In The Supreme Court of Bermuda

CIVIL JURISDICTION

2008: No. 311

BETWEEN:

DENNIKA WARREN

Plaintiff

-v-

TINEE HARVEY

Defendant

2012: No. 6

KATE THOMSON **Plaintiff**

-v-

JAMES THOMSON

1st Defendant

-and-

COLONIAL INSURANCE COMPANY LIMITED

2nd Defendant

2014:139

ARGUS INSURANCE COMPANY LTD

Plaintiff

-v-

SOMERS ISLES INSURANCE COMPANY LTD

First Defendant

-and-

HAROLD TALBOT

Second Defendant

RULING (ASSESSING DISCOUNT RATE FOR FUTURE LOSS)

(in Court)[1]

Date of hearing: June 1-2, 2015

Date of Ruling: June 22, 2015

Mr. Jai Pachai, Wakefield Quin Limited, for the claimants in Civil Jurisdiction 2008: No.311 ("Warren") and Civil Jurisdiction 2014: No. 139 ("Talbot")

Mr. Paul Harshaw, Canterbury Law Limited, for the claimant in Civil Jurisdiction 2012: No. 6 ("Thomson")

Mr. Craig Rothwell, Cox Hallett & Wilkinson Limited, for the Defendants' Insurer, Colonial Insurance Company Limited, in Warren and Thomson ("Colonial")

Mrs. Lauren Sadler-Best, Trott & Duncan Limited, for the 1st Defendant in Talbot

[1] This judgment was circulated to counsel without a hearing.

Introductory

1. The present Ruling follows upon a continuation of adjourned trials for the assessment of damages in the three captioned matters in which the following Orders were made:

    (a) On November 25, 2014 in relation to the Talbot claim, I ruled that, as far as loss of future earnings was concerned, unless the claimant filed an expert report in accordance within 35 days (or such longer time as may be directed), he would be awarded $26,533.97 x 12.70 = $336,981.42 (applying a discount rate of 3%);

    (b) on January 9, 2015 in the Warren matter, I awarded the claimant $138,123.09 in respect of a loss of future earnings, applying a discount rate of 3% and subject to her right to apply within 35 days for leave to adduce expert evidence in support of a lower rate; and

    (c) on January 19 2015, in light of the common issues identified in the earlier cases, it was directed that expert accounting and economics evidence in relation to the appropriate discount rate for future damages in all three matters could be adduced at a single hearing.

2. When claimants in personal injuries cases are awarded a lump sum in respect of future loss, the need has historically arisen to adjust the award to take into account the commercial reality that a lump sum prudently invested over the term of the assessment period could well result in a benefit greater than the amount of compensation the claimant is properly entitled to receive. That compensation for future loss is generally assessed on the basis of annual earnings and, where applicable, annual medical or other expenses attributable to the relevant injury. The assessment task crucially entails identifying the amount of compensation due (the multiplicand) and the number of years to which the award relates (the multiplier). For many years the Bermudian courts have relied on the English Ogden Tables which set out the appropriate multipliers for claimants of different ages and various potential award periods, together with a range of adjustment rates (expressed as a percentage) from which courts or litigants can choose to suit the justice of their particular case. Following English 1970's vintage case law, the adjustment rate has been between 4 and 5%.

3. Because until recent years market conditions have always justified assuming a positive adjustment rate based on projected investment returns the application of which serves to reduce or lower the applicable multiplier and the size of the future loss award, that adjustment rate is popularly referred to as the 'discount rate'. Although the 2008 global financial crisis created a shift in economic conditions giving rise to the possibility of a negative adjustment rate, it still seems most straightforward to refer to the percentage used for identifying the appropriate multiplier in the Ogden Tables as the 'discount rate'.

4. Calculation of the discount rate has for more than a decade now been far less problematic in England in Wales as a result of two legislative initiatives not applicable under Bermudian law. Firstly, the Lord Chancellor is empowered by statute to fix the discount rate and in 2001 fixed it at 2.5%[2]. Secondly, English courts are now empowered by statute to make periodical payment orders in respect of future loss awards in personal injury cases[3]. Bermudian courts continued to follow older English common law authorities suggesting a discount rate of between 4% and 5%. This was until Mr. Pachai in the Talbot and Warren matters sought to rely on the (Guernsey) Judicial Committee of the Privy Council decision in *Simon-v-Helmot* [2012] UKPC 5. In that case a 0.5% discount rate was approved for prices related heads of future loss based on expert evidence given by an actuary and an economist. A discount rate of -1.5% was approved for earnings related heads of future loss.

5. Mr. Harshaw, as I recall, foreshadowed relying on *Simon-v-Helmot* at an earlier stage of the *Thomson* case, despite the fact that it was only formally raised in early 2015. Be that as it may, in my judgment in *Argus Insurance Company Ltd-v-Harold Talbot et al* [2014] SC (Bda) 93 Civ (25 November 2014); [2014] Bda LR 114, which was delivered on the second day of the three-day trial of the Warren matter where Mr. Pachai urged the Court to adopt a 0% rate without hearing expert evidence, I reached the following findings on the discount rate issue:

> "*18…Having considered the above legal principles, I determine that it would not be appropriate for this Court to depart, as dramatically as counsel for the claimant suggests, from the longstanding discount rates upon which local litigants have relied and which have been applied by this Court after Simon-v-Helmot, without expert evidence from either an economist, actuary or chartered accountant addressing the following issues:*
>
> (1) *what is the most appropriate measure in Bermuda for the rate of return on a lump sum conservatively invested (e.g. ILGS/US TIP securities/local bank term deposit rates?);*
>
> (2) *what provision if any should be made for a gap between price and earnings inflation;*
>
> (3) *within the constraints of a modest retainer and providing a very basic guide, what range of discount percentage appears appropriate for the 2nd Defendant's case.*"

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[2] The Damages (Personal Injury) Order 2001, made under section 1(4) of the Damages Act 1996 (UK).

[3] Section 2(1) of the Damages Act 1996 (as amended by section 100(1) of the Courts Act 2003). If the parties consent, damages other than future loss can be dealt with by way of periodical payment orders: section 2(2). Unless otherwise ordered under section 2(9), a periodical payment order provides for the amount to vary in accordance with the retail price index: section 2(8), construed by the English Court of Appeal in *Thompstone-v-Tameside and Glossop Acute Services NHS Trust* [2008] 1 WLR 2207.

6. Mr. Pachai's subsequent application in the Warren matter for leave to adduce such expert evidence was not opposed by Mr Rothwell: *Warren-v-Harvey* [2015] SC (Bda) 1 Civ (January 2015); [2015] Bda LR 1, at paragraphs 17, 22.

7. The three Plaintiffs adduced evidence from the same actuary the Plaintiff in Thomson also adduced evidence from an economist while the Defendants (or their insurers) adduced evidence from the same actuary without adducing opposing evidence from an economist. Each side essentially advanced conflicting expert assessments of what the most appropriate discount rate calculation methodology was. It was common ground that the factual assessment was governed by the umbrella legal principle pithily expressed by Lady Hale in *Simon-v-Helmot*:

> "*60. The only principle of law is that the claimant should receive full compensation for the loss which he has suffered as a result of the defendant's tort, not a penny more but not a penny less…*"

8. The present Ruling primarily sets out this Court's findings for the purposes of the three cases before the Court. However, it also attempts to lay down principles of general application which can hopefully be applied in other cases without the need to adduce similar expert evidence in the near future.

The current Bermudian law position

9. The assessment of damages in tort is primarily governed by common law rather than statutory rules. Subject of course to more recent changes initiated by statute in the United Kingdom in this area of law, English case law will, where relevant remain highly persuasive. As Harvey da Costa (Acting President) pointed out in *Crockwell-v-Haley* [1993] Bda LR 7 (at pages 5-6):

> "*In matters of commerce uniformity is of course highly desirable and this court in J.E.L. Lightbourne & Co. Ltd. v Test Freres (1980) LRC (Comm) 463 readily followed the decision of the House of Lords in the Advocaat case (1980) RPC 31…The President of the Court took the view that there was no reason why the Common Law…as applied in these islands should be any different…*"

10. The Court of Appeal for Bermuda in *Haley-v-Crockwell* approved the approach of the trial judge (Ward J, as he then was) in assessing future damages for personal injuries articulated by Lord Diplock in the House of Lords case of *Cookson-v-Knowles* [1979] A.C. 556. As da Costa (P, Acting) further opined (at page 15):

> "*The "Diplock approach" has been consistently followed in assessing damages in Bermuda. As I have observed it has its critics. It is not a perfect system but then it operates in a realm in which perfection must remain beyond the wit of man. On the whole however it produces results that are substantially just. There does not appear to be any valid reason why Bermuda should seek to depart from it a system of assessment that has become well established here.*

11. Telford Georges JA (at pages 26-27) observed that different local circumstances would justify Bermudian common law taking its own distinctive course. However, he cited (at 30-31 of *Haley*) with approval the following *dictum* of Lord Diplock in *Cookson-v-Knowles* (at page 571):

> "*Quite apart from the prospects of future inflation, the assessment of damages in fatal accidents can at best be only rough and ready because of the conjectural nature of so many of the other assumptions upon which it has to be based. The conventional method of calculating it has been to apply what is found upon the evidence to be a sum representing "the dependency", a multiplier representing what the judge declared to be the appropriate number of years purchase. In times of stable currency the multipliers that were used by judges were appropriate to interest rates of 4 percent to 5 per-cent whether the judges using them were conscious of this or not. For the reasons I have given I adhere to the opinion Lord Pearson and I had previously expressed which was applied by the Court of Appeal in Young* v *Percival [1975] 1WLR.27-29, that the likelihood of continuing inflation after the date of trial should not affect either the figure for the dependency or the multiplier used. Inflation is taken care of in a rough and ready way by the higher rates of interest obtainable as one of the consequences of it and no other practical basis of calculation has been suggested that is capable of dealing with so conjectural a factor with greater precision.*"

12. The late 20th century approach was admittedly "*rough and ready*" and specifically designed to avoid the need for expert evidence, which was in turn viewed as an equally imperfect assessment tool. As Lord Dyson would later explain in *Simon-v-Helmot*:

> "*100. It was well understood that accurate quantification was impossible. The courts were unwilling to admit expert evidence as to future costs based on attempts to predict the economic or social future of the nation. The objections to such evidence were stated, for example, by Lord Oliver in Hodgson v Trapp [1989] AC 807, 833C where he drew attention to the 'inherently unscientific' nature of the exercise, saying memorably that 'to assess the probabilities of future political, economic and fiscal*

policies requires not the services of an actuary or an accountant but those of a prophet.' No doubt, he would have excluded economists as well."

13. The discount rate of 4 to 5% would be unquestioningly followed in Bermuda until the far from obvious implications of the Judicial Committee's decision in *Simon-v-Helmot* [2012] UKPC 5 seeped into the consciousness of local personal injuries practitioners. The position prior to this landmark decision understandably appeared to be that English and Bermudian common law in this field had parted ways because shortly after the "Diplock" approach was replaced by the House of Lords in *Wells-v-Wells* [1999] 1AC 345:

    (a) the Lord Chancellor fixed a standard statutory discount rate in England at 2.5% (subject to potential modification in individual cases by the courts) in 2001; and

    (b) the UK Parliament introduced periodical payments for future loss awards in personal injuries cases in 2003.

14. *Wells-v-Wells* substituted for the "fixed" 4 to 5% discount rate a rate based on the inflation-linked returns available on Index-linked Government Securities ("ILGS"). As Lord Lloyd opined (at 373E), the *Cookson-v-Knowles* [1979] AC 556 approach was adopted "*only because there was no better way of allowing for future inflation*". Since the comparatively risk free ILGS instrument was now available to British claimants, it made more sense to assume that the lump sum awarded would be invested in such an instrument. At first blush, this English common law decision had no application to Bermuda where no investment instruments comparable to ILGS existed. The decision of the Judicial Committee to follow *Wells* in relation to a Guernsey future loss claim did not obviously have any implications for Bermuda.

15. Be that as it may, the 'old' approach was followed by me (applying a 4% discount rate) in *Best-v-Jensen* [2012] SC (Bda) 44 Civ (28 August 2012); [2012] Bda LR 53 and tacitly approved by the Court of Appeal in *Best-v- Jensen* [2014] CA (Bda) 13 Civ (28 March 2014); [2014] Bda LR 23. The decision in *Simon-v-Helmot* [2012] UKPC had by then been delivered on March 7, 2012.

Should there be a new Bermudian law position on discount rates?

<u>The issue defined</u>

16. The claimants in the present cases submit that this Court should follow the Privy Council's decision *Simon-v-Helmot* and adopt the approach to discount rates established by the House of Lords in *Wells-v-Wells*. The Defendant insurers contend that, having regard to economic realities, the more nuanced approach adopted by the Hong Kong Court of First Instance in *Chang Pak Ting-v- Chan Chi Kuen* [2013] HKCFI 179 (Bharwaney J) should be preferred.

17. Having regard to the pronouncements made in *Crockwell-v-Haley* [1993] Bda LR 7 about the precedential effect of decisions of the House of Lords (now UK Supreme Court) and the Judicial Committee of the Privy Council set out above, the starting assumption must be decisions of those

courts will be followed unless good reason (grounded in relevant local conditions) exists for not doing so.

18. In a case centrally based upon expert evidence, any articulation of the applicable legal principles can only tentatively be expressed in isolation from factual findings based on that evidence. What legal principles the main cases in controversy establish will next be considered in their widest canvass before deciding, having found the applicable facts, what assessment techniques ought ultimately to be applied with a view to determining the applicable discount rate.

Simon-v-Helmot [2012] UKPC 5

19. The claimant was seriously injured when, whilst cycling, he was struck by a car negligently driven by the defendant. He was 28 at the time of the accident and 39 at the time of judgment and had a substantial claim for future loss of earnings and care and management expenses (comprising both earnings and other elements), the latter expenses being required by the claimant's severe physical and cognitive impairments. The Royal Court of Guernsey awarded damages in excess of £9 million and applied a single discount rate of 1% following a six week trial at which expert actuarial and economical evidence was adduced. The claimant had contended for discount rates of -1.5% (minus 1.5%) for earnings-related losses and 0.5% for non-earnings-related losses. The defendant had contended for a discount rate of 2.5%, namely the statutory rate fixed by the Lord Chancellor in respect of England and Wales in 2001.

20. On appeal to the Guernsey Court of Appeal, the claimant sought the discount rate it contended for at trial and the defendant cross-appealed seeking the discount rate it had contended for at trial. The Court of Appeal (Sumption, Jones and Martin JJA) allowed the claimant's appeal and dismissed the cross-appeal, fixing the discount rate at -1.5% for earnings related future losses and 0.5% for other future losses. This increased the award by some £4.5 million. Sumption JA (as he then was) delivered the judgment of the Court, which essentially concluded as follows:

    (a) *Wells-v-Wells* and earlier cases continued to reflect the common law position on determining the discount rate for future damage awards in Guernsey;

    (b) the English judicial approach to assessing future damage awards and its relevance to Guernsey was described as follows:

> "*21.The English courts have always attached importance to certainty and consistency in the assessment of damages for personal injuries, and I certainly do not under-estimate the importance of these factors. They facilitate the settlement of cases without resort to expensive expert evidence and contested litigation. But there is a natural tension between certainty and consistency on the one hand and perfect accuracy on the*

other. The English courts have never carried their emphasis on certainty and consistency beyond the point where it starts to work injustice to either side. Leaving aside cases in which the English courts have felt bound by the inherent rigidity of the statutory scheme for assessing lump sum damages, the furthest that they have gone is to discourage major litigation with a view to achieving relatively minor changes in the going discount rate, in circumstances where there had been no major change in the relevant economic conditions. None of these considerations can justify assessing damages in Guernsey on an assumption about the rate of return which is out of date, has no current evidential basis and is not required by any statute or rule of law."

(c) it should accordingly be assumed that claimants would invest their lump sum in UK ILGS. According to Sumption JA:

> "*36…The reason for calculating a lump sum award on the footing that the lump sum will be invested in index-linked gilts is that it achieves an automatic adjustment for future increases in the general level of prices. On the assumption that the lost earnings or costs which are being compensated increase in line with the UK RPI, the assumed portfolio will automatically grow at the same rate as the losses which it supposed to replace and the costs which it is supposed to fund…*";

(d) the credentials of the three experts, who included Mr. Christopher Daykin, the actuary called by the claimants in the present matters, "*were as impressive as they could possibly have been*" (paragraph 41);

(e) the expert evidence from economist Mr. Bootle established, *inter alia*, the following material facts:

> "*Given Guernsey's state of economic development, and its close economic relationship and monetary union with the United Kingdom, a broadly comparable relationship between price and earnings inflation in the bailiwick is to be expected there…*" (paragraph 42(4));

(f) the Jurats erred in "*disregarding evidence which was powerful, consistent and unchallenged, on issues on which their own experience of Guernsey society was unlikely to be of much assistance*"(paragraph 46). It was permissible to both assume the lump sum would be invested in ILGS and adjust the discount rate to take into account relevant local economic variations in the inflation rate;

(g) the Jurats ought to have accepted earnings in Guernsey would likely rise at a rate of 2% above the United Kingdom retail price index for the foreseeable future. This justified two different rates for earnings-related losses (a lower rate) and non-earnings-related or price-related losses (a rate which would match the RPI).

21. The Judicial Committee of the Privy Council affirmed the decision of the Guernsey Court of Appeal. Lord Hope explained the broad function of the discount rate as follows:

> "*10. Leaving aside the changes introduced by statute, English law requires that an award of damages must take the form of a single lump sum. The award has to take account of all the elements of future loss as well as all the loss for the past. The inevitable delay in the provision of compensation for past losses can be made good by an award of interest at the appropriate rate on those parts of the lump sum that relate to the past. But the payment as part of the lump sum of an amount that is to compensate for losses to be incurred in the future gives rise to a different problem. Account must be taken of the fact that the money is being paid now for losses that will not arise until some date in the future. The adjustment that has to be made to the lump sum to account for this will affect the total amount to be paid by way of damages.*"

22. In assessing damages for future loss, Lord Hope also pointed out, perfection could never be achieved:

> "*12. It has to be recognised that it is not possible, when dealing with losses that will be incurred in the future, to achieve perfect accuracy. As Lord Steyn said in Wells v Wells at p 383, perfection in the assessment of future compensation is unattainable. But, just as there can be no good reason for a shortfall in the amount required to meet the outlays for nursing care in the future, there can be no reason for requiring the defendant to pay more than is needed to compensate the injured party for these outlays. <u>It follows that the calculation should make the best use of such tools as are available.</u>*
>
> *13. <u>The conventional approach, as Lord Oliver explained in Hodgson v Trapp at p 826, is to assess the amount that is notionally required to be laid out in the purchase of an annuity which will provide the annual amount that is needed for the whole period of the loss. The recurring annual amount has first to be determined. This is the multiplicand, to which a multiplier is then applied. It is the selection of the multiplier that lies at the heart of the dispute in this case.</u> It has to take account of the period for which the loss can be expected to continue. If, as in this case, the injuries are of the maximum severity this will be the injured party's life expectancy. But one then has to determine the interest rate which represents the return which can reasonably be expected on the lump sum, assuming that it is invested in such a way as to enable the whole amount of the loss to be met during the entire period by the expenditure of income together with capital. This is the critical stage in the exercise. The higher the interest rate the lower the number of years' purchase that is required to calculate the capital value of the annuity.*" [emphasis added]

23. After describing the economic conditions in which the 4-5% discount rate approved in *Cookson-v-Knowles* [1979] AC 556 came to be used, Lord Hope next explained why the new tool of ILGS was approved in *Wells-v-Wells* 20 years later:

> "*16. The opportunity for greater accuracy in the selection of the discount rate was provided by the introduction in 1981 of index-linked government securities ("ILGS"). This made it possible to match the receipts from the investment of a lump sum almost precisely to the sum needed to compensate by way of a lump sum for costs to be incurred in the future that were of the same kind as those to which the rise in value of ILGS was linked by the index. In 1984 the first edition of the Ogden Tables (entitled "Actuarial Tables with explanatory notes for use in Personal Injury and Fatal Accident Cases"), which had been prepared by the Government actuaries' department and compiled by a working party chaired by Michael Ogden QC, was published. It contained an invitation to practitioners to cease using the traditional multipliers which assumed a discount rate of 4 to 5% and use instead multipliers based on the assumption that funds would be invested in ILGS discounted at a rate of between 2.5 and 3.5%...*
>
> *17. In each of the three cases which were before the House of Lords in Wells v Wells [1999] 1 AC 345 the Court of Appeal had applied a discount rate of 4.5% in calculating the lump sum. The House held that the lump sum should be calculated on the basis of the return available on ILGS…*"

24. Attention then turned to describing the distinctive legal and factual context of Guernsey which justified applying the English common law approach modified to suit local circumstances. According to Lord Hope:

> "*26. Statutes of the United Kingdom Parliament may relate to the bailiwick, either because they are expressed to apply there directly or upon the making of a subsequent Order in Council or ministerial order: Jersey Fishermen's Association Ltd v States [2007] UKPC 30, [2007] GLR 36, para 1. But the Damages Act 1996 is not one of them, and it has no equivalent in the laws of Guernsey. Guernsey law and English law both accept that the injured party is entitled to be provided with a sum of money which will put him in the same position as if he had not sustained the wrong for which he is to be compensated. But there is no provision in Guernsey for the award of damages for personal injury other than by way of a lump sum. And there is no statutory discount rate. Regard may be had to the common law of England for guidance as to how to adjust the present value of a lump sum to allow for the fact that it is to be paid now to cover losses that will be incurred in the future. The common law which is relevant is that which was analysed and developed in Wells v Wells. Significant changes in the yields on ILGS would justify adopting a different rate from that which was adopted in that case. But decisions about the effect of the 1996 Act or its application have no bearing on the way the lump sum is to be calculated according to Guernsey law.*
>
> *27. It is common ground that there are other factual differences too. They were listed by the Court of Appeal in para 14 of its judgment. First, the rate of inflation within the*

bailiwick has been fairly consistently about 0.5% higher than in the UK RPI which is tracked by ILGS. This state of affairs can be expected to continue. Second, income tax rates are lower in Guernsey than those that are payable by persons ordinarily resident in the UK. This means that the net yield of ILGS to a Guernsey resident will be different from that which will be enjoyed by a person holding the same securities who is taxable in the UK. Third, the statistical information which is available to track the movement of prices and earnings is more limited for Guernsey than it is for the UK. For that reason at least, it is less reliable. <u>These factual differences are all capable of being accommodated by adjustments to the calculation of the award that would be appropriate if this case was being decided in England</u>…" [emphasis added]

25. The pivotal legal finding was that because the common law rules relating to assessing damages for future loss in personal injuries cases in England and Guernsey were the same when *Wells-v-Wells* was decided by the House of Lords, the English common law was a relevant guide to the Guernsey common law position. In terms of the expert evidence, Lord Hope noted:

> "*33.Mr Hogg, Mr Bootle and Mr Daykin all gave evidence. The scope for challenging their conclusions was limited. This was because the appellant's case was simply that the court should apply the discount rate fixed by the Lord Chancellor…*"

26. Accordingly, Lord Hope concluded on the merits of the appeal as follows:

> "*57. I would hold that the Court of Appeal was right to intervene and to substitute for the Jurats' single figure of 1.0% overall a rate of 0.5% for the future losses that are not earnings related and a rate of -1.5% for the earnings related elements of the respondent's future losses, on the ground that these figures had been established by the evidence. While I would endorse the Court of Appeal's observations in paras 50-52 of its judgment as to how cases of this kind should be handled in the future, I should also like to express the hope that legislation might be introduced in Guernsey to enable the court to order the payment of damages by means of periodical payments in line with the systems that are now available in the United Kingdom. I share Lord Clarke's admiration for the ability of the common law to develop new remedies. But it is one thing to approve a structured settlement which the parties have agreed to, as Lord Stewart did in D's Parent and Guardian v Greater Glasgow Health Board 2011 SLT 1137. To impose such a settlement on parties who were unwilling or unable to reach such an agreement is another. Like Lord Dyson, I think that a change of that nature is best left to the legislative process.*"

27. Lord Hope's advice was concurred in by the rest of the Privy Council Board. The following additional pronouncements bear reproducing here:

    (a) "60. *The only principle of law is that the claimant should receive full compensation for the loss which he has suffered as a result of the defendant's tort, not a penny more but not a penny less. Allied to this is the principle, which no-one in this case has*

sought to attack, that damages must be expressed as a lump sum, payable now…" (Lady Hale);

(b) "*76. The real question in the appeal must therefore be this: which approach is preferable: one which ignores the established trend showing an increase in real earnings and so produces an award almost certainly less than will be sufficient to meet the claimant's likely future care costs, or one which uses the best available evidence to predict the future relationship between earnings and living costs and attempts, therefore, to arrive at an award which satisfies the claimant's undoubted entitlement to full compensation for his injuries?*

77. The answer must therefore be obvious. Only if we were unwise enough to introduce into Guernsey compensation law a new principle to the effect that economic theory is just too imprecise a tool by which to seek to gauge likely future trends (and were therefore to bar, or simply ignore, evidence substantially based upon it) could the Jurats' approach in this case properly be upheld." (Lord Brown);

(c) "88. *Finally I would like to add three points about the future. First, I agree with other members of the Board that it would be desirable for legislation to be introduced expressly to authorise the making of PPOs in Guernsey. Secondly, the decision in this appeal does not mean that the figure of 2%*[4] *will be set in stone. Although uniformity of approach is plainly desirable and frequent changes are equally undesirable, I agree with Sumption JA that, if there were convincing evidence to support substantially different figures, the relevant percentages in the future would indeed be different.*

87. Thirdly, a consideration of the development of the approach to the measure of damages in this class of case vividly demonstrates the flexibility of the common law. Lord Hope has traced that development by reference to the approach of the House of Lords up to and including Wells v Wells [1999] 1 AC 345. Lord Dyson too has set out the history at paras 99 to 101. In particular, at para 13 Lord Hope sets out what he calls the conventional approach explained by Lord Oliver in Hodgson v Trapp [1989] AC 807 at 826 and at para 15 he describes the approach to inflation in Mallett v McMonagle [1970] AC 166 per Lord Diplock at 176, which was endorsed in Cookson v Knowles [1979] AC 556, at pp 571-572 per Lord Diplock and at pp 576-577 per Lord Fraser of Tullybelton. As Lord Hope points out at paras 17 to 18, that approach was discarded by the House of Lords in Wells v Wells. In particular the House abandoned the approach which had previously been adopted of taking a discount rate of 4.5-5% based upon what a plaintiff could be expected to earn on a lump sum if it were invested sensibly in a mixed basket of gilts and equities. That approach was

[4] This was the gap between price and earnings inflation found to exist in Guernsey.

abandoned in Wells v Wells. Indeed it was rejected as unsound: see eg per Lord Lloyd at p 371." (Lord Clarke[5]);

(d) "*113. the law has never demanded precision in the assessment of future loss. By its very nature, it cannot be an exact science. The court must do its best on the available evidence. If the evidence is pure speculation and without any foundation in fact, the court will reject it. But if evidence as to likely future economic trends is firmly based on convincing historical data, the court may be able to make findings as to the future in which it has confidence to the appropriate standard of proof... Ultimately, however, it is a question of assessing the quality of the evidence in any particular case.*" (Lord Dyson)

28. The Privy Council approved the following factual approach to determining the discount rate for future loss. Firstly, the starting point was to use the rate of return on ILGS based on the hypothetical assumption that the claimant would invest his lump sum in the most risk free form of instrument. This afforded protection against price-related expenses as the returns were linked to the retail price index in England and Wales (RPI). However, expert evidence was required primarily to ascertain the allowance (if any) which was needed as regards earnings-related loss since it was clear that earnings were likely to rise at 2% above the RPI in Guernsey, and to deal with other adjustments uniquely relating to Guernsey (e.g. a lower tax rate and a higher price inflation rate than in England and Wales).

29. The unanimous legal view was that this approach, approved by the House of Lords in *Wells-v-Wells* [1999] AC 556, reflected the common law position for Guernsey.

Wells-v-Wells

30. Lord Lloyd's leading speech in the House of Lords included the following conclusions upon which Mr. Harshaw and Mr. Pachai heavily relied:

> "*My conclusion is that the judges in these three cases were right to assume for the purpose of their calculations that the plaintiffs would invest their damages in I.L.G.S. for the following reasons:*
>
> *(1)Investment in I.L.G.S. is the most accurate way of calculating the present value of the loss which the plaintiffs will actually suffer in real terms.*
>
> *(2)Although this will result in a heavier burden on these defendants, and, if the principle is applied across the board, on the insurance industry in general, I can see nothing*

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[5] Lord Clarke went on (at 92-95) to express the very interesting but strictly *obiter* view that periodical payment orders could be made at common law if not authorised by statute. Lord Dyson considered this would be "*a step too far*" (paragraph 105). It remains to be seen whether Bermudian litigants in the future seek to establish this additional common law remedy.

unjust. It is true that insurance premiums may have been fixed on the basis of the 4 to 5 per cent. discount rate indicated in Cookson v. Knowles and the earlier authorities. But this was only because there was then no better way of allowing for future inflation. The objective was always the same. No doubt insurance premiums will have to increase in order to take account of the new lower rate of discount. Whether this is something which the country can afford is not a subject on which your Lordships were addressed. So we are not in a position to form any view as to the wider consequences.

(3)The search for a prudent investment will always depend on the circumstances of the particular investor. Some are able to take a measure of risk, others are not. For a plaintiff who is not in a position to take risks, and who wishes to protect himself against inflation in the short term of up to 10 years, it is clearly prudent to invest in I.L.G.S. It cannot therefore be assumed that he will invest in equities and gilts. Still less is it his duty to invest in equities and gilts in order to mitigate his loss.

(4)Logically the same applies to a plaintiff investing for the long term. In any event it is desirable to have a single rate applying across the board, in order to facilitate settlements and to save the expense of expert evidence at the trial. I take this view even though it is open to the Lord Chancellor under section 1(3) of the Damages Act to prescribe different rates of return for different classes of case. Mr. Leighton Williams conceded that it is not desirable in practice to distinguish between different classes of plaintiff when assessing the multiplier.

(5)How the plaintiff, or the majority of plaintiffs, in fact invest their money is irrelevant. The research carried out by the Law Commission does not suggest that the majority of plaintiffs in fact invest in equities and gilts, but rather in a building society or a bank deposit..."

31. The House of Lords unanimously held that the Court of Appeal was wrong in declining to follow the recommendations of the Ogden Working Group and the Law Commission that ILGS should be used as a central part of the process for calculating discount rates. Lord Lloyd also observed (at page 371D):

"*Apart from McGregor on Damages, we were not referred to any other commentary or textbook which disagrees with the recommendations of the Ogden Working Party and the Law Commission.*"

Chan Pak Ting-v-Chan Chi Kuen et al [2013] HKCFI 179

32. On February 7, 2013, the Hong Kong Court of First Instance (Bharwaney J) after hearing expert evidence determined the discount rate for future loss based on the assumption that the claimant would invest in a mixed basket of investments rather than in ILGS or their equivalents. The Hong Kong Court considered but, on factual rather than on legal grounds, declined to follow the ILGS-based approach approved by the House of Lords in *Wells-v-Wells* and by the Privy Council in *Simon-v-Helmot*. The result was the adoption of multiple discount rates depending on the length of the loss period: (a) 0-5 years - 0.5%, (b) 5-10 years-1%, and (c) 10+ years-2.5%. Unsurprisingly, as the loss periods in the present cases were all in the upper 10+ years range, Mr. Rothwell for Colonial and Mrs. Sadler-Best for Somers Isles commended the mixed basket of investment assumption to the Court, supported by their clients' actuarial expert's evidence.

33. Bharwaney J clearly regarded the governing legal principles applicable to the assessment of damages in tort to be the same as under English law. He rejected utilising the ILGS assumption because these instruments were not available to even the "*hypothetical reasonable plaintiff*":

"*73…I am not bound by higher authority on the question of what investment vehicle or combinations of investment vehicles would be suitable for victims of torts.*

74. That question was asked, and answered, by the House of Lords in Wells v. Wells. As Lord Hope noted in Simon v Helmot, the investment scene had radically altered when Wells v Wells was decided. The breakthrough had come with the introduction of Index-Linked Government Securities ("I.L.G.S.") and the appreciation that there was at last a tool that could be used to provide protection against inflation, that was tailor-made for investors who wanted a safe investment for the long term, and that guaranteed the availability of money to meet costs as and when required. <u>However, there were no I.L.G.S. available in Hong Kong in 1995 and 1996, when Chan Pui Ki v Leung On was decided, and there are no I.L.G.S. available in Hong Kong today.</u> If I may borrow from, and paraphrase, the speech of Lord Hope in Simon v Helmot, the solution today in Hong Kong is still dependent on surmise and speculation, as it was when the issue was being discussed in the UK 3 decades ago.

> *75. The starting point must, of course, be the needs of the victim of the tort. What the actual plaintiff does with his award of damages is, of course, irrelevant. He may choose to invest it, he may choose to spend it, or he may even choose to gamble it away. It is the personal choice of the actual plaintiff to invest his award of damages for future loss in a vehicle promising higher returns but, of course, he would do so at higher risk to himself. However, as Lord Clyde observed in Wells v Wells:*
>
> > *'Whether he is proposing to invest it or spend it, or, more particularly, exactly how he is going to invest it or spend it, does not affect the calculation of the award. No distinction is recognized here between misers and spendthrifts. While it may be evident that there are certain ways in which he could prudently invest the award in other ways in which he could be impairing his own future comfort by his employment of the award, the quantification of the sum to which he is entitled in compensation takes no account of the course which he may in the event choose to adopt.'.*
>
> *One needs to ask how the hypothetical reasonable plaintiff who is mindful of his current, short-term, and long-term needs will invest and otherwise deal with his award to meet those needs.*" [emphasis added]

34. *Chang Pak Ting* must be understood in the context of its facts. There was a joint expert report and it was common ground that the ILGS measure was inappropriate as it was not even a potentially available investment vehicle for the hypothetical reasonable Hong Kong plaintiff. The vehicles taken into account were not selected as a more appropriate reference tool than ILGS, but merely as the best available measures. The Hong Kong Court clearly considered the measures available as a 'next best' rather than a 'preferred' option. As Bharwaney J stated in his judgment:

> "22. *In the next section of the joint report, the experts identified the investment vehicles available to Hong Kong investors, ranging from fairly standard types, such as bank deposits, bonds, stocks and properties to highly sophisticated vehicles. For the purposes of the present case, the experts concentrated on 12-month time deposits, Hong Kong Exchange Fund papers and various constituent retirement scheme funds…*
>
> *45. Unlike the residents of the United Kingdom, or the residents of Guernsey, who have ready access to, and are able to acquire I.L.G.S., plaintiffs who receive an award of damages in Hong Kong must look to the investment vehicles available in Hong Kong into which to invest those damages in order to secure a stream of continuing income to satisfy their future needs…*

> *74… there are no I.L.G.S. available in Hong Kong today. If I may borrow from, and paraphrase, the speech of Lord Hope in Simon v Helmot*[6]*, the solution today in Hong Kong is still dependent on surmise and speculation, as it was when the issue was being discussed in the UK 3 decades ago.*" [emphasis added]

Conclusion: should Bermuda law adopt new rules for calculating the discount rate for future loss claims in personal injuries cases?

35. The principal authorities referred to in argument which have been summarised above do not support a finding, as a matter of pure law, that the assessment of damages rules should be changed. As Lady Hale stated in *Simon-v-Helmot* [2012] UKPC 5 (at paragraph 60):

> "*The only principle of law is that the claimant should receive full compensation for the loss which he has suffered as a result of the defendant's tort, not a penny more but not a penny less. Allied to this is the principle, which no-one in this case has sought to attack, that damages must be expressed as a lump sum, payable now…*" [emphasis added]

36. However, that umbrella legal principle requires the Court to consider based on the expert evidence adduced in the instant matters what methodology for calculating the discount rate should now be adopted. It is essentially common ground that the old rough and ready approach of adopting a rate of between 4% and 5% is no longer the most accurate assessment tool and that regard must now be had, in light of prevailing and likely future economic conditions, to how the hypothetical reasonable or prudent claimant would invest his lump sum over the applicable loss period. What is in controversy is whether the assumption that the hypothetical reasonable claimant will invest his lump sum solely in index-linked government securities, an evidential assumption which now has strong undercurrents of legal policy, ought properly to be made in relation to Bermudian claimants under current economic conditions.

37. The contending assumption options are, it not being common ground that ILGS-type instruments are for present purposes appropriate for prudent Bermudian claimants to invest in:

    (a) investment only in Treasury Inflation-Protected Securities (TIPS), the US equivalent of ILGS (the claimants); and

    (b) investment in a mixed basket of equities and ILGS (the Defendants/insurers).

38. The present cases appears to be the first occasion on which a common law court has been required to consider, in the future damages discount rate assessment context, the respective merits of an assumed investment of the entire lump sum to be awarded in ILGS as opposed to in a mixed basket of investments.

[6] At §47

The Expert Evidence

<u>Overview</u>

39. Kate Thomson called economist Dr. John Llewellyn and all three claimants actuary Mr. Christopher Daykin. The Defendants called actuary Mr. Peter Gorham. Each was an eminent expert in his respective field and, unsurprisingly, generally gave evidence in an impressive and professional manner.

<u>Dr. John Llewellyn</u>

40. Dr. Llewellyn is currently a London-based economics consultant who is also a member of the Advisory Board of the Office of Budget Responsibility and the Council of the National Institute of Economic and Social Research. He obtained his first degree from Victoria University (Wellington, New Zealand) and his doctorate from Oxford University. He was a member of the Faculty of Economics at Cambridge University for 10 years, held various posts with the OECD in Paris before becoming Global Chief Economist and finally Senior Economic Policy Advisor at Lehman Brothers.

41. Although his Report was prepared formally on behalf of the claimant in relation to the Thomson matter alone, his evidence was to some extent clearly adopted by the other claimants as well and challenged only by the Defendants. His Report addressed, *inter alia*, the link between the US and Bermuda economies and the likely difference between earnings and price inflation during the claimant's lifetime in Bermuda and the UK (where Thomson now resides). By way of background, however, he opined (at page 4) in general terms as follows:

> "*…a major consideration when calculating the present values of future cash-flows i.e. the 'lump sum', is the appropriate rate of interest to reflect the time value of money.*
>
> *For determining a lump sum in the Bermuda Court it would in principle be appropriate to allow for future expected price inflation and real earnings growth in Bermuda. The 'risk-free rate of interest' would in principle be taken from the rate of return on suitably low risk investments. Ideally, these investments would be in securities linked to a Bermuda price index (i.e. 'index-linked').*
>
> *In Bermuda a practical difficulty is that there are no 'index-linked' government bonds…a further difficulty is that , in Bermuda, fixed interest bonds have a maximum duration of 10 years, so for most compensation cases, it would be necessary to make assumptions about reinvesting maturity monies for subsequent periods.*
>
> *An alternative, given the close links between Bermuda and the US, would be to assess the discount rate for compensation in Bermuda having regard to the yields on US index-linked securities, and making an adjustment for any systematic differential*

> *between Bermud[i]an and US inflation. US index-linked bonds-Treasury Inflation-Protected Securities (TIPS)-would be the most suitable for this purpose…*"

42. Dr. Llewellyn then proceeded to explain the methodologies for assessing price and wage inflation, cautiously noting that no ideal approach exists. As far as Bermuda and price inflation was concerned, he noted that available data was more limited than in "*larger advanced economies*" (paragraph 3.1). While real earnings growth was generally viewed as the difference between nominal earnings and inflation, forecasting price inflation was inherently difficult. He viewed projecting labour productivity growth over the long-term as a "*markedly more solid…approach to projecting the likely future growth of real earnings*" (paragraph 12). Real wage growth in mature economies such as the US and the UK would be "*typically around 2% or so per year on average over the long run*" (paragraph 14.2).

43. His first substantively significant finding was on the inflation link between the Bermudian and United States economies, grounded in the fact that Bermuda's economy is small and open and its currency is pegged to the US dollar:

> "*…In effect, the Federal Reserve determines Bermuda's monetary policy. For so long as Bermuda maintains its peg to the US dollar, a fairly close relationship between the price level and inflation rate in Bermuda is to be expected….authorities in Bermuda…historically have been fiscally responsible…For as long as Bermuda's authorities maintain both fiscal discipline and the fixed peg with the US dollar, the chances of a major systematic divergence between the US rate of inflation and Bermuda would seem small.,, it is of course possible that Bermuda could become fiscally irresponsible, but there is no reason to assume that…*" (paragraphs 23.1.2-3, 35-36)

44. His second substantive finding was that price inflation in Bermuda over the next 20 years would on average be 0.5% above the US rate, despite possible variations in some years. Dr. Llewellyn regarded this conclusion as "*the best possible working assumption*" (paragraph 40).

45. Dr Llewellyn then turned to the likely differential between prices and earnings inflation or real earnings growth. The US position he derived from the research of the Chief Actuary for the Social Security Administration, which he viewed as "*theoretically and empirically robust* [doing] *a good job of reconciling the various influences*" (paragraph 54). He acknowledged limited data for Bermuda as well as the fact that the US recovery from the 2008 Global Financial Crisis had not yet been replicated in Bermuda. He nevertheless concluded that the US 1.6% annual increase in real earnings would likely be matched in Bermuda (paragraph 57):

> "*In my judgment, based on the available data; arguments about conditions likely to prevail in the future; and the twin assumptions that the currency peg with the US is retained at par and that Bermuda maintains fiscal discipline, I would regard 1.6% per year on average as the best working assumption for the excess of Bermuda average earnings growth over Bermuda inflation over the next twenty years i.e. for*

the growth of real incomes on average. But again, there will probably be considerable variation from year to year."

46. The economist's fourth substantive finding was that based on similar trends in the UK and US (CPI inflation had averaged 2.6% in both countries over the last 24 years), "*I cannot see any well-established basis for assuming any systematic divergence between price inflation in the US and the UK, and hence would take 0% per year on average as the best working assumption for the excess of UK consumer price inflation over US consumer price inflation over periods of 20 years or more*" (paragraph 67).

47. Finally, Dr. Llewellyn addressed the real earnings projections for the claimant in the UK during the remainder of her likely working life. After some typically cautionary introductory remarks about the need for handling economic data with care, he opined that "*some reasonably reliable broad characteristics can be identified*" (paragraph 68):

    (a) from 1963 to 2008 (45 years), UK labour productivity rose by an average 2% (paragraph 69);

    (b) over the same period real wage growth (measured by reference to both the GDP and private consumption expenditure deflators) also rose by 2% (paragraph 70).

48. He accordingly concluded:

    "*93. Accordingly, when thinking ahead 20 years or so, it is to the underlying, fundamental economic forces, rather than the exceptional years from 2008 to 2014, to which I appeal.*

    94. In my judgment, therefore, the appropriate assumption to make about the growth of real wages over the coming 20-odd years is that, appropriately measured, they will average 2% per year."

49. Although this evidence was tested in cross-examination, it was not contradicted by any other expert evidence within the discipline of economics. The Defendant's actuary, Mr. Gorham, himself very properly conceded under cross-examination that it was beyond his expertise to challenge the economic analysis of Dr. Llewellyn.

<u>Christopher Daykin</u>

50. Mr. Daykin prepared separate largely overlapping reports for each of the three claimants. His qualifications include an MA from Cambridge University and he has been a Fellow of the Institute of Actuaries for over 40 years. Employed in the UK Government Actuary's Department between 1970 and 2007, he headed that Department from 1989 to 2007. In that capacity he has advised the Bermudian Department of Social Insurance on the financing of benefits under the Contributory Pensions Act 1970. He is now an independent consultant.

51. For present purposes the most important aspect of his professional experience is his membership of the Ogden Working Group for more than 10 years and his responsibility for the 2nd- 6th editions of the Government Actuary's Department publication '*Actuarial Tables with explanatory notes for use in Personal injury and Fatal Accident Cases*' (the "Ogden Tables"). In England and Wales the Ogden Tables are by statute admissible in evidence. The Bermudian courts have as a matter of practice referred to these Tables for many years in personal injury cases.

52. The Exhibits attached to Mr. Daykin's Reports included an article tracing the history of actuarial science back to astronomer Edmund Halley as well as one of his own papers[7]. The latter noted the courts' historical scepticism about actuarial evidence:

> "*…as a method of providing a reliable guide to individual behaviour patterns or to future economic and political events, the predictions of an actuary could be only a little more likely to be accurate (and would almost certainly be less entertaining) than those of an astrologer.*"[8]

53. The claimants clearly regarded Mr. Daykin as their 'star' expert, not because of the aforementioned somewhat light-hearted allusions to astronomy and astrology in the material exhibited to his Reports, but rather (and very pertinently) because he (and an economist) had given similar evidence in the courts of Guernsey which had been unreservedly accepted by the appellate courts in *Simon-v- Helmot*. As the glowing recipient of such high judicial seals of approval, it is unsurprising that Mr. Daykin was an expert witness who seemed to display an unusually authoritative air. Nevertheless, the contentious aspects his evidence need to be carefully assessed bearing in mind the fact that, contrary to the position in *Simon-v-Helmot*, the relevant opinions are positively challenged.

54. Mr. Daykin's three Reports consisted of introductory and concluding sections, between which are five main substantive sections of general application and one section dealing with the specific case of each claimant. His evidence in relation to the five main topics of general application are summarised below[9]:

    (a) "*Setting a value on future losses*" (section 2): the actuarial expert firstly explained that the advantage of being able to make periodical payment orders is "*that the payments are made for as long as the claimant will live and no longer, whereas the alternative of a lump sum settlement does not provide any assurance that the money will be sufficient to last for as long as it is needed (or it may prove to be more than is needed)*" (paragraph 2.3). Where a lump sum must be paid, actuarial assessment was required to assess two issues:

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[7] '*Fair Compensation Needs Actuaries*' [2009] JPIL 48, a speech delivered to the Personal injuries Bar association on October 13, 2008.

[8] Per Oliver LJ in *Auty-v-National Coal Board* [1985] 1 WLR 784 at 800-801.

[9] Unless otherwise indicated, references in the present Ruling to paragraph numbers in Mr. Daykin's Reports refer to the paragraph numbers in the Thomson Report.

(1) the claimant's life expectancy was dealt with in the Ogden Tables; and

(2) the need to take into account both the returns a claimant would make on investing the lump sum and the impact of future inflation. In this respect, "*a convenient and robust approach to determining a suitable discount rate is to consider the market in government index-linked bonds*" (paragraph 2.10). Perhaps the single most important paragraph in this section of Mr. Daykin's Reports, having regard to the opposing Report of Mr. Gorham, is the following:

"*Since compensation for damages is a transaction in which money will actually change hands to reflect the value placed on future cash-flows for which compensation is required, the UK actuarial profession encourages actuaries to adopt a 'matching', or market consistent, approach to setting the discount rate. This means that the actual assets in which the money might be invested are ignored and the discount rate is set by reference to a measure of the risk-free rate of returns indicated by market instruments. The closest we can get to this for a series of cash-flows likely to go up in line with inflation in the UK or the US is the market yields offered respectively by a portfolio of ILGS and TIPS*";

(b) "*The discount rate in personal injury cases in England and Wales*" (section 3): Mr. Daykin explains that when the House of Lords in *Wells-v-Wells* decided that lump sum awards should be based on values published in the Ogden Tables and "*real yields available on ILGS*", the House of Lords' Judicial Committee was following advice given over two decades by the Ogden Working Group. He also describes why this method is uniquely suitable for assessing the future value of lump sum awards made to individual claimants as opposed to projections made by pension plans or insurance companies, which have the option of making diverse investments in respect of multiple clients with varied lifespans. Further, in the latter instances, there may be additional capital available to make good shortfalls if more risky elements of a mixed portfolio do not generate the anticipated returns. No such additional capital can be assumed to exist in the case of an ordinary individual claimant, who can only in any event invest over his or her own lifespan;

(c) "*Setting the discount rate in Bermuda*" (section 4): Mr. Daykin opines that as Bermuda's economy is closely linked to the US economy and, like Guernsey, has no provision for periodical payments, no statutory discount rate and no local index-linked Government bonds, it is appropriate to assess the discount rate on lump sum

payments by reference to an assumed investment in US TIPS. He states that he "*analysed the real yields on each TIPS since they were first issued in 2003, in order to determine a discount rate consistent with the approach under common law, as established in Wells v Wells and Simon v Helmot*" (paragraph 4.13). He calculated the 12 month average monthly yield over 31 months to January 30, 2015 as +0.465% (paragraph 4.15). The last 12 months' average month end real yields maturing at 5 years and above were similar at +0.466%. He ignored shorter term maturities as these were distorted by short-term factors. He then opines as follows: "*4.19 In my opinion it is appropriate to base the discount rate on the one-year average of monthly average yields, excluding the shorter-dated TIPS, giving a figure of +0.465% a year, as calculated in paragraph 4.15*";

(d) "*Allowing for price inflation in Bermuda*" (section 5): Mr. Daykin compared inflation rates in Bermuda and the US from 2003 to 2014 and found that on average the Bermudian CPI increased by 0.5% more than the US index. Consistently with Dr. Llewellyn's conclusions, Mr. Daykin opined that it was reasonable to assume that Bermuda inflation would exceed US inflation in the future by an average of 0.5% per year;

(e) "*Allowing for real earnings growth in Bermuda*"(section 6): Mr. Daykin explains that research published in 2012 shows that Government actuaries in most major industrialised countries predict real earnings growth to 2050 as ranging between 1.25% and 2.00% per year. The US Department of Social Security's Chief Actuary in a 2015 Annual Report has projected real average growth at 1.85 % for the first 10 years, 1.49% for the first 20 years and 1.31% for the next 40 years. He accordingly supports Dr. Llewellyn's conclusion that 1.6% is the best working assumption for Bermudian real earnings growth. Mr. Daykin accordingly makes the following recommendations as to discount rates for expenses and earnings:

> "***I recommend, therefore, that heads of damage which are considered to be likely to go up in line with Bermuda consumer inflation should be valued using a multiplier based on a discount rate of 0.25% a year, as proposed in paragraph 5.2. Heads of damage relating to cash-flows likely to go up in line with Bermuda earnings , such as loss of earnings in Bermuda, should be valued using a multiplier based on a discount rate of -1.85% a year (after adjustment for a real earnings growth assumption of 1.6% a year).***"

Peter Gorham

55. Mr. Gorham prepared one composite Report with separate sections dealing with unique matters relevant to each claimant (Warren and Thomson), but with most of each Report containing material common to all claims. A Fellow of the Canadian Institute of Actuaries and the Society of Actuaries since 1980, he has a B.Sc. from University of Toronto in Actuarial and Computer Science. Now an independent consultant and founder of Ontario-based JDM Actuarial Expert Services Inc., he was a partner for 13 years with Morneau Shepell and Aon Consulting for 20 years, primarily in the field of pension and employee benefits. He has given expert advice and evidence in various matters since 1987 the present value of future income and care costs and the present value of future support payments. He recently gave evidence in a pending Canadian case in relation to a future damages claim. According to his Curriculum Vitae, however, "*Peter's main areas of expertise include the design, financing, administration and governance of pension and benefit plans.*"

56. The first substantive section in Mr. Gorham's Report is "*E. Discount rates Internationally*". The following statements appear central to his ultimate conclusions on the appropriate discount rate:

    (a) he accepts that a number of common law countries apply the same governing principle of estimating *"the lump sum amount required, that when invested prudently, provides sufficient capital and interest to provide the required fund for the future, no more and no less"*(paragraph 21). This is the principle Mr. Daykin acknowledges as well. However, Mr. Gorham proceeds to posit a different actuarial test for achieving the broad estimation goal:

    > "*22. That is similar to a best estimate actuarial calculation where the goal is to utilize assumptions that are expected to provide a result that has, based on foresight, a 50% chance of being too much and a 50% chance of being too little.*";

    (b) he notes that 2.5% is the statutory discount rate not just in England and Wales, but in Northern Ireland and Scotland as well. After acknowledging the *Wells-v-Wells* and *Simon-v-Helmot* decisions, he refers to an August 2012 Ministry of Justice Consultation Paper ('*The Discount Rate-How Should It Be Set?*') and notes that the review was prompted in part by concerns about the discrepancy between ILGS-based awards and awards based on the statutory rate. However, he relies more heavily on a February 2013 Consultation Paper ('*Damages Act 1996: The Discount Rate Review of the Legal Framework*') which mentions the discrepancy between what claimants actually invest in and the ILGS assumption approved by the House of Lords. He quotes the following passages in the latter Consultation Paper:

"*32. Although there is no definitive study of the evidence, there do appear to be some indications that claimants do not invest in the way envisaged by the House of Lords. A number of interested parties have told the Ministry of Justice that in practice many personal injury victims are unlikely to invest solely in ILGS and hold them to maturity. Instead, they suggested that although investors tend to vary in their appetite for market risks mixed portfolios, with an emphasis on income generation rather than capital growth, might be typical for personal injury victims. They gave examples of claimants' investment portfolios that were predominantly based on safe equities and fixed income investments, such as government gilts and corporate bonds, with the use of some alternative investments, including gold, property, hedge funds and cash. These portfolios included both sterling and foreign currency denominated assets. The range of investments in these portfolios is therefore wider than the range of investments permitted to be considered in the setting of the discount rate under the present law…*

37. We have not reached any conclusion on the arguments but if claimants do not invest only in ILGS; if independent financial advisers would not generally advise a claimant to do so; or if the range of ILGS investments is not always adequate to provide the kind of risk free investment envisaged by the House of Lords then there is at the least an argument that the discount rate should be calculated on different investment assumptions.

38. If the present assumptions are not realistic, it could be argued that the defendants and their funders are being treated unfairly because the assumptions will be inconsistent with the principle of full compensation which, however imprecise it may be, has to operate in and be assessed against results in the real world. In this respect we note the comment in one of the leading works on the subject of damages, McGregor on Damages, that: "Full compensation for victims of personal injury is a principle which should be rigorously adhered to, but it is thought the application of the new discount rate leads to overcompensation. Probably not fully compensated in the past, the injured victim, certainly the very severely injured one, is to be overcompensated in the future. For the new thinking ignores the hard fact that claimants, like the Court of Protection for their patient claimants, are not in reality going to invest their awards in ILGS and, as the Court of Appeal in effect recognised in Warriner v Warriner, do better with their money elsewhere."";

(c) Mr. Gorham then opines that for two decades "*the yield on ILGS has been generally viewed as understating the true real rate of return…This is largely due to the effect of supply and demand*" (paragraph 42);

(d) in a review of the Australian position, it is noted that 3% is the discount rate in the Australian Capital Territory at common law while elsewhere higher statutory rates of 5 or 6% apply. Quotes reproduced from the 2014 Report of the Victorian Competition

and Efficiency Commission, '*Adjusting the Balance: Inquiry Into aspects of the Wrongs Act 1958*' include the following:

> "…*amending the discount rate does not form part of the Commission's recommended package of options for reform, because it would appear to have an unduly adverse impact on the cost of public liability and professional indemnity insurance*" (paragraph 50, Gorham Report);

(e) Mr. Gorham implicitly concedes that the US test for assessing future damages is broadly the same as the English-based common law approach, although he points out that some states fix a discount rate (including 0%, 5% and the federal rate for annuities in his examples). The courts fix the discount rate in New York. He also cites the US Supreme Court decision *Jones & Laughlin Steel Corporation-v-Pfeifer*[10] as articulating the following test for assessing damages:

> "*The discount rate should be based on the rate of interest that would be earned on "the best and safest investments." Id*[11]*., at 491, 36 S.Ct., at 632. Once it is assumed that the injured worker would definitely have worked for a specific term of years, he is entitled to a risk-free stream of future income to replace his lost wages; therefore, the discount rate should not reflect the market's premium for investors who are willing to accept some risk of default. Moreover, since under Liepelt, supra, the lost stream of income should be estimated in after-tax terms, the discount rate should also represent the after-tax rate of return to the injured worker…*";

(f) he next cites '*A 2012 Survey of Forensic Economists: Their Methods, Estimates and Perspectives*' as revealing a range of recommended US discount rates for 30 year periods between -1.03% and 5.6%, with a mean of 1.6%. He asserts that "*the yield on TIPS is believed to be affected by an imbalance of supply and demand and therefore does not provide an unbiased estimate of the real rate of return*" (paragraph 58);

(g) Mr. Gorham describes the range of statutory rates imposed in most of Canada as between 1.5% to 3.5%. The Ontario rate is based on the yield on Canadian Real Return Bonds, which in 2014 was 0.1%. He opines that these returns are also believed not to reflect the true real rate of return due to high demand from pension plan investors;

(h) finally Mr. Gorham referred to the Hong Kong Court of First Instance case of *Chan* where three different mixed investment portfolios were used for calculating discount rates over three separate terms.

[10] 462 US 523.

[11] Citing the 1916 Supreme Court case of *Chesapeake & Ohio Railway Co.-v-Kelly* 241US 485.

57. Mr. Gorham agrees that the overall goal of awarding damages is to award a sum that will as nearly as possible put the claimant in the position he would have been in if he had not been injured. Based on both Canadian and English and Hong Kong case law, he also accepts that in setting the discount rate, the assumed investment of the lump sum should be based on "*what an average prudent plaintiff would do*" (paragraph 99). However, in distinguishing the contrasting approaches to investment assumptions adopted by the House of Lords in *Wells* and the Hong Kong Court of First Instance in *Chan*, Mr. Gorham makes the following observation: "*It is important to remember here that like Bermuda, there are no inflation-indexed bonds available in Hong Kong*" (paragraph 101). This point, which appears to logically underpin his subsequent commendation of the Hong Kong Court's approach in *Chan*, is not really developed. Indeed he later acknowledges that it is possible for a Bermudian investor to invest in overseas bonds, equities and index-linked securities (paragraph 168).

58. In Section G of his Report, Mr. Gorham discusses "*possible investment portfolios that could serve as a proxy in determining a discount rate*", the respective risks and his recommendation as to the best option. He rejects TIPS on the grounds that the depth of the Bermudian data is insufficient to "*make any meaningful and credible comparisons of inflation*" (paragraph 155). However, this opinion is subject to an important *caveat* having regard to the fact that the Defendants called no economic evidence to challenge Dr. Llewellyn's: "*unless there is convincing economic evidence to the contrary*" (paragraph 158). It is on this basis that he earlier opines as follows:

> "*153. Investing in a structured portfolio of TIPS that mature to match future projected cash requirements for a person living in the U.S. is a low-risk investment. But it is an investment which few if any prudent plaintiffs make.*
>
> *154. If a person with expenses incurred in another country was to invest in TIPS, they have changed from a low-risk investment to accept increased risk for the inflation mis-match.*"

59. As far as bonds are concerned, it is conceded that although they are generally regarded as low risk, they afford insufficient protection against both inflation and sufficiency risks. Accordingly, Mr. Gorham crucially concludes as follows:

> "*163. The use of a mixed portfolio coupled with a safe fund eliminates much of the risk commonly attributed to having equities as part of an investment. In addition this is an investment a prudent plaintiff would make…*
>
> *167. To be a reasonable investment for a prudent plaintiff, a safe fund (or something equivalent) must be used in conjunction with the mixed portfolio to provide protection against a market loss…*
>
> *172. Finding the balance between insufficiency and fluctuation risk is important. In my opinion, the balance lies with a mixed portfolio of between 60% and 75% equities coupled with a three-year safe fund.* "

60. This conclusion, and a proposed discount rate of between 3% and 3.5% is very clearly explained and justified by sufficiency projections which the actuary makes assuming a 3% inflation rate and investment in US bonds and equities. Mr. Gorham opines with reference to Table 176 in his Report:

> "*176. The percent of the time that the fund was sufficient are shown. For example, the top row in the table is for a discount rate of -2%. This indicates that based on a -2% discount rate, the lump sum of amount of damages was sufficient for every portfolio in every projection. Looking at the row for 3% discount rate, we can see that investing the lump sum in 100% bonds was sufficient only 19% of the time, but investing it in a mixed portfolio of 30% bonds and 70% equities was sufficient 64% of the time.*"

61. This recommendation is wholly consistent with his earlier opinion (at paragraph 22) that the appropriate actuarial approach is to adopt an investment assumption which will secure at least a 50% chance of the desired outcome.

62. As far as assessing a projected difference between price and wage inflation, Mr. Gorham again queries the quality of the comparatively short-term historical data available for Bermuda. He concedes that Dr. Llewellyn's forecast while on the high side is plausible. Nevertheless, he recommends adopting a 1% rate for real wage growth.

63. He agrees that the Ogden Tables multipliers which take into account UK mortality rates are appropriate for use in relation to both the Thomson and Warren cases.

Daykin and Llewellyn Reply Reports

64. Dr. Llewellyn stands by his opinions that the inflation link between Bermuda and the US can be assumed, despite limited data, and that for broadly similar reasons it is reasonable to infer that real earnings growth in Bermuda will mirror that in the US. He politely points out that Mr. Gorham's criticisms "*lack a foundation in economic analysis*" (paragraph 20).

65. To my mind the most important aspect of Mr. Daykin's Reply Report is his identification of the different approach taken by Mr. Gorham to addressing the twin challenges of inflation risk and sufficiency risk. He opines:

> "*2.2 I do not believe that the approach set out in Mr. Gorham's report can be regarded as consistent with the Wells v Wells judgment, since it assumes investment in a range of assets which are far from being low risk relative to meeting the compensation payments, and he aims for a 50:50 level of compensation, which means that it would be explicitly recognised that the compensation lump sum is expected to be insufficient in 50% of cases, even if the plaintiff lives for the expectation of life. A long-lived plaintiff would have a further risk of the compensation being inadequate as they lived in excess of the expectation. An assumed investment in ILGs is intended to remove risk and give a high probability of sufficiency for someone of average life expectancy, as the annual amounts*

of compensation would be essentially deemed to be matched by payments from secure inflation-linked coupon payments and maturity values."

66. Mr. Daykin also points out that it is far from clear whether there is a downward bias in UK ILGS yields, preferring the view that current low yields are "*just a temporary phenomenon, driven by quantitative easing, the flight of funds to UK gilts due to the weakness of the Eurozone financial markets and the hedging requirements of financial institutions such as pension funds and insurance companies*" (paragraph 3.1). If an adjustment was required to take these conditions into account, it would only be to the extent of 0.5%. However, he opines that these concerns do not in any event apply with similar force to TIPS. More fundamentally, UK ILGS and US TIPS:

> "*…are market instruments which do provide a direct market measure of the real rate of return for investment in each point of time. Other investments do not provide such a direct market measure of the risk-free rate of return*." (paragraph 4.1)

67. Mr. Daykin fairly acknowledges that the concept of a mixed fund combined with a safe fund, while inconsistent with legal precedents, is "*innovative… a good idea for the plaintiff to use in practice and reduces the overall risk of equity investment in some scenarios*" (paragraph 5.2).

Findings: should the discount rate for Bermudian claimants be determined by reference to an assumed investment of the lump sum awarded in TIPS or a mixed portfolio embodying a safe fund?

<u>Applicable legal policy parameters</u>

68. As noted above, the governing legal principle for the assessment of damages for future tortious losses is that the claimant should receive "full compensation". This has reflected the English common law position and arguably the Bermudian common law position as well for over 100 years. This principle has given rise to the practical challenge of achieving the most reliable estimate of what inherently uncertain future events relevant to the successful plaintiff's financial position will be. Allied to the need to do justice in each claimant's individual case has been the legal policy imperative of developing simple and generic rules which can be applied in similar cases both in out of court settlements and in-court assessment of damages trials without the need to obtain expert guidance in each and every case. A few judicial pronouncements will hopefully support this analysis.

69. In *Crockwell-v-Haley* [1993] Bda LR 7, Acting President da Costa delivering the Court of Appeal for Bermuda's leading judgment quoted the following observations on the pragmatic nature of the assessment of damages forensic process:

> "*In <u>Hodgson v. Trapp</u> <u>(1989) A.C. 807, 826</u> Lord Oliver after emphasising 'the unpredictable consequences' inherent in making an assessment of future income loss said:*
>
> > *'Such an assessment cannot, therefore, by its nature be a precise science. The presence of so many imponderable factors—necessarily renders the process a*

complex and imprecise one and one which is incapable of producing anything better than an approximate result. Essentially what the court has to do is to calculate as best it can the sum of money which will on the one hand be adequate, by its capital and income, to provide annually for the injured person a sum equal to his estimated annual loss over the whole of the period during which that loss is likely to continue, but which, on the other hand, will not, at the end of that period, leave him in a better financial position than he would have been apart from the accident. Hence the conventional approach is to assess the amount notionally required to be laid out in the purchase of an annuity which will provide the annual amount needed for the whole period of loss.' " [emphasis added]

70. The Court of Appeal for Bermuda approved the approach commended by the House of Lords in *Cookson-v-Knowles* [1989] AC 556, which was a comparatively simple approach of assuming a 4 to 5% interest rate being earned on the hypothetical lump sum to be invested. In *Wells-v-Wells* [1999] 1 AC 345, expert evidence was adduced with a view to determining whether or not the assumed 4 to 5% return (based on a hypothetical investment in a mixed basket of gilts and equities) continued to be the best means of calculating the appropriate discount rate. In rejecting this approach, Lord Lloyd (at 369C-370G) placed considerable emphasis on the following body of specialist professional opinion:

> "*I turn next to the commentators and textbook writers. It was the Working Party under the chairmanship of Sir Michael Ogden Q.C. which blazed the trail. In the introduction to the first edition of the Actuarial Tables published in 1984, Sir Michael Ogden refers to the then recent introduction of index-linked government stocks in 1981. They had already become an established part of the investment market. Sir Michael describes the advantages of I.L.G.S. in the following paragraph, at p. 8:*
>
> > *'Investment policy, however prudent, involves risks and it is not difficult to draw up a list of blue chip equities or reliable unit trusts which have performed poorly and, in some cases, disastrously. Index-linked government stocks eliminate the risks. Whereas, in the past, a plaintiff has had to speculate in the form of prudent investment by buying equities, or a 'basket' of equities and gilts or a selection of unit trusts, he need speculate no longer if he buys index-linked government stock. If the loss is, say, £5,000 per annum, he can be awarded damages which, if invested in such stocks, will provide him with almost exactly that sum in real terms."*

In the second edition published in 1994 Sir Michael Ogden repeats the views expressed in the introduction to the first edition:

> *'However, there are now available index-linked government stocks and it is accordingly no longer necessary to speculate about either the future rates of inflation or the real rate of return obtainable on an investment. The redemption value and dividends of these stocks are adjusted from time to time so as to maintain the real value of the stock in the face of inflation. The current rates of interest on such stocks are published daily in the Financial Times and hitherto have fallen into the range of about 2.5 per cent. to 4.5 per cent. gross.'*

A little later he says:

> *'The return on such index-linked government stocks is the most accurate reflection of the real rate of interest available to plaintiffs seeking the prudent investment of awards'*

The third edition of the Ogden Tables was published in April 1998, after the decision of the Court of Appeal in the present case, but before the hearing in the House. Sir Michael anticipates a fourth edition when the decision of the House is made known, and when the Lord Chancellor has had an opportunity to fix the rate of return under section 1 of the Damages Act 1996. Sir Michael will then be able, as he says, to retire from the task which he was first asked to undertake 15 years ago, and which he has performed with such conspicuous success.

The Court of Appeal expressed their concern at departing from the recommendation of the Ogden Working Party but added that the Working Party suffered from the disadvantage that the membership did not include any accountants or investment advisers. The plaintiffs challenged the truth of that observation; but in any event I would not regard it as weakening the force of the Working Party's recommendation.

In between the first and second editions of the Ogden Tables, the Law Commission published Consultation Paper No. 125 on Structured Settlements and Interim and

Provisional Damages, to which there was a large response from a variety of sources, including investment advisers. The consultation paper led to Law Commission Report No. 224 (1994) (Cm. 2646). The following passages are relevant:

> *'2.25 Our provisional view was that courts should make more use of information from the financial markets in discounting lump sums to take account of the fact that they are paid today. One way of doing this would be to enable courts to refer to the rate of return on I.L.G.S. as a means of establishing an appropriate rate of discount. The purpose of this would be to obtain the best reflection of market opinion as to what real interest rates will be in future. The question upon which we sought the views of consultees was whether it would be reasonable to use the return on I.L.G.S. as a guide to the appropriate discount.*
>
> *'2.26 Almost two-thirds of those who responded to this question supported the use of the I.L.G.S. rates to determine more accurate discounts. These consultees agreed that the assumption of a 4 to 5 per cent. rate of return over time is crude and inflexible and can lead to over- or under-compensation and hence to injustice/...*
>
> *'2.28 We share the views of the majority of those who responded to us, that a practice of discounting by reference to returns on I.L.G.S. would be preferable to the present arbitrary presumption. The 4 to 5 per cent. discount which emerged from the case law was established at a time when I.L.G.S. did not exist. I.L.G.S. now constitute the best evidence of the real return on any investment where the risk element is minimal, because they take account of inflation, rather than attempt to predict it as conventional investments do.'*

This is a very strong recommendation indeed...." [emphasis added]

71. In adopting what was considered to be a more accurate method of assessing the appropriate lump sum to compensate for future loss, Lord Lloyd in *Wells* clearly viewed the ILGS investment assumption as a relatively user-friendly methodology which could be used in multiple cases without the need for expert evidence. He concluded (at 374D):

"*Once it is accepted that the lump sum should be calculated on the basis of the rate of return available on I.L.G.S., then an assessment of the average rate of return at the relevant date presents no problem. The rates are published daily in the Financial Times. A table of average rates for the period June 1990 to December 1994 is included in Kemp and Kemp at para. 8-068. No doubt the table will be brought up to date from time to time.*"

72. Sumption JA (as he then was) in the Guernsey Court of Appeal judgment in *Helmot-v-Simon* more explicitly addressed the practical implications of adopting the new approach based on expert evidence for future cases:

"*51. Although the issues with which we have been concerned are almost entirely issues of fact, given the range, quality and objectivity of the expert evidence adduced in this case, it is undesirable that the same questions should be relitigated in future cases where the result is likely to be the same or only marginally different. In the absence of convincing evidence to support substantially different figures, I would expect the courts and the parties in future to assume that the rate of price inflation in Guernsey can be expected to exceed the UK RPI by 0.5 per cent, and that the Guernsey rate of average earnings inflation can be expected to exceed the Guernsey rate of price inflation by 2 per cent.*

52. Rather different considerations apply to the gross redemption yield on UK index-linked gilts. In Wells v. Wells the House of Lords expressed the hope that 3 per cent would be treated as the relevant net rate of return until the Lord Chancellor exercised his power to fix a rate of return under Section 1 of the Damages Act 1996: see Lord Lloyd at pages 375-6, Lord Steyn at page 388 D/E and Lord Clyde at pages 397F/G. That assumed a reasonably stable gross redemption yield of 3.5 per cent. I am not, however, prepared to make a similar assumption about the gross redemption yield of 1.28 per cent which the Royal Court has found in this case. It reflects the historically low returns which are presently available on low-risk fixed-interest securities, after three years of exceptional turbulence in the bond markets. When conditions stabilise, it seems unlikely to be at current levels of interest. Until that happens it may well be appropriate to re-examine case by case the current gross redemption yield available on UK index-linked gilts. At least that figure should ordinarily be readily ascertainable and beyond serious challenge."

73. So until economic conditions warranted a fresh approach, it would be reasonable for the parties to other cases to assume that Guernsey inflation would exceed UK inflation by 0.5%. On the other hand, to the extent that the yields on ILGS significantly changed from those found in that case, it would be easy to determine what current yields were from time to time in future cases.

74. This decision was affirmed unanimously by the Judicial Committee of the Privy Council in *Simon-v-Helmot* [2012] UKPC 5. Lord Hope (at paragraph 57) expressly approved the views expressed about future cases in in paragraphs 51 to 52 of the Court of Appeal judgment. Moreover, no change in the legal principles for the assessment of damages was involved. Rather, a better forensic tool was being deployed in the assessment process. According to Lord Hope:

"*47. But finding a solution today is not so dependent on surmise and speculation as it was when the issue was being discussed in those cases three decades ago. As Lord Steyn said in Wells v Wells [1999] 1 AC 329, 384, the landscape has changed. The investment scene has been radically altered. The breakthrough came with the introduction of ILGS and the appreciation that there was at last a tool that could be used to provide protection against inflation. It is tailor-made for investors who want a safe investment for the long term. In practical terms it is risk free. As nearly as possible, it guarantees the availability of the money to meet costs as and when it is required. It may not be perfect, as buying and selling gilts in the short term may result in a gain or loss of capital. But it is the best tool that is available. The question that the present case raises is how to use that tool, given that some adjustments are needed to fit the particular situation in which the respondent finds himself.*" [emphasis added]

75. Accordingly, this Court is not bound as a matter of law by the conclusions in *Simon-v-Helmot* which were, strictly speaking, based on the facts of that case. However, this Court is bound as a matter of mixed law and fact to deploy "*the best tool that is available*" to ensure that personal injuries claimants are fully compensated when assessing damages generally and damages for future loss in particular. The views expressed by the House of Lords in 1999 and the Privy Council in 2012 as to what the best tools available are ought, in my judgment, to be given considerable deference- in the absence of clear evidence that a better tool is now available.

76. This is particularly so in light of the fact that the Defendants in the present case are inviting this Court to adopt an approach which no other identified common law court has ever followed in the post-*Wells* era. As noted above, it was apparently common ground in *Chang Pak Ting-v- Chan Chi Kuen* [2013] HKCFI 179 where a pre-*Wells* mixed portfolio was chosen as the basis of the investment assumption that no suitable ILGS-type instruments could be utilised. And Bharwaney J made it clear that he viewed the mixed portfolio assumption as a second-best rather than a preferred option.

77. Mr. Rothwell understandably placed considerable reliance on the criticisms of the ILGS tool found in '*McGregor on Damages*' (2009) at paragraph 35-128. The main motivation for the learned author's remarks appears to have been an anticipated lowering of the statutory rate from 2.5% to 1.5, which in the event never materialised. But the polemical attack on over-compensation does conclude with the portentious prediction that the courts may choose to depart from the ILGS yield measure:

"*…We would just say with Cavour when many years ago he initiated the final 10-year push towards the unification of Italy: 'the die is cast, and history is made.' We are not in a position, at least not at this stage, to turn back the clock, to undo history, so we must be content with what we currently have. What one can be reasonably confident of, however, is that the courts, faced with being required to award far larger damages than formerly, often in many millions of pounds, are likely to be unsympathetic, as is already proving to be the case, to calls for even more damages on account of heavy tax liabilities or falls in the return on ILGS.*"

78. What *McGregor* appears to be 'chafing at the bit' about is applications in the English courts aimed at securing judicial departure from the statutory 2.5% discount rate fixed by the Lord Chancellor. It may well be true that in that statutory context, as the case of *Warriner-v-Warriner* [2003] 3 All ER 447 perhaps illustrates, the courts are duty bound to consider head on the adequacy of the statutory rate in both general policy and broad compensatory terms. In my judgment the common law context which prevails in Bermuda is fundamentally different. What this Court is required to do here is not to decide whether the discount rate produced by reference to ILGS yields or a mixed portfolio is "*more appropriate*", in the words of section 1(2) of the Damages Act 1996 (UK). The relevant question here is which investment assumption is "'*the most accurate' way of calculating the present value of the loss which plaintiffs will actually suffer in real terms"* (*Simon-v-Helmot*, per Lord Dyson at paragraph 102). And it is a question which for related reasons of legal policy must be answered without regard to claimant-specific considerations such as how the lump sum awarded will actually be invested in real-life terms.

Is an assumed investment by a Bermudian claimant in US TIPS an available assumption?

79. Mr. Gorham, the Defendants' actuarial expert, primarily attacked the US TIPS investment assumption on the grounds that a Bermudian (or indeed any other non-US resident) would "*have changed from a low-risk investment to accept increased risk for the inflation mis-match*" (paragraph 154). In effect, he contended that US TIPS was not an available low-risk investment assumption, mirroring UK ILGS for the hypothetical reasonable Guernsey claimant, because the linkage between the Bermudian and US economies was not (or not demonstrably) sufficiently strong. In his examination-in-chief, Mr. Gorham conceded that TIPS could be a viable investment for a Bermudian investor if you assume the inflation rate linkage with the US will not change. Moreover, under cross-examination by Mr. Harshaw, Mr. Gorham was bound to concede that the relationship between the Bermudian and US economies went beyond his area of expertise.

80. Although Dr. Llewellyn's economic opinions were not contradicted by any other economic expert evidence, it was fairly open to the Defendants to test the opinions that he expressed. It was self-evident that in addition to the risk of the inflation mismatch, which existed in the Guernsey/UK relationship and was dealt with by way of making an adjustment in *Simon-v-Helmot*, Bermuda has a separate currency which is merely pegged to the US dollar. Dr. Llewellyn calmly and confidently, very reasonably accepting that his assumptions were not cast-iron certain or incapable of being ultimately proven wrong, insisted that the best assumption to make was of a long-term linkage between the Bermudian and US economies. I found his evidence overall very convincing indeed.

81. Nevertheless the risk of an inflation mismatch as a reason for not viewing US TIPS as a low-risk investment for a Bermudian claimant was perhaps, marginally, more clearly discredited by Dr. Llewellyn. This is because a similar risk was identified between Guernsey and the UK in *Simon-v-Helmot* and did not trouble the Guernsey Court of Appeal or the Privy Council, because the extent of the mismatch was identified and commensurate adjustments were made to the discount rate calculations.

82. Dr. Llewellyn identified the best working assumption as being that Bermudian price inflation would exceed US TIPS by 0.5% over the next 20 years. Mr. Daykin agreed that this acknowledged mismatch should be taken into account when computing the appropriate discount rate. Under cross-examination by Mr. Harshaw, Mr. Gorham agreed that Dr. Llewellyn's 0.5% proposed adjustment was a reasonable assumption although he still denied that it was the best assumption. This variance was precisely the same found to exist as between Guernsey and the UK; and the expert economics evidence was essentially the same here as in *Simon-v-Helmot (*where it was also not challenged by contrary expert evidence). Dr Llewellyn opined on this issue as follows:

> "*In my judgement, based on the available data; arguments about conditions likely to prevail in the future; and the twin assumptions that the currency peg with the US is retained at par and that Bermuda maintains fiscal discipline, I would regard 0.5% on average as the best working assumption for the extent that Bermuda CPI inflation might exceed US CPI over the next 20 years. But there may be considerable variation from year to year. And it would be possible for the average gap to be zero, or even negative over some periods.*"

83. The evidence of the economics expert (a Mr. Bootle) in *Simon-v-Helmot* [2012] UKPC 5 on the price inflation parity or mismatch issue was reproduced in paragraph 31 of Lord Hope's judgment:

> "*33. Based on general theoretical principles and observations over recent years, assuming that the monetary link with the UK is retained, I would regard ½ % pa on average as the best working assumption for the extent that Guernsey inflation might exceed UK inflation over periods of 15 years or more. But there will be considerable variation from year to year. It would be possible for the average gap to be zero, or even slightly negative. A gap as large as 1% would be possible, but not likely.*"

84. I appreciate that in computing what allowance should be made for real earnings growth, a separate but related consideration, the quality of local data available on earnings is more deficient in the present case than in *Simon-v-Helmot*. However, I accept the approach adopted by Dr. Llewellyn to assessing this figure in relation to Bermuda, which he reiterated in his Reply Report as follows:

> "*19. In the absence of sufficient data on Bermuda productivity and wages, it is my opinion that, inferring Bermuda wages from projected US wages over the long term is the best option available, given the links between the two economies.*"

85. From the Court of Appeal judgment in *Helmot-v-Simon*, it appears that 15 years of Guernsey earnings data existed but was not considered sufficiently reliable, even though the main element of the award was earnings-related carers' expenses. So the practical result was that, although some Guernsey data existed, the economist in substance relied on an assumption that the UK real earnings growth rate should be attributed to Guernsey. So the lack of Bermuda data is not a highly significant distinction between the evidence accepted in the Guernsey case and that

adduced in the present case. Sumption JA summarised the relevant evidence in paragraph 42 of his judgment in salient part as follows:

> "*(4)Given Guernsey's state of economic development, and its close economic relationship and monetary union with the United Kingdom, a broadly comparable relationship between price and earnings inflation in the bailiwick is to be expected there. Mr. Bootle's estimate was that the average gap over periods of fifteen years or more could reasonably be expected to lie between 1 per cent and 3 per cent, with 2 per cent being the 'best working assumption'. He based his assessment primarily on his analysis of Guernsey's economy, but pointed out that the published statistics for the fifteen years for which earnings data are available shows that the differential between price and earnings inflation is higher, about 2.7 per cent on average over the whole period. However, there are large variations from year to year and the shortness of the run of statistics makes the average highly sensitive to outlying values in a small number of abnormal years;*
>
> *(5) A differential of about 2 per cent between the rates of price and earnings inflation has been assumed by public bodies for a variety of purposes requiring long-term forecasts. For example, the UK Government Actuary (at the time, Mr. Daykin) made alternative assumptions of a differential of 1.5 per cent and 2 per cent for the period to 2060/61 in the 2003 Quinquennial Review of the National Insurance Fund. Mr. Daykin's evidence was that on his advice as UK Government Actuary, the Social Security Department of the States of Guernsey makes its own funding projections on the assumption of a 2 per cent long-term rate of real earnings growth.*"

86. The Jurats had found at first instance that this evidence fell short because it was not supported by sufficient data based on Guernsey earnings indices comparable to similar indices in the UK. Sumption JA (at paragraph 38) rejected this evidential approach:

> "*…One would expect any expert economic analysis of the relationship between price and earnings inflation to be tested by reference to historic data. Indices tracking past changes in both are likely to assist in that process. If the historic data bears out the theory, then the theory is more likely to be accepted. <u>But there is no principle, and certainly no rule of law, that precludes a court from accepting sufficiently persuasive theoretical evidence of the relevant relationship, even in the absence of reliable historic data. Nor, if historic data is deployed, does it necessarily have to take the form of indices</u>.*" [emphasis added]

87. These findings which were affirmed by the Privy Council seriously undermine any suggestion that Dr. Llewellyn's uncontradicted expert opinion evidence as to the likely rate of price inflation in Bermuda (relative to the US) and the likely difference between Bermudian earnings and price inflation ought to be rejected solely because Bermuda's data pool is not sufficiently deep.

88. In *Simon-v-Helmot* it appears that the assumption the current monetary union between Guernsey and the UK would continue was not challenged in any way. Mr. Rothwell and Mrs. Sadler-Best did challenge in cross-examination Dr. Llewellyn's assumption that the present connection between the Bermudian dollar and the US dollar would continue. It was not suggested that there

was any fundamental economic distinction material to his opinions between the monetary union between Guernsey and the UK and Bermuda's existing "*currency board*" arrangement with the US dollar. I would, in any event, accept his evidence under cross-examination that the two forms of linkage are broadly similar and that their long-term sustainability is primarily dependent on "*responsible macroeconomic policy*". The merits of the assumption of continued responsible macroeconomic policy was what the Defendants' counsel challenged, however.

89. This was a very effective line of attack and the best challenge which could perhaps be made without adducing opposing evidence. Was Dr. Llewellyn aware of the high levels of public debt, a sevenfold increase in recent years? He was. But, he stated, no country in the West has not seen "massive' increases in public debt. The economist opined that the Bermudian position was manageable. Any projections he made about the future were matters of judgment, not speculation. Was he aware of international companies leaving Bermuda? He was, but he would expect recent growth in the City of London and New York to be reflected, in due course, in Bermuda's economy because of the strong ties.

90. However, I found the nub of Dr. Llewellyn's assessment of the likelihood of the Bermuda dollar continuing to be pegged at par to the US dollar to be persuasive in the absence of any contrary expert evidence. It was reasonable to assume that the existing arrangements (in place for over 40 years) would continue and unreasonable to assume a contrary development. For these reasons I accepted the expert evidence (primarily of Dr. Llewellyn on this issue) that US TIPS are investment instruments available for consideration by a prudent Bermudian claimant because of the strong ties between the Bermudian and US economies. This requires an adjustment to the discount rate because price inflation in Bermuda is projected to be on average 0.5% per annum above the US CPI, although real earnings growth in Bermuda is likely to be the same as in the US (1.6%) over the next 20 years.

91. I was not persuaded by the Defendants' suggestion that Bermuda's economy is more similar to Hong Kong's than to Guernsey's so that index-linked Government securities cannot fairly be regarded as risk-free investments for Bermudian claimants. I accept Dr. Llewellyn's evidence that Hong Kong's economy is far more heavily influenced by China, notwithstanding the fact its dollar continues to be pegged to the US dollar. The finding in *Chan Pak Ting-v-Chan Chi Kuen et al* [2013] HKCFI 179 that ILGS could not form the basis of an assumed investment by a prudent claimant in Hong Kong was, in my judgment, made in an entirely different economic and evidential context. In *Chan* the experts prepared a Joint Report in which (rightly or wrongly) they agreed that ILGS could not be used as the hypothetical investment instrument. No question of choosing between two alternative assumption models therefore arose.

<u>Is a mixed portfolio combined with a safe fund clearly more likely to achieve the goal of full compensation?</u>

92. The 'battle of the actuaries' took place on the following ground. Mr. Daykin for the claimants insisted that TIPS represented the most low-risk investment likely to ensure full compensation. Mr. Gorham for the Defendants insisted that the assumption of a prudent claimant investing in ILGS or TIPS in today's economic conditions (a) wholly unrealistic, and (b) likely to result in over-compensation.

93. On the Reports, a crucial controversy was whether Mr. Gorham's test was that of a prudent investor or that of a prudent claimant or plaintiff. Mr. Daykin's analysis was based on the premise that a prudent claimant seeking full compensation would invest in the most low-risk inflation-protected instruments such as ILGS or TIPS. Mr. Gorham testified that he had taken into account what a reasonable plaintiff would do, but conceded under cross-examination by Mr. Harshaw that on his investment model between 50 and 33% of plaintiffs would not have sufficient funds. He viewed his approach as fair to both claimants and defendants. I viewed his approach as a stunning dilution of the prevailing legal policy preference, in the future loss discount rate calculation context, for a hypothetical investment in an instrument likely to generate a risk-free rate of return.

94. Under cross-examination by Mr. Pachai, Mr. Gorham explained the apparent inconsistency between the "low-risk" mixed portfolio approach he recommended (Report, paragraph 232) and his earlier acceptance that selecting a discount rate "*usually involves…Identifying a risk-free portfolio of assets…*" (paragraph 82a.). He accepted that "*a risk-free portfolio*" was "*the ideal*". He further accepted that ILGS and TIPS produced "*a risk-free real rate of return…I don't believe it approaches the <u>appropriate</u> risk-free real rate of return because of the market-forces that cause bias*." This was a coherent (albeit ambitious) position consistent with his Report, which invited the Court to accept his considered view that ILGS and TIPS, because of prevailing market conditions, no longer constituted the best investment vehicle which the hypothetical prudent claimant should be assumed to invest his lump sum in. In answer to the Court, Mr. Gorham agreed that assuming an investment solely in ILGS or TIPS was a simpler approach.

95. At first blush, Mr. Gorham's evidence seemed more suited to supporting a case for the Executive to adopt a new approach to determining the appropriate statutory discount rate rather than supporting the case for adopting a new method for determining the discount rate as a matter of common law. The Defendants could not rely upon recent case law supporting the adoption of new hypothetical prudent plaintiff investment vehicle test to replace that approved by the House of Lords more than 15 years ago in *Wells-v-Wells* and by the Privy Council only three years ago in *Simon-v-Helmot*. Indeed, even in *Chan Pak Ting-v-Chan Chi Kuen et al* where the option of using an assumed investment in an ILGS-type portfolio was considered impossible, no doubt was cast on the merits of the conventional view that the ILGS instrument was the best assessment tool to use. Mr. Daykin, whose evidence placed considerable reliance on the judicially-sanctioned approach to determining discount rates, brushed aside suggestions made in reliance on two Government consultation papers that the ILGS tool was no longer valid as if he were swatting flies.

96. I find that:

   (1) there is nothing in the 2012 Consultation Paper ('*Damages Act 1996: The Discount Rate-How should it be set?*') which would justify this Court in finding that the assumed ILGS portfolio investment is no longer credible. This Consultation Paper indicates the fact that the Ministry of Justice is considering whether or not the statutory discount rate fixed in 2001 by reference to ILGS yields should continue to be fixed on this basis or by reference to a mixed fund of "appropriate" securities;

(2) there is nothing in the 2013 Consultation Paper ('*Damages Act 1996: The Discount Rate-Review of the Legal Framework*') which would justify this Court in finding that the assumed ILGS portfolio investment is no longer credible. This Paper does indicate that the Ministry of Justice is considering, *inter alia*, whether the law should be changed to permit lump-sum damage awards for future loss to be assessed by reference to the return on more risky investments and/or whether greater reliance on periodical payments should be encouraged. The purpose of the Consultation paper is to ask questions rather than to provide answers or set out proposed new policy positions;

(3) Mr. Daykin stated that these consultations are still ongoing. That is, to my mind, unsurprising. It will always be possible for one constituency or the other to complain from time to time that whatever discount rate is being applied is too high or too low. Moreover in the United Kingdom, perhaps more so than Bermuda, the policy considerations at play in the background are far from easy to resolve in a simple or formulaic manner. As the 2013 Consultation Paper notes:

> "6. *As the main payers of compensation in personal injury cases involving significant amounts of future pecuniary loss are public sector health service bodies and the private sector insurers of individual defendants, the cost of the additional burden of a rate that is too low would fall ultimately, albeit indirectly, on the taxpayer and the consumer. On the other hand, if the rate is too high, the burden would fall on the victims of the wrongful act, who include some of the most vulnerable members of society, who would be under-compensated, thereby possibly increasing their reliance on the state and, therefore increasing costs to the taxpayer.*"

97. Mr. Rothwell also quoted the above passage in the Defendants' Skeleton Argument before making the following submission:

> "45.*The same balance has to be struck in Bermuda. The risk of a too low rate is likely to be a factor that leads to an increase of insurance premiums. On the other hand, if the rate is too high, vulnerable plaintiffs will turn to the Department of Financial Assistance once their funds end.*"

98. This submission and the purely speculative approach to the evidence it commends to the Court incorrectly implies that the Court's function in assessing the discount rate for the purposes of computing a future loss award is akin to a Government Department formulating legislative policy. The Court's function is to ensure that the claimants are fully compensated for the injuries sustained by the Defendants' negligence. As Lord Lloyd opined in *Wells-v-Wells* [1999] AC 345 (at 373 C-D):

> "*(1) Investment in I.L.G.S. is the most accurate way of calculating the present value of the loss which the plaintiffs will actually suffer in real terms.*
>
> *(2)Although this will result in a heavier burden on these defendants, and, if the principle is applied across the board, on the insurance industry in general, I can see nothing unjust. It is true that insurance premiums may have been fixed on the basis of the 4 to 5 per cent. discount rate indicated in Cookson v. Knowles and the earlier authorities. But this was only because there was then no better way of allowing for future inflation. The objective was always the same…"*

99. I also accepted Mr. Daykin's dismissal as irrelevant the reliance placed by Mr. Rothwell in cross-examination on the following passage from C. Patel and C.D. Daykin, '*Actuaries and Discount Rates: A discussion paper'* (May 2010*)*:

> "*3.28 In 1981 the government introduced index-linked government securities (ILGs), initially only for the use of occupational pension schemes. This meant that there was a market measure which could be interpreted as being a risk-free real rate of return net of increases in the Retail Price Index. However, few actuaries used this as the rate of interest net of price increases for valuation purposes, since the yields on ILGs were widely viewed as distorted because of the low volumes of securities issued relative to the potential demand from pension funds and because, once the market was opened up more widely, the stocks were very attractive to higher rate tax payers. The market yields on ILGs were not therefore considered to be an unbiased estimate of the risk-free real rate of return and there remained a strong belief that higher returns could be obtained by investing in equities and a diversified portfolio, without taking on a commensurate level of additional risk.*"

100. As Mr. Daykin explained, institutional investors are able to safely invest in a wider range of investment instruments because they are investing on behalf of multiple ultimate investors whose needs to redeem their investments stretch out over multiple lifetimes. Such investors are also able to hedge against short-term risks in ways which are generally impossible for the typical individual personal injury claimant. I find that there is a fundamental distinction between the investment goals of the hypothetical prudent investor, especially an institutional investor (who is not investing sums received by way of compensation for tortious injury), and the investment goals of the hypothetical prudent plaintiff. As regards the latter, there are explicit legal policy imperatives which require the courts assessing the appropriate level of lump sum to award to:

(a) assume that the least possible risk will be taken when the lump sum is invested by the prudent claimant with a view to achieving the goal of full compensation;

(b) ignore the commercial realities of how lump sums may actually be invested; and

(c) utilize tools for the calculation of the discount rate which are sufficiently simple to be conveniently deployed both in the context of assessing damages in and out of court without the need for the expense of expert evidence save in exceptional cases.

101. The mixed portfolio with a safe fund model proposed by Mr. Gorham may well be fit for a variety of investment purposes, including (as Mr. Daykin creditably conceded) for actual investment of lump sum awards received by personal injuries claimants in respect of future loss. However, it does not provide a clear or convincing basis for this Court declining to utilise what remains the only recognised English common law approach to determining the discount rate on damages for future loss in personal injuries cases. If, which is far from clear, lowering the discount rate to an extent which is burdensome for insurance companies results in a rise in insurance premiums to the prejudice of ordinary consumers, these are concerns which it would be more appropriate for the Executive and ultimately the Legislature to address and seek to resolve. Empowering the courts to make periodical payments is one obvious option and empowering the Executive to fix a standard discount rate is another (less straightforward) option.

102. I do not ignore the possibility that the time may come when the assumption that the prudent claimant would invest in TIPS (or their equivalent elsewhere) will lose its current validity. This may occur because, through the effluxion of time, the argument that the rate of return on these risk-free investments is truly distorted in a way which makes no sense for the purposes of the present forensic process acquires greater force than it has today. For the time being, the fact demand for ILGS and TIPS exceeds supply and that yields are consequently low is in my judgment entirely consistent with the fact that western economies are still only just emerging from a global financial crisis which has heightened anxieties about the risk inherent in equity markets. Bermuda's economy is something of a laggard in this regard, so an assumed investment in a low-yield and (almost) risk-free instrument for a Bermudian claimant is hardly incongruous.

103. In 1998 when *Wells-v-Wells* was decided, the gap between the returns on ILGS and other investments was, admittedly, much smaller than it is today. Will the present gap persist or worsen in the years ahead despite consistently rising prosperity in a way which is wholly incompatible with commercial logic or sense? Were this to occur, Mr. Gorham's argument that ILGS are no longer a useful tool because their yields do not reflect to any appropriate extent the real risk-free return which a prudent plaintiff would seek might well have greater force than it does today.

104. Finally using ILGS/TIPS will assist the parties in other cases to adjudicate or settle future loss claims without the need for expert evidence. The yields on such instruments from time to time are regularly published and easily ascertainable. Absent a presently unforeseeable economic earthquake, the uncontradicted expert assessments as to the likely future price inflation rate (US CPI +0.5%) and the real earnings growth rate ($1.6%) for Bermuda are potentially valid for years to come. How the mixed portfolio/safe fund concept could be conveniently applied in future cases without expert evidence is very doubtful and in any event was never satisfactorily explained.

Findings: the applicable discount rate

Thomson

105. I accept the evidence of Mr. Daykin (based on the uncontradicted inflation/earnings projections of Dr. Llewellyn) that the appropriate discount rate for Bermuda a regards Mrs. Thomson (44.5 years old at the date of the Report) should be:

    (a) -0.25% for heads of damage likely to be affected by price inflation; and

    (b) -1.85% for heads of damage likely to be affected by real earnings increases.

106. The extent to which, if any, a separate UK rate falls to be computed because the claimant Thomson now resides in the UK will be determined in a separate judgment however, I accept the further evidence of Mr. Daykin again (based on the uncontradicted inflation/earnings projections of Dr. Llewellyn) that the appropriate discount rate for the UK should be:

    (a) -0.5% for heads of damage likely to be affected by price inflation; and

    (b) -2.5% for heads of damage likely to be affected by real earnings increases (i.e. future loss of earnings).

Talbot

107. I accept the evidence of Mr. Daykin in relation to Mr. Talbot (54 at the date of this Report) that health insurance premiums are likely to increase between other price-related expenses and real earnings increases. Accordingly, the discount rates for this claimant should be :

    (a) 0% for heads of damage likely to be affected by price inflation but 1% for insurance premiums (so that an additional $17,222.40 is awarded on top of the sum of $59,436 provisionally awarded based on a 3% discount rate); and

    (b) -1.5% for heads of damage likely to be affected by real earnings increases (so that an additional $115,688.10 is awarded on top of the sum of $336,981.42 provisionally awarded based on a 3% discount rate for future loss of earnings).

Warren

108. The only issue here was the discount rate to be applied to the loss of earnings claim of Ms. Warren (aged 28.5 at the date of Mr. Daykin's Report). I accept Mr. Daykin's evidence that the appropriate discount rate should be -1.5% for her future loss of earnings claim. She is accordingly awarded $135,426.69 in addition to the provisional award for this head of loss of $138,123.09 based on a discount rate of 3%.

Costs

109. Unless any party applies to be heard as to costs by letter to the Registrar within 21 days, the claimants shall be awarded their costs of the present applications to be taxed if not agreed. I will hear counsel if required on the terms of the final Orders required to give effect to the present Ruling.

Dated this 22nd day of June, 2015 ______________________

IAN R.C. KAWALEY CJ