So, for instance, a move from the present second-tier rate of 2.5% to a negative discount rate might have a big effect on the valuation of future losses. However, the zero "floor" might be more a psychological threshold than an actual one.

- c) That changes to any rates of prejudgment interest also be made “carefully, and on notice”. That is because changes could have “a *significant* impact on the valuation of a plaintiff’s damages” [emphasis in original]. That might be true but, as discussed in the previous section, we do not feel that that is a reason for the changes not to be made.

485. More generally, the Advocates’ Society suggested that the Civil Rules Committee ought to adopt consistent policy rationales in setting discount and prejudgment interest rates, that its work should be more public and transparent and that the rules that are the subject of this subcommittee’s work should be reviewed more often than once every four years.

486. We do agree with the latter suggestion: see § 9 below.

5.3.5 Insurance Bureau of Canada (July 29, 2020)

487. IBC’s supplementary submission consisted essentially of a supplementary report from its original consultant, Eckler Ltd.

488. IBC agreed with our earlier draft report’s recommendations regarding prejudgment interest on non-pecuniary general damages. It took issue, through Eckler, with various aspects of the report’s recommendations about the discount rate. Its specific disagreements are discussed below. To some extent, the supplementary submissions repeat positions taken by IBC in its initial comments.

5.3.5.1 *The basis for determining the discount rate*

489. This part of Eckler’s report reiterated the view that the discount rate should take into account “in what instruments a prudent investor might invest the funds”. It stated that the “reasonable investor” approach is preferable to the use of real return bonds.

490. This issue was already canvassed at length in the previous draft of this report. It has not been revisited here.

5.3.5.2 *The elimination of the two-tiered rate system and the recommendation for the use of real return bond rates today for application to periods 15 years from now*

491. In this section, IBC made a point similar to one already made by CMPA: the fact that setting a second-tier discount rate that begins 15 years in the future is difficult to do does not mean that the task should not be undertaken.

492. This point too is not new. Eckler's submissions on this point are to the effect that, as discussed in the draft report, setting any discount rate involves making predictions about the future. Setting one that begins 15 years in the future is even more difficult. We certainly agree.

493. If there were a reliable method of doing so, our conclusions might have been different. But, for the reasons set out in the draft report, we do not feel that we have such a method.

494. However, Eckler went on to argue that although real return bonds have not been in existence for a long enough time to be able to "draw a meaningful conclusion about their usefulness as a predictor", their history to date does not warrant reliance on them for purposes of longer term discount rates.

495. In its analysis, for the period from 1936 to 1991 (the latter being the year in which real return bonds were introduced), Eckler used nominal bond yields, adjusted downward by the annual rate of inflation. From 1992 to May, 2020, it used real return bond yields. Its conclusion was as follows:

A summary of our analysis, which is set out below, shows that real returns today are not likely to be a good predictor of the real return rate 15 years hence. In fact, the historical data shows that the average error term¹⁴⁴ is slightly more than half as large

¹⁴⁴ We were not familiar with this term. The website [Investopedia](https://www.investopedia.com/terms/e/error-term/) says that "[a]n error term represents the margin of error within a statistical model; it refers to the sum of the deviations within

with the use of a fixed yield rate of 2.6% for beyond 15 years (standard deviation of 2.3%), as that for the real return rate (standard deviation of 4.1%), and therefore a fixed yield rate was a better predictor. 2.6% was the average yield 15 years hence over the entire experience period used in our analysis. We also found that, when real rates were under 2.6%, they underpredicted the real rate 15 years hence 84% of the time, and similarly when real rates were over 2.6%, they overpredicted the real rate 15 years hence 83% of the time. This analysis demonstrates that real return rates are not the most reliable predictor of future real rates of return, and therefore the proposed use of real return bonds doesn't meet the test the Subcommittee set up for itself. [p. 3]

496. The actual results of Eckler's analysis only appear in summary form in the submission, mostly in the form of a scatter plot diagram, reproduced below:

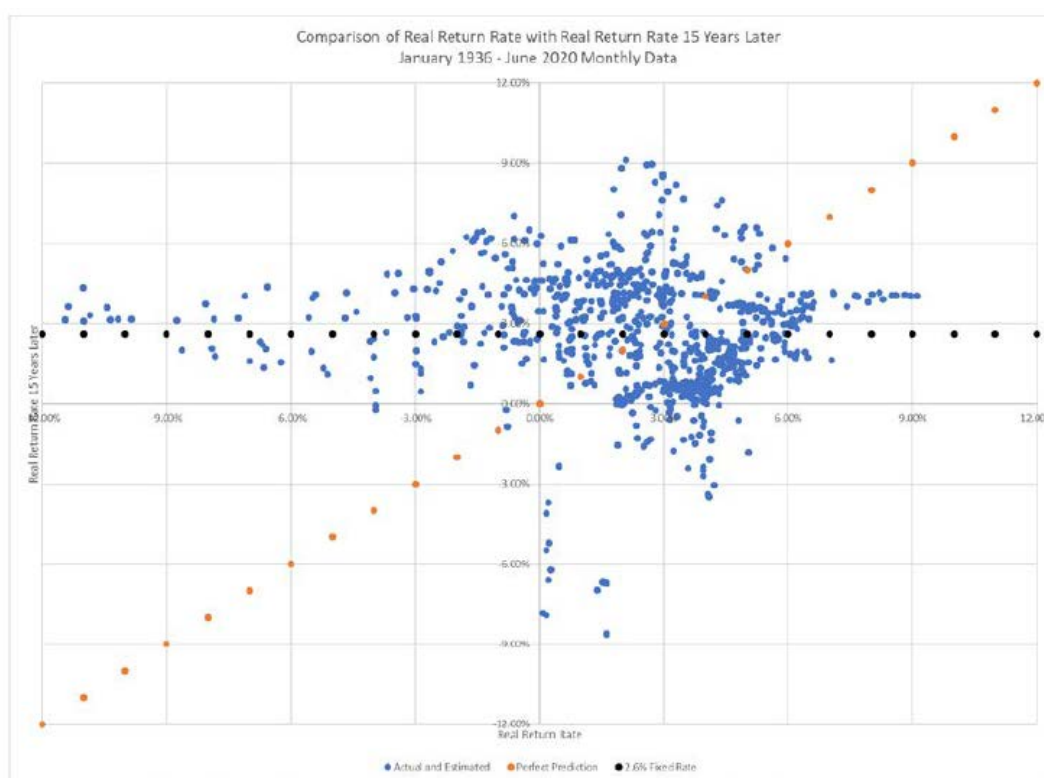


Figure 18

the regression line, which provides an explanation for the difference between the theoretical value of the model and the actual observed results. The regression line is used as a point of analysis when attempting to determine the correlation between one independent variable and one dependent variable.”

497. We were not in a position to evaluate this analysis, particularly when it was mostly in the form of a diagram. We requested and received from IBC the data upon which the scatter plot was based.
498. We then conferred with Dr. Bruce about the data. He noted that it was only in the early 1990s that the Bank of Canada started to target a 1-3 percent rate of inflation. So information that pre-dates the introduction of that policy is arguably of less relevance since it reflects a different era of monetary policy. Since the early 1990s, the rate of inflation and the real rate of interest have both declined almost continuously.
499. But Dr. Bruce said that the extent of that effect was not initially anticipated. The result was that, until about 2010, the markets overestimated what the real rate of return would be 15 years hence. Since the mid-2010s, however, the markets have begun to expect that real rates will stabilise at their new lower level and forecasts have come closer to reality.
500. As a result, to say that “2.6% was the average yield 15 years hence over the entire experience period used in our analysis” might be rather misleading. For the period from 1991 to 2005, using the data assembled by Eckler, would produce an average yield, 15 years hence, of 1.01 percent. From 1995 to 2005, the average is 0.68 percent.
501. Thus, it seems to us that the data cited by Eckler are consistent with what we have seen elsewhere: that real interest rates were steadily declining before the arrival of COVID-19.

5.3.5.3 Proposed elimination of the 0% floor for interest rates

502. Eckler was opposed to the removal of the 0% floor that exists in the present rule. Eckler again advocated a “reasonable investor” approach to the discount rate in this section of its report, saying that “it seems unlikely that a prudent investor would

accept a negative return fixed income instrument for very long, if at all.” It argued that negative interest rates will not last for long and so, basing a discount rate on such rates would be imprudent.

503. The “reasonable investor” issue was already extensively discussed in the draft report. We do not intend to go over that ground again.

5.3.5.4 *Other matters*

504. Eckler, on behalf of IBC, agreed with the removal of the “50-basis point reduction in the discount rate”. It also agreed that different discount rates for different types of damages should not be used.

505. Eckler raised a point that is similar to an issue that arose when the UK discount rate was suddenly changed from 2.5% to minus 0.75 percent:

Insurance policies are priced in advance of the occurrence of contingencies that create the risk related to the premium which is being charged. For this reason, IBC believes that when the changes to Rule 53.09 are decided upon, those changes should become effective for events occurring after a specific date in the future. This would provide a fair opportunity for insurers to determine the impact of the changes in the Rule on required premium levels in advance of policies being sold. [p. 5]

506. Eckler’s report went on to set out, in tabular form, the percentage change in the value of an annuity certain that various possible changes to the discount rate would have:

Impact on the Value of an Annuity Certain of CRC Proposed Rule versus Current Rule				
Current Real Return Rate	Term (years)	Annuity Certain Value		Change (%)
		Current Rule	CRC Proposed Rule	
-0.5%	20	19.65	21.09	+7.3%
	40	33.42	44.40	+32.8%
	60	41.83	70.17	+67.8%
0.0%	20	19.65	20.00	+1.8%
	40	33.42	40.00	+19.7%
	60	41.83	60.00	+43.4%
+1.0%	20	18.73	18.05	-3.6%
	40	31.51	32.83	+4.2%
	60	39.32	44.96	+14.3%
+2.5%	20	16.30	15.59	-4.4%
	40	26.54	25.10	-5.4%
	60	33.03	31.13	-5.7%
+3.0%	20	16.18	15.42	-4.8%
	40	25.10	23.11	-7.9%
	60	30.91	27.68	-10.5%

Figure 19

507. (We assume that the word “value” in this context refers to “return.”)

508. Assuming that to be the case, the table shows that, for example, if the discount rate were changed to minus 0.5%, an annuity with a term of 40 years would cost 32.8% more than if it were discounted to present value on the basis of the existing rule.

509. This is probably a valid point, from the perspective of insurers (and CMPA would likely agree with it too). On the other hand, if the plaintiffs’ bar were asked to respond to this point, its members would probably say that the second tier of the discount rate (2.5%) has been too high for quite a while now and insurers have had the benefit of that rate, with the result that plaintiffs have been *undercompensated* for quite a while. They would likely say that the Eckler table does not show that our proposed changes to the discount rate produce returns that are too high but rather, that they show that returns using the existing discount rate have been too low.

5.3.6 Canadian Medical Protective Association (July 28, 2020)

510. CMPA's supplementary submission was considerably longer than those of other stakeholders. That was because the submission was accompanied by three additional experts' reports.

511. CMPA's position can best be summarized in its own words:

Summary of CMPA's Supplementary Submission

- A. The two-tier system for establishing the discount rate should be maintained. It is a more accurate, fair and stable way to determine the discount rate, as compared to the proposed single-tier model that is based only on recent bond yields.
- B. The second tier of the discount rate should be set at 2.3% in accordance with the recommendation of the Subcommittee's expert economic advisor, Professor Douglas Hyatt. This is consistent with forecasts of the University of Toronto and historical data based on the average yield on RRBs. It is also within the range of current rates in Canadian jurisdictions with prescribed discount rates.
- C. To determine the true rate of return on long-term Government of Canada RRBs, the insurance premium embedded in RRBs should be backed-out.
- D. The CMPA supports the Subcommittee's recommendation for determining the rate of pre-judgment interest on non-pecuniary general damages, which reflects applicable market rates and avoids double compensation.
- E. The CMPA supports consideration of new approaches to compensate future losses, including alternatives to the current process for guaranteeing structured settlements. Structured settlements could be secured by a government entity that does not price structures with a profit incentive.
- F. The CMPA has no additional comments relating to gross-up.

512. CMPA's position on items A, B and D were largely a reiteration of what it said in its original submission. The removal of the supposed "insurance premium" (item C) from real return bond yields is new and probably arises from some comments made about that subject in the draft report.

513. CMPA's comments about item E are largely supportive of the subcommittee's suggestion that the Minister consider an alternative approach to damages for future losses, such as enhanced use of structured settlements. It makes the point that government participation (as Stephen Goudge suggested in his report, discussed in § 6.11.2 below) could remove the profit element.

514. In its original submissions, CMPA had argued for the preservation of the two-tier discount rate system. It has repeated that position in its supplementary submission.

515. It argued that notwithstanding the difficulty in predicting the future—particularly for periods beginning 15 years from the present or more—some predictions must be made. That point was also made by IBC.

516. CMPA notes that even the subcommittee’s draft report ultimately recommended that the discount rate be set on the basis of a “prediction”: the yield of real return bonds.

517. In support of its contention that the two-tier system should be preserved, CMPA has included additional reports by John Murray and Joe Cheng, experts who contributed to its original submission.

5.3.6.1 John Murray

518. In his report, Mr. Murray argues against the conclusions in the Schmelzing paper (see § 2.6.1 above). Schmelzing argued that real interest rates have been declining since the middle ages. While Mr. Murray did not reject Schmelzing’s analysis, he posited that it is inapplicable to the discount rate problem. He suggested that real interest rates have been declining since medieval times because of “the improved efficiency of financial markets through time and an ever changing set of credit risks.” [p. 1]

519. Mr. Murray suggested that the period since World War II is a more reliable guide to use, for present purposes, than one stretching back to the 1300s, at which time various social conditions combined to create “extreme credit risk”. Using this approach, he concluded:

If one restricts the sample to the last 100 years, or importantly, to the period running from 1950 to 2000, the trend virtually disappears and instead flat-lines with some

evident cycling from decade to decade. The fact that real rates have trended lowe [*sic*] over the past twenty years - in the face of a Tech Bubble, a Global Financial Crisis, and a Global Pandemic - should not be taken as the new normal, and something that we will have to learn to live with. [p. 2]

520. It is not clear, from Mr. Murray's report, what conclusions he thought should be drawn about long-term interest rates from a review of the post-war period to date. He seems to think that the "Tech Bubble", "Global Financial Crisis" and "Global Pandemic" are all anomalies that should not be taken as indicative of a "new normal". But he did not say, in this report, what his version of "normal" would actually look like. Presumably, he shares the view that guided our predecessor discount rate subcommittees: that nominal interest rates will, in the long term, exceed inflation by about 2.5 percent.

521. With respect to the two-tiered system, Mr. Murray acknowledged that "the inherent difficulty of identifying a credible future discount rate and picking a date for the switch to occur" are "valid concerns". But he nevertheless advocated retaining the two-tiered approach. His main basis for doing so seems to be a conviction that "the present circumstances are clearly extraordinary" and that "[s]ome rebound is therefore likely at a future date, though reasonable people can debate how high rates will go and when this will occur." [p. 2]

522. In a footnote to his brief paper, Mr. Murray refers to an article by Charles Goodhart and Manoj Pradhan, called "Demographics Will Reverse Three Multi-Decade Trends".¹⁴⁵ That paper was prepared by the Monetary and Economic Department of the Bank of International Settlements. It was published in August, 2017.

¹⁴⁵ https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3015065

523. The “reversal” spoken of by Goodhart and Pradhan, in the title to their article, is that “real interest rates will rise, inflation and wage growth will pick up and inequality will fall”, all as a result of demographic changes. [p. 1]
524. The authors of the article acknowledge that real interest rates have been steadily falling for 35 years (i.e., since 1982). They attribute that fact largely to demographics (particularly the entry to China into the world economy) but suggest that changing demographics will reverse this trend. The main demographic trend focused on in the article is the decline in the dependency ratio: “the ratio of workers to the elderly in the population”. They acknowledge in the article that their prediction of a rise in real interest rates is “[their] most controversial proposition”.
525. The notion that demographics have depressed interest rates seems to be fairly widely accepted. A paper published in 2016¹⁴⁶ discussed the issue and said that increasing longevity results in individuals saving more for an anticipated longer retirement, thereby depressing interest rates. Another paper, published in 2018, also addressed “The enduring link between demography and inflation”.¹⁴⁷ It concluded that “the young and old are generally associated with higher inflation while working age cohorts are associated with lower inflation.”
526. The Carvalho article suggests that legislative reforms, such as revisiting inflation targets and increasing the age of retirement, might be required in order to address persistently low real interest rates.
527. Whether demographic changes will, on their own, reverse longstanding low inflation and low interest rates (as Goodhart and Pradhan believe) is not a question

¹⁴⁶ Carvalho, Carlos, Andrea Ferrero, Fernanda Nechio. 2016. “Demographics and Real Interest Rates: Inspecting the Mechanism.” Federal Reserve Bank of San Francisco Working Paper 2016-05. <http://www.frbsf.org/economic-research/publications/working-papers/wp2016-05.pdf>

¹⁴⁷ Juselius, Mikhael and Takáts, Előd, Bank for International Settlements, Working Paper No. 722 (May, 2018).

that we are qualified to answer. It is noteworthy though, that even Goodhart and Pradhan say, in their article, that “[w]e don’t know what the future will look like precisely. It will not, however, be anything like the past, of that we are sure.” [p. 28] And that statement was made more than three years ago.

5.3.6.2 Joe Cheng

528. Mr. Cheng is an actuary. His supplementary report dealt with the idea, mentioned in our draft report, that there is an “insurance premium” component in real return bonds.¹⁴⁸ He has concluded that “[u]sing the RRB and nominal bond (V122501)”, we determined that the insurance premium was equal to 0.5% from 1992-2019 (see Exhibit 1)”.
529. Mr. Cheng did not articulate his methodology. His calculations appear as an exhibit to his supplementary report. For the period 1992–2019, he looked at the nominal yield of a 10-year GOC bond and subtracted inflation as set out in the Consumer Price Index. He then subtracted the inflation-adjusted yield of the 10-year bond from the six-month yield of the GOC real return bond. Averaging the difference for each year resulted in the 0.5% figure which he identified as an insurance premium.
530. It could be argued that the conclusion urged by CMPA, that the “insurance premium” should be backed out, based on Mr. Cheng’s findings, is a bit misleading. (CMPA has also submitted another expert’s report, that of Douglas Hildebrandt, who approaches the same issue in another way and has derived a larger insurance component. His report will be discussed below.)
531. Mr. Cheng’s calculated average insurance premium of 0.5% is heavily influenced by the figures in his table that are prior to 1995.

¹⁴⁸ See paras. 36 and 100 of the Draft Report.

532. If the same calculation were to be done without the earliest three years (1992 – 1994), the resulting average would be reduced to minus 0.24 percent. Using only the last ten years, the average is only minus 0.03 percent.
533. Thus, it is hard to see any consistent pattern of an “insurance premium” component in real return bond yields. That is not to say that it does not exist though. (If there is such a premium though, Mr. Cheng’s analysis suggests that it is declining fairly steadily.)
534. The existence of an “insurance premium” is probably one possible explanation for the difference between the two values but that conclusion is not self-evident. And if it is assumed that an “insurance premium” *does* exist, it is not clear that, as Mr. Cheng says, “the insurance premium [of – 0.5%, presumably] ought to be backed out so that the risk of overcompensation is significantly reduced”.
535. Mr. Cheng also argued that RRB yields have been artificially depressed by quantitative easing policies adopted by the Government of Canada since 2008. He said that those policies could be changed at any time, such that the RRB yield will rise. Thus, setting the discount rate far into the future based on economic circumstances that might be transient is, he said, ill-advised: “it is important not to use short term yield indications to discount long term pecuniary damages”. [p. 2]
536. It is true that current economic circumstances and monetary policies could change.
537. On the other hand, we are doubtful that it is appropriate to characterize RRB bond yields as “short term yield indications” when the yields in question will be paid 25 years or so from now.

5.3.6.3 Douglas Hildebrandt

538. The third report submitted by CMPA was written by Douglas Hildebrandt of Columbia Pacific Consulting Ltd. That report focused on the “insurance premium” issue that was also addressed by Mr. Cheng.

539. Mr. Hildebrandt is an economist.

5.3.6.3.1 “Insurance premium”

540. This issue has come up elsewhere but we will focus on it here.

541. In the following paragraph, Mr. Hildebrandt identified the “insurance premium” as a problem that, he feels, must be corrected:

The discount rate used to assess future losses in personal injury claims must reflect the true (or underlying) rate-of-return on low risk GOC RRBs. The true rate-of-return must exclude factors which distort the return, specifically, any inflation risk premium. Accordingly, to “back-out” the inflation risk premium which has lowered the RRB yield, it must be added back. [p. 2]

542. Mr. Hildebrandt recommended two possible approaches to address this issue.

543. The first is what he calls “Annuity Rate of Return Comparison Method”. The second is “Break Even Inflation Rate (BEIR) Method”. The latter appears to be similar to the approach used by Mr. Cheng in his report.

544. In his first approach, Mr. Hildebrandt did not attempt to quantify the “insurance premium”. Rather, he suggested that the CRC undertake further work to determine what adjustment should be made. In theory though, Mr. Hildebrandt used data from, Economica, the company with which Dr. Christopher Bruce was associated before he retired. The data compared the returns of two types of annuities: ones that are indexed to CPI and ones that are adjusted by a fixed amount of 2% per year.

545. Mr. Hildebrandt reproduced some data from a table that appeared on Economica’s website. The following is the actual Economica table (not the version that appears in the Hildebrandt report):

Table 2: Present values and annuity costs of a future loss of \$12,000 per year for a male plaintiff of various ages

Age at valuation date [1]	Age at end [2]	Expected term of loss, in years [3]	Purchase annuity that is fully indexed for inflation		Purchase annuity that increases by 2% per year	
			Cost of annuity [4]	Implied discount rate [5]	Cost of annuity [6]	Implied discount rate [7]
20.0	60.0	39.0	\$ 489,176	-0.27%	\$ 401,430	0.75%
35.0	60.0	24.4	306,799	-0.46%	263,092	0.80%
50.0	60.0	9.8	123,781	-1.24%	122,378	-1.02%
20.0	Life	59.5	851,919	-0.57%	581,912	0.65%
35.0	Life	45.2	622,896	-0.60%	478,824	0.48%
50.0	Life	31.1	408,964	-0.57%	337,474	0.53%

Source: Annuity costs were obtained by Smith Structured Settlements (www.structuredsettlements.ca) in April 2017. The costs assume payments of \$1,000 per month, beginning in May 2017.

Figure 20

546. Although not apparent in the Hildebrandt version, what the Economica table compared was the cost of annuities that would pay \$1,000 per month to a male plaintiff of various assumed ages (and thus, over various terms), beginning in 2017. The cost of the two types of annuities—CPI-indexed and 2% indexed—were arrived at by obtaining quotes from a structured settlement company. Working backwards, Economica derived implied discount rates for each annuity from the quotes that it received.

547. Economica did not compare the two sets of implied discount rates to arrive at an insurance premium but Mr. Hildebrandt calculated the difference, expressed in “basis points”.¹⁴⁹ Using four of the Economica cases (the ones with terms longer than 30 years), he determined that the CPI-indexed annuities had implied discount rates lower than those of the 2%-indexed ones by factors ranging from 108 to 126 basis points (in percentage terms, 1.08% to 1.26 percent). He did not conclude from that calculation, that there is an insurance premium of that amount built into real return

¹⁴⁹ One “basis point” is one one-hundredth of a percent.

bonds (since the Economica table was not referring to those bonds). Rather, his conclusion (in relation to his “annuity” approach) was:

A review committee on the discount rate could retain an independent structured settlement company to obtain annuity quotes from insurance companies. An economist assisting the committee could then estimate the underlying discount rate.

548. Mr. Hildebrandt’s second approach (“BEIR”) was, as mentioned above, similar to the one followed by Mr. Cheng in his report. Using that approach, Mr. Hildebrandt said:

Canada’s long-term (consensus) outlook for price inflation was 2.0% in 2019 and for several years prior to 2019. Two percent is also the Bank of Canada’s target rate for inflation control. On this basis, the inflation risk premium could be about 62 basis points for 2019.¹⁵⁰

549. Leaving aside the question of whether either Mr. Cheng or Mr. Hildebrandt has calculated a reliable value for an “insurance premium” on real return bonds, if we assume that such a premium does exist and that it can be calculated, should an adjustment be made to the discount rate to reflect that factor?

550. Answering that question gets back to the fundamental issue that we were trying to address in the April, 2020 draft of this report: if awards of damages for future pecuniary losses are to be calculated on the basis of a discount rate, reflecting the difference between expected earnings on the award and the erosion of inflation, what rate should be used? And, of course, arriving at an appropriate rate involves assumptions about both inflation and nominal rates of return on investment.

551. Selecting from among a set of bad options, we concluded that the best approach was to base the discount rate on the GOC real return bond yields. The rationale was that that type of investment reflects very low risk and projects yields well into the future. If there is an “insurance premium” built into RRB yields, that is, notionally,

¹⁵⁰ Suggesting a percentage difference of 0.62 percent.

an expense that investors must pay in order to receive the benefit of inflation protection.

552. The context in which this issue arises is quite artificial. Few, if any, plaintiffs would actually use their awards of damages to purchase real return bonds. We used RRB yields as a mechanism for arriving at a discount rate that would, to the extent possible, ensure full compensation for plaintiffs. Inevitably, some individual plaintiffs would be overcompensated and some undercompensated but our objective was to maximize the chances of full compensation while removing any inherent mechanisms that would produce overcompensation. (Stakeholders on the defence side would consider the use of real return bond yields at all as something that is sure to produce overcompensation. But our thinking on that issue has already been set out in full in the draft report.)

553. Again, assuming that an “insurance premium” exists and that it can be calculated, were it not built into real return bond yields, the result would be a return on investment that carries with it somewhat more risk of undercompensation. To gain the maximum degree of protection, notional plaintiffs must accept lower yields than would otherwise be available. If plaintiffs are required to bear the cost of that protection themselves, their compensation becomes less than full. This cost—if it exists—is akin to the cost of investment management advice. Such awards are routinely made to plaintiffs over and above the damages that are to be managed in order to ensure that the plaintiff receives the full benefit of the damages award.

554. Thus, we are not inclined to try to determine whether an “insurance premium” exists and if so, to calculate it. Nor do we recommend making any adjustment to the discount rate on that basis.

5.4 Other economic data

555. We looked for other data that might shed light on the Attorney General's concerns about the economic fallout of COVID-19. The results of our efforts are set out in the balance of this section.

5.4.1 Neutral rate of interest

556. Many of the reports that we looked at discussed the “neutral rate of interest” (sometimes referred to as the “natural rate of interest”). It is a theoretical construct, not one that is actually observable in the real-world economy. It is inferred from other data and is used to assess monetary policy. (It is also sometimes referred to as r^* or “r-star”.)

557. For example, if a central bank's real policy rate of interest is above the neutral rate, the implication is that the bank is stimulating the economy. The neutral rate would be free of external stimuli such as those resulting from government monetary policy. But it is meant to reflect all *non-monetary* influences or “shocks”.¹⁵¹ Over the longer term, the neutral rate would be “determined solely by its trend component which is the rate prevailing after the effects of all cyclical shocks have dissipated”.¹⁵²

558. Thus, the sort of information that the Attorney General provided to us—dealing with demographics, GDP, labour force penetration, productivity and so on—represent the kind of data that the neutral rate would reflect.

559. Economists seem to be paying increasing attention to the neutral rate. The Hutchins Center of the Brookings Institute, in a 2018 article, said:

¹⁵¹ “Shock” has a technical meaning in economics. The word refers to exogenous factors, both positive and negative, affecting supply or demand. They can also be unintended (like a stock market crash) or deliberate (such as a central bank intervention).

¹⁵² Pescatori, Andrea, “Neutral Rate of Interest In A Small Open Economy: The Case of Canada”, International Monetary Fund, January, 2015, p. 17.

People have been talking more about the neutral rate in recent years....The number of news stories mentioning the term “neutral rate” rose sharply after the Fed began raising rates in December 2015, and rose further in 2018.¹⁵³

560. The neutral rate is of particular interest to our subcommittee because it is usually (although not always, as can be seen in the next section) an estimate of a *real* interest rate. But it is also important to bear in mind that it is somewhat removed from the actual world because, by definition, it does not tell us what real interest rates are expected to be *after* the effects of government monetary policy.

5.4.1.1 Bank of Canada

561. On October 28, 2020, the Bank of Canada published a paper entitled “The neutral rate in Canada: 2020 update”.¹⁵⁴ It included information relevant to the discount rate discussion, particularly because it was written during the pandemic.

562. The “neutral rate of interest” was defined by the Bank of Canada as “the policy rate needed to maintain economic output at its potential level and inflation at target after the effects of all cyclical shocks to the economy have dissipated.” Its utility is described by the Bank as “a medium- to long-run concept that evolves in response to slow-moving foreign and domestic factors, including demographic trends, the rate of technological progress and secular shifts in the level of macroeconomic risk.”

563. The analysis set out in the 2020 Bank of Canada paper accords with those of other commentators, discussed below, in noting that the neutral rate of interest has been falling over an extended period. In the wake of COVID-19, the estimated neutral rate of interest is lower than in 2019, suggestive of low nominal interest rates in the future.

¹⁵³ Ng, Michael and Wessel, David, “The Hutchins Center Explains: The neutral rate of interest”, October 22, 2018.

¹⁵⁴ Matveev, Dmitry, McDonald-Guimond, Julien and Sekkel, Rodrigo, October 28, 2020, Bank of Canada Discussion Paper.

564. The Bank's paper said:

The COVID-19 pandemic has had a tremendous impact on people and livelihoods in Canada and around the world. The near future remains highly uncertain, but there are reasons to believe the pandemic will have long-lasting effects on the fundamental factors underlying the Canadian neutral rate.

...

We assess that the Canadian nominal neutral rate lies in a range between 1.75 and 2.75 percent, 50 basis points lower than in the April, 2019 update. This decline is mainly driven by:

- a fall in the estimated range for the global neutral rate;
- a higher level of macroeconomic risk associated with increased incentives for precautionary savings; and
- a decline in the projected rate of potential output growth.¹⁵⁵

565. This is very significant. The Bank's estimate of the *nominal* neutral rate (i.e., without taking inflation into account) is only between 1.75 and 2.75 percent. That means that the *real* range contemplated is *minus* 0.25% to 0.75 percent.

566. Since the neutral interest rate is usually discussed, in the literature, as a real rate, we double-checked with the principal author of the Bank's paper to be sure that the paper's reference to a "nominal neutral rate" meant what we thought it did: a rate not net of inflation. In an email, he confirmed that our understanding had been correct:

It is true that one often discusses the neutral rate in real terms, however we decided to maintain the use of nominal terms in our analysis to be consistent with previous updates performed by the Bank of Canada's staff in the past. Interest rate is usually called nominal when it includes inflation. In other words, you can think of a nominal rate as consisting of two parts: a real rate of interest plus inflation. Hence, if you are interested in the neutral rate expressed in real terms you should subtract the inflation target of 2 percentage points from the 1.75–2.75 percent range reported in analysis.¹⁵⁶

¹⁵⁵ Ibid., p. 1.

¹⁵⁶ Email exchange, S. Cavanagh and D. Matveev, March 14-15, 2021.

567. In the Bank of Canada paper, the authors discussed various expected effects of COVID-19, which are the data that the Attorney General wanted us to consider. The article noted that:

- a) the pandemic is likely to affect the global neutral rate of interest and because Canada is a small, open economy, it is deeply affected by what happens outside its borders;
- b) COVID-19 will probably lower productivity and see slowed labour force growth;
- c) the economy has suffered reduced demand and increased uncertainty, as a result of which capital investment by businesses has declined;
- d) a big factor in the longer-term effect of COVID-19 on the neutral interest rate will be how income inequality is affected;
- e) one consequence of the pandemic has been psychological: “the unprecedented economic impact of COVID-19 has likely triggered a substantial change in the beliefs about the probability of a large negative economic shock in the future (Kozlowski, Veldkamp and Venkateswaran 2020).¹⁵⁷ In turn, a shift in beliefs would lead to a stronger demand for safe assets for precautionary reasons and to a decline in the neutral rate of interest”.¹⁵⁸

568. But the authors of the Bank of Canada report sounded a note of caution in their conclusion, echoing those of many other commentators: because of the “particularly uncertain context the global and Canadian economies currently face”, its estimates “should be considered with a higher degree of caution compared with past assessments”.¹⁵⁹

¹⁵⁷ Discussed below: § 3.4.

¹⁵⁸ Matveev et al., *supra*, p. 6.

¹⁵⁹ *Ibid.*, p. 7.

569. One last point: only about half of the 50 basis point decline in the estimated range of the neutral rate was considered to be an effect of COVID-19. In other words, the estimated range was considered by the Bank of Canada already to be declining before the pandemic struck.

5.4.1.2 *Foreign Affairs article*

570. An article about interest rates appeared in the March/April, 2021 edition of *Foreign Affairs*: “The Rate Debate: Rethinking Economics in the Age of Cheap Money” by James H. Stock.¹⁶⁰ The author is a professor of economics at Harvard University.

571. Dr. Stock’s article focused on the neutral rate of interest, which he defined as “the actual current interest rate minus expected inflation...that would prevail in an economy enjoying full employment without any government intervention.”¹⁶¹

572. After acknowledging some of the technical problems in actually estimating the neutral rate (which the article referred to throughout as “ r^* ”), Dr. Stock noted that there has undoubtedly been a steady decline in r^* , pre-dating COVID-19. Various methods converge, he said, on the conclusion that r^* “has fallen by approximately 1.5 to 2.5 percentage points over the past two decades, and not only in the United States but also in developed countries around the world.”¹⁶²

573. The article made the point that when r^* is below the expected growth rate of the economy — which has been the case for a number of years — governments begin to think in terms of “free money” and debt that can be rolled over forever.

574. Much of the Stock article dealt with policy issues that are affected by a declining r^* . One of those is climate change and, interestingly, the article’s discussion of that

¹⁶⁰ *Foreign Affairs*, volume 100, Number 2, p. 174.

¹⁶¹ *Ibid.*, p. 174.

¹⁶² *Ibid.*, p. 175.

issue included reference to a present value “discount rate”. The paper discussed the sort of cost-benefit analysis done by the U.S. government with respect to measures aimed at combatting climate change: “Making such a comparison requires choosing a discount rate, which for long-term societal costs (such as damage from climate change) is conventionally taken to be the long-term real rate of interest—that is, r^* .”¹⁶³

575. What is interesting, for our purposes, is that the article stated that a discount rate of 3.0% was used, in the context of climate change costs, during the Obama era. The discount rate was calculated using the 30-year average yield of 10-year US bonds and subtracting inflation. The same calculation today would produce an r^* of 2.0 percent. If a shorter period were used—the past 20 years—the r^* (and therefore, the discount rate) would be only 1.1 percent.

576. (Dr. Stock concluded that the U.S. government, particularly the Trump administration, had used a discount rate that was much too high in estimating the present value of the future “social cost of carbon” (“SCC”). The result has been that those costs have been substantially understated. According to the article, the Biden administration has taken steps to update the nearly 20-year old paper on which the present value calculations have been based.)

5.4.2 Economic effects of pandemics

577. We found two academic papers that focused specifically on the long-term effects that a pandemic can be expected to have on world economies: hopefully, just the sort of information that the Attorney General wanted us to consider. Both papers painted a fairly gloomy picture of the future.

¹⁶³ Ibid., p. 177.

578. The first is entitled “Longer-Run Economic Consequences of Pandemics”.¹⁶⁴ It has received a fair bit of attention. It was summarized on the website of the International Monetary Fund as “[The Long Economic Hangover of Pandemics](#)”. On April 10, 2021, the Financial Times published an article, entitled “Historic pandemics data provide warning for owners of capital”,¹⁶⁵ that referred extensively to the article by Jordà et al.

579. Like many of the sources that we reviewed, the article (and commentaries about it) spoke of the “natural rate of interest”. Because the article reviewed pandemics throughout history, it drew quite a bit on the work of Paul Schmelzing, which we have already discussed (see § 2.6.1 above).

580. The authors of that report said that real interest rates were already falling steadily before COVID (dating back many centuries, “from about 10% in medieval times, to 5% at the start of the industrial revolution, and nowadays, hovering near 0%”). However, pandemics have historically affected the natural rate of interest in a way that the authors described as “staggering”:

Pandemics have effects that last for decades. Following a pandemic, the natural rate of interest declines for years thereafter, reaching its nadir about 20 years later, with the natural rate about 150 bps [basis points] lower had the pandemic not taken place. At about four decades later, the natural rate returns to the level it would be expected to have had if the pandemic not taken place.¹⁶⁶

581. As mentioned, the authors drew on the analysis by Paul Schmelzing. Recall that he said that real interest rates have been falling steadily since the Middle Ages. And he warned that “[t]here is no reason, therefore, to expect rates to ‘plateau’, to suggest that ‘the global neutral rate may settle at around 1% over the medium to long run’,

¹⁶⁴ Jordà, Òscar, Singh, Sanjay R., Taylor, Alan M., “Longer-Run Economic Consequences of Pandemics”, National Bureau of Economic Research, NBER Working Paper Series, Working Paper 26934 (April, 2020).

¹⁶⁵ Dizard, John.

¹⁶⁶ Ibid., p. 7.

or to proclaim that ‘forecasts that the real rate will remain stuck at or below zero appear unwarranted’ as some have suggested.”)¹⁶⁷

582. Jordà et al. suggested that the news was not all bad. There are, they suggested, three ways in which the decline of the natural rate could be attenuated:

First, the death toll of COVID-19 relative to the total population might be smaller than in the worst pandemics of the past, but we cannot know for sure at this point. Second, COVID-19 primarily affects the elderly, who are no longer in the labor force and tend to save relatively more than the young, so the demographic channels could be altered, although the recent pick up in infections is now affecting younger individuals. Third, aggressive counter-pandemic fiscal expansion will boost public debt further, reducing the national savings rate and this might put upward pressure on the natural rate, even though our analysis suggests that this expansion of public debt should be easier to sustain in the long-run.¹⁶⁸

583. The other paper that we looked at was entitled “Scarring Body and Mind: The Long-Term Belief-Scarring Effects of COVID-19”.¹⁶⁹ It too has been widely-discussed (and, as mentioned at paragraph 564.e) above, it was referred to in the Bank of Canada’s 2020 review of the natural interest rate.)

584. The central premise of the article was that there will be a “scarring effect” of the pandemic: “a persistent change in beliefs about the probability of an extreme, negative shock to the economy.”¹⁷⁰

585. It focused on the psychological effects of a pandemic and the consequences for the economy. The conclusion:

Once observed, a shock (a piece of data) stays in one’s data set forever and therefore persistently affects belief formation. The less frequently similar data is observed, the larger and more persistent the belief revision.

¹⁶⁷ Schmelzing, paragraph 140.

¹⁶⁸ Ibid., p. 17.

¹⁶⁹ Kozłowski, Julian, Veldkamp, Laura, Venkateswaran, Venky, “Scarring Body and Mind: The Long-Term Belief-Scarring Effects of COVID-19”, National Bureau of Economic Research, Working Paper 27439 (June, 2020).

¹⁷⁰ Ibid., p. 2.

When we quantify this mechanism, our model's predictions tell us that the ongoing crisis will have large, persistent adverse effects on the US economy, far greater than the immediate consequences. Preventing bankruptcies or permanent separation of labor and capital, could have enormous consequences for the value generated by the U.S. economy for decades to come.¹⁷¹

586. The gist of the authors' thesis was that all of us who have lived through COVID-19 will never be able to look at the world in the same way again and as a result, the behaviours of all of us will be altered. We might choose to save more and consume less (worrying about another economic blow), travel less, take fewer risks in investing etc. The aging population was already slowing consumption before COVID, so this would accelerate that process.

587. Apparently, there is a "nascent and growing literature on macroeconomic models of epidemics".¹⁷² We have not attempted to read all of that literature.

5.4.3 Other possible economic developments

588. It is commonplace, in March, 2021, to see predictions in the media that there will be an explosion of consumer activity when a substantial portion of the population has been vaccinated and the pandemic (*ex hypothesi*) has receded. In the United States, it has been estimated that households have saved some \$1.6 trillion over the last year.¹⁷³

589. But such an economic boom is only one of a number of possibilities being mooted. What will be the effect of working from home? Commercial real estate values will decline but infrastructure costs of businesses will also be less. Will the

¹⁷¹ Ibid., p. 3.

¹⁷² Sockin, Michael, "The Anxiety of COVID and the Epidemic of Fear", (February 1, 2021). Available at SSRN: <https://ssrn.com/abstract=3782836> or <http://dx.doi.org/10.2139/ssrn.3782836>.

¹⁷³ Feler, Leo, "Forecast Direct, February 2021: The Rise and Fall and Rise Again of American Growth", UCLA Anderson School of Management (February, 2021).

large-scale, transformative changes to various aspects of social life, called for by David Dodge¹⁷⁴, be made?

590. Our subcommittee simply lacks the resources and the ability to forecast what unexpected things might happen to our world in the wake of COVID-19 and how they might affect the economy of Canada and the rest of the world. Others have been less reticent though. In a March 13, 2021 article in the New York Times, the paper's senior economics correspondent wrote about 17 ways in which the economic future could be much brighter.¹⁷⁵ Those include:

- a) a productivity payoff from decades of investment in technology (that has not yet manifested itself but, says that author, might now suddenly do so);
- b) the potentially huge effect of a large increase in working from home;
- c) the economic rise of China and its enormous workforce beginning to compete with the existing complement of labour in other countries;
- d) the exit of baby boomers from the work force; and
- e) the desire of the present US government and the Federal Reserve Chair to "let the economy rip".

591. We raise these sorts of issues just to illustrate that they exist, not to try to forecast what will happen. We recognize though, that the post-COVID future could look very different from the past and possibly, in ways that are not now foreseen.

¹⁷⁴ See paragraphs 401 to 404.

¹⁷⁵ Irwin, Neil, "17 Reasons to Let the Economic Optimism Begin", New York Times (March 13, 2021).

6 Our recommendations

592. In this section, we have set out our own recommendations with respect to changes to r. 53.09(1). Suggestions about possible reforms going beyond that rule are dealt with above, in § 1.

593. We have modified the recommendation set out in the April, 2020 draft of this report by adding an alternative “Plan ‘B’” method for establishing the discount rate. That option is set out in § 6.4 below. Otherwise, this section is largely unchanged from our 2020 draft.

6.1 Should the discount rate be based on how plaintiffs are likely to invest?

594. In its submission, CMPA cited a rather venerable decision of the Supreme Court of Canada, in which the court set out the “full compensation” principle that has underlain our system of personal injury law:

It is true that it is possible that the future will prove better than the evidence appears to indicate but the contrary is also possible and *the innocent person who has been gravely injured by the fault of another should not be called upon to bear all the risk of the uncertainties of the future.*¹⁷⁶ [Emphasis added]

595. We agree with that view. But we recognize that an approach that aims at using the discount rate to ensure that all (or at least the great majority) of plaintiffs will be fully compensated is very likely to result in a large number of them being overcompensated.

596. As a starting point, we observe that there seems to be uncertainty as to whether the existing rule is based on investments that plaintiffs will actually make. We do not believe that it is.

¹⁷⁶ *Archibald v. Nesting*, 1953 CanLII 57 (SCC), [1953] 2 SCR 423, p. 427, cited at p. 6 of CMPA submission

597. In our view, it is not realistic to assume, as some of the stakeholders' submissions seem to, that plaintiffs will *actually* invest in real return bonds. While prior subcommittees have not addressed the issue explicitly, we do not believe that they have proceeded on that assumption either.¹⁷⁷ We feel that the use of real return bonds to establish a discount rate would have to be on the basis that they are the most reliable predictor we have of future real rates of return, on a basis that minimizes risk to plaintiffs.
598. Admittedly, that assumption has not been explicitly set out, either in the rule itself or in reports from previous subcommittees. This issue does not really seem to have been addressed by those subcommittees. (Although see the discussion of the deliberations of the Robins subcommittee at § 2.7.3 above. Adjustments to the rate produced by reference to real return bonds were made to reflect the "illiquidity" of such investments and other factors, which might suggest that the subcommittee was assuming that those bonds would actually be purchased by plaintiffs.)
599. In our view, r. 53.09(1) has always sought to provide a mechanism for calculating the amount that, paid now, would fully compensate plaintiffs for future losses, but not overcompensate them. Because the calculation is based on estimates of future economic conditions, that objective has been difficult (or, more accurately, "impossible") to meet. Such forecasts have often proven to be very wrong in the past, both in the direction of overcompensation and undercompensation.
600. Many of those who have looked at this problem (including both of our consultants, a number of stakeholders and some who provided input into the UK consultations) have questioned the use of government bonds, indexed to inflation, as a basis for setting the discount rate because, in fact, very few plaintiffs (if any) would

¹⁷⁷ See paragraph 163 ff. re Robins subcommittee's apparent view.

ever choose to invest their awards in such bonds. Those subscribing to that view go on to say, quite reasonably, that better returns will be realized by plaintiffs in the real world because awards are more likely to be invested in a mixed portfolio of stocks and/or bonds that would produce a higher return, albeit at greater risk.¹⁷⁸

601. The question, then, is whether present value calculations should be made on the basis of estimates of returns that plaintiffs, acting reasonably, are expected to be able to achieve in reality or using real return bonds as a conservative estimate of expected, long-term investment yields. The former carries with it greater risk of undercompensation as a corollary of the likelihood of higher returns. The latter would minimize the risk of undercompensation but increase the risk of overcompensation. And it would also be only a theoretical measure of returns. Real return bonds are unlikely to be used by many—if any—plaintiffs in the real world.

602. The tension between the risk of overcompensation when a low discount rate is used and undercompensation when a higher discount rate is used is illustrated graphically in the chart prepared by the UK's Government Actuary Department (Figure 13 on page 79).

603. In our view, the present r. 53.09(1) is an unsatisfactory way of calculating damages.¹⁷⁹ But for now, it is all we have. It is our subcommittee's view that the discount rate should be established on the basis of minimizing the risk of both undercompensation and overcompensation. However, we feel that the latter should

¹⁷⁸ Of course, at the time of writing the March, 2020 draft report, the TSE has had its worst decline since 1940. So, while there is no doubt that higher returns can often be had through investment in the stock market or through a mixed portfolio of stocks and bonds, there is also no doubt that the higher returns come with risk that, at some point, will manifest itself. The economic picture has not become clearer since.

¹⁷⁹ See § 3.9 for our recommendations for a reformed approach.

give way to the former, for the reasons set out in paragraph 591 above, in the quotation from *Archibald*.

604. We recognize that a strong case can be made for approaching the task of setting the discount rate on the basis of the returns that plaintiffs, acting reasonably, are likely to achieve. That is what the UK has decided to do. Such an approach would probably approximate more closely what will happen in the real world. But our recommendation is that the rate be set without regard to the returns that plaintiffs might actually be able to achieve.

6.2 Two-tiered rate system

605. As noted (§ 5.2 above), one of our advisors (Dr. Hyatt) favoured maintaining the two-tiered system while the other (Dr. Bruce) thought that a single rate should be used.

606. Although we have struggled with this issue, we are inclined to agree with Dr. Bruce and OTLA, that r. 53.09(1) should return to a single rate. Given that real return bond yields reflect predictions of interest and inflation some 30 years in the future, we do not feel that there is a compelling case to be made for the proposition that a fixed rate of 2.5% is a better predictor of the future than the one provided by real return bonds. The 2.5% rate depends fairly heavily on a view that the future will resemble a certain window of the past, roughly approximating the second half of the 20th century.

607. With respect to the recommendation that we change to a one-tier approach, our understanding is that it was thought that relatively current economic data would be a reasonable basis upon which to set the discount rate for short-term losses.¹⁸⁰ It was anticipated that, over the long-term, the “spread” between nominal interest rates

¹⁸⁰ See discussion of Robins subcommittee, § 2.8.3, which created the two-tiered system.

and inflation would return to what was thought to be an historical norm of 2.5 percent.

608. The change to a two-tier system was made by the Robins subcommittee in 1998 and is still in use.

609. In large part, our reasons for opting for a single rate have to do with the difficulty of establishing a rate for a period that will only begin 15 years in the future. That being so, setting a second rate would involve even more speculation than does the first rate. So, we have elected to recommend the use of one rate, derived as explained in the following section.

610. We disagree with the present system, of using a fixed rate of 2.5 percent for the second period. We are not persuaded that the spread between returns on investment and inflation will “revert to normal”, at 2.5%, as has been thought to be the case since the 1980s.

611. In our view, there is no reason to conclude that if a 2.5% spread between returns and inflation was ever “normal”, it is now.

612. After receiving the 2020 letter from the Attorney General, referred to in paragraph 5 above, we have reconsidered our single rate recommendation. While our primary recommendation remains a single rate, we have decided to propose to the Rules Committee an alternative course of action (“Plan ‘B’”), to be pursued, if it chooses. That alternative would maintain the present two-tiered system, with the first tier being derived as it is now and the second tier (post-15 years) being set, for now, at one percent per annum. Plan “B” is discussed below, in § 6.4 below.

6.3 How should the discount rate(s) be set?

613. In this section, we have proceeded on the basis that a single discount rate will be used. We will first look at the recommendations of our consultants and then explain our own proposal.

614. This section is mostly unchanged from the 2002 draft of our report.

6.3.1 Dr. Hyatt's proposal

615. Dr. Hyatt, one of our two consultants, has suggested that the first-tier rate continue in its present form (but without the ½% reduction). He recommended that the second-tier rate be set at 2.3 percent. He supported this suggestion on the following bases:

- a) Referring to the recent report of his University of Toronto colleagues at the Policy and Economic Analysis Program ("PEAP").¹⁸¹ While that report does not predict what the yield of real return bonds will be in the future, it does predict the yield on 10-year GOC bonds. Dr. Hyatt said that using those predicted yields and subtracting estimated inflation, is "a reasonable proxy for the real rate of return on government bonds". His chart (based on PEAP's predictions) looks like this:

<u>Year</u>	<u>10-Year Yield</u>	<u>CPI Inflation</u>	<u>Real Return</u>
2021	2.3%	2.0%	0.3%
2022	3.3%	2.0%	1.3%
2023	4.2%	2.0%	2.2%
2024	4.3%	2.0%	2.3%
Thereafter	4.3%	2.0%	2.3%

Figure 21

- b) He also pointed to the second part of the two-tier rate that the UK GAD considered (but did not ultimately use) and converted it to an Ontario rate of 3.25 percent. He got there by starting with a rate of 1.5% and adding to that 1.75%,

¹⁸¹ See paragraph 82.

which he calculated as the built-in UK adjustment for damages inflation, tax and expenses. (The UK GAD's notional second-tier rate was CPI+1.5% so what Dr. Hyatt has done is cancelled out CPI (since that would have to be done to derive a "real" rate) and used 1.5% as the starting figure, before adjusting for damages inflation etc.)

- c) Dr. Hyatt converted the *actual* UK discount rate of minus 0.25% to an Ontario value, which he concluded was 2.0 percent. (That calculation started with the actual UK rate of minus 0.25%, added back their adjustment for damages inflation and taxes (1.75%) and their "undercompensation adjustment" (see paragraph 277 above), which Dr. Hyatt said was 0.50 percent.) In fact, the adjustment made by then-Lord Chancellor Gause was a full one percent, from 0.25% to minus 0.25 percent.) In the course of Dr. Hyatt's analysis of the UK, he noted that interest rates there are significantly lower than here.
- d) Finally, Dr. Hyatt looked at the yields on real return bonds since 1992 and noted that they had averaged 2.4 percent. He felt that that too lent support to his proposed rate of 2.3 percent.

6.3.1.1 Comments on Dr. Hyatt's proposal

616. Dealing with the UK situation first, Dr. Hyatt's calculations do not quite render the British discount rates comparable to ours, even after backing out their adjustment for "damages inflation" etc. (Dr. Hyatt acknowledged in his comments to us, that "[t]he 'comparable' Ontario rate is not quite comparable because the UK rate is based on a portfolio comprised of between 22.5 percent and 30.0 percent UK government Gilts (bonds). The UK methodology attempted to consider how a cautious plaintiff would invest their award in a 'low risk diversified portfolio'." ¹⁸²)

¹⁸² Dr. Hyatt's report, pp. 2-3.

617. Dr. Hyatt also relied on PEAP's predictions of the yields on 10-year GOC bonds, starting in 2021. Those predictions might come true. But yields would have to move a very long way to get there.
618. The yield history on the corresponding Government of Canada 10-year bond can be seen in Figure 16 on page 111.
619. As is apparent, the yield has come nowhere near the 4.3% that it would have to reach in order to support a discount rate of 2.3% (i.e., a rate that, when estimated inflation of 2.0% is subtracted, would still be 2.3% or more). The yield on 10-year bonds has not been that high since 2008. (Of course, if the calculation is based on assumed low inflation or deflation, that would make a discount rate of 2.3% easier to achieve. Hyper-inflation, were that to develop in the future, would have the opposite effect.)
620. PEAP also made an economic forecast in 2015. At that time, it predicted the following yields on Government of Canada 10-year bonds:

YEAR	PREDICTED YIELD
2015	1.5
2016	2.5
2017	3.8
2018	4.6
2019	4.8
2020	4.9
2021	4.9

Figure 22

621. The *actual* yields for GOC 10-year bonds (up to the present) fell far short of PEAP's 2015 predictions. The average yield was 1.51% from 2015 to date. The highest yield during that period was only 2.55 percent:

V80691326: Government of Canada benchmark bond yields - 10 year

V80691326: Government of Canada benchmark bond yields - 10 year			
Low		2020-07-29	0.48
Average	2015-01-07 – 2021-04-07		1.51
High		2018-10-10	2.55

Figure 23

622. It seems to us that it would be a leap of faith to assume that, unlike its 2015 forecast, PEAP's 2020 prediction of the future is correct and to establish the second-tier discount rate on that basis. That would fly in the face of the Schmelzing paper (see § 2.6.1 above) and other commentators, including the Bank of Canada, who have projected long-term low rates. And it would certainly require a belief that the economic world of the next few years will look much different than it does today, when the duration and the aftermath of COVID-19 remain uncertain.
623. With respect to Dr. Hyatt's suggested support for a second-tier rate of 2.3% based on the historical average yield on real return bonds, using a later start date of than his 1992 would produce different results.
624. Like any solution to this problem, Dr. Hyatt's depends on predictions of the future. If a shorter historical period were used for the average yield of real return bonds, the results would be very different from starting the calculation in 1992. This can be seen from the following table, also prepared by Dr. Hyatt:

Period	Average Yield
September 1, 1992 to August 31, 2019	2.4%
September 1, 1995 to August 31, 2019	2.1%
September 1, 1999 to August 31, 2019	1.7%
September 1, 2000 to August 31, 2019	1.6%
September 1, 2001 to August 31, 2019	1.5%
September 1, 2004 to August 31, 2019	1.1%
September 1, 2009 to August 31, 2019	0.8%

Figure 24

625. If the information were brought even more up to date, it can be seen that real return bond yields have continued to decline. The following is a summary of the history of yields of real return bonds, from February, 2011 (as far back as the Bank of Canada's calculator goes) to the present (an average yield of only 0.55 percent):

V122553: Real return bond - long term			
Low	2020-11-01	-0.26	
Average	2011-02-01 – 2021-01-01	0.55	
High	2011-02-01	1.31	

Figure 25

626. Thus, if we were inclined to use the yield on real return bonds for, say, the last twenty years, we might think about a rate of 1.6 percent (as shown in Figure 22). But of course, the yield has been dropping steadily ever since, so even that approach is difficult to justify.

627. In sum, we are not persuaded that a rate of 2.3 percent is a reasonable one, even if we were going to continue to use two tiers. It is even less defensible if, as we recommend, the rate return to a single tier.

6.3.2 Dr. Bruce's proposal

628. Dr. Bruce proposed a single rate, based on real return bond yields. In effect, he would use the existing r. 53.09(1)(a) approach (i.e., the one used to set the first-tier rate) but would apply it to both short-term and long-term losses.

629. Overall, Dr. Bruce was not in favour of the present ½% reduction in r. 53.09(1)(a), but that did not seem to be a big factor for him in making this recommendation. We are recommending though, that that reduction be eliminated.

630. If we eliminated the zero floor and kept the ½% reduction, we would have had a negative discount rate for trials in 2020.

6.3.2.1 *Comments on Dr. Bruce's proposal*

631. We recommend that the discount rate be set as Dr. Bruce has recommended, but with the abolition of both the zero percent floor and the ½% downward adjustment. Our rationale is that recent real return bond yields probably provide as reliable a predictor as any of what is inherently almost impossible to predict: long-term interest rates and inflation. COVID-19 has just made that task more difficult, but it is hard to say whether it would inflate or reduce predictions that would have been made before March, 2020. We are hopeful that adoption of a different system for calculating damages awards for future losses can replace this one.

632. In endorsing Dr. Bruce's recommendation, we have taken comfort from some of the reasoning that underlay the approach of the first discount rate subcommittee, as discussed in the following section.

6.3.3 The approach taken by the original Morden discount rate subcommittee

633. As discussed in § 2.7.2 above, we got to a discount rate of 2.5% in the first place because of what the first few subcommittees were being told: that on average, the yields on "long-term Government of Canada bonds" would exceed inflation by about 2.5 percent:

The 1980 special committee concluded that the real rate of interest in Canada (i.e. the excess of the rate of interest on long-term Government of Canada bonds over the long-term rate of price increases) would be in the range of 2.0% to 3% per year for the foreseeable future. The committee's "best single point estimate" was 2½% per year.¹⁸³

634. Another possible approach would be to return to that methodology and set the discount rate on the basis of historical yields on long-term GOC bonds, reduced by an assumed value for inflation. But, of course, we would not be prepared to assume

¹⁸³ Osborne subcommittee report, p. 3.

that the real yields on those bonds will reach 2.5%, as was thought to be the case back then. We think it would make sense to look at *average* nominal yields on those long-term bonds.

635. The average nominal yield (i.e., *without* adjusting for inflation) for the benchmark Government of Canada 10-year bond (which has a coupon of 0.5%), for the last ten years, has been only 1.77 percent:

V80691326: Government of Canada benchmark bond yields - 10 year

V80691326: Government of Canada benchmark bond yields - 10 year			
Low		2020-07-29	0.48
Average	2011-04-13 – 2021-04-07		1.77
High		2011-04-13	3.37

Figure 26

636. If we were to use the ten-year average yield on this bond as a basis for a single-tier or a second-tier discount rate, we would make an assumption about the rate of inflation and subtract it from the average yield. If inflation is assumed to be 2.0% per annum, the resulting discount rate would be negative: minus 0.23 percent ($1.77 - 2.0 = -0.23$). And if this trend continues, even that discount rate would probably turn out to be too high if we wanted to adhere to the original rationale of Justices Morden, Osborne and Robins.

6.4 Plan “B”

637. As mentioned in our Executive Summary, in this revision of our report, we have decided to suggest that if the Rules Committee does not wish the reform of the existing system to be as significant as we are proposing (at least for now), it might consider a more moderate change. The main rationale for that approach would be to soften the effects of a dramatic reduction of the long-term discount rate.

638. Our “Plan ‘B’” would retain the present approach for short-term losses of 15 years or less. It would preserve a two-tier system, with the second tier being a fixed rate. We propose that that rate be lowered, for now, from 2.5% to 1.0 percent. We make that recommendation (as an alternative to our primary recommendation) on the understanding that the discount rate problem will be reviewed again by a successor subcommittee.

639. There is no particular magic to our proposed long-term discount rate of 1 percent. As discussed above, in this section, we are far from confident that real interest rates will reach even 1.0%, let alone 2.5%, based on the trends that can be seen in the Bank of Canada’s data. But we feel that a move to a 1.0% long-term rate can be justified on a theory of incremental change, that it represents the first of a series of reforms to be made. That might, to some extent, allay the Attorney General’s concerns.

6.4.1 Conclusion

640. None of the options that we have looked at has been attractive. That is because they all depend on predicting what the economy will look like far in the future. But of the poor alternatives available to us, we favour Dr. Bruce’s recommendation.

641. As a lower-impact alternative, the Rules Committee might wish to consider our “Plan ‘B’” alternative.

6.5 Should negative discount rates be permitted?

642. At the time that the “zero floor” was introduced in 2013, the advice provided was that the instances of the discount rate having become negative were anomalous and should not be permitted to happen.

643. Since then, the UK single discount rate has been set—twice—at a negative figure. It is possible, even likely, that the Ontario rate would be negative if the floor were removed, especially with the present ½% reduction.

644. Given the existence of negative discount rates in the UK (and negative interest rates in various economies), we see no reason to maintain the present zero floor. As our predecessor subcommittees have noted, the discount rate was too low in the 1980s and early 1990s, with the result that defendants paid too much. In our view, the long-term rate is now too high, such that plaintiffs are being undercompensated.

645. The fact that a negative discount rate might be difficult for people to understand (see paragraph 346 above) is not a persuasive justification for continuing the present floor.

6.6 Should there be different discount rates for different types of damages?

646. There is no doubt that the cost of services inflates at a higher rate than does the cost of goods. In fact, in a 2013 paper by the New York Federal Reserve Bank, it was observed that “core inflation”¹⁸⁴ in goods and in services actually have an inverse correlation with each other.¹⁸⁵

647. There are a number of reasons for that. Productivity gains affect goods much more than services. Being able to make widgets in half the time, due to technology advances, lowers the unit cost of that production process. The same product is delivered, but at lower cost. But it is less straightforward to reduce the time and the cost of delivering a service. Indeed, spending *less* time in that process would often be the last thing that a consumer would want. (Who would want a half-hour piano lesson reduced to 15 minutes on the basis of productivity?)

¹⁸⁴ A term that refers to inflation with the very volatile items of food and energy prices stripped out.

¹⁸⁵ Peach, Richard, Rich, Robert and Linder, M. Henry, “The Parts Are More Than the Whole: Separating Goods and Services to Predict Core Inflation”, Federal Reserve Bank of New York, Current Issues in Economics and Finance (vol. 19, no. 7, 2013), p. 2.

648. In this instance, while a strong case can be made for the proposition that the cost of health care services will inflate at a faster rate than other components of CPI, we are not inclined to make the adjustment that OTLA seeks.

649. For one thing, at present, CPI is based on both goods *and* services. If a special discount rate were to apply to health care services, that would imply that an opposite adjustment should be made to the CPI for goods.

650. Setting a second rate would be subject to all of the same frailties that, in this report, we have identified with *any* discount rate.

651. In addition, we have considered Dr. Hyatt's comments on this issue, set out above at paragraph 371 above.

652. Finally, we anticipate that opening the door to setting discount rates based on the type of damages would be an invitation to the introduction of discount rate evidence. That is something that we think should be avoided, as much as possible.

6.7 Should the ½% adjustment continue to be made?

653. Whether the current ½% reduction (or any other artificial change) in the discount rate should be maintained is probably a function of the view that the Rules Committee takes with respect to whether one of the objectives of the discount rate is to minimize risk to plaintiffs.

654. At present, the rate for the first 15 years, determined by reference to real return bonds, is then reduced further by a further ½ percent (thereby benefiting plaintiffs). The Robins subcommittee originally established a reduction of one percent, to take into account "economic and risk factors".

655. As Dr. Hyatt observed in a communication to our subcommittee, the ½% reduction is a source of confusion among stakeholders. That is probably because the historical genesis of the reduction is not widely understood. When the actual process

that led to that adjustment is considered, it would appear that the adjustment was intended to reduce, even further, the already “very low risk” associated with real return bonds. Dr. Hyatt does not recommend continuing the reduction.

656. Dr. Bruce also did not feel that such an adjustment was called for.

657. The answer to this question gets back to the policy issue of whether we intend the discount rate to compensate plaintiffs fully or whether, as in the UK, we consider it acceptable for a certain proportion of plaintiffs to receive less than full compensation. If full compensation is the aim, then some sort of adjustment might be warranted. However, the adjustments that have been made to date have been arrived at quite unscientifically and are almost universally misunderstood by stakeholders.

658. A similar reduction in the rate, otherwise calculated, was also made in the UK (see paragraph 277 above). It appears to have been arrived at rather unscientifically, as is true of our own reduction. But it seems clear that in both cases, the objective was to tilt the table somewhat further in favour of plaintiffs.

659. We recommend that there be no artificial reduction of the discount rate.

6.8 No judicial discretion to depart from r. 53.09(1)

660. Like our predecessor subcommittees,¹⁸⁶ we think that parties should be discouraged from leading evidence to try to have the court order a rate that departs the one (or two) established by the rule. As was said in the report of the Robins subcommittee:

It can be accepted that the discount rate and gross-up provisions were established to relieve parties embroiled in litigation of the need to incur the added expense of calling economic and actuarial evidence: and to prevent the general injustice that would result if awards differed greatly in similar cases because: different discount rates were used to calculate them. See: *Giannone v. Weinberg* (1989), 68 O.R. (2d) 767 (CA.). It can

¹⁸⁶ See, for example, paragraph 123.

also be accepted that these considerations are equally applicable to other economic and actuarial assumptions underlying the calculation of any future pecuniary award. In short, the key objective is to minimize the need for litigants to resort to adversarial positions with respect to the quantification of future damages.

...

[T]here was general agreement that it was important to continue to have a discount rate clearly mandated by the Rules of Civil Procedure and not subject to evidentiary dispute.¹⁸⁷

661. The reason most often given for trying to have a court order a different discount rate is the suggestion that the cost of certain types of future expenses (such as health care costs) will increase at a rate greater than that of the CPI. Often, this is said to be on the basis of productivity. A similar argument was made to the Robins subcommittee but was rejected: see § 2.7.3 above.
662. That argument was advanced by OTLA in its submissions. If effect were given to it, the discount rate would be less for the damages to which this adjustment is applied.
663. Unsurprisingly, CMPA took the opposite position, although it did so in only one sentence. It said that the evidence does not justify different discount rates for different heads of damages.¹⁸⁸
664. If the door were opened to litigants calling evidence to vary the prescribed rate, it can be seen from the above that many aspects of the calculation could be debated. A few examples:
- a) Should there be an adjustment to reflect the sorts of risk factors referred to by the Robins subcommittee?

¹⁸⁷ Report of Robins subcommittee, pp. 5, 6.

¹⁸⁸ CMPA submission, p. 18.

- b) Should there be a reduction to reflect a supposed “insurance premium” built into the rate of return of real return bonds?
- c) Does the yield of real return bonds implicitly misstate the rate of inflation, as suggested by IBC?
- d) Should it be possible to adduce evidence as to what sorts of investments plaintiffs will actually make?
- e) Is the use of CPI to measure inflation now outdated and unreliable?
- f) Will inflation now begin to depart significantly from the GOC target of 2.0% per annum?
- g) Is the average yield on a particular real return bond, over a specified period, a reliable measurement of future real rates of interest?

665. It is our recommendation that, as much as possible, parties not be given the opportunity to depart from the prescribed discount rate, in a given case.

666. There had been debate within the subcommittee as to how that objective (upon which we all agreed) is best accomplished. Should there be an outright prohibition on courts ever departing from r. 53.09(1)? Or should wording be added to the rule, to the effect that courts should only use a different discount rate in “exceptional circumstances”?

667. The problem with the latter approach is that it probably amounts to an invitation to parties—both plaintiffs and defendants—to try to bring themselves within that “exceptional” category.

668. On balance, we feel that an outright prohibition against departing from the rule would be best.

6.9 Summary

669. Thus, while we feel that there are inherent problems with using any discount rate to calculate the present value of future losses, we suggest that for now, the rate be established so that:

- a) the two-tier system be transformed into a single-tier one;
- b) that rate would be derived as it is now for the first tier, from the average yield of GOC real return bonds for the six-month period (March to August) in the year prior to the trial;
- c) in the alternative, our "Plan 'B'" would see the two-tier system preserved, with the first tier rate calculated as it is now and the second, post-15 year rate set at 1.0% per annum;
- d) the prohibition against negative discount rates is removed;
- e) the present $\frac{1}{2}\%$ adjustment is removed;
- f) there should be no different discount rates for different types of damages; and
- g) judicial discretion to set a discount rate on the basis of evidence should be eliminated.

6.10 Changes in wording of subrule 53.09(1)(a)

670. Rule 53.09(1)(a) deals with the approach to be taken "for the 15-year period that follows the start of the trial".

671. The introductory words of the rule read as follows: "The discount rate to be used in determining the amount of an award in respect of future pecuniary damages, to the extent that it reflects the difference between estimated investment and price inflation rates, is..."

672. The same language appears to have been used since the very first discount rate rule (r. 267a, which was part of the Rules of Practice and dates back to 1980): see below.
673. This language can be improved, particularly the phrase, “to the extent that it reflects the difference between estimated investment and price inflation rates”. The discount rate is used for only one purpose in the context of r. 53.09, so at least the phrase, “to the extent that it reflects” is superfluous and can be deleted.
674. While it is true that the purpose of r. 53.09 is to calculate “the amount of an award”, it might be a good idea to make explicit the fact that what is being done is discounting future pecuniary damages to *present value* on the basis of the difference between estimated *return* on investment and price inflation rates. Yet the phrase, “present value” does not appear in the rule at all.
675. We would suggest replacing the preamble with the following:
- An award of damages to compensate for future pecuniary loss in an action for personal injury shall be discounted to present value to reflect the difference between the estimated return on the investment of the award and the estimated effect of price inflation.
676. We suggest the use of Dr. Hyatt’s proposed language for the first tier of the discount rate: that that rate be “set on the basis of “the Government of Canada Real Return Bond as measured by data series identifier V122553 as reported on the Bank of Canada web site (and can also be accessed using the same identifier through the Statistics Canada CANSIM data base)”.
677. If our “Plan ‘B’” were to be adopted, the appropriate adjustments would be made to accommodate two rates.
- 6.11 Structured settlements
678. One alternative to the use of the discount rate is structured settlements.

679. A structured settlement involves periodic payments to plaintiffs rather than a lump sum. One of the attractions of structured settlements is that the payments can be received by plaintiffs tax-free.
680. We do not intend to evaluate structured settlements (or any alternative approaches to compensation for future losses) in detail. But the following comments describe some of the features that commend themselves to us.
681. With a structured settlement, the plaintiff is protected against himself or herself, in that the distribution of the funds is taken out of the plaintiff's hands.
682. However, the flip side of that advantage is a potential detriment: creation of a schedule of periodic payments that will adequately address the plaintiff's future needs (which are, to some extent, unpredictable) is challenging. Emergency cash requirements can be difficult to address.
683. Still, structured settlements protect plaintiffs against the vagaries of future economic circumstances. The holder of the structure assumes that risk.
684. In the days of very high interest rate, structures were extremely attractive because of the combination of compound interest and tax-free payments. For now, in an era of ultra-low interest rates, the former is not much of a carrot. But, at the same time, low interest rates apply to everyone.
685. Another issue with structures is the fees charged by structured settlement brokers. That issue is addressed in the next section.

6.11.1 2017 Report of Hon. Stephen Goudge, Q.C.

686. Former Justice Stephen Goudge addressed some of these same issues in his December 29, 2017 report, “Report to Ontario Ministry of Health and Long-term Care Re: Medical Liability Review”.¹⁸⁹

687. We conferred with Mr. Goudge in the course of preparing the 2020 draft of this report.

688. Mr. Goudge’s discussion of the discount rate in his report was brief: only a page and a half, beginning at p. 28. It was clear from his comments that he was approaching the issue on the basis of returns that could actually be achieved in the market on the investment of awards of damages:

While this [i.e., the present r. 53.09] was a well intentioned attempt to better approximate future real rates of return, the almost universal view among those I consulted was that, because of significant fluctuations in real return bond rates, that has not been the experience. In the last five years, the mandated discount rate up to 15 years appears to have been well below the actual rate of return available on investment, with the result that the cost of structured settlements has been higher than it should be.¹⁹⁰

689. As we have already said, we do not believe that the discount rate has been set in the expectation that many or even *any* plaintiffs actually use their damages awards to purchase real return bonds. Rather, we think that real return bonds were chosen as the most reliable prediction of future real return rates for a very low-risk investment.

690. The issue raised by Mr. Goudge is part of the policy decision that we think the Rules Committee must make: whether the discount rate should reflect returns likely to be achievable in the market. We have recommended that that not be done.

¹⁸⁹ Available at

http://www.health.gov.on.ca/en/common/ministry/publications/reports/medical_liability/docs/medical_liability_review_en.pdf

¹⁹⁰ Page 28.

691. However, elsewhere in his report, Mr. Goudge discussed structured settlements and suggested some possible changes to the present approach. His comments were made in the context of s. 116.1 of the *Courts of Justice Act*, which provides for awards of damages for future care that exceed \$250,000, in a medical malpractice action, to be paid by “periodic payments”, if the court so orders.
692. Mr. Goudge noted that “[t]he limited number of life insurance companies currently willing to offer these products and the constraints they use to price them, mean that this component of future care costs is larger than it needs to be. The same of course is true of future income loss that is included in the structure.”¹⁹¹ As a result, he proposed that “there should be a government entity to hold the funds for future costs and administer the periodic payments required in these cases.”¹⁹² He suggested the Workplace Safety and Insurance Board (“WSIB”) as one possible candidate for the administration of the funds.
693. Dr. Douglas Hyatt, who advised our subcommittee, also assisted Mr. Goudge with this issue. At pp. 21–22 of his report, Mr. Goudge set out what he referred to as a “striking example” provided by Prof. Hyatt. The latter used an example of a future care cost award in a serious case, of \$200,000 per year, for a plaintiff who was 10 years old at trial and had a life expectancy of 65. The present value of an award for damages to compensate that loss, using r. 53.09, would be about \$7.4 million, according to Dr. Hyatt. However, the present value of the same award of damages, using the discount rate that is available to WSIB would be only \$5.3 million. The reason given by Mr. Goudge for the 40% lower figure was the “large pool of funds” administered by WSIB.

¹⁹¹ Page 20.

¹⁹² *Ibid.*

694. WSIB does have its own “Discount Rate Calculation Table” that it uses to commute “pensions”.¹⁹³ Presumably, the discount rate established there assumes a much higher yield on investment than does r. 53.09 (since inflation would be a constant). Obviously, the WSIB discount rate is based on returns that it actually expects to be able to achieve in the market, given its very large portfolio. The substantially lower capital requirement evident from the Hyatt example above would obviously be of interest to defendants, if ss. 116 (periodic payments) and 116.1 (periodic payments in medical malpractice actions) could be extended to other types of personal injury claims.

695. Dr. Hyatt also made some comments about this issue (the potential use of structured settlements in a government-administered system) in input contained in a preliminary report to our subcommittee. He referred to his experience with the Goudge Commission. In his comments to us, Dr. Hyatt emphasized how the expanded use of structured settlements would address the very issues that concern us about the discount rate (risk of undercompensation, uncertain future etc.) At the same time, there would potentially be significant cost savings:

Should this approach be determined to be feasible, it could potentially result in dramatic reductions in costs, while ensuring that successful plaintiffs receive the same after-tax compensation that they receive under the current system, independent of how the discount rates are set. It also allows that errors made in predicting the future do not fall upon the successful plaintiff.

696. Dr. Hyatt’s memo to us went into considerably more detail about what he sees as the benefits of using structured settlements in personal injury cases other than ones arising from medical malpractice. Since it is not within the scope of our mandate to make that sort of change, this report does not attempt to analyze the issue in detail.

¹⁹³ See <http://www.owa.gov.on.ca/en/benefits/Pages/Pension-Commutations.aspx>

But we suggest that consideration be given to their expanded use, possibly through a government-run body.

697. Were this sort of change to be considered, it might be appropriate to restrict its use to cases in which the damages award passes a certain monetary threshold, as in the current s. 116.1 of the *Courts of Justice Act*.

6.11.2 Periodic review of damages

698. Another possible approach to address the problems inherent in discounting awards of damages to present value might be expanded use of periodic reviews of those awards. Again, such a change might be more appropriately confined to awards that surpass a certain monetary threshold.

699. This power already exists for awards of damages falling within the scope of s. 116 of the *Courts of Justice Act*. Subsection (4) of that section provides:

In an order made under this section, the court may, with the consent of all the affected parties, order that the award be subject to future review and revision in such circumstances and on such terms as the court considers just.

700. Our impression is that the powers conferred by subsection 116(4) are used seldom, if ever. There would be obvious drawbacks to expanded use of the provision, from the standpoint of defendants. Insurers would face contingent future liabilities extending well beyond the date of trial. Their ability to “close the file” would be reduced. And not only would they face the possibility of damages being increased in the future, they would incur additional administrative costs in managing the claim.

701. However, we have not studied periodic review in any detail: we have simply raised it as another possible alternative to present value discounting of damages awards for future losses.

7 Prejudgment interest on non-pecuniary damages

7.1 2021 additions

702. Much of this section is unchanged from the 2020 draft of this report. However, we have included quite a bit of additional discussion of this issue in this draft, following on feedback that we received from stakeholders, particularly from FOLA, in 2020.

7.2 History and rationale of r. 53.10

703. As noted in paragraph 189 above, it appears that the Robins subcommittee was the first to deal with this issue, back in 1998. However, it did so in one sentence, observing only that it saw no reason to change the rule, which had been in force since 1990.

704. At the time that r. 53.10 was introduced, the rates set by s. 127 of the *Courts of Justice Act* for prejudgment interest on other types of damages were very high. The following table shows the rates from 1989 to date:

Column1	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1989				12.4%
1990	12.5%	13.5%	13.9%	12.9%
1991	12.3%	10.0%	9.1%	8.8%
1992	7.7%	7.5%	6.3%	5.1%
1993	8.3%	6.1%	5.1%	5.0%
1994	4.3%	4.1%	6.6%	5.6%
1995	6.0%	8.0%	7.6%	6.6%
1996	6.1%	5.6%	5.0%	4.3%
1997	3.3%	3.3%	3.3%	3.5%
1998	4.0%	5.0%	5.0%	6.0%
1999	5.3%	5.3%	4.8%	4.8%
2000	5.0%	5.3%	6.0%	6.0%
2001	6.0%	5.8%	4.8%	4.3%
2002	2.5%	2.3%	2.5%	3.0%
2003	3.0%	3.0%	3.5%	3.3%
2004	3.0%	2.8%	2.3%	2.3%
2005	2.8%	2.8%	2.8%	2.8%

Column1	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2006	3.3%	3.8%	4.5%	4.5%
2007	4.5%	4.5%	4.5%	4.8%
2008	4.8%	4.3%	3.3%	3.3%
2009	2.5%	1.3%	0.5%	0.5%
2010	0.5%	0.5%	0.8%	1.0%
2011	1.3%	1.3%	1.3%	1.3%
2012	1.3%	1.3%	1.3%	1.3%
2013	1.3%	1.3%	1.3%	1.3%
2014	1.3%	1.3%	1.3%	1.3%
2015	1.3%	1.0%	1.0%	1.0%
2016	0.8%	0.8%	0.8%	0.8%
2017	0.8%	0.8%	0.8%	1.0%
2018	1.3%	1.5%	1.5%	1.8%
2019	2.0%	2.0%	2.0%	2.0%
2020	2.0%	2.0%	0.5%	0.5%
2021	0.5%	0.5%		

Figure 27

705. As can be seen, it was not until the third quarter of 2001 that rates dropped below 5 percent. Since then, they have consistently been below 5%, sometimes by a wide margin. Since the third quarter of last year, the rate has been only one-tenth of 5 percent.

706. The rationale for the enactment of rule 53.10 was recently set out by the Court of Appeal in 2019, in *MacLeod v. Marshall*¹⁹⁴, where the court said:

[45] The reason for the 5% rate for non-pecuniary loss in an action for personal injury is as follows: it was a legislative response to the 1987 Ontario Law Reform Commission Report for Compensation for Personal Injuries and Death, which criticized the practice of awarding damages for pecuniary and non-pecuniary damages at the same rate because there is a cap on non-pecuniary damages; this cap is adjusted for inflation. The Report concluded that giving the default interest rate (which was much higher than 5% at the time) was effectively double compensation for inflation. The lower rate of 5% was therefore more appropriate: *Awan v. Levant*, 2015 ONSC 2209, aff'd 2016 ONCA 970, 133 O.R. (3d) 401, at para. 23.

¹⁹⁴ 2019 ONCA 842 (CanLII)

[46] However, as Matheson J. noted in *Awan*, “the mischief that gave rise to the subsection [128(2)] is no longer served by a 5% rate given the interest rate climate throughout the period of time relevant to this case”, as interest rates had dropped even further. For this reason, s. 258.3(8.1) of the *Insurance Act* was amended through the enactment of the *Fighting Fraud and Reducing Automobile Insurance Rates Act*, 2014, S.O. 2014, c. 9, such that the 5% rate did not apply in the context of motor vehicle accident actions.¹⁹⁵

707. In *MacLeod*, the Court of Appeal held that the trial judge should not have simply applied the rate specified by r. 53.10: “He should have taken into account the factors listed in s. 130(2) of the CJA, including the changes in market interest rates. He did not. In so doing, he placed no weight or insufficient weight on the consideration of market interest rates.”¹⁹⁶

708. In the first draft of this report, we had said that “when r. 53.10 was introduced, it was in recognition of the fact that the cap on non-pecuniary general damages is indexed to inflation, with the result that awarding prejudgment interest at the then-prevailing interest rates (12.0% to 13%) would result in double compensation. It was determined that the applicable rate should therefore be lower than the one that applied to other heads of damages.”

709. FOLA made some helpful comments about this issue. OTLA’s submissions were to similar effect. While we did benefit from both, we have not changed our views.

710. We acknowledge that our original comments about the issue of prejudgment interest on non-pecuniary damages were probably not as detailed as they ought to have been.

¹⁹⁵ Paragraphs 45, 46.

¹⁹⁶ Paragraph 54.

711. We had felt that the Court of Appeal’s decision in *MacLeod v. Marshall*, [2019 ONCA 842 \(CanLII\)](#)¹⁹⁷ (released on October 25, 2019) had already dealt with the issue in some detail and had done so quite recently.
712. In this section, we will address FOLA’s submissions on the prejudgment interest issue, using its headings.
- 7.2.1 What was the rationale for the enactment of Rule 53.10?
713. FOLA’s main contention overall was that we relied too heavily on *MacLeod*. They complained that we did not consider other decisions, including *Borland v. Muttersbach* [1985 CanLII 2134 \(ON CA\)](#), a decision that is now more than 35 years old.
714. Under this subheading, FOLA said that the Court of Appeal in *MacLeod* and Justice Matheson in the trial decision in *Awan v. Levant*¹⁹⁸ proceeded, unjustifiably, on the basis that r. 53.10 was “a legislative response to a 1987 Ontario Law Reform Commission (‘OLRC’) report that concluded that because the damage cap for non-pecuniary general damages was adjusted for inflation, adding interest effectively amounted to double compensation and the lower rate of 5% was more appropriate.” [Quoting from both decisions.]
715. But FOLA’s only response was that neither Justice Matheson nor the Court of Appeal cited any “authority” to support their statements. It added: “We question whether the 1987 OLRC report was ‘the reason’ for the 5% prejudgment interest rate enacted some three years later in Rule 53.07.” In the last paragraph of this subsection, FOLA speculates about other possible factors that might have led to the

¹⁹⁷ Leave to appeal refused, *sub nom. Basilian Fathers of Toronto v. Roderick MacLeod*, [2020 CanLII 30830 \(SCC\)](#).

¹⁹⁸ [2014 ONSC 6890](#), aff’d [2016 ONCA 970 \(CanLII\)](#).

enactment of r. 53.10, concluding: “We cannot help but think that there was more to the Rule 53.10 amendment than just the OLRC report.”

716. There are older judicial comments that characterize r. 53.10 in much the same way that the Court of Appeal did in *MacLeod*. Examples are *Tait v. Roden*, [1994 CanLII 7301 \(ON SC\)](#), per Killeen J. and *Koukounakis v. Reid*, [1995 CanLII 621 \(ON CA\)](#), per Doherty J.A.

717. FOLA did not appear to suggest that it has any information to suggest that the statements in *MacLeod* and *Awan* were incorrect; it just questions them.

7.2.2 Are non-pecuniary damage awards indexed to inflation?

718. FOLA accepted that “the cap on non-pecuniary general damages may be indexed to inflation” but says “there is no evidence to suggest that non-cap general damages are indexed to inflation”.

719. Those statements are accurate; it is only the cap on non-pecuniary general damages that is indexed to inflation. But the implication of FOLA’s statement is that general damages for lesser injuries do not vary with inflation. In its submission, it said: “There are simply too many variables that go into an assessment to conclude that general damages, across the board, have some inflationary component.”

720. It is of course true that there are “many variables that go into an assessment”. The Court of Appeal said as much in *Sandhu v. Wellington Place Apartments*, [2008 ONCA 215 \(CanLII\)](#): “The assessment of non-pecuniary damages ultimately depends on the mix of factors peculiar to each particular plaintiff.” [para. 25]

721. Similarly, FOLA is correct to say that damages awards (other than ones for the amount of the cap) are not literally indexed to inflation. The same award of damages is not made in one year and then made again four years later.

722. But it is certainly the case that non-pecuniary damages are awarded within a range, the upper end of which is literally indexed to inflation.

723. So, it might be more accurate to say that while it is true that “the assessment of non-pecuniary damages ultimately depends on the mix of factors peculiar to each particular plaintiff”, such damages are awarded within a range in which the maximum amount is indexed to the Consumer Price Index.

724. The Waddams text on *The Law of Damages* said this:

A question that is not expressly dealt with in the 1978 trilogy is whether compensation for lesser injuries than those suffered by the plaintiffs in those cases is to be calculated on a sliding scale, so that \$50,000 would be the appropriate award for a plaintiff suffering half the loss suffered by the 1978 plaintiffs, and so on, assuming that proportionate losses could be estimated. Some cases have adopted such a scale. Others seem to have regarded \$100,000 as a rough upper limit but have not treated it as imposing a proportionate limit on less serious injuries. It would seem that some sort of scale ought to be adopted. Conventional though the \$100,000 figure is, justice must still be done between plaintiff and plaintiff, and if \$100,000 is the proper figure for injuries approaching the most serious imaginable, smaller figures must surely be appropriate for less serious cases. Whenever an appellate court increases an award on the ground of inadequacy or reduces one on the ground of excess, it makes a comparison, implicit or explicit, with other similar cases. In *Hayward v. Young* the Nova Scotia Court of Appeal, following previously established guidelines for non-pecuniary awards for persistently troubling but not totally disabling injuries, reduced the respondent's award for soft tissue damage from \$120,000 to \$57,000. The court observed that “adhering to the range established by this Court promotes consistency, predictability, and certainty when arriving at a fair and reasonable award for general damages on account of pain, suffering and loss of amenities” [§3.620]

725. Waddams also suggested that since non-pecuniary general damages are usually to compensate for losses that are partly pre-trial and partly post-trial (e.g., pain and suffering that will continue for the plaintiff's life), it is inappropriate to award interest—at all—on the future component:

In Canada, where non-pecuniary losses are compensated on a "functional basis", the theory is that the purpose of compensation is to provide solace in the future.¹⁸⁷ In this respect, the award is analogous to damages for future costs, and it is well established that no interest is to be awarded on damages for future losses.¹⁸⁸ There seems, therefore, an even stronger case in Canada for following the approach taken

in *Birkett v. Hayes*¹⁹⁹ and it has been accepted by some Canadian courts¹⁸⁹ though rejected by others.¹⁹⁰ In several jurisdictions, the rate is fixed by statute or rule.

726. The leading UK text, *McGregor On Damages*, also questioned whether interest should be payable at all on non-pecuniary damages:

There is much to be said for regarding the purpose behind the awarding of interest as damages as being to compensate a claimant for the delay, which the process of litigation makes inevitable, in reimbursing a money loss which he has suffered as a result of the tort or breach of contract. Accordingly, interest can have no relevance where monetary damages are being awarded not as replacement for other money but as representing the best that the law can do in the face of incommensurable loss which is not truly calculable in money. It is accepted that any award for pain and suffering and loss of amenities must be in the nature of a conventional sum, and to award interest upon such a conventional sum becomes supererogatory. Indeed it is suspected that their Lordships' further endorsement of the reduction in the rate of interest for non-pecuniary loss to...two percent in *Wright v. British Railways Board*, reflects an uneasiness at making any award at all. [§ 19-053]

7.2.3 The present

727. The problem spoken of by the Court of Appeal in *MacLeod v. Marshall* (see paragraph 705 above) now exists in reverse. The cap on non-pecuniary general damages is still indexed to inflation. We consider that awards for lesser injuries do take inflation into account. Therefore, when such damages are awarded at trial, the inflationary erosion of the value of the compensation, between the time that the cause of action has arisen to the time of trial, has already been adjusted for. Awarding prejudgment interest on such damages at a higher rate than that applicable to other types of damages represents an overpayment.

¹⁹⁹ *Birkett v. Hayes* was an English Court of Appeal decision ([1982] 1 W.L.R. 816 (C.A.)), approved by the House of Lords in *Wright v. British Railways Board*, [1983] 3 W.L.R. 211) in which Lord Denning reduced interest on an award of non-pecuniary general damages on the basis that between the time of the injury and the time of trial that had been "racing inflation". He awarded interest at a reduced rate of 2% per annum, on the basis that the award of damages had been increased by inflation.

7.3 Stakeholder submissions

728. In the original submissions made by stakeholders, only OTLA sought to continue the operation of r. 53.10. Its submission was the following:

Prejudgment interest (PJI) is intended to be compensatory. Therefore, PJI must be viewed as part of the compensatory package provided to the wronged person. To achieve full compensation, an award of damages must include PJI in the full amount which will compensate the plaintiff for the loss of use and the loss of value of a monetary award until it is paid. The rationale of our current tort system is that the wronged party is entitled to damages as at the time of the injury and as if he or she would have had the ability to invest those funds from that immediate point in time. The PJI rate is to reflect the value of the lost investment opportunity. As discussed further below, it is OTLA's position that PJI for non-pecuniary general damages should continue to be calculated at its current rate of 5% under Rule 53.10 for the foreseeable future.²⁰⁰ [Footnote omitted]

729. However, those submissions, in our view, simply do not engage with the points made by the Court of Appeal in *MacLeod*.

730. We do not suggest going so far as to eliminate interest on non-pecuniary damages. But it remains our view that Ontario courts generally treat general damages as if they were formally indexed to inflation. A recent example of a court adjusting damages on the basis of inflation is *Sit v. Trillium Health Centre*, [2020 ONSC 2458 \(CanLII\)](#), paras. 233—235.

731. Thus, while it might be true that general non-pecuniary damages are not technically indexed to inflation, effectively, they are.

732. CMPA's submission pointed to the "double-counting" that results, under the current rule, from non-pecuniary general damages being indexed to inflation. It recommended that the rate of interest on such damages be the same as that for other sorts of damages. IBC also recommended the same approach (but without the inflation-indexing rationale).

²⁰⁰ OTLA submission, p. 5.

7.4 Recommended approach

733. While a case could be made for awards of non-pecuniary general damages attracting no prejudgment interest at all (see paragraphs 723 ff.), we do not propose to go that far. But to be consistent with the approach taken when r. 53.10 was first enacted in 1990, the effect of what is, in effect, inflation-indexing should be removed from the rate of prejudgment interest on non-pecuniary general damages in order to avoid overcompensation.
734. Rule 53.10 came into force the year before the 1991 introduction of the GOC's inflation-targeting policy.²⁰¹ Inflation had been in the range of 4–5% for several years (having been higher than 10% in the 1980s). In the year after the inflation-targeting policy began, inflation fell to 1.4% and has mostly been around 2.0% since then (until very recently). As discussed in § 2.3 above, some commentators have questioned the role of inflation in the economy and the way in which it is measured. And because of the impact of COVID-19, it is hard to know which economic canons will now be overturned.
735. As the Court of Appeal said in *Bozzo v. Giampaolo*, “[t]he purpose of prejudgment interest is to compensate for loss of use of money.”²⁰²
736. To be consistent with the original objective of r. 53.10, as set out in the passage from *MacLeod*, quoted in paragraph 705 above, interest to compensate for “loss of use” of an award of damages for non-pecuniary loss should remove the effect of inflation-indexing. To accomplish that, we would suggest that r. 53.10 be reworded as follows: “The prejudgment interest rate on damages for non-pecuniary loss in an action for personal injury is the rate provided for in s. 128 of the *Courts of Justice Act*, minus the rate of inflation for the month in which the proceeding was commenced,

²⁰¹ See paragraph 105.

²⁰² 2005 CanLII 17773 (ON CA), para. 23.

as established by the Bank of Canada at <https://www.bankofcanada.ca/rates/price-indexes/cpi/>.”

737. Establishing a floor of zero percent (i.e., that the rate of prejudgment interest will not be allowed to drop below zero) could be considered, although there is not much of a principled case to be made for that approach.

8 Gross-up

738. The final part of the Rules Committee’s review mandate, is set out in s. 66(2)(v) of the *Courts of Justice Act*: “the method of calculating the amount to be included in an award of damages to offset any liability for income tax on income from investment of the award”. This issue (“gross-up”) is dealt with in subrule 53.09(2):

In calculating the amount to be included in the award to offset any liability for income tax on income from investment of the award, the court shall,

(a) assume that the entire award will be invested in fixed income securities; and

(b) determine the rate to be assumed for future inflation in accordance with the following formula:

g rounded to the nearest 1/10 per cent where,

$$g = (1 + i) / (1 + d) - 1$$

“ i ” is the average of the value for the last Wednesday in each month of the nominal rate of interest on long-term Government of Canada bonds (Series V121758, formerly Series B113867), as published in the Bank of Canada’s Weekly Financial Statistics for the period starting on March 1 and ending on August 31 in the year before the year in which the trial begins;

“ d ” is,

(a) for the 15-year period that follows the start of the trial, the greater of,

(i) the average of the value for the last Wednesday in each month of the real rate of interest on long-term Government of Canada real return bonds (Series V121808, formerly Series B113911), as published in the Bank of Canada’s Weekly Financial Statistics for the period starting on March 1 and ending on August 31 in the year before the year in which the trial begins, less ½ per cent, and

(ii) zero, and

(b) for any later period covered by the award, 2.5 per cent per year for each year in that period.

739. If our recommendation with respect to the discount rate is followed (a single rate, using somewhat the same approach as is now used for the first tier, under r. 53.09(1)(a), but with the removal of the “zero floor” and the ½% adjustment), r. 53.09(2) should also be amended to reflect the same change.

740. Once the Rules Committee has settled on an approach with respect to the discount rate, we would propose to go back to our two consultants in order to fine-tune the language of r. 53.09(2).
741. Only one stakeholder—CMPA—proposed that the existing gross-up rule be revised. As discussed below, CMPA’s submissions are an outgrowth of its position with respect to the discount rate.
742. OTLA’s submission proposed that the gross-up rule be left unchanged.²⁰³ The same was true of CIA’s submission.²⁰⁴ IBC’s submission did not comment on gross-up.
743. CMPA’s position flows from its argument in relation to the discount rate: that it should *not* be assumed that plaintiffs will invest their awards in fixed income securities. Its recommendation for the gross-up rule is:
- Remove the requirement in Rule 53.09(2) that calculations to determine the amount of gross-up must “assume that the entire award will be invested in fixed income securities”. Such an approach does not reflect actual investment practices of the average, prudent investor. The rates and time periods used in the formula for determining future inflation should also correspond to those used in Rule 53.09(1).²⁰⁵
744. We agree that if the Rules Committee were to conclude that r. 53.09 should be based on “actual investment practices of the average, prudent investor”, such a change would dictate new approaches to both the discount rate and to the gross-up rule.
745. However, if that sort of policy change were to be made, it seems to us that something like the UK’s “Call For Evidence” should then take place, so that, as

²⁰³ OTLA submission, p. 5.

²⁰⁴ CIA submission, p. 24.

²⁰⁵ CMPA submission, p. 20.

much as possible, the resulting revisions to the discount rate and gross-up would be “evidence-based”.

9 Future r. 53 subcommittees

746. As mentioned above, in § 5.3.4 above, in its 2020 submissions, the Advocates' Society suggested that the process by which the discount rate is established should be reformed. We agree.

747. As can be seen from the discussion of the UK approach to this issue, vastly greater resources are devoted to the task there than in Ontario. We do not intend to make detailed recommendations about those reforms here, as it is a subject for another day. But a non-exhaustive list of issues to consider might include:

- a) whether the Ministry of the Attorney General should always have a representative on the rule 53.09 and 53.10 subcommittee;
- b) the financial resources available to the subcommittee for experts and otherwise accessing economic data;
- c) the size of the subcommittee (bearing in mind the much larger size of this subcommittee in the 1980s and 1990s);
- d) the extent to which partisan interests (e.g., plaintiffs and defendants) should be directly represented on the subcommittee;
- e) whether membership on the subcommittee should be expanded beyond the members of the Civil Rules Committee;
- f) whether the subcommittee should have access to a "staff person" to assist it;
- g) whether membership on the subcommittee should include persons who are neither lawyers nor judges; and
- h) whether the subcommittee should have anything corresponding to the UK's "Call for Evidence" about what plaintiffs actually do with their damages awards.

748. The extent to which reforms are needed will probably depend, to a large extent, on what decision is made by the Rules Committee and by the Attorney General in 2021. We certainly agree with the Advocates' Society though, that the process should be reviewed.

April 20, 2021

A large, bold, black ink signature, likely of Stephen Cavanagh, written in a cursive style.

Stephen Cavanagh (Chair)

A signature in blue ink, likely of Kathryn N. Feldman, written in a cursive style.

Justice Kathryn N. Feldman (Court of Appeal for Ontario)

A signature in blue ink, likely of Frank N. Marrocco, written in a cursive style.

Frank N. Marrocco (former Associate Chief Justice, Superior Court of Justice, ret'd)

A signature in black ink, likely of James E. McNamara, written in a cursive style.

Justice James E. McNamara (Superior Court of Justice)

A signature in black ink, likely of Mark L. Edwards, written in a cursive style.

Regional Senior Justice Mark L. Edwards (Superior Court of Justice)