

The damages puzzle in government bonds

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Key points

- How are damages for a material breach of a government bond to be computed? The conventional answer that most investors would probably give is that these damages should include both the principal ('par') and any remaining (ie unpaid) coupons.
- However, for some experts, this standard answer is not at all obvious, and the literature on this fundamental remedial question is sparse. As basic as it is, it has managed to escape rigorous analysis in the vast sovereign bonds' literature.
- By closely inspecting this deceptively simple question, this article highlights the availability, under the general law of contract damages, of no less than four different methods for measuring a bondholder's expectation damages upon breach: (i) The 'Gross Lost Profit' measure; (ii) The 'Net Lost Profit' measure; (iii) The 'Cost of Cure' measure; and (iv) The 'Market Value Differential' measure.
- The article presents these four measures and formulates the doctrinal issues and substantive considerations involved in choosing among them.
- It concludes that while these are all legitimate alternatives that should be taken into account, for reasons the article highlights, courts and arbitrators will often tend to implement the most generous measure which—surprisingly or not—coincides with the conventional presumption of the business community.

'It may be that contracts, and the law in general, play only a modest role in the sovereign debt markets. But that role is larger than the near zero level of attention that is generally given to it in the literature.'¹

1. Introduction: the damages puzzle

Assume the following hypothetical: A national government, a local municipality or a government company issues a series of 20-year non-callable bonds to finance their activities. A private investor, James, having paid the face value of the bond (say, \$1,000) and an additional \$20 fee to the bond trustee, is now awaiting the promised remuneration, ie the yield to maturity (YTM).² Assume further that, after having paid promptly the first five annual coupon payments under the bond (say, of 5 per cent each) the issuer informs James that due to an acute financial hardship, it will not be able to pay the 15 remaining coupons on their due date. Even the repayment of the par, so the issuer admits, is uncertain. The issuer continues to say that it is furthering a restructuring of its national (or, for that matter,

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1 W Mark C Weidemaier and Mitu Gulati, 'International Finance and Sovereign Debt', Ch 23 in Francesco Parisi (ed), *Oxford Handbook of Law & Economics*, vol 3 (OUP 2017) 482, 496.

2 The YTM is the total return expected under the bond until its expected date of expiry.

municipal) debt, under a wider economic reform. Following the expected restructuring, new and alternative financial instruments will be issued to all bondholders in the same category, but the expected YTM on the new instruments will be around 70 per cent of the yield originally expected. Finally, assume that no contractual exceptions or waivers are available to the issuer (eg covenants allowing early redemption) so that the anticipated failure to perform amounts to a breach of the indenture. In the face of such a paradigmatic breach, what are the damages to which James (and any similarly situated bondholder) is entitled?

The conventional answer that most investors would probably give is that, in the face of such a material breach, damages should include both the principal ('par') and any remaining (ie unpaid) coupons. In our hypothetical that would mean giving James the \$1,000 face value of his bond and, in addition, \$750 (discounted to present value).

Is this conventional understanding warranted? For at least some sovereign bond experts, the answer is not at all obvious and straightforward as it might seem at first blush.³ Are not such damages over-compensatory? Indeed, by obtaining—prior to maturity—both the par and every remaining coupon payment, is not the bondholder being put in a better position than if the contract had been performed? Indeed, if there had been no breach, would not the bondholder have to wait for those payments to be made until maturity date? Secondly, if damages are to be calculated this way, is not the bondholder going to receive something more valuable than what he had before the breach? More concretely, whereas prior to breach the bond's market value reflected the issuer's credit ranking, the conventional measure of damages seems to treat James' bond as if he owned a US treasury bond! Thirdly, should not the investor be expected to purchase a substitute on either the primary or secondary market to eliminate or at least minimize his damages? Should not this option significantly reduce the scope of the issuer's liability?

As basic as these questions sound, they have managed to escape rigorous analysis in the sovereign bonds literature. One can hardly find a comprehensive analysis of remedial issues within this vast body of scholarship.⁴

To some this may not seem so surprising. Formal litigation over sovereign bonds is relatively rare, mainly due to the obvious challenge involved in suing a national government. Collective action and selective enforcement problems are also prominent in the sovereign debt context.⁵ Finally, if readjustment is supported by a statutory (or administrative) law

3 For an illuminating podcast by Professors Mitu Gulati and Mark Weidemaier posing and analysing this question see 'Clauses and Controversies,' Episode 13 ('What's your damage' <<https://podcasts.apple.com/us/podcast/ep-13-ft-mark-and-mitu/id1528208049?i=1000494775697>> accessed 18 September 2022 (produced by Leanna Doty)).

4 To a lesser extent, the same is true with respect to corporate bonds scholarship. See eg Mitu Gulati and Marcel Kahan, 'Cash America and the Structure of Bondholder Remedies' (2018) 13 CMLJ 570, 571 (describing this body of literature as 'so thin as to be nearly nonexistent'). Interestingly, the neglect to carefully scrutinize remedial issues characterizes much of the scholarship on public authorities' civil liability. On this see eg Gillian Hadfield, 'Of Sovereignty and Contract: Damages for Breach of Contract by Government' (1999) 8 S CAL Interdisc LJ 467, 468–69 ('A government's liability for breach of contract is a topic that has received surprisingly little attention in the legal literature.')

5 For discussion see eg Yannis Manuelides, 'Debtor–Creditor Engagement in Sovereign Restructurings' (2018) 13 CMLJ 427, 432.

reform, many aggrieved creditors (mainly domestic ones) will not be able to recover, unless the reform is found to be unconstitutional.⁶

Having said that, the filing of a damage claim against a sovereign (or quasi-sovereign) issuer is not an unimaginable scenario. Indeed, the volume of litigation against sovereigns (mainly by foreign creditors) for breach of bonds has increased in numbers over the years,⁷ exposing governments to major money judgments⁸ and even to injunctive relief.⁹ And while judgments against governments may be practically unenforceable in most cases,¹⁰ various incentives may cause sovereign and quasi-sovereign defendants to abide by them regardless, due to external or internal pressures.¹¹

What, then, is the correct measure of damages for the breach of a government bond? By closely inspecting this deceptively simple question, this article highlights the availability, under the general law of contract damages, of no less than four different methods for measuring a bondholder's expectation damages: (i) The 'Gross Lost Profit' measure (GLP); (ii) The 'Net Lost Profit' measure (NLP); (iii) The 'Cost of Cure' measure (CC); and (iv) The 'Market Value Differential' measure (MVD).¹² Section 2 presents to the reader each of these alternative measures and illustrates how to implement each of them in the hypothetical case described at the outset. The remainder of the article grapples with the choice of measure, distinguishing between two main challenges facing a court (or an arbitrator) wishing to make the correct choice. Section 3 addresses the first. This is the analytical challenge of choosing between two ways of conceptualizing the bondholder's loss, namely the loss of the promised performance of the indenture on the one hand, and the market value of the bond as a tradable asset, on the other hand. Section 4 examines a different analytical challenge: applying the mitigation of damages doctrine. Passing through both of these challenges, the article ultimately concludes that, for various reasons, in most cases courts and

6 The difficulty of successfully challenging such reforms is illustrated in famous constitutional cases such as *Perry v United States*, 294 US 330 (1935) and *Mamatias and Others v Greece* ECHR 256 (2016).

7 See eg Mark Weidemaier, Robert Scott and Mitu Gulati, 'Origin Myths, Contracts, and the Hunt for Pari Passu' (2013) 38 L. & Soc. Inquiry 72.

8 See eg *NML Capital Ltd v Republic of Argentina*, 680 F.3d 254 (2d Cir 2012) (A Federal District Court ordered Argentina to pay plaintiff \$2.4 billion).

9 In *NML Capital*, *ibid*, in addition to the money judgment, the Court ordered Argentina to cease favouring other creditors over the plaintiff. When Argentina refused to disclose to NML Capital the location of its assets outside the USA, the former applied for and received an injunction ordering discovery. Argentina's appeal was dismissed by the Court of Appeals for the second circuit in *EM Ltd v Republic of Argentina*, 695 F.3d 201 (2d Cir 2012) and later by the US Supreme Court in *Republic of Argentina v NML Capital, Ltd*, 573 US 134 (2014). For discussion see W Mark C Weidemaier and Anna Gelper, 'Injunctions in Sovereign Debt Litigation' (2014) 31 Yale J Reg 189, 190 ('Substantive defenses paying deference to sovereignty no longer stop litigation in its tracks.'). But see W Mark C Weidemaier, 'Sovereign Immunity and Sovereign Debt' (2014) 2014 U Ill L Rev 67 (claiming that sovereign debt litigation has been rather rare notwithstanding the shift in US law towards limiting the scope of the sovereign immunity doctrine).

10 See eg Anna Gelper, 'Contract Hope and Sovereign Redemption' (2013) 8 CMLJ 132, 132 ('Sovereign debt is unenforceable. The law can do little to make an unwilling government pay, or hand over its property to the creditors'); Anna Gelper, 'Sovereign Debt: Now What?' (2016) 41 Yale J Int L 45, 47 ('[D]ebt contracts are unenforceable in any conventional sense. Short of gunboat, there are few ways for creditors to make governments pay.').

11 On this see Weidemaier and Gulati (n 1), at 483–5; Gelper (n 10) 'Contract Hope', at 134 ('A country cannot be jailed or held in contempt of court, though it might suffer incremental reputational damage'); Faisal Ahmed, Laura Alfaro and Noel Naurer, 'Lawsuits and Empire: On the Enforcement of Sovereign Debt in Latin America' (2010) 73 Law & Contemp Probs 39.

12 The analysis of reliance damages as an alternative to expectation damages is outside the scope of the current article.

arbitrators will tend to implement the GLP measure, which is the most generous for bondholders. Surprisingly or not (depending on one's intuitions), this measure coincides with the conventional or common wisdom.¹³

In addition to its potential value to investors and practising lawyers in the sovereign debt context, the ensuing discussion, like any examination of a remedies problem, is essentially an analytic exercise, a thought experiment of sorts. It is for the reader to judge if such an exercise could be intellectually rewarding or is better seen as another breed of academic torture.

2. Measuring damages: not quite so simple

Preliminaries

In most common law systems, a promisee's primary relief in the face of breach is the damage remedy. While reliance damages may in certain cases be claimed and awarded, the primary protected interest of aggrieved promisees is the expectation interest.¹⁴ The goal of expectation damages is to give promisees, upon breach, the value of the performance they were promised by the party in breach, where actual performance of the contract is no longer available to or desired by the promisee.

While expectation damages for a total or material breach of a bond 'may appear deceptively simple to quantify',¹⁵ the ensuing discussion will demonstrate that fixing the appropriate amount of damages is challenging, even in this apparently simple scenario.¹⁶

The starting point for assessing expectation damages has traditionally been the following principle: damages should aim to put the aggrieved promisee in as good a position as if the contract had been fully performed, ie as if there had been no breach.¹⁷ Alas, as we shall see shortly, this universally accepted principle does not yield a single measurement standard. Rather, in the paradigm case we are discussing, it may produce at least four alternative damage measures. And while each of the measures presents a relatively simple method of quantification, choosing the 'correct' measure is a rather complex decision. Leading remedies experts have long recognized, in other contexts, that the choice of measure is hardly ever reached by applying strict or technical rules. Rather, it involves broad judicial

13 Importantly, the preference for this generous measure does not depend on the question of whether or not the indenture includes an acceleration clause. The only effect of acceleration is the need to trim down the GLP damage award so as to avoid double recovery from the accumulation of both remedies. The remedial implications of acceleration clauses is, alas, outside the scope of this article.

14 While lamented by Fuller and Perdue in their famous article 'The Reliance Interest in Contract Damages' (1936) 46 Yale LJ 52, this is still trite law. See RESTATEMENT (SECOND) OF CONTS s 347 (AM L INST 1981) (hereinafter: Rest Confs); E Allan Farnsworth, *United States Contract Law* (Transnational Juris Publications, Inc 1991) 172 ('The basic principle for the measurement of those damages is that of compensation based on the injured party's expectation').

15 Robert S Blanc and Randy D Gordon, 'Reforming the Unbargained Contract: Avoiding Bondholder Claims for Surprise Par Calls' (1999) 55 *The Business Lawyer* 317, 344.

16 Cf, in another context: Charles J Goetz and Robert E Scott, 'Measuring Sellers' Damages: The Lost-Profits Puzzle' (1979) 31 *Stan L Rev* 323, 323 ('[T]he seductive conceptual simplicity of the compensation principle disguises substantial practical problems in measuring seller's damages.')

17 *Robinson v Harman*, 154 1 Exch 850, 855 (1848); UCC s 1-106(1); Rest Confs (n 14), s 344(a).

discretion and requires the application of flexible and often contradictory principles and policies.¹⁸

Before delving into each of these alternative measures, a further clarification is called for. The ensuing discussion presumes that following the issuer's breach, the entire deal has been lawfully discharged, renounced, rescinded, terminated, or otherwise brought to an end, either automatically or by the aggrieved creditor (or the court). Hence the damages—under any of the four measures—will include compensation for 'loss of bargain'. I use this term to denote the loss involved in the investor having become unable to realize—due to the combination of breach or repudiation and subsequent (lawful) discharge of the deal—certain gains that could have been reaped from complete performance.

If, however, the breach or repudiation did not end the contractual relationship, things change. Under this alternative scenario, the contract remains in full force. Consequently, 'the parties' rights and obligations are still effective, including the issuer's right to hold and use the principal' until maturity date. Admittedly, in our hypothetical, this would rarely be the case because, generally speaking, a repudiation or a material breach ordinarily results in the non-breaching party (in our case, the creditor) being discharged from any further performance.¹⁹

The first measure: gross lost profit

The first and probably most intuitive measure of damages in the case we are dealing with seeks to compensate James for his GLP. By 'lost profit' I refer to the economic loss resulting from James' inability to reap the profit that he could have been expected to reap from the full performance of the contract by both parties. By adding the adjective 'gross' I imply the existence of another damage measure that equals the GLP measure but requires deducting from it a certain component (see next).

Computing James' damages under this measure involves four distinct arithmetical operations: First, measuring James' 'foreseeable profit' (FP) from the full performance of the contract or, in short, measuring James' net expectancy from actual performance by both parties. This, in turn, entails two separate steps:

- (i) Measuring the 'total foreseeable income' (TFI) that full performance by the issuer would have given James; and
- (ii) Deducting (from the TFI) the 'total foreseeable expenditure' (TFE) that James' would have incurred if the contract had been fully performed.

Secondly, adding to James' FP any 'actual expense' (AE) incurred by James in performance of his own obligations up to the breach;

18 As Dan Dobbs, America's remedies giant, observed: 'The court's choice [of measure] usually depends very little upon rules and very largely upon the facts and the policies applicable.' Dan B Dobbs, *Law of Remedies: Damage-Equity-Restitution*, Vol 3 (2nd edn, West Publishing Co. 1993, unabridged edition) 29. cf Robert E Scott, 'The Case for Market Damages: Revisiting the Lost Profits Puzzle' (1990) 57 U Chi L Rev 1155, 1155 ('[T]he simplicity of the full performance principle disguises substantial problems in its application.')

19 Rest Confs, (n 14), s 237.

Thirdly, deducting any ‘actual gain’ (AG) from performance by the issuer that James had already reaped up to the breach; and

Fourthly, ‘capitalization’, namely discounting to present value (DPV) of any future income that the damage award would enable James to recoup earlier than expected under the indenture.

The first three stages in the computation (capitalization not included) can be summarized as follows:

$$\text{GLP damages} = \text{TFI} - \text{TFE} + \text{AE} - \text{AG}$$

To illustrate, in our hypothetical, James’ FP from performance equals \$980. Full performance by the issuer would have given James the \$1,000 par (upon maturity) plus 20 (yearly) coupons of \$50 each. Thus, James’ TFI is \$2,000. James’ TFE, on the other hand, is \$1,020 (the \$1,000 par plus the \$20 fee he is obliged to pay the trustee).²⁰ His FP thus equals, nominally speaking, \$980 (\$2,000 – \$1,020).

The second step requires adding up to the last figure James’ AE, namely \$1,020 (par + fee).²¹ James’ damages at this point are thus \$2,000 (\$980 + \$1,020).

The third step requires deducting the AG element, ie the \$250 James had already reaped from the issuer’s part performance during the bond’s first five years. James’ expectation damages thus equal, at this point, \$1,750 (\$2,000 – \$250). The latter sum fully satisfies James’ expectation interest by nicely closing the \$1,750 gap between James’ current economic position (CEP) which is \$770 (\$1,020 + \$250) and his expectation interest (=FP) which equals \$980.

However, to avoid overcompensation, this figure must be capitalized. This requires a DPV of the nominal value of each and every future coupon payment, as well as of the par (from maturity date backwards to judgment date) to offset for the added economic value involved in their premature transfer to James. For example, if the total added value of these premature payments equals \$550, James’ expectation damages under the GLP measure would ultimately amount to \$1,200 rather than \$1,750.

The second measure: net lost profit

The next alternative measure resembles the first but adds an additional step to the calculation. That step entails deducting from the figure reached by the GLP measure any profit James has made or could be reasonably expected to make under an alternative comparable investment. I call this measure of damages ‘Net Lost Profit’ (NLP) to distinguish it from the GLP measure discussed above.

²⁰ Note that James’ opportunity costs (namely, the profit he could have reaped under an alternative deal) are not part of the calculation of expectation damages. The reason is that such an investment (unlike reasonable out-of-pocket expenses) is inconsistent with James’ obligation to perform the contract—and therefore legally ‘unforeseeable’.

²¹ In our hypothetical, this sum equals James’ foreseeable expenditure. However, this is a mere coincidence: foreseeable and actual expenditure will often diverge, as is the case when the aggrieved party only partly performs prior to the breach.

To illustrate, let us assume that in order to cut down his expected losses from breach, James seeks to substitute a similar bond for the violated one.²² To do so, James turns to the primary market to look for similar or comparable bonds. He finds out that an issuer of the same credit rating as of the breaching issuer²³ (just prior to the breach²⁴) now issues a series of 15-year bonds for the same face value (\$1,000) and a slightly higher service fee of \$30.

However, due to a general drop in interest rates, it turns out that the annual return on such bonds is currently only 3 per cent (rather than 5 per cent under the breached bond). Finally, let us assume that purchasing the bond is a reasonable commercial step.²⁵

In this case, under the NLP measure of damages, James would not be entitled to \$1,750 (before DPV) as expectation damages. Rather, he would only be entitled to a part of the latter sum, namely: that part of his loss that would remain uncompensated even after the full performance of the substitute investment. This is because the alternative investment provides James with a new contractual expectancy that brings him closer to realizing his original one. The new investment thus reduces the scope of James' losses and thus, accordingly, his damages. On the other hand, because entering the alternative investment is itself costly, doing so increases James' damages.

Under the NLP measure, James would thus be entitled to damages comprising two elements:

- (i) The 'lost profit differential' (LPD)—ie the difference between James' unfulfilled expectancy (ie the value of the partial performance to which James is still entitled under the original deal) and his unfulfilled expectancy under the substitute investment (which, in turn, equals his expectation interest under the new deal); and
- (ii) Any reasonable 'substitution cost' (SC) James must incur in order to conclude (and perform) the substitute investment.²⁶

22 Whether or not James is bound to look for an alternative investment is a question we discuss below in Section 4, the subsection 'Pragmatic difficulties'.

23 An issuer's credit rating has a direct and substantial impact on the value of any bond it may issue. Thus, to be considered economically equivalent, the alternative bond should resemble the original one to the extent possible.

24 The breach itself, especially if it is a part of a large-scale default on the part of the issuer (as in our hypothetical), will often affect the credit rating of the issuer and, in turn, affect the value of the bond itself. See below Section 2, the subsection 'The fourth measure: market value differential'. I ignore here, for the sake of simplicity, cases where the pre-breach credit rating of the issuer is not the same as it has been at issuance of the breached bond. For example, the issuer's rating can drop from A to B due to general market factors or, alternatively, due to actions (or omissions) taken by the specific issuer. While the former type of change may be relevant in deciding whether a particular alternative investment should be considered 'comparable' to the bondholder's breached bond, the latter type of changes clearly should not. I thank Mark Weidemayer for this insight.

25 The reasonableness issue is strongly associated with the mitigation of damages doctrine. The impact of mitigation is discussed below in Section 4.

26 This element can be seen as either an independent element of (consequential) damages or as indemnification for a reasonable expense under the mitigation doctrine.

The general formula of the NLP measure is thus:

$$\text{NLP damages} = \text{LPD} + \text{SC}$$

Needless to say, whenever the comparable investment is less profitable than the original (breached) one, the LPD element will be positive. If, however, the comparable deal is more profitable (eg because interest rates have risen), the LPD will be negative (or nil, if the interest rates under the two bonds are identical).²⁷

Implementing the above formula to the facts mentioned, the NLP measure will thus comprise:

- (i) \$300 LPD, representing the difference between James' unfulfilled expectancy under the breached bond ($\$50 \times 15$ yearly coupons = \$750) and his unfulfilled expectancy under the substitute investment ($\$30 \times 15$ yearly coupons = \$450); and
- (ii) \$1,030 SC, comprised of the \$1,000 face value of the new bond plus the \$30 service fee.

All in all, under the NLP measure James would be entitled to claim \$1,330 as expectation damages. Similar to GLP damages, this award should be discounted to present value, to avoid over-compensation.

The third measure: cost of cure

Let us now assume that James did not manage to find a comparable investment in the primary market for bonds, either because there were no issuers of the same or similar credit rating as of the breaching issuer, or because 15-year bonds were unattainable soon after the time of breach. Searching for another means to diminish his losses from the broken deal, James then decides to approach the secondary market for bonds.

Fortunately, he learns that the 15-year bonds of an issuer with the same credit rating as the breaching issuer are now available and sold with 5 per cent annual return. Unfortunately, however, James also learns that the market price of these 15-year bonds has risen due to a general drop in interest rates that has made the bond more attractive to investors than when it was issued. For example, let us assume that upon its issuance, the bond James seeks to purchase was worth its par (\$1,000). Today—5 years later—the bond should have been worth 25 per cent less, ie \$750 (due to the time elapsed and the five coupons already paid). However, due to the aforementioned market fluctuation, the bond's market price is now \$900.

If James decides to purchase the bond, how should this affect his remedy? The answer is simple and straightforward: in this case, James' only loss is his 'cost of cure' (CC), ie the cost of purchasing a substitute investment that would entirely cure his losses from breach by

²⁷ Theoretically, even in such a case NLP damages may still be awarded if the SC element is higher than the (negative) LPD element. However, in practice, a court would be very unlikely to award an SC that is greater than the (negative) LPD. This is because spending more than X in order to gain X is *prima facie* an unreasonable commercial step.

giving him an economically equivalent (or superior) substitute. In the example just given, CC damages equal the purchase price of the alternative bond, ie \$900. Apart from this cost, there is no other loss, because the new investment gives James the same foreseeable profit that he had lost due to the breach, namely 15 yearly coupons of \$50 each (\$750 in total).

Hence, assuming the purchase to be a reasonable ‘cover’ for the original bond,²⁸ James is entitled to recover \$900. This sum represents a consequential element of loss attributable to the breach.²⁹

The fourth measure: market value differential

A bond, just as any other commercial asset, has an intrinsic economic value that, in principle, is subject to objective evaluation. Theoretically, a bond’s market value (MV) is supposed to reflect the price an average buyer would be willing to pay (prior to maturity) a bondholder for his rights under the bond indenture. Notably, a bond’s MV at any particular time does not necessarily—and most often will not—equal the par. Indeed, as we have mentioned, even if, upon issuance, par reflected MV (which might not always be the case), the bond’s MV in any future time may be either higher or lower. This is for two main reasons: First, a bond’s value naturally decreases with every coupon payment actually paid. Thus, in our hypothetical, it is obvious that James’ bonds are worth less (12.5 per cent less) than when they were purchased.³⁰ Secondly, a bond’s market value may fluctuate over time, with changes in the demand for or supply of similar bonds which, in turn, depends on available interest rates on the markets for money.

Calculating a bond’s MV on the secondary market at any particular time is a complex process.³¹ However, the method for measuring expectation damages under the MVD measure is quite simple. All one must do is figure out what changes, if any, in the MV of the bond were affected by the breach. This, in turn, requires comparing the bond’s pre-breach MV,³² with its post-breach MV.³³ Any difference, in so far as it exists, represents the aggrieved bondholder’s loss under the MVD measure of damages.

28 Here, once again, identifying the pre-breach ‘comparable investment’ may not be as easy as it seems, due to the need to distinguish between ‘external’ (market) factors and ‘internal’ factors that may have had an impact on the pre-breach value of the breached bond. See above n 24.

29 Under the UCC, art 2, the buyer’s cost of cure measure of damages is called ‘cover’. UCC s 2-712 provides that in a sales contract, upon breach a buyer can, in principle, claim cover damages, instead of market damages. Similarly, under UCC s 2-706(1), upon the buyer’s repudiation, the seller may resell the goods and claim the difference between the contract price and the resale price.

30 The bond’s original value was, nominally, \$2,000 (\$1,000 par + 20 yearly coupons of \$50). After five years the bond is worth, nominally, \$1,750, ie 87.5% of the bond’s original value.

31 In addition to the bond’s ‘dry’ empirical factors (such as size of coupons and par), other and ‘softer’ criteria affecting a bond’s MV on the secondary market are relevant. These are mainly the issuer’s creditworthiness, the bond’s liquidity, and the time remaining to the next payment under the bond. See eg ‘Bond Pricing – How Bonds Are Priced’ <<https://corporatefinanceinstitute.com/resources/knowledge/trading-investing/bond-pricing/>> accessed 18 September 2022.

32 Once again, one should recall that setting the ‘correct’ pre-breach MV requires neutralizing any ‘internal’ factor having to do with the particular issuer’s conduct (as opposed to ‘external’ (market) factors. See above nn 24 and 28.

33 Post breach market value is traditionally thought to be assessed on the date for performance (or the date of breach). However, in practice courts often deviate from this starting point, either because of evidentiary difficulties or for other policy reasons. The UCC, for example, has postponed the date of assessment to the time the aggrieved party learned of the breach. See UCC s 2-713. On the other hand, in our context, a court may wish to assess the bond’s MV on an earlier date, so to neutralize ‘internal’ factors (including the breach itself) that may have affected its post-breach (and even its pre-breach) value (see above, nn 24 and 28).

The formula for calculating MVD damages is therefore (where MV_1 is the bond's pre-breach MV, and MV_2 is its post-breach MV):

$$\text{MVD damages} = MV_1 - MV_2$$

At first blush, one may wonder why an issuer's breach should have any effect at all on a bond's MV. The answer is that if the breach is not a one-off failure to pay a certain coupon or to pay it promptly, but rather results from a large-scale financial crisis (as in our hypothetical) or even a lesser economic hardship that gained publicity, the debtor's default may have an immediate adverse effect on the breaching issuer's credit rating—and hence on the MV of any of his bonds.³⁴

Most probably this will be the case with a sovereign default of the kind described at the outset of this article. If the sovereign debtor openly declares that the most its creditors will get after the restructuring of the debt is 70 per cent, the value of that debtor's bonds, including James' bonds, might undergo a swift process of sharp devaluation. The decline in the MV may, of course, be even more drastic given the chances that restructuring might be less successful than expected or even fail altogether.

To illustrate, assume that prior to the breach, ie after 5 out of 20 years, bonds of the type James holds were traded on the secondary market for \$1,500. If, following breach, the MV of such bonds collapsed to \$500, James would be entitled to expectation damages of \$1,000 under the MVD measure. Notably, such entitlement does not necessitate any action on James' part, to search for a comparable substitute for the breached bond.³⁵

3. The first challenge: conceptualizing injury

As mentioned at the outset of this article, resolving the damages puzzle in government bonds necessitates answering two analytically distinct questions: First—which is the most appropriate way to conceptualize the loss suffered by James as a result of the breach? Second, how, if at all, does the duty to mitigate damages affect the choice of the appropriate measure? This section deals with the first challenge. The following section (section 4) deals with mitigation.

The imitated performance conception

Careful scrutiny of the four damage measures discussed above reveals that underlying them are two rather distinct concepts of loss or injury. Underlying the first three measures is a particular concept of loss they all share, whereas the fourth measure represents a completely different concept. Let me elaborate.

As the reader may recall, the first measure of damages—the GLP measure—aims to give James the economic gain that he would have acquired but for the breach. Underlying this

34 The issuer's creditworthiness is a paramount criterion in assessing a bond's MV, especially on the secondary market. See above note 31.

35 See below n 53.

measure is a fundamental normative presumption, namely that James is legally entitled to have the contract performed *in specie*. Admittedly, common law courts would normally refuse to coerce a debtor to pay by an order of specific performance.³⁶ However, under this normative presupposition, the creditor is still morally and legally entitled to the closest legal remedy to that of enforced performance.

In our case, that remedy is a money judgment that would give the aggrieved creditor the economic benefit he could have attained if the contract had been performed exactly as promised and as contemplated in the contract (in our case—the indenture). Under this conception, the remedial right of a creditor must reflect, to the extent possible, the content of her original primary right that had been violated. The fact that the contract had been breached is irrelevant and, in fact, should be ignored to the extent possible. The breach changes nothing in the nature of the creditor’s normative claim against the debtor. That claim is still for full performance although performance now takes the form of a money payment that represents the magnitude of the economic benefit that would have resulted from full performance *in specie*.

Put differently, upon breach, the creditor is allowed to say:

You, the issuer, still owe me performance in specie, even though I cannot enforce this right against you (personally) for institutional reasons. Therefore, I demand that you put me in the same economic position that was the foreseeable outcome of our reciprocal performances.

The GLP measure gives effect to this conception, which I shall name the ‘imitated performance conception’. Under this concept, by imagining the economic position of the aggrieved creditor if there had been no breach, expectation damages perform a role that is conceptually identical to that of specific performance. Because *ex ante* (before breach) James was entitled to performance *in specie*, he becomes entitled *ex post* to a damage remedy that reconstructs or imitates, to the extent possible, his prior entitlement.

The tradable asset conception

In stark contrast to this view, stands an alternative conception. Under this competing approach, regardless of any contractual or judicial rhetoric to the contrary, generally speaking, upon breach, the non-breaching party is no longer entitled to actual and full performance of the primary contractual obligations set out in the contract. Rather, upon breach, she can only demand the objectively fair value of the subject matter of the promisor’s original contractual obligation.

Underlying this approach, which I shall call the ‘tradable asset conception’, any contract implies an obligation either to perform *in specie* or instead, if the breaching party so

³⁶ This is because when what is owed is money, money damages will always be considered ‘an adequate remedy’. However, if the defendant is insolvent, interesting theoretical questions may arise as to the adequacy of a damage award versus an order for specific performance to pay the same amount of money. These issues are rigorously explored in HC Horack, ‘Insolvency and Specific Performance’ (1917–1918) 31 Harv L Rev 702. See also Henry L McClintock, ‘Adequacy of Ineffective Remedy at Law’ (1932) 16 Minn L Rev 233 (discussing both insolvency and other obstacles to enforcing money judgments as a possible reason for granting specific performance).

decides, to give the non-breaching party the fair objective value of the promised asset or service at the time of the contract breaker's decision not to perform. If the latter so decides, his primary obligation to perform immediately transforms into an obligation to pay the fair market price of the subject matter of the contract—rather than imitating its performance *in specie*.³⁷ In other words, a failure to perform as originally contemplated extinguishes the original obligation, replacing it with an obligation to pay the market value of the asset (object or service) of which the failure to perform deprives the promisee.

No doubt, this is a fundamental transformation of the content of the parties' rights as expressed in their contract. However, the change is perhaps fair, because arguably it can do justice to both parties: On one hand, the modification of the original obligation does justice to the contract breaker by relieving her from the chains of what has now become a losing deal for her (or a deal she cannot perform any longer). On the other hand, it does justice to the non-breaching party: she has now received a sum of money that, under the said conception, truly represents the value of her contractual entitlement at the time of breach.

Furthermore, if the aggrieved party so wishes, she could use the latter sum of money to restore her initial entitlement to the original subject matter of the contract. Arguably, after being compensated for any decrease in the market value of the tradable asset, she can now use the money to purchase an identical or a fairly similar substitute in the market without having to pay any more than the original contract price.

Applying this approach to a paradigmatic failure with respect to a bond indenture, James' appropriate remedy is not money compensation that would imitate performance by the issuer but rather a payment (forced, if necessary) of the fair market value of the asset of which the issuer's default has deprived James. For example, if the default has completely 'destroyed' the MV of the bond (diminishing it to zero), James would be entitled to recover the whole pre-breach MV of the bond. If, however, the breach has only diminished the bond's MV, James would be entitled to claim the difference between the pre-breach and post-breach MV (ie the MVD). This sum will represent the gap between the fair value of the tradable asset held by James just prior to the issuer's default (ie the bond's pre-breach full MV) and the lesser value that he still enjoys or maintains even after the breach.

Importantly, the fair market value of James' tradable asset should be assessed at the time of breach.³⁸ This is because, as explained above, this moment best reflects the content of James' justifiable demand from the issuer. This demand can be formulated as follows:

You, the issuer, have failed to perform as promised. Thus, I hold you to have exercised your legitimate right to relieve yourself from the obligation to perform in specie subject to you paying me the market value of your performance – at the time of your decision not to perform. Therefore, I hereby ask the court to force you to make this payment. This is fair, because such payment will hold you

37 This idea resonates with Holmes' interpretation of a contractual right: 'The duty to keep a contract at common law means a prediction that you must pay damages if you do not keep it – and nothing else.' Oliver Wendell Holmes, 'The Path of the Law' (1897) 10 Harv L Rev 457, 462.

38 Or sometime prior to the breach, so to neutralize 'internal' factors responsible for a decrease in the bond's MV. Above nn 24 and 28.

responsible for your decision not to perform and because it will enable me, if I so decide, to purchase an asset substantially similar to the one you originally promised me, without me having to spend any more money than I originally planned to spend.

In sum, whereas the imitated performance conception is committed to seeing that James' foreseeable gains from performance are actually realized and handed over to him by the issuer himself, the tradable asset conception is committed to giving James the fair objective value of the asset of which the breach had deprived him—assessed at the time of breach (or a relevant date prior or subsequent to it).³⁹

Matching measures with conceptions

Which of the four measures available to James upon the breach of the indenture embodies the imitated performance conception and which represents the tradable asset conception? The answer seems to me quite straightforward: The first measure (GLP) unmistakably embodies an imitated performance conception, whereas the fourth (MVD) clearly reflects the tradable asset conception.

The classification of the second measure (NLP) is also easy: since its goal is identical to that of the GLP measure, it must emanate from the same remedial conception, namely that of imitated performance. The only difference relates to the road towards achieving that goal: whereas the first measure (GLP) gives the aggrieved bondholder the entire difference between his current economic position and his full performance expectancy unconditionally and as originally promised, the second measure conditions the same entitlement on an effort on her part (actual or notional) to purchase a comparable investment.

Arguably, the same is also true with respect to the third measure (CC). This measure similarly aims at reconstructing the original performance to which James was entitled under the indenture, but this time using a different way (ie using the secondary market to get there). Like NLP, CC also subjects the bondholder's right to enjoy her original expectancy to an effort (again, actual or notional) to recoup some of his losses by making an alternative purchase. And while changes in MV (ie the value of the bond under a tradable asset conception) do play a role in assessing NLP and CC, that role is indirect.⁴⁰ The overreaching remedial goal of both measures is still to imitate the original performance contemplated in the indenture—rather than to give the aggrieved party the objective value of the breached bond (ie its MV) as a tradable asset.

As we shall soon see (in Section 5), the second and third measures of damage (NLP and CC) are closely connected to the mitigation principle. In fact, the duty to mitigate is the guiding rationale behind the law's recognizing these two measures of calculating the expectation damages as legitimate alternatives to the GLP measure.

³⁹ To adjust for market fluctuations which should have an impact (either positive or negative) on the bondholder's rightful expectation.

⁴⁰ Under the CC measure, the substitute bonds' MV affects the scope of damages, because a fluctuation in MV affects its price. Under the NLP measure, the MV of the breached bond is relevant to identifying an appropriate comparable investment.

Making the choice: imitating performance or replacing an asset?

In the context of a breached government bond, which of the two conceptions should be favoured? More concretely, should damages be awarded on the basis of the tradable asset conception and computed under the MVD measure or should they be computed using one of the three imitated performance measures?

Phrased this way, the dilemma just presented is *prima facie* analogous to a well-rehearsed problem in the context of sales: the choice between market damages and lost profits.⁴¹ However, for the reasons outlined ahead, the sophisticated body of literature dealing with this thorny problem is only partially relevant to the case of a breached bond. In particular, I believe that the main arguments in favour of limiting buyers' and sellers' remedy to market damages are inapplicable to our context. Therefore, they should not justify forcing an aggrieved bondholder to seek damages based on the MVD measure.

Unlike other contexts (eg sales of goods) where market damages can turn out to be either higher 'or' lower than lost profit damages, the MVD measure will inevitably give the aggrieved bondholder less than the GLP measure in our specific context. This is because, as mentioned earlier, the MV of a bond at any given moment takes into account both its expected yield and its issuer's credit rating. Assuming (as we are) that rating to be less than 1 (ie less than 100 per cent certainty of full performance by the issuer), the pre-breach MV of James' bond at any given moment must be lower than its expected yield. Thus, damages calculated on the basis of a bond's YTM (ie GLP damages) will inevitably be higher than those calculated on the basis of the MVD measure.

This insight is of crucial importance in our context. In my view, it supports adopting the GLP measure instead of the MDV measure or, at least, allowing the aggrieved party to choose between the two measures. At first blush, such freedom to choose the more favourable measure would seem always to result in the creditor electing GLP instead of MVD damages. However, claiming GLP comes with a disadvantage: it exposes the aggrieved bondholder to the duty to mitigate. If applying that duty involves a sufficiently significant burden, aggrieved bondholders like James may consider claiming MVD damages which, as we shall shortly see, are not subject to the duty to mitigate.⁴²

Be the actual choice of aggrieved investors as it may, I see no moral or economic justification to deny them the right to make that choice and to prefer GLP damages over MVD damages. As said, this is because the most convincing policy reasons for awarding market damages instead of lost profits are largely inapplicable to the paradigm we are dealing with. These reasons have been widely discussed and hotly debated by courts and commentators in the context of sales contracts, especially contracts for the sale of goods. Scholarship

41 See generally: Dobbs (n 18), Goetz and Scott (n 16); For a thorough judicial treatment of the problem see eg *Tongish v Thomas* 251 Kan. 728 (1992).

42 See below n 53.

supporting market damages as the default measure in that context has suggested that awarding lost profit damages may often be unfair and inefficient.⁴³

One of the central arguments raised in favour of awarding market damages is that lost profits (or full performance) damages take into account events that contracting parties might not contemplate *ex ante*. In contrast, market damages better reflect the parties' contractual expectations *ex ante*, ie when they allocated the risks from performance (and breach) between them. More concretely, it has been suggested that in a typical contract for the sale of goods with a fixed date for delivery, what the seller actually gives the buyer is not a guarantee for a profitable use of the chattel, but rather a guaranteed price that will enable the buyer to reap the contract–market differential if he likes.⁴⁴ In addition, market damages are thought to be easier to prove and establish than lost profit damages, thus serving as some kind of 'safety net' for victims of breach, providing them with a minimum standardized recovery when they cannot establish the 'quantum' of their lost profits.⁴⁵

As said, these arguments seem to me largely inapplicable in the case of a broken bond. First and foremost, the plain understanding of the parties to an indenture is that each party will make the promised payments on their due dates. Under the simplest and most intuitive understanding, these promised payments are obligations to pay actual money in the future, not options to make a profit from being able to sell the bond to anyone else if performance fails.⁴⁶ Furthermore, whereas in the market for fungible goods lost profits are a consequential element, ie a benefit arising not directly from performance but as a potential by-product, in the context of bonds (and other promises to pay money), the lost profit is a direct (and thus clearly foreseeable) loss rather than a consequential (and thus speculative) one.⁴⁷

On top of that, in the case of bonds (and other promises to pay money, such as loans and promissory notes), GLP damages are easily calculable and in fact, are easier to compute than MVD damages, which may require more complex information as to a bond's MV at a certain specific date, as well as a normative decision as to which date is the most pertinent for assessment. Thus, the 'safety net' function of market damages as well as the institutional argument that they are less costly to administrate are clearly irrelevant, at least when compared to GLP damages.⁴⁸

Finally, as explained, in the context of bonds, market damages are practically always going to be lower than lost profit damages.

43 For keen support of market damages over lost profits (or full performance) damages see also Goetz and Scott (n 16); Scott (n 18); Alan Schwartz and Robert E Scott, 'Market Damages, Efficient Contracting, and the Economic Waste Fallacy' (2008) 108 Colum L Rev 1610.

44 See Scott (n 18), at 1159 ('A fixed-price contract functions as an option on the future supply of the goods at the contract price. Market damages reflect the *ex ante* value of the option'); Dobbs (n 18), at 47–48.

45 Dobbs (n 18), at 48; Scott (n 18), at 1187 (describing the proof of lost profits as 'extremely costly').

46 Interestingly, even Holmes, the spiritual father of the 'efficient breach' theory has, at one point, admitted that: '[W]hen people make contracts, they usually contemplate the performance rather than the breach.' Oliver Wendell Holmes, *The Common Law* (Little, Brown, And Company 1881) 302. cf UCC, s 2-609, cmt 1: '[T]he essential purpose of a contract between commercial men is actual performance and they do not bargain merely... for a promise plus the right to win a lawsuit.'

47 This classification might affect the duty to mitigate. See below text to nn 54–56.

48 As we saw, the NLP and CC measures may also involve MV assessments (either of the breached bond or the substitute bond). This may be another institutional reason (although a secondary one, in my view) to prefer GLP over any of these two measures.

All of this greatly reduces the attractiveness to investors (and thus indirectly to issuers) of market damages as a measure of expectation damages. Indeed, if the actual practice of creditors and debtors in this area can be of any indicative value as to the appropriate position the law should take, that practice seems to support this claim. Most bonds explicitly allow parties faced with breach to prefer any legally available remedy over any contractually agreed remedy (for government bonds this would typically be acceleration). The ubiquity of this typical ‘any other remedy’ (AOR) clause indicates the parties’ reluctance to limit the range of remedial options to a certain measure of damages. Indeed, if creditors and debtors believed that GLP damages unfairly or inefficiently allocated the contractual risks involved in the purchase of a bond, a typical indenture would limit a bondholder’s remedy to MVD damages to reflect that view. To the best of my limited acquaintance, most indentures do not contain such limitations.

To sum up this point: the plain language of most indentures, the plain understanding of investors and issuers, and the pertinent policy considerations strongly support the normative stance that, upon breach, bondholders should not be forced to claim MVD damages against their will. Rather, aggrieved investors should be allowed to claim and obtain GLP damages, subject to the courts’ discretion to prefer any of the other ‘imitated performance’ measures, namely NLP or CC damages.

That being said, it remains to be seen whether, under the imitated performance conception, GLP damages should indeed be the default measure or whether the court should prefer NLP or CC damages. I turn to this next.

4. The second challenge: applying mitigation

The mitigation doctrine: a quick reminder

The doctrine of mitigation, known also as the ‘avoidable consequences’ doctrine, is an established principle of the common law of damages.⁴⁹ The doctrine embraces three different rules.⁵⁰ The first and most fundamental, states that defendants are not liable for any loss resulting from their wrongdoing, if the victim could and should have avoided that loss by taking reasonable steps to mitigate it.⁵¹ The second rule, which is a logical corollary to the first, recognizes a plaintiff’s right to be reimbursed for any reasonable mitigation effort, whether successful or not. Under the third rule, if the plaintiff’s mitigation efforts succeed, the damages must be reduced by the amount of the avoided loss.

49 For discussion see Yehuda Adar, ‘Comparative Negligence and Mitigation of Damages – Two Sister Doctrines in Search of Reunion’ 31(2013) *Quinnipiac L Rev* 783, 792–94. Authoritative treatments of the doctrine in American contract law include: Dobbs (n 18), at 127–53; Allan E Farnsworth, *Farnsworth on Contracts* (3rd edn, Aspen Publishers 1999) 806–21; Arthur Linton Corbin, *Corbin on Contracts*, Joseph M Perillo ed, (revised edn, West Publishing Co. 2005) 311–22.

50 For the endorsement of the following tripartite taxonomy see, eg Harvey McGregor, *McGregor on Damages* (18th edn, Thompson Reuters (Legal) Limited 2009) 235–36; 1 *Chitty On Contracts*, ed. Hugh G Beale Gen (29th edn, 2004) 1478–79. Dobbs (n 18), at 381. The *locus classicus* of the doctrine is a contracts case, *British Westinghouse Co v Underground Ry* [1912] AC 673 (HL).

51 Rest Confs (n 14), s 350(1); Restatement of Torts (Second) s 918(1); Charles J Goetz and Robert E Scott, ‘The Mitigation Principle: Toward a General Theory of Contractual Obligation’ (1983) 69 *Va L Rev* 967, 967, fn 2 (‘The doctrine of avoidable consequences, which precludes an injured party from recovering damages for losses which he reasonably could have avoided, is the centerpiece of the mitigation principle’).

While conveniently depicted as imposing a ‘duty to mitigate’ on potential victims, the doctrine does not in fact give rise to an independent cause of action for a failure to carry out such ‘duty’. Being an affirmative defence, the only sanction is the cutback on the non-mitigating plaintiff’s damages.⁵²

What implications can mitigation have, in the context of a paradigmatic breach of a government bond? A number of issues call for consideration.

Theoretical issues

The first general question to be asked is whether aggrieved investors like James should be subject to the duty to mitigate and, if so, which losses should be mitigated.

The answer seems to depend on which loss conception one adopts. Under the tradable asset conception, mitigation seems entirely out of the question. This is because, generally speaking, market damages are not ordinarily subject to mitigation.⁵³

This traditional rule is particularly warranted in the context of a breached bond. Nothing can be done by James (or anyone else, for that matter) to remove, repair or reduce the scope of the injury done to the specific bond itself, conceived of as a tradable asset. The source of the injury is the devaluation of the bond, in the external eyes of the market, and no action of James’ can change that evaluation (either pre-breach or post-breach).

Conversely, under the imitated performance conception, the loss can apparently be avoided or at least reduced by purchasing a substitute bond in either the primary or the secondary market. As we have already seen,⁵⁴ such a purchase can mitigate or even eliminate the loss by realizing (fully or in part) the investor’s expectancy from full performance in an alternative, but conceptually similar way.

The next theoretical issue to be considered is whether the ‘duty’ to mitigate is applicable in the context of a broken obligation to pay money. Intuitively speaking, there seems to be no reason why it should not. On the other hand, James might argue—and this argument has found support—that mitigation only applies to consequential losses rather than to losses emanating directly from the breach.⁵⁵ In our case, James’ losses flow immediately and directly from the issuer’s failure to perform (pay) and thus can hardly be regarded as consequential.⁵⁶

52 For an analytical discussion of the nature of the ‘duty’ to mitigate see Adar (n 49), at 804–5.

53 ‘The avoidable consequences rule . . . seldom applies directly to general damages claims based on market value . . .’ Dobbs (n 18), at 46, fn 20. The rule clearly applies to sales contracts: UCC s 2-712(3); Dobbs, *ibid*, at 375. Arguably, the rationale for this ‘exemption’ is that market value damages are based on an irrefutable presumption that the non-breaching buyer (or seller) will in fact enter a less attractive deal in order to mitigate their losses from breach.

54 Above Section 2, the subsections ‘The second measure: net lost profit’ and ‘The third measure: cost of cure’.

55 Dobbs (n 18), at 128: ‘The chief rule is that the plaintiff must make reasonable efforts to minimize *consequential damages* resulting from the breach.’ See also *ibid*, at 404 (‘the rules for minimizing damages apply primarily if not entirely to *consequential damages*.’).

56 Dobbs, *ibid*, at 39, suggests that in a wider sense ‘general damages’ include not only market damages but any damages ‘based on the value of the very performance contracted for’. To me, this is an implied recognition that failure to perform a primary obligation to pay money may be seen as causing direct rather than consequential loss. This is not to imply that lost profits are always direct losses. When a tangible asset is not delivered as promised (eg when a sales contract is breached by the seller), lost profits from its future use or resale are clearly a consequential loss.

Nonetheless, in my view, there is no rational justification to limit the doctrine's applicability to secondary or indirect losses. Such a limitation is arbitrary. Indeed, if a certain element of loss is easily avoidable, why should its classification as a direct (non-consequential) loss exempt the victim from the burden of making a reasonable effort to minimize it by channelling resources to an easily attainable alternative investment?⁵⁷

Pragmatic difficulties

An arguably more difficult challenge is to decide whether, in any particular case, James and similarly situated investors should actually be expected to minimize loss through the purchase of an alternative bond. An affirmative answer means that James must make an alternative comparable (or identical) investment. It also means that whether he actually makes such an investment or not, his damages will be computed according to the NLP or the CC measures discussed above.⁵⁸ Giving it a negative answer, on the other hand, means that whether or not James actually purchases a new bond following the breach, his damages should still be assessed under the GLP measure. They will not be affected (ie reduced) by any economic gain James could have reaped—or has actually reaped—from purchasing a new bond. Under this approach, because James was under no duty to purchase a substitute, purchasing any such investment should not be regarded as causally linked (in the factual or legal sense) to the breach.

Unfortunately, as in many other contexts, giving a general answer to this question is impossible. The most we can do is point out a number of important factors and policies that may affect the decision in particular cases.

The first factor to be considered is the existence of an easily accessible market where a comparable investment can be purchased. In the particular context of government bonds, comparable investments may not always be available. This is because the market (especially the primary market) for such bonds is relatively 'thin' compared to the market for corporate bonds. And while large institutional investors may be expected to enjoy easy and low-cost access to these markets, this may not be the case with other investors (especially individual consumers).

Another crucial factor concerns the availability of sufficient funds to make the alternative investment. Unlike institutional investors, smaller bondholders may not have sufficient funds at their disposal to replace all (or any) of their breached bonds.⁵⁹ Purchasing a substitute bond may be all the more difficult—and hence may be considered unreasonably burdensome—if the sums invested in the failed deal were large and if they have not yet been restored by the issuer (eg following termination or acceleration). Obviously, repayment of

57 Similar doubts have been cast in sales of goods. See Dobbs (n 18), at 404.

58 As mentioned above, under both measures, if James actually purchases a substitute, his damages will include both substitution costs and any remaining lost profit. If he fails to do so, his damages will (theoretically) be the same, because they will be computed as if he had actually fulfilled the 'duty' to mitigate.

59 This is not to imply that institutional investors always have sufficient funds at their disposal to make additional investments. The availability of funds is ultimately a factual matter that must be considered *ad hoc*.

the par by the issuer may increase the feasibility and ease of making an alternative investment.

The third and probably most complex challenge concerns the ability to attribute a particular investment actually made by an aggrieved creditor to the breach of the indenture. On the one hand, any comparable investment made shortly after the breach can be presumed to have resulted from that breach and thus to justify a reduction of the damage award. On the other hand, aggrieved investors may argue that the reason for the subsequent investment had nothing to do with the breach of the previous investment. The later investment could have been made anyway, ie even absent breach. In consequence, the gains from the newly purchased bond should not be deducted from the damage award.⁶⁰

Deciding between these two contrasting views of the subsequent investment may turn out to be both challenging and costly. This is especially so if the new investment was not identical to the previous one, and if it took place not soon after the breach but later on. Issuers may find it quite difficult to prove that such a delay was a manipulation intended to get around the third rule of the mitigation doctrine.

To conclude, it seems to me that while, in principle, a bondholder's right to expectation damages under the GLP measure is arguably subject to mitigation, in practice it may be very hard for issuers in default to reduce or limit the scope of their liability based on a bondholder's alleged failure to mitigate. In other words, it would be very difficult for defaulting issuers to convince a court that the claimant in any particular case acted unreasonably in not having purchased an alternative bond instead of the one breached.⁶¹

Finally, as explained, even if in fact a profitable new deal were to be concluded by the claimant, the issuer might still have a hard time attributing its profits to the breach. All in all, doctrinal limitations and pragmatic considerations greatly reduce the likelihood that a court (or arbitrator, for that matter) will deny an aggrieved bondholder's claim for GLP damages on grounds connected with the mitigation principle.

Restructuring, mitigation and good faith

A final note goes to the prospect of an issuer relying on the mitigation principle or on the general duty of good faith in performance and enforcement,⁶² so to force investors like James to cooperate with an effort to restructure a sovereign debt, eg by offering them new and alternative commercial instruments.

Clearly, from a broad public perspective, such an imposition may seem socially and economically desirable, especially where the investor's holdout is manipulative and is intended to extract from the issuer a greater share compared to similarly situated creditors.

60 In the context of the sale of goods this is known as the 'lost volume' argument, namely an aggrieved seller's claim that the gains from reselling should not be attributed to the breach or repudiation by the buyer. For discussion see eg Dobbs (n 18), esp at 399–400, 404–06 (mentioning the FIFO rule as a judicial test aimed at resolving the attribution challenge). Similarly, aggrieved buyers are also allowed to prove they would have bought another similar good regardless of any breach by the seller, in which case the substitute purchase will not be considered 'cover' (and thus will not reduce the buyer's market damages). Dobbs (n 18), at 377.

61 In addition, one should recall the doctrinal barrier mentioned above, see text to n 55.

62 eg UCC s 1-304; Rest Confs (n 14), s 205.

However, from the internal perspective of the law of contracts, it is far from clear that a contracting party can legitimately be sanctioned for refusing to renegotiate the terms of a deal. This seems especially true if the breach was not inadvertent or if the new (restructured) deal offers the creditor much less than the original indenture did.

Nonetheless, in other contexts (eg employment) some courts have shown a willingness to impose such duties, especially where the breach was unintentional or unavoidable, and where the readjusted deal did not involve onerous new demands on the aggrieved employee.⁶³

Applying this idea to the context of our hypothetical, it seems quite farfetched to expect a court to reduce James' proven damages only due to his refusal to accept a readjusted deal that would leave him 30 per cent worse off compared to the original one. The case may be different if the proposed restructuring guarantees the investor's entire (or almost entire) expected yield subject only to a delay in performance (for which delay the creditor is offered some compensation). Here, judicial recognition of a positive obligation to cooperate, negotiate or accept an adjusted deal is more plausible under the notion of good faith and fair dealing in the performance of contractual obligations.

An essentially similar outcome can be reached, under the same circumstances (ie where readjustment involves only minor losses), relying on the duty to mitigate. While this has not been the typical use of mitigation by the courts, if a creditor's assent to a readjustment can enable the debtor to pay most of his debt to the former, a flat refusal to cooperate may be conceptualized as an unreasonable failure to mitigate the creditor's expected losses.

5. Conclusion: the puzzle resolved

The preceding analysis has demonstrated that in the face of breach a bondholder's expectation damages may be calculated in at least four different ways:

- (i) First, under the GLP measure, the damages would equal the total sum of unpaid coupons discounted to present value.
- (ii) Secondly, under the NLP measure, the damages would equal the lost profit differential coupled with the substitute costs of purchasing a comparable (though not equally profitable) investment on the primary market.
- (iii) Thirdly, under the CC measure, the damages would equal the costs needed to purchase an economically equivalent bond on the secondary market.
- (iv) Fourthly, under the MVD measure, the damages would equal the difference between the bond's pre-breach and post-breach MV on the secondary market.

As we have seen, each of these measures is bound to yield a different figure. The question, then, becomes one of choosing among the measures. This article argued that the first

63 For discussion see eg Robert A Hillman, 'Keeping the Deal Together after Material Breach – Common Law Mitigation Rules, the UCC, and the Restatement (Second) of Contracts' (1976) 47 *Un Col L Rev* 553; Dobbs (n 18), at 135–37. See also Goetz and Scott, 'Mitigation' (n 51), at 972–73; 976–77 (supporting 'cooperative readjustments' to encourage efficient outcomes when markets are 'thin' and the risk of manipulation by the promisor is low).

decision to be made concerns the appropriate definition or conception of an aggrieved bondholder's injury. On this frontier I argued that unlike other contexts (such as the sale of goods), there are no convincing reasons to deny creditors the right to claim damages based on the imitated performance concept, ie by reference to one of the first three measures (GLP, NLP or CC).

On the second issue, that of mitigation, the article clarified that by seeking damages on any of the three imitated performance measures, creditors expose themselves to this affirmative defence. Nonetheless, doctrinal and pragmatic difficulties to establish a failure to mitigate will, in most cases, lead courts to reject the mitigation defence, allowing investors to enjoy full GLP damages. At the end of the day, the damages puzzle has hopefully been resolved, the solution being very much in line with the wisdom of the crowd.