CONTRACTORS' DISRUPTION & LOSS OF PRODUCTIVITY CLAIMS

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1. What is a loss of productivity claim ?

1.1 A loss of productivity claim is a claim where the Contractor alleges that the Employer is legally responsible for acts of disruption that have caused loss of productivity and increased costs that would not have otherwise been incurred.[1]

1.2 Disruption is loss of productivity, disturbance, hindrance, or interruption to progress. In the construction context, disrupted work is work that is carried out less efficiently than it would have otherwise been but for the cause of disruption.

1.3 Loss of productivity is the calculated difference between the level of efficiency / productivity that would have been achieved but for the acts of disruption, and the level of productivity in fact achieved.[2]

1.4 Disruption causes a loss of productivity in a number of ways. For example, re-sequencing of work, repeated learning cycles, congestion caused by stacking of trades, increase in size of the workforce and the number and length of shifts.

2. Setting the Scene: Relevant definitions and concepts.

For clarity, I set out below the meaning of various definitions / concepts used throughout this paper.

(a) *Employer / Contractor*

Employer: This is a reference to the Owner (in respect of claims by a Contractor) or a Head Contractor (in respect of a claim by a subcontractor).

(b) *"Delay" and "disruption"*[3]

Delay and disruption are two different things.

Unless the context suggests otherwise, in this paper, "delay" is a reference to "critical delays" to the Date for Practical Completion.

"Disruption" on the other hand is loss of productivity, disturbance, hindrance, or interruption to progress. In the construction context, disrupted work is work that is carried out less efficiently than it would have otherwise been but for the cause of disruption.

Acts of disruption may or may not give rise to non-critical delay.

Where the act of disruption does not give rise to critical delay, the Contractor's progress may still be adversely affected (ie on a non critical path

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[1] See also: *Hudson's Building & Engineering Contracts* (London, Sweet & Maxwell, 12th ed 2010) at [6-076 – 6-078]. *Baulderstone Hornibrook Pty Ltd v Qantas Airways Ltd* [2003] FCA 174 per Finkelstein J at [100] – [101].

[2] *Keating on Construction Contracts* (8th Edn, London, Sweet & Maxwell, 2006) at [8.23] – [8.25].

[3] G. Smith and James Ferry, "*The Evolution of Global Claims and Laing Management (Scotland) Ltd v John Doyle Construction Ltd"* [2005] ICLR 212 @ 222 in relation to the difference between delay and disruption.

activity), however, it does not impact on its ability to achieve Practical Completion by the Date for Practical Completion.

Even though the Contractor may not have a viable claim for an extension of time (so as to avoid the imposition of liquidated damages for delay) and delay costs, the acts of disruption may entitle the Contractor to recover compensation from the Employer for the additional costs associated with the reduced efficiency of the workforce.

Conversely, critical delays may or may not cause disruption / loss of productivity.

The Society of Construction Law *Delay and Disruption Protocol* (Society of Construction Law, October 2002) (***the SCL protocol***) defines "Disruption" as follows:

> *Disturbance, hindrance or interruption of a Contractor's normal work progress, resulting in lower efficiency or lower productivity than would have otherwise been achieved. Disruption does not necessarily result in a delay to Progress or Delay to Completion*[4].

Pickavance[5] defines "disruption" as follows:

> *"…Disruption is not delay. Although disruption may cause delay, and it may be caused by delay, delay is not a precondition of disruption and, indeed, disruption may occur when the progress of the works is not only not delayed but when it is in fact accelerated."*

Construction Law defines "disruption" as follows[6]:

> "*11.174 "Disruption" refers to disturbances to a contractor's activities which cause the contractor to work less efficiently. The usual effect of the contractor's works being disrupted is that the contractor, as result of the induced inefficiencies, will incur costs or suffer losses which it otherwise would not have incurred or suffered. A disruptive event may cause a contractor to spend a greater period of time in performing some or all of its works, hence it may to an extent overlap with or be causative of delay to a project. However, the word "disruption" is usually applied in relation to events which give rise to uneconomic working, as distinct from events which affect the overall time for completion of the project works. In other words, "disruption" is usually used to refer to events insofar as they cause uneconomic working, but not insofar as they also cause critical delay."*

(c) *Global Claim*[7]

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[4] Society of Construction Law, *Delay & Disruption Protocol* (Society of Construction Law, October 2002). See definition at page 55. www.scl.org.uk

[5] Pickavance, *Delay and Disruption in Construction Contracts,* (London, LLP, 3rd ed 2005) at [17.1].

[6] Bailey, *Construction Law,* (London, Informa Law, 2011), Vol. 2 at [11.174].

[7] *Hudson's Building & Engineering Contracts,* note 1, (at [6-080 – 6-083]). See also: *Laing Management (Scotland) Ltd v John Doyle Construction Ltd* [2004] BLR 295 per Lord MacLean at [7] and [10]. See also: Byrne, *Total Costs and Global Claims* (1995) 11 BCL 397,

The term "Global Claim" is often mentioned alongside terms "total cost claims", "composite claims" and "rolled up claims".[8]

The SCL Protocol defines "global claim" as:

> *"A global claim is one in which the Contractor seeks compensation for a group of Employer Risk Events but does not or cannot demonstrate a direct link between the loss incurred and the individual Employer Risk Events."*

Relevantly, a global claim for loss of productivity is one where the Contractor does not identify the causal link between the loss and damage claimed (being the additional cost of performing the less efficient work) and the various acts of disruption for which the Employer is legally responsible.

Construction Law[9] defines a global claim as follows (citations omitted):

"11.158 A global claim is a claim by a contractor against an owner:

- *for additional time to complete its works, additional financial compensation, or both, which is predicated upon a number of events, for which the owner is responsible, having delayed and disrupted the contractor in performing its works, and possibly also having caused the contractor to suffer loss or incur expense; but*
- *it is impossible, or impracticable, to identify the actual delay or disruption caused by each of the individual events, and if relevant the financial impact caused by each individual event".*

....

"11.177 Just as it is possible for a contractor to make a global claim for the delay it has suffered as a consequence of a number of events, for which the owner is responsible, without it being possible or practicable to identify causal link between the individual events and the delay caused by each of them, it is also possible for a contractor to make a global claim for the disruption or uneconomic working it has suffered as a result of a number of events for which the owner is responsible, where similar forensic difficulties exist in terms of causation. However such claims (like global delay claims) often present an unrealistically simple picture of the course of events during the project and their putative effect."

In *London Underground Ltd v Citylink Telecommunications Ltd* [2007] BLR 391 at 414 (142), Ramsay J said that:

> *"[t]he essence of a global claim is that, whilst the breaches and the relief claimed are specified, the question of causation linking the*

John Lyden, *"Global Claims in Common Law Jurisdictions"*, SCL Paper D91 (April 2008) www.scl.org.uk; Jeremy Winter, "*Global Claims and John Doyle v Laing Management – Good English Law ? Good English Practice?"*, Society of Construction Law Paper 140 (July 2007) www.scl.org.uk; and, Day and Cope, *"Lilly and Doyle: A common sense approach to global claims"*, SCL Paper D160 (May 2013) at 2. www.scl.org.uk

[8] See Daniel Atkinson, *Causation in Construction Law – Principals and Methods of Analysis* (Daniel Atkinson Ltd, 2007).

[9] *Construction Law,* note 6, Vol. 2 at [11.158] and [11.177].

breaches and the relief claim is based substantially on inference, usually derived from factual and expert evidence".

In *John Holland Construction & Engineering Pty Ltd v Kvaerner RJ Brown Pty Ltd* (1996) 8 VR 681 ***(Kvaerner)*** Byrne J explained a global claim as follows (citations omitted):

> *"…the Claimant does not seek to attribute any specific loss to a specific breach of contract, but it is content to allege a composite loss as a result of all of the breaches alleged, or presumably as a result of such breaches as are ultimately proved. Such claim has been held to be permissible in the case where it is impractical to disentangle that part of the loss which is attributable to each head of claim, and this situation has not been brought about by delay or other conduct of the claimant."* [10]

(d) *Total Cost Claim*[11]

This is a global claim in its crudest form, where the entire difference between the contractor's tender price and the actual costs has arisen from a number of breaches by the employer and makes little or no attempt to link the alleged effects to individual breaches[12].

Construction Law defines a total cost claim as follows[13]:

> *"A "total cost" claim is made where a contractor claims for all of its additional costs above its tender costs, where those costs were incurred after a particular point in time, on the basis that its costs were increased beyond its anticipated costs due to the occurrence of events for which the owner is responsible, yet the contractor does not identify a causal link between the individual events and the additional costs incurred."*

(e) *Modified Total Cost Claim / Composite Claim / Rolled Up Claim*

Typically, in a Modified Total Cost Claim, the Contractor starts with a Total Cost Claim but excludes amounts for which the Contractor accepts that the Employer is not legally responsible. For example, the Contractor may deduct:

(a) under pricing of the tender;

(b) actual costs incurred that are not reasonable;

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[10] At [14].
[11] See: Byrne, *Total Costs and Global Claims* (1995) 11 BCL 397.
[12] See: *John Holland Construction & Engineering Pty Ltd v Kvaerner RJ Brown Pty Ltd* (1996) 8 VR 681 per Byrne J at [14-15] referred to and approved in *Laing Management (Scotland) Ltd v John Doyle Construction Ltd* [2004] BLR 295 at [12] and [14]. See also: G. Smith and James Ferry, *The Evolution of Global Claims and Laing Management (Scotland) Ltd v John Doyle Construction Ltd* [2005] ICLR 212 @ 212.
[13] *Construction Law*, note 6, at [11.169].

(c) actual costs for which the Employer is not legally responsible, including Contractor caused losses.

The terms Composite Claim, Rolled Up Claim, Modified Total Cost Claim are also used to identify claims where there are a number of events and only some are presented as a group in a global claim. In this type of claim, separate sums are claimed for particular events and a single sum is claimed for the remaining group of events that are not so particularised[14].

In *John Doyle Construction Ltd v Laing Management (Scotland) Ltd* [2004] BLR 295, Lord MacLean (at [11]) referred to these claims as follows:

> *"A modified total cost claim is more restrictive, and involves the contractor's dividing up his additional costs and only claiming that certain parts of these costs are a result of events that are the employer's responsibility. This terminology has the advantage of emphasising that the technique involved in calculating a global claim need not be applied to the whole of the contractor's claim. Instead, the contractor can divide his loss and expense into discrete parts and use the global claim technique for only one, or a limited number, of such parts. In relation to the remaining parts of the loss and expense the contractor may seek to prove causation in a conventional manner".*

(f) *Quantification of damage v. Causal Link*

The Court will not deny damages simply on the basis that there are difficulties in establishing the precise amount of damages. Nevertheless, the claimant still has to establish how it is that the loss was caused. The amount is not the problem, it is the causal link that is the problem here.[15]

3. Claim for loss of productivity: Friend or foe ?

The Contractor

3.1. Where the Contractor's progress has been adversely affected and it has incurred substantial overruns, a loss of productivity claim may be the only viable cause of action available where (for example):

(a) the Contractor cannot establish critical delays to the Date for Completion which would provide an entitlement to an extension of time to the Date for Practical Completion, and reduce or eliminate its exposure to liquidated damages for delay;

(b) the Contractor cannot establish timely or substantive compliance with written notice provisions in relation to extensions of time / critical delay costs that constitute conditions precedent to recovery with the consequence that the Contractor is time barred; and / or,

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[14] *Causation in Construction Law – Principals and Methods of Analysis,* note 8 at [6.28].
[15] *Commonwealth v Amann Aviation Pty Ltd* (1991) 174 CLR 64 at 83-4 per Mason CJ and Dawson J; and *John Holland Construction & Engineering Pty Ltd v Kvaerner RJ Brown Pty Ltd and Anor.* (1996) 8 VR 681, Byrne J at [13].

(c) the overruns which cannot be linked to / explained by reference to some other express contractual basis for payment.

3.2 Global claims for loss of productivity also offer advantages to Contractors because they do not need to set out a detailed analysis of the causal links, and this usually results in claims being quicker and cheaper to prepare (at least in the short term). Note however that the Contractor is probably required to set out the link where it is not impossible or impracticable to do so and / or the inability to do so was not caused by the Contractor. See further **Section 7** below.

3.3 Such a claim may also have the practical effect of shifting the evidentiary burden on the Employer to prove that the loss was not entirely its responsibility. See paragraph 3.4(a) below.

The Employer's and Court's perspective

3.4 Objections to global claims (including global claims for loss of productivity) from the Employer's and the Court's point of view can be summarised as follows:

(a) They offend the generally accepted legal position on what the Contractor must prove in order to succeed with a claim, namely the causal link between the sums claimed and each individual event. As a result, the global claim can appear to have the effect of reversing the burden of proof in relation to loss and damage so that it is the Employer, rather than the Contractor, who has to undertake a detailed analysis of the events and quantum to show why the global approach is not justified. See: *Kvaerner* at [12].[16] The Employer contends that neither it, nor the Court should have to do the Contractor's job for it[17].

(b) Global claims (particularly total cost claims) ignore many other explanations for the causes of additional costs that the Employer is not responsible for, but the Contractor may be. For example, a lack of supervision or cost control, unrealistically low tender price, weather, labour or materials shortages etc.

(c) Claims can result in a lump sum or re-measurement contract being converted into a cost reimbursable contract[18].

(d) Global claims are almost invariably unfair and highly prejudicial to the Employer because they avoid indicating the precise case to be met and enable the Contractor to "change course" during the evidence. As a result, Employers will often apply to strike out the claim on the basis that it is embarrassing (see r. 23.02).

The Employer will contend in a strike out application that the claim requires it to prepare for trial every aspect of the project, an obligation which is unfair and expensive. More particularly the nature of the claim:

(i) may involve the Employer in extensive discovery (i.e. whole project);

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[16] See also: *Ipex ITG Pty Ltd v Melbourne Water Corporation (No.3)* [2006] VSC 83 at [30]. And on appeal per Nettle JA at [13].
[17] *Global Claims and John Doyle v Laing Management"*, note 7, page 14.
[18] *Hudson's Building and Engineering Contracts,* note 1, at [6-080].

(ii) the Employer will need to adduce evidence of other causes of loss;

(iii) Counsel for the Employer will need to undertake cross-examination on the basis that the Contractor is asserting (assuming) that all loss was attributable to the Employer.

The Court's perspective

(e) The Court will treat these claims with caution. They recognise that such claims may cast a heavy burden on the Employer. For example, such claims impose on the Court a difficult task of determining relevance and an unreasonable burden of sifting through a mass of detail not confined to defined issues.

(f) Court will use it powers to ensure that as far as possible these burdens were not unreasonable and not unnecessarily imposed.

4. The essential elements of a global loss of productivity claim required to be pleaded and proven.

4.1 The following matters constitute necessary and essential elements for a global loss of productivity claim:

(a) Legal responsibility for the relevant acts or omissions including compliance with any contractual conditions precedent to compensation. See **Section 5**.

The Contractor's legal entitlement to compensation could be derived from an express or implied term providing for an entitlement to payment of compensation under the contract. Further or in the alternative, it could arise from an entitlement to payment of damages at common law for breach of contract.

(b) Wherever possible plead in a conventional manner the causal link between the loss and the individual acts of disruption for which the Employer is responsible. This is probably a condition precedent to a global claim moving forward. See **Section 7**.

(c) To the extent that the claim is global, pleading that the acts of disruption for which the Employer was legally responsible were the sole cause of the claimed loss and would not have been incurred in any event. See **Section 6**.

Deconstructing (c) calls up the following requirements:

(i) proving the relevant acts of the Employer that are <u>likely</u> to cause disruption and loss of productivity and the Contractor's claimed loss is that loss[19];

(ii) the reasonableness of the baseline / tender price[20];

[19] See Section 6 below at [6.1]-[6.3].
[20] See Section 6 below at [6.4]-[6.18].

(iii) establishing that the actual cost is fair and reasonable and excludes all losses that are not the legal responsibility of the Employer[21];

(iv) calculation of the loss of productivity (unless the claim is a total loss claim and no attempt is made to further establish the causal nexus)[22];

(d) it is impossible/ impracticable to disentangle causal nexus / plead in a conventional manner, and the inability to do so was not caused by the Contractor. See **Section 7**.

4.2 Each of the limbs in 4.1(a) and (c)(i) – (iii) and (v) constitute essential elements of the claim and must be pleaded. For example, in *Laing O'Rourke Australia Construction v H&M Engineering & Construction* [2010] NSWSC 818 the Court found that an Adjudication under the NSW *Building & Construction Security of Payment Act* in relation to a global / total cost claim for disruption was void because the Adjudicator failed to have regard to the three elements required to be proven in a global / total cost claim as set out by Byrne J's article Byrne, *Total Costs and Global Claims* [1995] 11 BCL 397[23].

5. Establishing the Employer's legal responsibility and compliance with contractual pre conditions to entitlement.

5.1 Most contracts, including standard form contracts such as AS2124-1992, do not deal specifically / expressly with claims for loss of productivity.

5.2 For example, AS2124-1992:

(a) provides an express entitlement to compensation for loss of productivity arising out of:

(i) variations (cl. 41);

(ii) directions changing the programmed sequence of the works (cll. 33 and 40.5);

(b) would probably include a term implied by operation of law that the Employer will not interfere or hinder the Contractor's performance of the works;

(c) precludes claims for damages for breach in the event that notice requirements are not complied with under clause 47. For example, this clause may impact on claims for compensation caused by breaches of an implied term to not interfere or hinder or disrupt the Contractor's performance of the works by failing to provide unrestricted access, timely instructions, and timely and appropriate design inputs (see also clause 33.1).

Contractual provisions relevant to claim for loss of productivity arising from direction to alter sequence of works

5.3 Clause 33 of AS2124 provides that the Contractor may claim compensation under clause 40.5 where it is directed to alter the sequence of work and this causes the

[21] See Section 6 below at [19]-[22].
[22] See **Section 6** below at [6.23]-[6.40].
[23] At [82] and [88].

Contractor to incur more costs that otherwise would have been incurred had the Contractor not been given the direction.

Contractual provisions relevant to claim for loss of productivity arising from variations

5.4 By claiming costs of disruption as a variation under the contract, the Contractor may be able to avoid the problems with pleading and proving causation, both at the point of pleading and at trial.

5.5 In *Thiess Contractors Pty Ltd v Murchison Zinc Co Pty Ltd* [2000] WASC 71 the Supreme Court of Western Australia found that a claim for disruption that was formulated as a variation claim under the contract, as distinct from a claim for damages arising from breaches, should not be struck out by reason that the nexus between the particular causes of the disruption and the additional costs was not fully set out (at [29]). Cf: *Peromec Inc v Petroleo Brasileiro SA (Petrobras) and Anor. (Petromec Inc and Others* [2007] EWCA Civ 1371 (where the Court of Appeal indicated that the contract did not permit a global claim in relation to the cost of additional variations).

5.6 If the contract prescribes the calculation of the compensation in a manner that is inconsistent with the compensation to which the Contractor is entitled for other alleged causes of loss (i.e. a claim for damages for breach), the Contractor will need to give careful consideration as to how this will be quarantined in the monetary claim.

Does the contract bar the Contractor's loss of productivity claims ?

5.7 Theoretically, a contract may:

(a) exclude claims for loss of productivity generally;

(b) preclude a claim being formulated and paid on a global claim basis (whether under some express provision providing an entitlement to an adjustment to the contract sum, or in relation to a claim for damages for breach); and / or,

(c) contain notice and other provisions that constitute conditions precedent to recovery .

5.8 The notice provisions in clause 47 of AS 2124 – 1992 are particularly problematic for Contractors because it is often impossible, at best unreliable, to provide details of the prospective effect of one or more acts of disruption. For example, the prediction of the effects of cumulative disruption (i.e. a number of variations) will often not be possible to measure until the project nears completion. For example, what if the act of disruption pushes the work into a period of inclement weather ?

5.9 The Contractor is thus generally unable to do better than to issue a "standard letter" notifying the occurrence of "x" and noting that it is unable to ascertain the effects at the present time and will revert when able to do so.

5.10 Clause 47 of AS 2124 – 1992, probably constitutes a condition precedent to a claim for damages for loss of productivity. See: *Cox Constructions Pty Ltd v Décor Ceilings Pty Ltd (No.2)* (2007) 23 BCL 347 at [77] and [86]; *Jennings Construction Ltd v QH & M Birt Pty Ltd* [1986] 8 NSWLR 18 (at 24-5); and *Andrews v Australia and New Zealand Banking Group Ltd* [2012] HCA 30.

Disruption costs and Clause 35.5 and 36 of AS2124 - 1992

5.11 Some contracts provide for the payment of "delay and disruption costs". See for example, clauses 35.5 and 36 of refer to AS 2124 – 1992. Compliance with the conditions precedent in cll. 35.5 and 36 does not appear to constitute a condition precedent to a claim for damages for loss of productivity. *Cox Constructions Pty Ltd v Décor Ceilings Pty Ltd (No.2)* (2007) 23 BCL 347 per Besanko J at [66] – [78].

Contractual provision may stipulate the maintenance of records

5.12 A contract may stipulate that certain records are maintained by the Contractor. See for example the "Model Records Clause" in Appendix C to the SCL Protocol.

5.13 The proper maintenance of such records would assist in the identification and proof of instances of disruption and their effect on productivity.

6. Establishing that the Employer's compensable acts / omissions caused disruption and loss of productivity.

Proving the acts of disruption likely to cause loss of productivity

6.1 Even in a global claim that is a total cost claim, it would still be necessary for the Contractor prove acts of disruption that would be likely to cause a loss of productivity and consequential loss. There are many possible causes of disruption[24]. Clearly the more instances of proof, the more likely it is that the Contractor can establish the inference.

6.2 Wherever possible, the Contractor should also seek to adduce specific evidence of disruption and its impact on productivity at a micro level and at different times and locations. This is where project records are critical. An "in house" consultant may be helpful here.

6.3 In order to prove that certain events were likely to have resulted in disruption / loss of productivity, the Contractor should:

(a) provide full explanation of how the events resulted in disruption to the works.

Whilst this is often most effectively communicated in written pleadings and submissions, it should be supported by witness evidence from sites staff, contracts managers alike.

(b) contemporaneous evidence of the disruption, for example site diary records detailing what work was undertaken and what days, in what areas and by whom, minuted meetings and/or correspondence recording events on-site, photographs (dated where possible).

Establishing the reasonableness of the baseline / tender price

6.4 In a global claim, it is firstly necessary for the Contractor to establish the baseline. That is, the productivity that would have been achieved but for the disruption. This

[24] See for example: P.J. Keane & A.F. Caleka, *Delay Analysis in Construction Contracts,* (Wiley & Blackwell UK) 2008 at [3.4.3]. *Pickavance*, note 5, at [17.27] - [17.67].

involves adducing evidence in relation to how it planned to perform and resource the work to achieve the contract timeline and the cost. It is necessary to plead and prove the reasonable cost of the work unaffected by the alleged breaches[25].

6.5 In doing so it would be necessary for the Contractor to adduce evidence of such things as:

(a) planned resources / total hours of labour and plant;

(b) planned method and sequence of works;

(c) the cost of executing the works on this basis and in the time stipulated in the contract.

6.6 In doing so, it is probably necessary to adduce factual evidence (i.e. the estimator) and expert evidence (programming and quantity surveyor experts).

6.7 In *Downer Connect Pty Limited v McConnell Dowell Constructors (Aust) Pty Ltd* [2008] VSC 77 a claim was made for disruption as a result of variations. The pleading was attacked for not setting out the causal nexus. Harper J stated (at [34]):

> *"Comparisons will have to be drawn between what might have been (as objectively assessed) and what was the actuality. The pleading must set out the material facts, with additional particulars where necessary to avoid surprise".*

6.8 His Honour then stated in relation to proof of the "baseline" planned efficiency (at [36]):

> *"…the reference to a "target" is almost certainly inapt. The internal, subjective workings of the mind of the plaintiff are not the objective facts which the plaintiff must prove.*"

6.9 In *Ipex ITG Pty Ltd v Melbourne Water Corporation (No.3)* [2006] VSC 83, the plaintiff claimed the cost of labour additional to the quantity of labour agreed to be provided. It was alleged that the actual quantity of labour was increased by reason of being required, in breach of the agreement, to provide additional help desk calls to those amount set out in the agreement.

6.10 The pleading was attacked on the basis *inter alia* that the causal link between the breach and the additional costs was not set out. More particularly, it was attacked because it failed to establish that the agreed quantity of help desk calls were able to be accommodated by the agreed quantity of resources. At first instance, the Court disallowed the proposed pleading.

6.11 The Court of Appeal upheld the decision at first instance and stated that it was necessary for the plaintiff to plead and prove that the agreed quantity of resources was reasonable to achieve the contractual number of helpdesk calls (at [27] – [32]).

6.12 In *Cox Constructions Pty Ltd v Décor Ceilings Pty Ltd (No.2)* (2007) 23 BCL 347, the Court heard an appeal from an arbitral award. In the arbitration proceeding Décor (the subcontractor) made a global / total cost claim for "additional man hours".

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[25] *Kavaerner* at [15].

6.13 The Arbitrator disallowed the additional hours claim because the lay evidence of the estimator did not go far enough to establish the reasonableness of the tender price[26].

6.14 Décor appealed the Arbitrator's finding in relation to the global additional hours claim on the basis that the arbitrator fell into error by, in effect, requiring corroborative evidence. Cox did not dispute that there would be an error of law if the arbitrator had found that corroborate evidence was necessary. Cox argued that the Arbitrator did no more than find that the evidence of Décor's estimator was insufficient.

6.15 Besanko J found that the arbitrator did in effect require corroborative evidence and erred in law in doing so. He stated that expert evidence is not a mandatory prescription. [27] The Court also found that the Arbitrator fell into error because he failed to infer reasonableness of the tender price from the evidence of Décor's estimator[28].

6.16 The prudent course is however to adduce expert evidence in relation reasonableness of the tender price / baseline price.

6.17 In *Walter Lilly & Company Ltd v Mackay* [2012] BLR 503 (TCC) (***Walter Lilly***), Justice Akenhead emphasised that the Contractor (at [496 (d)]):

> *"will need to demonstrate that its accepted tender was sufficiently well priced that it would have made some net return… and that there are no other matters which actually occurred…"*

6.18 Mr. Justice Akenhead dismissed the contention that the burden transfers to the Employer, although he acknowledged that it is open to the Employer to at ([486(d)]):

> *"… raise issues or reduce evidence that suggest or even shows that the accepted tender was so low that the loss would have always occurred irrespective of the events relied upon by the claimant contractor or that other events… occurred may have caused or did cause all part of the loss.".*

Establishing that the actual cost is fair and reasonable and excludes all losses that are not the legal responsibility of the Employer

6.19 It is necessary for the Contractor to plead and prove that[29]:

(a) it incurred actual additional costs.

(b) the sum actually incurred was fair and reasonable.

6.20 The contractor will also need to provide detailed evidence to support the losses claimed such as:

(a) timesheets for which employee and/or subcontractor to demonstrate which employees and/or subcontractors were working and when;

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[26] At [96].
[27] At [98].
[28] At [98] – [99].
[29] *Kavaerner* at [15].

(b) daywork sheets, preferably signed by the contract administrator, project manager, etc.;

(c) evidence of payments to employees (payslips, salary records, payment certificates etc.) and all subcontractors, together with other relevant costs including company car allowances, pensions contributions, healthcare, etc.;

(d) plant and materials invoices.

6.21 As noted above, the logic of the claim is such that the Contractor has the burden of establishing on the balance of probabilities that all losses were caused by the Employer. A failure to do so may be fatal to the claim. See further **Section 8** below.

6.22 The Contractor must exclude losses that are not the responsibility of the Employer including:

(a) under pricing of the works;

(b) Contractor caused inefficiencies/ errors[30];
- shortage of manpower;
- equipment breakdowns;
- disorganized working etc.

(c) variations;

(d) price escalations;

(e) costs attributable to neutral events such as weather / industrial which the Employer may not be contractually responsible for.

Calculating the loss of productivity

6.23 There are three possible "causal link" scenarios:

Scenario 1: At one end of the spectrum, the Contractor can identify the specific loss of productivity / loss attributable to each disruptive event for which the Employer is responsible.

This is unlikely to be achievable in reality and is not the focus of a paper on global claims.

Scenario 2: The Contractor can plead and prove some of its alleged loss in a conventional manner (for example, by reference to a specific area of the project or by reference to a specific trade).

The Contractor in scenario 2 should to the full extent possible, plead the causal connection. Indeed this is probably a condition precedent to prosecuting a global claim. See **Section 7** below.

Scenario 3: The Contractor cannot plead any causal nexus between the disruptive events for which the Employer is legally responsible and any of the loss.

[30] *Ipex ITG Pty Ltd v Melbourne Water Corporation* (No.3) [2006] VSC 83 per Byrne J at [32].

6.24 Assuming for present purposes that the Contractor cannot set out the causal link in a conventional manner (at least in relation to some of the loss – Scenario 2), but wishes to do better than a total cost claim, the Contractor should seek to adduce additional layer/s of proof to calculate the loss of productivity and buttress the evidence to be relied upon to support the inference.

6.25 The Contractor can prove the inferred causal link in a variety of ways. There is no prescription. [31] The more explanation and evidence of causation, no matter how generalised, the more likely the global claim is to succeed.

6.26 In *Walter Lilly,* Lord Akenhead was keen to emphasis that a mechanistic or ritualistic approach should not be adopted to issues of proof (including causation at the point of quantum). He stated:

> *"It is open to contractors to prove these three elements with whatever evidence will satisfy the tribunal and the requisite standard of proof. There is no set way for contractors to prove these three elements. For instance, such a claim may be supported or even established by admission evidence or by detailed factual evidence which precisely links reimbursable events .....with individual instances of disruption and which then demonstrates with precision to the nearest penny what that ...disruption actually cost"*

Evidence of causation at a micro level

6.27 Firstly, as noted in 6.1 – 6.3 above, the Contractor should adduce as much evidence as possible to establish the inferred causal link at a micro or sample level. Samples or packages of evidence should be adduced of significant at various times and locations during the project. This may not be sufficient to establish a specific causal link between the loss and the disruptive event for which the Employer, but it is nevertheless essential in terms of proving the inference.

Evidence of causation / loss of productivity at a macro level

6.28 Secondly, productivity measurement techniques are often employed to calculate the loss of productivity and also buttress other evidence to establish the causal link at a macro level include:

(a) "Measured Mile" calculations[32];

See paragraphs [6.30]-[6.37] below.

(b) "Industry Standards" [33];

This involves comparison of productivity rates accepted and recognised in the construction industry as possible to achieve, assuming given resources, with productivity actually achieved during the alleged disrupted period. This technique uses the identified industry standard as the "measured mile".

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[31] P.J. Keane & A.F. Caleka, *Delay Analysis in Construction Contracts,* note 28 at 100; and Pickavance, *Delay and Disruption in Construction Contracts,* note 5, at [17.68].
[32] Ennis, "*Evaluating Disruption Costs on Major Construction Projects",* SCL Paper D125 (July 2011) at 9. www.scl.org.uk
[33] Ibid at 10. See also: Pickavance, *Delay and Disruption in Construction Contracts,* note 5 at [17.113].

(c) "Comparison with similar projects"[34]

Here the loss of productivity is calculated by comparing the anticipated productivity ratio with the actual productivity ratio. The anticipated productivity rates must be supported by reference to the productivity rates on the same or a similar project.

(d) Productivity Analysis[35]

6.29 It is important to note that the causal link is still not being established in a conventional manner and the claim remains global. It nevertheless gives the Court more evidence upon which to infer that the loss was in fact caused by the Employer's acts of disruption.

6.30 The Contractor may also rely on expert evidence to support this element of its case, although there should not be an overreliance on experts. See: *Walter Lilly* at [374] - [381], [486(a)] and [486(c)][36].

Measured Mile

6.31 In projects that involve repetitive work of a similar or identical nature, productivity (planned or actual) may be determined against a "measured mile", that is, a period of performance represents how the Contractor would have performed but for the putative disruption[37].

6.32 The SCL protocol states:

> *"The starting point for any disruption analysis is to understand what work was carried out, when it was carried out and what resources were used. For this reason, record-keeping is just as important for disruption analysis as it is for delay analysis. The most appropriate way to establish disruption is to apply a technique known as "the measured mile". This compares the productivity achieved on an un-impacted part of the contract with that achieved on the impacted part. Such a comparison factors out issues concerning unrealistic programs and inefficient working. The comparison can be made on the man-hours expended or the units of work performed. However care must be exercised to compare like with like. For example, it would not be correct to compete were carried out in the learning curve part of an operation with work executed after that period."*

6.33 If the project has several diverse work fronts that are disrupted, it will be necessary to undertake a measured mile analysis and claim only for each of the affected areas.

6.34 The difficulty with the measured mile approach is that, on many projects, it may be difficult to find an un-impacted (or relatively un-impacted) section of work in the affected area/s. In this case, comparison of productivity on other contracts executed by the Contractor may be an acceptable alternative, provided that sufficient records

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[34] Ibid at 11.
[35] Ibid at 11.
[36] Lord Akenhead found that the Contractor's claim was not a global claim. Accordingly, his comments are only *obiter.*
[37] Byrne, *Total Costs and Global Claims* [1995] 11 BCL 397. See also: P.J. Keane & A.F. Caleka, *Delay Analysis in Construction Contracts,* note 28, at [3.4.5] and Pickavance, *Delay and Disruption in Construction Contracts,* note 5, at [17.79] – [17.112].

from the other contracts are available to ensure the comparison is on a like-for-like basis[38].

6.35 If the project has several similar work fronts, some that are disrupted, and others that are not, it may be helpful to also undertake a measured mile analysis of other areas that were unaffected areas so as to provide additional evidentiary support for the efficiency that the Contractor was likely to have achieved in the affected area but for the Employer's acts of disruption.

6.36 It should not be forgotten that the measure mile approach still requires the Contractor to:

(a) demonstrate that the tender sum was reasonable and adequate to perform the works in the project timeline and make an allowance for underpricing if necessary;

(b) exclude actual costs that are not the responsibility of the Employer.

6.37 Without undertaking (a) and (b), the measured mile analysis doesn't do anything other than show increased cost over a different period of work.

6.38 There are a number of useful texts dealing with the quantification of loss of productivity.[39]

Causation and degree of proof: Did the disruptive act cause the loss of productivity

6.39 The starting point is that the legal principles in relation to causation are no different in connection with global claims for loss of productivity.

6.40 In *Kvaerner*, Byrne J the causal link between the loss and how the several breaches that caused the loss must be approached in a pragmatic way[40]. His Honour then went on to state:

> *"Where the loss is caused by a breach of contract, causation for the purposes of a claim for damages must be determined by the application of common sense to the logical principles of causation. Finally, it is possible to say that a given loss was in law caused by a particular act or omission notwithstanding that other acts or omissions played a part in its occurrence.* ***It is sufficient that the breach be a material cause****". This last matter may be of particular importance in a case like the present where a number of potentially causal factors may be present…."*[41](emphasis added)

7. Necessary to plead and prove that it is not possible/ practicable to disentangle the causal nexus ?

7.1 In Australia, the Contractor should plead and prove that it is impractical to disentangle the causal nexus and this situation has not been brought about by delay or other conduct of the Contractor. This may be a condition precedent to the claim being

[38] SCL Protocol at [1.19.8].
[39] See for example: Lal, *Quantifying and managing disruption claims* (Telford, UK 2002); and Pickavance, *Delay and Disruption in Construction Contracts,* note 6.
[40] At [13]. Citations omitted.
[41] At [13]. Citations omitted.

allowed to proceed and not being struck out under r. 23.02 or the inherent jurisdiction of the Court for being embarrassing / prejudicial.

7.2 Further, to the extent possible, in order to maximize prospects of a successful outcome at trial and to secure more favourable terms of settlement, Contractors should not elect to prosecute disruption claims on a global basis if a conventional pleading of the causal nexus is possible.

The UK position

7.3 Global claims which fail to specify the links between specific losses and specific breaches were held to be permissible only in a case where it is impractical to disentangle the causal nexus and this situation has not been brought about by delay or other conduct of the claimant.
London Borough of Merton v Stanley Hugh Leach Ltd (1985) 32 BLR 51 at 102 per Vinelott J; and *Wharf Properties Ltd v Eric Cumine Associates (No. 2)* 52 BLR 1 at 20 per Lord Oliver.

7.4 Such a plea was included in the claim in *John Doyle.* The Court at first instance[42] reserved its opinion as to whether a pleading to this effect was essential. On appeal, it was stated:

> *"Such an averment is normally essential to enable a pursuer to present its claim on a global basis.*[43]
> …
> *"Finally, the pursuers must also establish that it is impossible or highly impracticable to determine the actual additional labour costs arising out of each variation or late instruction….."*[44]

7.5 In *Walter Lilly*, Mr. Justice Akenhead stated as a matter of principle that he did not accept that it is necessary for a Contractor to prove that:

> *"it is impossible to plead and prove cause and effect in the normal way or that such impossibility is not the fault of the party seeking to advance the global claim."*[45]

The Australian position

7.6 In *Nauru Phosphate Royalties Trust v Matthew Hall Mechanical and Electrical Engineers Ltd* [1994] 2 VR 386 (***Nauru***) there was no statement in the Points of Claim to the effect that it was impossible / impracticable to give more detailed particulars or that various causal factors were inextricably inter connected.

7.7 Smith J found that the total loss claim was not an abuse of process where the Claimant had demonstrated it was impossible or impracticable for it to break down the complex interaction of events and establish a nexus between event and the time / money consequences. He further found that Counsel for the Claimant had raised the issue at a Preliminary Conference.[46]

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[42] At [5].
[43] At [25].
[44] At [30].
[45] At [486(a)].
[46] At 405.

7.8 Smith J seemed however to suggest that there was a more lenient approach in Victoria from that in England when he spoke of the right of a litigant to choose the way it will present its case.[47]

7.9 In *Kvaerner*, Byrne J referred favourably to the "hardline" English approach and stated that Smith J's decision in *Nauru* should not necessarily be seen as allowing for a more lenient approach[48]. Byrne J made his position clear when he stated[49]:

> *"…each aspect of the nexus must be fully set out in the pleading unless its probable existence is determined by evidence or argument and further, it is demonstrated that it is impossible or impracticable for it to be spelt out further in the pleading…"*

7.10 More recently, in *Ipex ITG Pty Ltd v Melbourne Water Corporation (No.3)* [2006] VSC 83 Byrne J stated[50]:

> *"In the context of global or total cost claims, a similar attitude underlies the reluctance of the Court to permit those cases to go forward unless a more conventional for of presentation is shown to be unavailable or impracticable"*

7.11 If objection is made, and the Contractor continues to assert that it is not possible to particularise its claim so as to demonstrate how individual events caused certain delays or losses, it is for the claimant to show why it is not reasonable or practicable to provide those particulars[51].

8. Specific Pleading Issues: R23.02

Rules of pleading: R23.02(a): Complete Cause of Action ?

8.1 Firstly, it is clear that a global claims, even total cost claims can, at the point of pleading can constitute a complete cause of action which is not susceptible to being struck out under r. 23.02(a) for not constituting a complete cause of action.

Rules of pleading: R23.02(c) – (d): Embarrassing / Prejudicial

8.2 Secondly, as explained above, it is now well established that the causal link need not be set out in a conventional manner, at least where it is impracticable or impossible to do so.

8.3 Nevertheless the question that arises is when such a claim will be struck out under on the basis that it is likely to or may prejudice embarrass or delay the fair trial (23.02(c)) and / or is otherwise an abuse of process (r.23.02(d)).

8.4 The answer depends upon an examination of the pleading itself and the claim it makes. See: *British Airways Pension Trustees Ltd v Sir Robert McAlpine & Sons Ltd*

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[47] At 406. See however the comments of Byrne J in *Kvaerner* where he states that the comments of Smith J in *Nauru* in relation to this issue (*Nauru* at 406) should not necessarily be seen as a watering down of the English position (*Kvaerner* at [20]).
[48] At [20].
[49] At [23].
[50] See also Byrne J's comments in Byrne, *Total Costs and Global Claims,* note 11, at 413-414.
[51] *Construction Law*, note 6, at [11.161].

(1994) 72 BLR 26 at 34 per Saville LJ; Beldam and Neill JJ concurring) and *Kvaerner* at [22].

8.5 In *Kvaerner,* Byrne J relevantly stated[52]:

> *"In my opinion, the Court should approach a total cost claim with a great deal of caution, even distrust. I would not, however, elevate this suspicion to the level of concluding that such a claim should be treated as being prima facie bad.*
>
> ..
>
> *I put to one side the straight forward case where each aspect of the nexus is apparent from the nature of the breach and the loss as alleged. In such a case the objectives of the pleading may be achieved by a short statement of the facts giving rise to the causal nexus. If it is necessary for the given case for this to be supported by particulars, this should be done. But in other cases, each aspect of the nexus must be fully set out in the pleading. But in other cases, each aspect of the nexus must be fully set out in the pleading unless its probable existence is determined by evidence or argument and further, it is demonstrated that it is impossible or impracticable for it to be spelt out further in the pleading…"*

8.6 In *Doyle*, the Court stated:

> *"So far as the causal links are concerned, however, they will usually be no need to do more then set up the general proposition that such links exist. Causation is largely a matter of inference, and each side in practice will put forward its own contentions as to what the appropriate inferences are. In commercial cases, at least, it is normal for those contentions to be based on expert reports, which should be lodged in process at a relatively early stage of the action. In these circumstances there is relatively little scope for one side to be taken by surprise at proof, and it will not normally be difficult for a defender to take a sufficiently definite view of causation to lodge a tender, if that is thought appropriate. What is not necessary is that averments of causation should be overelaborate, covering every possible combination of contractual events that might exist and the loss or losses that might be said to follow from such events."*

8.7 It would seem that what the Court is ultimately required to undertake a balancing exercise, taking into account the following considerations:

(a) achieving the objectives of pleading , including ensuring that the defendant is able to understand the case it has to meet and that there is agenda for trial;

(b) allowing the Contractor's claim to go forward, at least in circumstances where it is impossible of impracticable for the causal nexus to be set out, and the acknowledgment by the Court that this prejudices the Employer and the Court[53];

(c) the Contractor should not be deprived compensation for the Employer's acts of disruption.

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[52] At [23]. Citations omitted.
[53] *Kvaerner* at [22].

9. Defending a global claim for loss of productivity.

The pleading

9.1 The Employer's defence should contain the following pleas as appropriate:

(a) If there is to be a strike out application, the defence should allege that it is a global claim and that it has not been explained how it is that it is not impracticable or impossible to disentangle the causal link between the breaches and the loss, and further allege that in the premises the pleading is liable to be struck out under r. 23.02(c) and or (d) and / or the inherent jurisdiction of the Court.

(b) The Employer is not legally responsible for the alleged causes of loss.

(c) Non satisfaction of any contractual conditions precedent to recovery.

(d) The Employer did not play any causal role in the loss. Alternatively, the dominant cause/s of the claimed loss, or at least a non-trivial part of it, was a factor or factors for which the Employer was not legally responsible.

I note that it is important for the Employer to not "shoot itself in the foot" by seeking to identify specific losses to particular causes which may provide scope for a reduced award in accordance with the principles enunciated in *John Doyle* and *Walter Lilly*. The Employer needs to perform a balancing act between giving adequate notice of the case it is making and not doing the plaintiff's job for it.

Adducing evidence of other causes of the claimed loss / The Exocet Missile

9.2 The Contractor's greatest area of vulnerability in connection with a global claim for loss of productivity is the difficulty of establishing on the balance of probabilities that all of the loss was caused by acts of disruption for which the Employer was responsible. The Contractor may simply fail to discharge its evidentiary burden.

9.3 However, the Employer (presumably following a detailed review of discovered documents with its experts) will seek to establish that some not trivial part of the loss was not its responsibility. See paragraph [6.22] above where some of the typical non Employer caused losses are outlined. Upon satisfying the Court that some non trivial part of the loss was not caused by the Employer, the Employer contends that the logic underpinning the claim is absent and the claim must fail in its entirety (***the exocet missile defence***).

See: *John Holland Construction & Engineering Pty v Kvaerner RJ Brown Pty Ltd* (1996) 8 VR 681 per Byrne J at [15]; *Ipex ITG Pty Ltd v Melbourne Water Corporation (No.3)* [2006] VSC 83 per Byrne J at [29][54]; *Laing Management (Scotland) Ltd v John Doyle Construction Ltd* [2004] BLR 295 at [10], [14] and [17]; *Laing O'Rourke Australia Construction v H&M Engineering & Construction* [2010] NSWSC 818 per McDougall J at [78] and [83]; and *McGrath Corporation Pty Ltd v*

[54] Although the claim was "inference" driven, the *Ipex* claim was not global claim because it was not alleged by the Plaintiff that several causative events caused the loss.

Global Construction Management (QLD) Pty Ltd [2011] QSC 178 per Daubney J at [129], [131] and [164].

9.4 The late Ian Duncan Wallace QC in the 11th Edition of *Hudson*, submitted in relation to a global claim that:

> *"... Even if (a global) claim is allowed to proceed, it should only be on the basis that, on proof of any not merely trivial damage or additional cost being established for which the owner is not contractually responsible, the entire claim will be dismissed*[55]"

Avoiding the Exocet Missile: Carve Out.

9.5 In *John Doyle*, the Court stated (at [10]):

> *"Where, however, it appears that a significant cause of delay and disruption has been a matter for which the employer is not responsible, a claim presented in this matter must necessarily fail. If for example, the loss and expense has been caused in part by bad weather, for which neither party is responsible, or by inefficient working on the part of the contractor, which is his responsibility, such a claim as fail. In each case, of course, if the claim is to fail, the matter for which the employer is not responsible in law must play a significant part in the causation of the loss and expense. In some cases it may be possible to separate at the effects of matters for which the employer is not responsible."*

9.6 See also: *Great Eastern Hotel Company Ltd v. John Laing Construction Ltd and Laing Construction PLC*.[56]

9.7 Thus, the Court recognised that it may be able to "carve out" amounts which were not caused by of the Employer's disruptive events and the global claim is simply reduced by the loss resulting from that event.

9.8 This approach was recently confirmed to also be the English position in *Walter Lilly* at [486(c)].

9.9 The difficulty arises where it is not possible to clearly identify the specific loss attributable to matters for which the Employer is found to have not been legally responsible.

9.10 Where the losses for which the Employer is not responsible cannot be readily or accurately identified and "surgically" removed, the Employer should contend that because the carve out cannot be undertaken with any precision, the logic underpinning the claim still cannot be satisfied, and the claim must fail in its entirety.

Concurrent causes of loss

9.11 It is conceivable that the loss was materially caused by the Employer and other factors for which it was not responsible.

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[55] *Hudson's Building and Engineering Contracts,* (11th Ed, 1995, Sweet & Maxwell), Vol. 1 at [8.024]. This submission does not appear in the 12th Edition of *Hudson*. See also: *Laing Management (Scotland) Ltd v John Doyle Construction Ltd* [2004] BLR 295 per Lord MacLean at [10] and [14].

[56] [2005] EWHC 181 (TCC).

9.12 In this scenario, in the first instance, the Court looks for what is the dominant cause of the loss. If the dominant cause of the loss is the Employer, the Contractor recovers, notwithstanding that it may have also played a part in the loss.

9.13 Therefore, the Employer should allege in the alternative in effect, "In the alternative, if the Employer's alleged acts or omissions were causally relevant (which is denied), the dominant cause of the loss was "x" being a matter for which the Employer was not legally responsible to the Contractor."

Relaxation of the "rule": Availability of apportionment where concurrent causes of loss ?

9.14 What if it is not possible to attribute "dominance" to concurrent causes ? Is it possible to apportion responsibility according to the relative importance of the various causative events that produce the loss in a disruption case ?

9.15 In Scotland, the Court has found that in this situation an apportionment is possible. See: *John Doyle Construction Ltd v Laing Management (Scotland) Ltd* [2002] BLR 393 (Outer House) per Lord MacFayden (at [38]) and on appeal in *Laing Management (Scotland) Ltd v John Doyle Construction Ltd* [2004] BLR 29 (Inner House) per Lord MacLean (at [16] – [17]). See also *City Inn v Shepard Construction* [2010] BLR 473 per Lord Osborne where there the Court undertook an apportionment in relation to concurrent causes of delay.

9.16 In *John Doyle*, the Court stated in relation to an apportionment in a global claim for disruption (at [16] - [17]):

> *[16] In third place, even if it cannot be said that events for which the employer is responsible are the dominant cause of the loss, it may be possible to apportion the loss between the causes for which the employer is responsible and other causes. In such a case is obviously necessary that the event or events for which the employer is responsible should be a material cause of the loss. Provided that condition is met, however, we are of opinion that apportionment of loss between the different causes is possible in an appropriate case. Such a procedure may be appropriate in the case where the cause of the loss actually concurrent in the sense that both operate together at the same time produce a single consequence. ….*
>
> *[17] Apportionment in this way, on a time basis, is relatively straightforward in cases that involve only delay. Where disruption to the contractor's work is involved, matters become more complex. Nevertheless, we are of opinion that apportionment will frequently be possible in such cases according to the relative importance of the various causative events in producing the loss. Whether it is possible will clearly depend on the assessment made by the judge or arbiter, who must of course approach it on a wholly objective basis. It may be said that such an approach produces a somewhat rough and ready result. This procedure does not, however, seem to us to be fundamentally different in nature from that used in relation to contributory negligence or contribution among joint wrongdoers. Moreover, the alternative to such an approach is the strict view that, if a contractor sustains a loss caused partly by events for which the employer is responsible and partly by other events, he cannot recover anything because he cannot demonstrate that the whole of the loss is the responsibility of the employer. That would deny him a remedy even if the conduct of the employer or the architect is plainly culpable… It seems to us that in such cases the contractor should be able to recover part of his*

> *loss and expense, and we are not persuaded that the practical difficulties of carrying out the exercise should prevent him from doing so."*

9.17 However, common law jurisdictions generally apply the principles of causation in a 'all or nothing' way. Absent any statutory imperative or obligation to apportion, the common law courts have historically declined to apportion damages between competing causes.[57]

9.18 In England (and Wales) the authorities provide that an apportionment is not available in relation to concurrent causes of delay. See *Adyard Abu Dhabi v SD Marine Services* [2011] BLR 384. See also *Walter Lilly* where the Court said that *City Inn*[58] was inapplicable in England at [362] – [370].

9.19 In *Walter Lilly* Justice Akenhead made no reference to the availability of an apportionment (at [486]). See also: *Lilly and Doyle: A Common Sense Approach to Global Claims*, Society of Construction Law Paper D160 (May 2013) at 18 www.scl.org.uk

9.20 *John Doyle* has been cited by the Supreme Court of Victoria, however, not in support of this principal. See *Ipex ITG Pty Ltd v Melbourne Water Corporation (No.3)* [2006] VSC 83 per Byrne J at [29].

9.21 The Supreme Court of Queensland has recently referred to the specific passage of Lord MacLean's judgment in *John Doyle* with approval. See: *McGrath Corporation Pty Ltd v Global Construction Management (Qld) Pty Ltd and Anor* [2011] QSC 178 per Daubney J at [129] - [132].

9.22 Save as aforesaid, there is presently no Australian authority in relation to the question of whether apportionment is available in relation to a global claim for disruption / loss of productivity in accordance with the principles enunciated in *John Doyle*.

9.23 The authors of *Hudson* submit that the approach of the Scottish Courts will breathe life into the presentation of claims on a total cost or global basis[59]. Bailey, *Construction Law* also supports the Scottish approach.[60]

9.24 At common law, unless the contract provides to the contrary, it is not a defence to a claim for breach of contract for the defendant to show that the plaintiff's carelessness contributed to the loss and damage which forms the subject of the plaintiff's claim. In *Astley v Austrust* (1999) 197 CLR 1 at 37 [85] the High Court stated:

> *"Rarely do contracts apportion responsibility for damage on the basis of the respective fault of the parties. Commercial people in particular prefer the certainty of fixed rules to the vagueness of concepts such as 'just and equitable' ".*

Statutory apportionment for contributory negligence pursuant to the Wrongs Act 1958 (Vic) ?

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[57] *Quinn v Burch Brothers (Builders) Ltd* [1966] 2 QB 370 (Court of Appeal); *Bonningtons Castings Ltd v Wardlow* [1956] AC 613 (House of Lords) and *Hotson v East Berkshire Health Authority* [1987] 1 AC 750 (House of Lords).

[58] In *City Inn v Shepard Construction* [2010] BLR 473 the Court undertook an apportionment in relation to concurrent causes of delay.

[59] *Hudson's Building and Engineering Contracts,* note 1 at [6-083].

[60] *Construction Law,* note 6, Vol. 2 (at [11.167] – [11.168]).

9.25 If a plaintiff claims for damages for, in effect, "breach of a contractual duty of care" and that duty (owed by the defendant to the plaintiff) is concurrent and co-extensive with a duty of care in tort" the plaintiff's claim must be reduced to "such extent as the Court thinks is just and equitable having regard to the plaintiff's share in the responsibility for the damage." See: ss. 25 and 26 of the *Wrongs Act 1958* (Vic).

9.26 Where the defendant's alleged breach does not involve the breach of a contractual duty of care, the common law position applies as set out above and there can be no apportionment.

Practical difficulties of apportionment in a global claim for disruption

9.27 Even if one assumes that apportionment was available at common law or statute, there are at least two practical difficulties[61]:

(a) when is this exercise to be undertaken , is it at the end of the trial ? Are the parties to be given the opportunity to be heard on the matter ?

(b) if there can be an apportionment , how is this to be reconciled with the assertion by the Contractor that all loss is attributable to the Employer and that it is unable to disentangle the causal link ?

10. Case Management.

R. 23.02 application

10.1 Assuming a global total cost claim / modified total cost claim is being agitated and the Employer takes issue with the allegation that the Contractor cannot disentangle the causal links, the Contractor will need to be able to explain this, failing which the pleading is liable to be struck out under r. 23.02.

Directions

10.2 Assuming a global total cost claim / modified total cost claim is being agitated (either in conjunction with a conventionally pleaded case or not), Counsel should be mindful that the Court will do what it can to mitigate the prejudices that are likely to be visited on the Employer and the difficulties likely to be experienced by the Court including as to ruling on admissibility. See: *Kvaerner* per Byrne J at [22] – [23].

11. Application of the Building & Construction Security of Payment Act 2002 (Vic).

Excluded Amounts

11.1 Section 10B of the *Building & Construction Security of Payment 2002* (Vic) (***the Act***) would operate to exclude a claim for loss of productivity formulated as a claim for damages arising from breach of contract. Section 10B of the Act provides (emphasis added):

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[61] Jeremy Winter, "*Global Claims and John Doyle v Laing Management – Good English Law ? Good English Practice?"*, Society of Construction Law Paper 140 (July 2007).

10B Excluded amounts

(1) T*his section sets out the classes of amounts (**excluded amounts**) that must not be taken into account in calculating the amount of a progress payment to which a person is entitled under a construction contract.*

(2) The excluded amounts are—

(a) any amount that relates to a variation of the construction contract that is not a claimable variation;

(b) any amount (other than a claimable variation) claimed under the construction contract for compensation due to the happening of an event including any amount relating to—

(i) latent conditions; and

*(ii) **time-related costs**; and*

(iii) changes in regulatory requirements;

*(c) **any amount claimed for damages for breach of the construction contract** or for any other claim for damages arising under or in connection with the contract;*

(d) any amount in relation to a claim arising at law other than under the construction contract;

(e) any amount of a class prescribed by the regulations as an excluded amount.

11.2 It may nevertheless be possible to make a claim under the Act for compensation in relation to loss of productivity where the claim is formulated as a claim for:
(a) a variation;
(b) pursuant to some other express contractual entitlement (i.e. direction to change sequence of work).

11.3 Insofar as variations are concerned, regard must be had to the monetary cap stipulated in s. 10A(3) of the Act. A claim based under clause 33 of AS2124-1992, whilst required to be valued under clause 40.5, is arguably not a variation and not captured by s.10A(3).

Review of Adjudications in relation to claims for Loss of Productivity

11.4 In *Laing O'Rourke Australia Construction v H&M Engineering & Construction* [2010] NSWSC 818 the Court found that an Adjudication under the New South Wales legislation in relation to a global / total cost claim for disruption was void because the Adjudicator failed to have regard to the three elements required to be proven in a global / total cost claim as set out by Byrne J in his article *Total Costs and Global Claims*[62].

12. Forum shopping: Court or Arbitration ?

Pleadings

12.1 An arbitrator less likely to be interested in pleading complaints.

[62] At [82] and [88].

12.2 The Court's are unlikely to interfere in relation to Arbitrator's rulings in relation to the adequacy of "pleadings".

12.3 In relation to the repealed Commercial Arbitration Act, it has been found that that s. 47 did not to provide a means of appeal against interlocutory decisions of arbitrators. See: *Nauru* (at 408); *Commonwealth v Cockatoo Dockyard Pty Ltd* (1995) 36 NSWLR 662 (at 671 per Kirby P); *State of Victoria v Seal Rocks Victoria (Australia) Pty Ltd* (2001) 3 VR 1 per Ormiston JA at 4 and 5; and *Arnwell Pty Ltd v Teilaboot Pty Ltd & Ors.* [2010] VSC 123.

12.4 Whilst the Court may have had inherent jurisdiction to address review procedural directions of an Arbitrator, this did not provide much scope in view of the intent of the legislation. See: *Commonwealth v Cockatoo Dockyard Pty Ltd (1995) 36 NSWLR 662 (at 674-5 per Kirby P); State of Victoria v Seal Rocks Victoria (Australia) Pty Ltd (2001) 3 VR 1 (at 5-7 per Ormiston JA)* and *Arnwell Pty Ltd v Teilaboot Pty Ltd & Ors.* [2010] VSC 123 where Croft J found that such jurisdiction would only be used in the most unusual circumstances having regard to the comprehensive provisions of the Act (at [21]).

12.5 Following an unsuccessful attempt to persuade the Arbitrator to direct that the points of claim set out the causal nexus, an application to Court by the Employer under the repealed legislation needed to be made on the basis of technical misconduct / a failure to accord natural justice. In this regard see cases on s. 42 of the old Act. See: *Nauru.*

12.6 The *Commercial Arbitration Act 2011* (Vic) (***the CAA***) is unlikely to provide any greater scope for the review of interlocutory determinations in relation to the "pleading" of global claims in arbitrations. See ss. 18 (Equal Treatment of Parties), 23 (Statements of Claim and Defence) and 25 (Default of Party).

At Hearing

12.7 Pursuant to s. 19(3) of the CAA:

> *3) The power conferred on the arbitral tribunal includes the power to determine the admissibility, relevance, materiality and weight of any evidence.*

12.8 It is submitted that an Arbitrator will be more likely to try and achieve a "rough and ready" result, including in a way that may be less likely to uphold the exocet missile defence and more likely to reduce or apportion the claim as explained in *John Doyle*.

13. Conclusion

13.1 Disruption claims are inherently difficult to prove and often the subject of lengthy pleading battles.

13.2 At the outset an analytical approach should go some way to eliminating claims that have no merit, or gathering in a logical way the evidence to support a conventionally pleaded claim, or at least a claim that is only partially global (i.e. a modified total cost claim) and supported by an additional layer of proof such as a measured mile analysis to establish the necessary inference of the causal link.

13.3 The three initial matters for consideration before embarking on a detailed analysis are as follows:

- as planned labour estimate – validate the estimated labour hours and costs and execution methodology by reference to the project timeline;
- identify actual hours costs and methodology. Remove hours expended elsewhere (i.e. on variations) to allow an "apples with apples" comparison;
- identify labour cost over-runs to the highest level of detail required – to allow the losses to be attributed to specific incidents or factors of inefficiency;
- are all the overruns able to be linked to acts of disruption for which the Employer is responsible under the Contract.