Global Arbitration Review

The Guide to Construction Arbitration

General Editors Stavros Brekoulakis and David Brynmor Thomas QC

Third Edition

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Editors

Stavros Brekoulakis and David Brynmor Thomas QC

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Introduction

Stavros Brekoulakis and David Brynmor Thomas QC¹

It is a pleasure to introduce the third edition of *The Guide to Construction Arbitration*. The *Guide* has evolved since its first edition to form, we hope, a valuable resource for clients, in-house counsel, experts and external counsel involved in construction arbitration, whether they are dealing with construction arbitration for the first time or have extensive experience in it.

The construction industry is a major contributor to economic growth worldwide. In the United Kingdom it has been estimated that every $\pounds 1$ investment in construction output generates $\pounds 2.84$ in total economic activity.² In India, the BJP, which now forms the government, proposed infrastructure spending of 100 lakh crore rupees (over US\$1,300 billion) over the next five years in its 2019 manifesto.

The industry covers a wide range of different types of projects, from building offices, factories and warehouses, shopping malls, hotels and homes to major infrastructure projects that involve more complex civil engineering works such as the construction of harbours, railroads, mines, highways and bridges. Other construction projects involve specialist engineering works such as shipbuilding; bespoke plant and machinery such as turbines, generators and aircraft engines; or works that aim to support energy projects such as upstream oil and gas projects or renewables (wind, wave, solar) and nuclear plants.

These complex construction projects are rarely completed without encountering risks that lead to changes to the time and cost required for their execution. Those changes in turn give rise to disputes, the majority of which (possibly the vast majority) are submitted to alternative dispute resolution (ADR) processes and eventually arbitration. The reasons that lead construction parties to choose ADR and arbitration owe as much to the (perceived or

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² Report of Economic Consultants LEK for the UK Contractors Group.

real) inefficiencies of national courts as to the (perceived or real) advantages of out-of-court dispute resolution. For example, with a few notable exceptions such as the Technology and Construction Court in England and Wales, most national courts lack construction specialist departments or judges with construction expertise and experience. Arbitration, on the other hand, allows construction parties to appoint arbitrators with the necessary specialised knowledge and understanding of complex construction projects. Importantly, arbitration allows construction parties to 'design and build' (to stay in tune with the theme of *The Guide to Construction Arbitration*) the dispute resolution procedure in a way that addresses a number of procedural challenges in construction arbitrations, including the typically large volume of documentary evidence, the most effective use of experts to address delay and quantum, as well as complex technical issues, and programme analysis. While the use of some ADR methods such as dispute adjudication boards has spread relatively recently,³ arbitration has traditionally been included as the default dispute resolution mechanism for disputes arising out of international construction contracts.⁴

A question that often arises is: what is special about international construction disputes that they require specialist arbitration knowledge? In the first place, construction projects are associated with considerably more risk than any other typical commercial transaction, both in terms of the amount of risk allocated under them and the complexity of that risk. Their nature and typically long duration lead to risks including unexpected ground and climate conditions, industrial accidents, fluctuation in the price of materials and in the value of currency, political risks (such as political riots, governmental interventions and strikes) and legal risks (such as amendments in law or failure to secure legal permits and licences).

Further, time is very often critical in construction projects. An Olympic Games stadium must be delivered before the hard deadline that is the date of the games. If a shopping mall is not ready for the commercially busy Christmas period, significant amounts may be lost in seasonal retail trade. The late delivery of a power station can disrupt the project financing used to fund it.

Moreover, arguments as to causation, especially of delay, in construction projects are typically complex. Many phases of a construction project can run concurrently, which often makes it difficult to identify the origins and causes of delay. Legal concepts such as concurrent delay, critical paths and global claims are unique to construction disputes.

Equally, the involvement of a wide number of parties with different capacities and divergent interests adds to the complexity of construction disputes. A typical construction project may involve not only an employer and a contractor, but several subcontractors, a project manager, an engineer and architect, specialist professionals such as civil or structural engineers and designers, mechanical engineers, consultants such as acoustic and energy consultants, lenders and other funders, insurers and suppliers. A seemingly limited dipute arising on one subcontract may lead to disputes under other subcontracts and the main construction contract, and may have financial and legal consequences for many of the above parties, triggering disputes under much wider documentation such as shareholder agreements, joint operating agreements, funding documents and concessions. That often

³ Dispute adjudication boards were first introduced in FIDIC contracts (in the Orange Book) in 1995 and in ICE contracts as recently as in 2005.

⁴ Arbitration has been included in FIDIC contracts since the publication of the first FIDC contract in 1957.

gives rise to issues about multiparty arbitration proceedings and third-party participation in arbitration proceedings.

Another important feature of construction disputes is the widespread use of standard forms, such as the FIDIC or the ICE conditions of construction contracts. Efficient dispute resolution requires familiarity and understanding of the, often nuanced, risk allocation arrangements in these standard forms. Good knowledge of construction-specific legislation is necessary too. While the resolution of most construction disputes will depend on the factual circumstances and the provisions of the contractual agreement of the parties, legal issues may often arise in relation to statutory (frequently mandatory) warranty and limitation periods for construction claims, statutory direct claims by subcontractors against the employers,⁵ statutory prohibition of the pay-when-paid and pay-if-paid provisions⁶ and, of course, mandatory legislation on public procurement.⁷

Finally, as already mentioned, construction disputes are technically complex, requiring efficient management of challenging evidentiary processes, including document management, expert evidence, programme analysis and quantification of damages. The evidentiary challenges in construction disputes have given rise to the use of tools, such as Scott Schedules (used to present fact intensive disputes in a more user friendly format), that are unique in construction arbitrations.⁸

It is for all these reasons that alternative dispute resolution and arbitration of construction disputes require special focus and attention, which is what *The Guide to Construction Arbitration* aims to provide.

The Guide to Construction Arbitration is designed to appeal to different audiences. The authors of the various chapters are themselves market-leading experts, so it can provide a ready resource for specialist construction arbitration practitioners who already have a view of the information they seek. Beyond that, it has been compiled and written to offer practical information to practitioners who are inexperienced in international construction contracts or dispute resolution in construction disputes. For example, in-house lawyers who may be experienced in negotiating and drafting construction contracts but not in running disputes arising from them, or construction professionals who may have experience in managing construction projects but may lack experience in the conduct of construction arbitration, will find *The Guide to Construction Arbitration* useful. Lawyers in private practice who are familiar with arbitration, but lack experience in construction will also benefit. Last but not least, students who study construction arbitration will find it to be a helpful source of information.

While the main focus of *The Guide to Construction Arbitration* is the resolution, by arbitration, of disputes arising out of construction projects, Part I is devoted to important substantive aspects of international construction contracts. To understand how construction disputes are resolved in international arbitration, one has to understand how disputes arise out of a typical construction contract in the first place, and what are the substantive rights, obligations and remedies of the parties to a construction contract.

⁵ For example, in France, Law No. 75-1334 of 31 December 1975 on Subcontracting.

⁶ For example, in the United Kingdom with the UK Housing Grants Construction and Regeneration Act 1996.

⁷ For example, EU Directive 2014/24.

⁸ J. Jenkins and K. Rosenberg, 'Engineering and Construction Arbitration', in Lew et al. (editors) *Arbitration in England*, Kluwer (2013).

Thus, this book is broadly divided in four parts. Part I examines a wide range of substantive issues in construction contracts, such as The Contract: the Foundation of Construction Projects, Bonds and Guarantees, an Introduction to the FIDIC Suite of Contracts, Allocation of Risk in Construction Contracts, Contractors' and Employers' Claims, Remedies and Reliefs. Chapters valuably address the quantification of delays, the role of programmes and the various methods used for the computation of costs and damages in construction arbitrations, while an entire chapter is devoted to an examination, from a comparative law perspective, of the practically critical topic of concurrent delay.

Part II then focuses on dispute resolution processes in construction disputes. The aim of this Part is to look into special features of construction arbitration, and the following chapters are included: Suitability of Arbitration Rules for Construction Disputes, Subcontracts and Multiparty Arbitration in Construction Disputes, Interim Relief, including Emergency Arbitrators in Construction Arbitration, Organisation of the Proceedings in Construction Arbitrations, Documents in Construction Disputes and Awards, and the role and management of expert evidence.

Part III examines a number of select topics in international construction arbitration by reference to some key industry sectors and contract structures, including the nuclear sector, energy sector, concession contracts and turnkey projects. Part IV examines construction arbitration in specific jurisdictions of particular interest and with very active construction industries

We have taken the opportunity to add to the chapters in this third edition, to address matters identified by users of the first two editions. These include chapters examining dispute boards, ADR in construction contracts, agreements to arbitrate and interim relief in detail. There are chapters on pricing and payment, investment treaty arbitration in the construction sector, a discussion of the typical parties to a construction contract, further discussion of the organisation of expert testimony and a chapter on construction arbitration in Brazil.

Overall, the third edition of *The Guide to Construction Arbitration* builds upon the success of the first two editions and has been further expanded. The structure and organisation of *The Guide to Construction Arbitration* is broadly based on the LLM course on International Construction Contracts and Arbitration that we teach at Queen Mary University of London. The course was first introduced by HH Humphrey Lloyd in 1987 and was taught by him for more than 20 years. Humphrey has been an exceptional source of inspiration for hundreds of students who followed his classes, and we are personally indebted to him for having conceived the course originally and for his generous assistance when he passed the course on some years ago.

We want to thank all the authors for contributing to *The Guide to Construction Arbitration*. We are extremely fortunate that a group of distinguished practitioners and construction arbitration specialists from a wide range of jurisdictions have agreed to participate in this project. We further want to thank Gemma Chalk, Bevan Woodhouse and Hannah Higgins for all their hard work in the commission, editing and production of this book. They have made our work easy. Special thanks are due to David Samuels and GAR for asking us to conceive, design and edit this book. We thoroughly enjoyed the task, and hope that the readers will find the result to be useful and informative.

Part I

International Construction Contracts

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Comparative Approaches to Concurrent Delay

Hamish Lal, Brendan Casey and Josephine Kaiding¹

Overview

Concurrent delay is one of the most complex substantive issues in international construction law. Delay to completion of the works has commercial consequences for both owners and contractors: owners typically seek liquidated damages for the delay and contractors typically seek an extension of time to adjust the original period allowed to complete the works and additional payment in respect of the extended period. The assessment of delay is complex and there are many methods used in international arbitration to investigate the causes of delay and to evaluate the time and money consequences of delay. There is no uniform or codified approach to the analysis of delay.

The majority of the case law and academic writing on concurrent delay originates from England where the 'Malmaison Approach' named after the decision in *Henry Boot Construction (UK) Ltd v Malmaison Hotel (Manchester) Ltd*² (meaning that where there is concurrent delay the contractor is entitled to an extension of time but is not entitled to loss or expense incurred during the extended period) has dominated the jurisprudence. The prevention principle³ has been used by many to explain why the 'but for' test of causation for

¹ Hamish Lal is a partner, Brendan Casey is a counsel and Josephine Kaiding is an associate at Akin Gump Strauss Hauer & Feld LLP.

^{2 (1999) 70} Con LR 32 (TCC).

³ This is widely understood to mean that an employer cannot hold the contractor to a specified completion date if the employer has prevented the contractor from achieving that date, in which case 'time becomes at large and the obligation to complete by the specified date is replaced by an implied obligation to complete within a reasonable time': *Multiplex Constructions (UK) Ltd v. Honeywell Control Systems Ltd (No.2)* [2007] EWHC 447 (TCC); [2007] B.L.R. 195; 111 Con. L.R. 78 at [48]. Although outside the scope of the present discussion, there is now important analysis from The Right Hon Lord Justice Coulson suggesting that application of the prevention principle does not make time at large. See 'Prevention or Cure? Delay Claims and the Rise of Concurrency Clauses', Paper 218 published by the Society of Construction Law.

concurrent delay under English law can be relaxed and why other approaches to the assessment of concurrent delay (such as apportionment and dominant cause) are not feasible and should not be used.⁴ However, following three first instance decisions⁵ and comments from the Court of Appeal,⁶ the answer under English law may now be that the contractor is not entitled to an extension of time and is not entitled to additional loss or expense. This is because such cases support the proposition that the prevention principle does not apply when dealing with concurrent delay.

In other jurisdictions, the favoured approaches are apportionment of the delay to completion or the entitlement to time and money because of the 'good faith' obligations embedded in the Civil Codes and the importance of persons taking responsibility for any harm they have caused. Apportionment may also be the favoured approach of arbitral tribunals sitting in 'international' disputes, particularly those composed of multinational arbitrators. As discussed below, while appearing to be a 'fair' approach to concurrent delay, apportionment has been attacked on many occasions.

The primary focus of this chapter is concurrent delay, but it is relevant to understand that, in terms of the treatment and analysis of orthodox delay to completion, there is a tangible trend in the courts and arbitral tribunals preferring delay analysis based on a critical path developed commensurate with 'common sense' and a discernible shift away from using delay analysis methods that first look at the 'effects of delay' and then assess the causes.⁷

⁴ These include: Ramsey J. 'Claims for Delay and Disruption: The Impact of City Inn,' a paper presented at the annual TECBAR conference in January 2011 and in the TECBAR Review for Spring 2011; Professor Doug Jones 'Can Prevention be Cured by Time Bars?', The Annual TECBAR Lecture 17 September 2008; John Marrin QC, 'Concurrent Delay' (2002) 18(6) Const. L.J. 436 and 'Concurrent Delay Revisited', published by The Society of Construction Law February 2013, Paper 179: www.scl.org.

⁵ Adyard Abu Dhabi v. SD Marine Services [2011] EWHC 848 (Comm); [2011] B.L.R. 384; 136 Con. L.R. 190; Jerram Falkus Construction Ltd v. Fenice Investments Inc [2011] EWHC 1935 (TCC); [2011] B.L.R. 644; 138 Con. L.R. 21; and North Midland Building Ltd v. Cyden Homes Ltd [2017] EWHC 2414 (TCC) where Fraser J. at paragraph 29 stated:

If the point were open to me for decision, which it is not in this case, I would apply and follow the same reasoning, and come to the same conclusions, as both Hamblen and Coulson JJ did in those cases, on the very same point. In so far as there may be other disputes where the parties find themselves at odds concerning the dicta in both Adyard and Jerram Falkus on the one hand, and other writing, commentary or articles which suggest such dicta are wrong on the other, cost-effective resolution of those other disputes is more likely if those parties proceed on the basis that the two authorities to which I have referred are correct. In my judgment, I agree with the analysis of each of them and would proceed on the basis that they both clearly are.

⁶ Coulson L.J. in North Midland Building Ltd v. Cyden Homes Ltd [2018] EWCA Civ.1744. North Midland is the first reported case in which a concurrency clause has been considered by an English court. The principal argument advanced by the contractor, North Midland, was that a concurrency clause was incompatible with the prevention principle. That argument was rejected at first instance by Fraser J. The appeal against that decision was dismissed by the Court of Appeal.

⁷ This is in contrast to methods that start with the causes of the delays and strive to calculate the effect. The 'cause and effect' delay analysis methods (such as 'time impact analysis' and 'collapsed as-built analysis') are less favoured than the 'effect and cause' delay methods (such as 'retrospective longest path analysis' and 'as-planned versus as-built windows analysis'). The latter are considered less dependent on complex planning software; less theoretical; and more reliant on 'common sense' assessment of the critical path and the causes of delay to the critical path.

From a legal perspective, concurrent delay is more complex than orthodox delay. One of the fundamental and threshold problems faced by counsel, experts and tribunals in international arbitration is working out what the terms 'true concurrent delay' and 'concurrent delay' mean or are intended to be mean when the parties in their contract use such terms expressly. For example, *Global Arbitration Review* asks:⁸

If an employer would cause (e.g., by variation) a two-week critical delay to completion of the works (which itself would justify an extension of time under the construction contract) but, independently, culpable delay by the contractor (e.g., defective work) would cause the same delay, is the contractor entitled to an extension [of time]?

This raises various derivative questions: Did the employer delay event start at the same time as the contractor delay event? Did the employer delay event overlap with the contractor delay event? Is the entitlement to an extension of time to be decided prospectively or retrospectively? Does the fact that either delay event would have caused a two-week delay to completion mean that there is no dominant delay event and both delay events are of equal effect? Does the 'true concurrent delay' test apply or the 'concurrent delay' test? The precise words used by the parties to define compensable delay events and concurrent delay are of primary importance.

What is Concurrent Delay

There are a number of learned views as to what concurrent delay means.

England

A definition approved or adopted in the more recent first instance decisions and in the Court of Appeal is the following:⁹

concurrent delay is ... a period of project overrun which is caused by two or more effective causes of delay which are of approximately equal causative potency.

⁸ Global Arbitration Review Construction Arbitration Know How, Question 6, Competing causes of delay.

⁹ This is the definition that was originally proposed by John Marrin QC in the article 'Concurrent Delay' (2002) 18(6) Construction Law Journal 436; adopted in obiter as 'a useful working definition' by Hamblen J. (as he then was) in Adyard Abu Dhabi v. SD Marine Services [2011] EWHC 848 (Comm); and adopted by Coulson L.J. in North Midland Building Ltd v. Cyden Homes Ltd [2018] EWCA Civ 1744. This definition was not revised by John Marrin QC in 'Concurrent Delay Revisited', published by The Society of Construction Law, February 2013, Paper 179: www.scl.org.

The key factor in the definition is 'approximately equal causative potency',¹⁰ which was explained in the following terms:¹¹

where there are two competing causes of delay, they often differ in terms of their causative potency. Even where both competing causes are effective causes of delay, in the sense that each taken on its own would be regarded as the cause of the whole delay, the two may be of unequal causative potency. It is a commonplace to find that during the course of the factual enquiry, it becomes obvious as a matter of common sense that the two supposed causes of delay are of markedly different causative potency. One is then regarded as the effective cause and the other as ineffective. In other words, the minor cause is treated as if it were not causative at all.

The above definition does not require a coincidence in time of the occurrence of the delay event as well as their effects. Such a narrower definition was used in *Royal Brompton Hospital v. Hammond*,¹² where HHJ Richard Seymour QC stated:

However, it is, I think, necessary to be clear what one means by events operating concurrently. It does not mean, in my judgment, a situation in which, work already being delayed, let it be supposed, because the contractor has had difficulty in obtaining sufficient labour, an event occurs which is a relevant event and which, had the contractor not been delayed, would have caused him to be delayed, but which in fact, by reason of the existing delay, made no difference. In such a situation although there is a relevant event, the completion of the Works is [not] likely to be delayed thereby beyond the Completion Date.

The relevant event simply has no effect on the completion date. This situation obviously needs to be distinguished from a situation in which, as it were, the Works are proceeding in a regular fashion and on programme, when two things happen, either of which, had it happened on its own, would have caused delay, and one is a relevant event, while the other is not. In such circumstances there is a real concurrency of causes of delay.¹³

¹⁰ The approximately equal causative potency factor has been challenged by V. Moran QC Causation in 'Construction Law: The Demise of the 'Dominant Cause'Test', published by The Society of Construction Law November 2014, Paper 190, www.scl.org at paragraph 90:

^{... (}ii) the very concept of concurrent effective causes of 'approximately equal causative potency' is difficult to understand, unhelpful and unnecessary; (iii) a new, less restrictive, approach to the test of causation in concurrent delay claims can be justified on a proper construction of the relevant provisions. is more solidly based in analogous claims for damages for breach of contract and can even be detected in recent authority - what I call the 'effective cause' test; (iv) an effective cause is one that operates by itself or combines with another to cause critical delay to the completion date of a project: and (iv) an effective concurrent cause for these purposes is simply one that. had it operated in the absence of the delay event(s) that the contractor is responsible for, would have nevertheless caused the same period of critical delay to the Works in the circumstances that the parties would or should have found themselves in under this hypothesis.

¹¹ John Marrin QC, 'Concurrent Delay' (2002) 18(6) Construction Law Journal 436; John Marrin QC 'Concurrent Delay Revisited' published by The Society of Construction Law, February 2013, Paper 179, www.scl.org.

¹² Royal Brompton Hospital NHS Trust v. Hammond (No. 7) [2001] EWCA Civ 206.

¹³ Royal Brompton Hospital NHS Trust v. Hammond (No. 7) [2001] EWCA Civ 206, 76 Con LR 148 at paragraph 31.

While the definition of HHJ Richard Seymour QC has been challenged for being too narrow, it is important to note that parties to a construction contract could insert such a definition of concurrent delay. A likely consequence of such drafting would mean that the number of ostensible compensable delay events that could be 'struck-out' by virtue of being concurrent would be reduced.¹⁴

Scotland

In *City Inn Limited v. Shepherd Construction Limited*,¹⁵ Lord Drummond Young¹⁶ in the Outer House declined to follow the concurrency of delay events approach advocated by HHJ Richard Seymour QC, commenting:

Dyson J's opinion in Henry Boot Construction (UK) Ltd v. Malmaison Hotel (Manchester) Ltd was considered by Judge Richard Seymour QC in Royal Brompton Hospital NHS Trust v. Hammond (No 7), (2001) 76 Con LR 148, at paragraph 31. In that passage Judge Seymour gave a further explanation of what is meant by 'events operating concurrently'. He drew a distinction between on one hand a case where work has been delayed through a shortage of labour and a relevant event then occurs and on the other hand a case where works are proceeding regularly when both a relevant event and a shortage of labour occur, more or less simultaneously. Judge Seymour considered that Dyson J. had only been concerned with the latter situation, and not with the former; in the former situation the relevant event had no effect upon the completion date. I have some difficulty with this distinction. It seems to turn upon the question whether the shortage of labour and the relevant event occurred simultaneously; or at least it assumes that the shortage of labour did not significantly predate the relevant event. That, however, seems to me to be an arbitrary criterion. It should not matter whether the shortage of labour developed, for example, two days before or two days after the start of a substantial period of inclement weather; in either case the two matters operate concurrently to delay completion of the works. In my opinion both of these cases should be treated as involving concurrent causes, and they should be dealt with in the way indicated in clause 25.3.1 by granting such extension as the architect considers fair and reasonable.

¹⁴ David Barry, 'Concurrent Delay in Construction Law', (2011) Const LJ concludes 'H.H. Judge Seymour QC's definition of concurrent delay in Royal Brompton Hospital is so narrow as to be of little effect'.

¹⁵ City Inn Limited v. Shepherd Construction Limited [2007] CSOH 190 (Outer House, Court of Session) at paragraph 16; [2008] BLR 269; (2008) 24 Construction Law Journal 590; [2008] CILL 2537.

¹⁶ David Barry, 'Concurrent Delay in Construction Law', (2011) Construction Law Journal concludes: While it may be argued that H.H. Judge Seymour QC's definition of concurrent delay in Royal Brompton Hospital is so narrow as to be of little effect, Lord Drummond Young's definition may be said to have achieved the opposite extreme since it effectively ensures that almost all delaying events encountered on a project will be considered as being a contributory cause of delay to the Completion Date. Moreover, it is submitted that Lord Drummond Young's construction of the subject (and typical) EOT contract clause, by which he concluded that, when seeking to determine the existence of concurrent delay, the dates upon which the competing delay events arose 'should not matter', is incorrect. The subject contract clause in fact makes this a vital factor in the EOT assessment.

In *City Inn Limited v. Shepherd Construction Limited*,¹⁷ Lord Osborne in the inner House reinforced the point that concurrent delay requires only the effects of the delay events to be concurrent:

I have difficulty in understanding the basis on which Judge Seymour drew the distinction which he did. In any event, his observations seem to involve the contemplation of a situation in which two events productive of delay, one a relevant event and the other not, occur simultaneously with chronologically coincident starting points, as the only one in which the effect of the relevant event can be assessed under clause 25, where a non-relevant event is also present. I consider that approach to its interpretation unnecessarily restrictive and one which would militate against the achievement of its obvious purpose of enabling the architect, or other tribunal, to make a judgment on the basis of fairness and a common-sense view of causation.

The Society of Construction Law Delay and Disruption Protocol Second Edition This Delay and Disruption Protocol advocates a narrow definition of 'true concurrent delay' (which is aligned with the definition of HHJ Richard Seymour QC in *Royal Brompton Hospital v. Hammond*). The Protocol also defines 'true concurrent delay' and 'concurrent delay' as:¹⁸

True concurrent delay is the occurrence of two or more delay events at the same time, one an Employer Risk Event, the other a Contractor Risk Event, and the effects of which are felt at the same time. True concurrent delay will be a rare occurrence. A time when it can occur is at the commencement date (where for example, the Employer fails to give access to the site, but the Contractor has no resources mobilised to carry out any work), but it can arise at any time.

In contrast, a more common usage of the term 'concurrent delay' concerns the situation where two or more delay events arise at different times, but the effects of them are felt at the same time.

In both cases, concurrent delay does not become an issue unless each of an Employer Risk Event and a Contractor Risk Event lead or will lead to Delay to Completion. Hence, for concurrent delay to exist, each of the Employer Risk Event and the Contractor Risk Event must be an effective cause of Delay to Completion (not merely incidental to the Delay to Completion).

United States of America

Concurrency in the occurrence of the delay events is not a prerequisite for concurrent delay to arise. The Court of Federal Claims evaluated the issue of concurrent delay noting that '[t]hornier issues are posed by concurrent or sequential delays' than by single delays operating alone.¹⁹ 'Concurrent' is generally defined as 'operating or occurring at the same

City Inn Limited v. Shepherd Construction Limited [2010] CSIH 68 (Inner House, Court of Session) at paragraph 36; [2010] BLR 473; (2008) 24 Construction Law Journal 590; [2010] CILL 2889.

¹⁸ See paragraphs 10.3; 10.4; and 10.5. The Protocol's position on 'true concurrent delay' is not explained, which is odd given the comments of the Outer and Inner Houses in *City Inn Limited v. Shepherd Construction Limited* and the approval of John Marrin QC's definition by Hamblen J. (as he then was) in *Adyard Abu Dhabi v. S.D. Marine Services* [2011] EWHC 848 (Comm).

¹⁹ R.P.Wallace, Inc. v. U.S., 63 Fed. Cl. 402, 410-11 (2004).

time.²⁰ When used in the context of construction delay, the term can refer to both delays occurring at the same time as well as delays that occur at different times provided there is a common effect on the critical path and a delay to completion. A third category is 'offsetting delays' that may not occur simultaneously or even effect the same activities but may interact over the project as a whole to impact the completion date.²¹ The Court of Federal Claims in *George Sollitt Construction Co. v. United States* developed the following definition of concurrent delays:

The exact definition of concurrent delay is not readily apparent from its use in contract law, although it is a term which has both temporal and causation aspects. Concurrent delays affect the same 'delay period.' A concurrent delay is also independently sufficient to cause the delay days attributed to that source of delay.²²

Summary

Unless the parties have expressly defined otherwise, concurrent delay is likely to mean delay to completion of the works caused by two delay events where such delay events are the responsibility of the owner and contractor respectively, and where one delay event is not the dominant cause of the delay to completion. The delay events do not need to take place at the same time but the effect of each delay event must affect the critical path and cause delay to completion at the same time. 'True concurrent delay' requires the employer delay event and the contractor delay event to occur at the same time and cause delay to completion of the works at the same time. Furthermore, the precise terms of the express definition used by the parties will determine whether 'true concurrent delay' or 'concurrent delay' is relevant.

Comparative Approaches to Concurrent Delay

England

The Malmaison Approach has received widespread attention and judicial and academic support. In *Henry Boot Construction (UK) Ltd v. Malmaison Hotel (Manchester) Ltd*,²³ Dyson J. (as he then was), based on an agreement between the parties, summarised the approach as follows:

²⁰ Webster's Ninth New Collegiate Dictionary at 273 (1987); see also David W. James, 'Concurrency & Apportioning Liability & Damages in Public Contract Adjudications', 20 Public Contract Law Journal 490, 491 (1991) (defining concurrent delay).

²¹ See PCL Const. Services, Inc v. US, 53 Fed. Cl. 479, 486 (2002). This case provides a detailed discussion of sequential as opposed to simultaneous/concurrent delay.

²² George Sollitt Const Co v. US, 64 Fed. Cl. 229, 239 (2005) (citations omitted); see Essex Electro Engineers, Inc v. Danzig, 224 F.3d 1283, 1295-96 (Fed. Cir. 2000) (distinguishing concurrent from sequential delays).

²³ Henry Boot Construction (UK) Ltd v. Malmaison Hotel (Manchester) Ltd (1999) 70 Con. L.R. 32 QBD (TCC) at paragraph 13. See too Hudson's Building and Engineering Contracts Twelfth Edition at paragraph 6-060, which states the Malmaison Approach is 'likely in the Editor's view to reflect the law of England and Wales'.

It is agreed that if there are two concurrent causes of delay, one of which is a relevant event and the other is not, then the contractor is entitled to an extension of time for the period of delay caused by the relevant event notwithstanding the concurrent effect of the other event. Thus, to take a simple example, if no work is possible on a site for a week not only because of exceptionally inclement weather (a relevant event), but also because the contractor has a shortage of labour (not a relevant event), and if the failure to work during that week is likely to delay the works beyond the completion date by one week, then if he considers it fair and reasonable to do so, the architect is required to grant an extension of time of one week. He cannot refuse to do so on the grounds that the delay would have occurred in any event by reason of the shortage of labour.

In 2006, *Keating on Construction Contracts Eighth Edition* (having between 1991 and 2006 offered support to the 'dominant cause approach') supported the Malmaison Approach, stating:

Thus it now appears to be accepted that a contractor is entitled to an extension of time notwithstanding the matter relied upon by the contractor is not the dominant cause of delay, provided only that it has at least equal 'causative potency' with all other matters causing delay. The rationale for such an approach is that where the parties have expressly provided in their contract for an extension of time caused by certain events, the parties must be taken to have contemplated that there could be more than one effective cause of delay (one of which would not qualify for an extension of time) but nevertheless by their express words agreed that in such circumstances the contractor is entitled to an extension of time for an effective cause of delay falling within the relevant contractual provision.²⁴

The Malmaison Approach and the above paragraph was adopted by HHJ Stephen Davies in *Steria v. Sigma*²⁵and supported in the first instance decisions in Royal Brompton Hospital,²⁶ De Beers ²⁷and Walter Lilly.²⁸ In the latter, Mr Justice Akenhead said:

²⁴ Stephen Furst QC and Vivian Ramsey, *Keating on Construction Contract (Eighth Edition)* Sweet & Maxwell at paragraph 8-021.

²⁵ Steria Ltd v. Sigma Wireless Communications Ltd [2008] BLR 79 (TCC), 118 Con LR 177, [2008] CILL 2544 at paragraph 131:

It appears from the relevant part [\$13] of the judgment in Henry Boot Construction v. Malmaison Hotel Manchester that Dyson J. (as he then was) was recording an agreement by counsel to the effect stated above, rather than deciding a point which was at issue between the parties. Nonetheless the fact that he, as a judge with such wide experience in the field, noted the agreement without adverse comment is a strong indication that he considered that it correctly stated the position. Furthermore, the rationale suggested by the editors of Keating appears to me, with respect, to be compelling, and to apply as much to this case as it does to the particular clause in the Henry Boot case and indeed to extension of time clauses generally. Accordingly, I propose to adopt that approach as correctly representing the proper approach to extensions of time under clause 6.1 of the sub-contract.

²⁶ Royal Brompton Hospital NHS Trust v. Hammond (No. 7) [2001] EWCA Civ 206, 76 Con LR 148.

²⁷ De Beers UK Ltd v. Atos Origin IT Services UK Ltd [2010] EWHC 3276 (TCC), [2011] BLR 274, 134 Con LR 151 where Edwards-Stuart J. explained that '[t]he general rule in construction and engineering cases is that where there is concurrent delay to completion caused by matters for which both employer and contractor are responsible, the contractor is entitled to an extension of time but he cannot recover in respect of the loss caused by the delay.'

²⁸ Walter Lilly & Co Ltd v. Mackay [2012] EWHC 1773 (TCC); [2012] B.L.R. 503.

In any event, I am clearly of the view that, where there is an extension of time clause such as that agreed upon in this case and where delay is caused by two or more effective causes, one of which entitles the Contractor to an extension of time as being a Relevant Event, the Contractor is entitled to a full extension of time. Part of the logic of this is that many of the Relevant Events would otherwise amount to acts of prevention and that it would be wrong in principle to construe Clause 25 on the basis that the Contractor should be denied a full extension of time in those circumstances. More importantly however, there is a straight contractual interpretation of Clause 25 which points very strongly in favour of the view that, provided the Relevant Events can be shown to have delayed the Works, the Contractor is entitled to an extension of time for the whole period of delay caused by the Relevant Events in question.²⁹

Put simply, where an employer delay event and a contractor delay event both cause delay to completion, the Malmaison Approach entitles the contractor to an extension of time but not additional money in respect of the extended period.³⁰ The legal basis for this result is the 'but for' test of causation. It is said that the Malmaison Approach requires a relaxation of the 'but for' test of causation (because in the case of concurrent delay the contractor is never in a position to show that he or she would have completed on time 'but for' the employer delay event relied upon), but that there is a 'robust justification for such a relaxation'.³¹ The justification put forward is that the relaxation is needed to avoid a result that is contrary to what the parties intended. The prevention principle underpins this analysis,³² namely, that the owner cannot benefit from its act of prevention. In essence, the Malmaison Approach takes this concept further by assuming that the parties must have intended not to conflict with the prevention principle. The fact that the prevention principle does not apply to prolongation means that the 'but for' test of causation cannot be relaxed and so the contractor is not entitled to additional money for the extended period.

The application of the prevention principle where there is concurrent delay has been attacked, and following the comments of Coulson LJ in *North Midland Building Ltd v. Cyden Homes Ltd*,³³ it is likely that the 'but for' test of causation cannot be relaxed on the basis of

²⁹ Walter Lilly & Co Ltd v. Mackay [2012] EWHC 1773 (TCC); [2012] B.L.R. 503 at paragraph 370.

³⁰ A similar approach is followed in Australia where a common sense is advocated and where it is assumed that the purpose of an extension of time clause is to relieve the contractor from the obligation to pay liquidated damages for delay to completion for periods of delay where the employer is responsible. Put another way, the prevention principle plays a major role in the legal analysis.

³¹ John Marrin QC 'Concurrent Delay Revisited', published by The Society of Construction Law, February 2013, Paper 179, www.scl.org, at p.16.

³² John Marrin QC 'Concurrent Delay Revisited', published by The Society of Construction Law, February 2013, Paper 179, www.scl.org, at p.7, makes clear that 'for the purposes of this paper, it is assumed that the prevention principle does apply even in cases of concurrent delay'. John Marrin QC continues: On that basis, it is necessary to have regard to the prevention principle in considering the correct approach. If the approach under consideration involves no departure from the prevention principle because the contractor receives a full extension of time for any act of prevention, all well and good. But if, on the approach under consideration, the contractor does not receive an extension of time (or does not receive a full extension) there is a difficulty. The extension of time machinery will have failed to insulate the contractor against the employer's act of prevention and the prevention principle will or may be brought into play. In those circumstances, it will be necessary to consider whether the principle does come into play or whether the terms of the contract are such as to express a contrary intention.

^{33 [2018]} EWCA Civ 1744 at paragraph 17.

the prevention principle. This would tend to the conclusion that, under English law where there is concurrent delay, the contractor is unable to rely on the prevention principle and thus is not entitled to an extension of time and is not entitled to additional money.

Put starkly, the position on concurrent delay appears to have evolved from dominant delay, to the Malmaison Approach to no entitlement at all. Apportionment may now need to be used to relax the 'but for' test (i.e., assessing and apportioning the responsibility for the delay to completion of the works on the basis of the respective fault of the parties, recognising that this may require expert evidence). In this context, the main attack on apportionment³⁴ under English law is that it would conflict with the prevention principle. John Marrin QC citing other learned authors states:

A second and related difficulty with the apportionment approach concerns the prevention principle. It is implicit in a finding of concurrent delay that two or more causes have given rise to delay during the same period. If one of those causes is an act of prevention on the part of the employer, the extension of time machinery will not be effective to avoid the application of the prevention principle unless the contractor is granted an extension of time for the whole period. However, if the delay during the period is apportioned between the parties, perhaps on a 50:50 basis, the contractor will not receive a full extension of time and the prevention principle will come into play.

It is for this reason that several commentators have suggested that the apportionment approach should be rejected.³⁵

However, as discussed above, there is jurisprudence that supports the proposition that the prevention principle is not engaged at all when one is dealing with concurrent delay to completion. The comments of Coulson LJ in *North Midland Building Ltd v. Cyden Homes Ltd* are repeated below:

34 The prevention principle is also cited as a significant reason for not using the dominant cause approach. John Marrin QC 'Concurrent Delay Revisited', published by The Society of Construction Law, February 2013, Paper 179, www.scl.org, at p.14 states:

35 Paul Tobin, 'Concurrent and Sequential Causes of Delay', (2007) 24 ICLR 142, p.151; Sir Vivian Ramsey, 'Claims for Delay and Disruption: The Impact of City Inn', a paper presented at the annual TECBAR conference in January 2011 and in the TECBAR Review for Spring 2011 who made it clear that apportionment (1) would be unworkable and unpredictable in practice; (2) if adopted would risk triggering the prevention principle and thereby placing time at large; (3) apportionment in common law claims for damages is not generally available (absent a right under Statute); (4) it is unclear why contractor culpable delay should be relevant to the assessment of delay to completion; *Hudson on Building and Engineering Contracts, 12th Edition*, paragraphs 6-060 and 6-062; *Walter Lilly & Co Ltd v. Mackay* [2012] EWHC 1773 (TCC), [2012] BLR 503, 143 Con LR 79, (2012) 28 Const LJ 622, [2012] CILL 3229 at paragraph 370.

The third difficulty with the dominant cause approach is that it is liable to come into conflict with the prevention principle. Taking the facts of the chosen example, let it be supposed that the architect decides to treat the contractor's delay in carrying out remedial works as the dominant cause of delay during the month of January 2012. The assumed facts nevertheless imply that the employer's act of prevention in instructing extra work was a concurrent cause of the entire month of delay. If the extension of time clause is implemented on the basis that contractor-default is the dominant cause of delay, it will not afford the contractor relief for delay caused by the act of prevention and the result will be that the prevention principle will come into play. Time will be set at large, unless the contract expressly provides otherwise.'

Under the JCT standard forms (i.e., without the bespoke amendments added here), a contractor's entitlement to an extension of time in circumstances of concurrent delay is not entirely free from doubt. There is no Court of Appeal authority on the issue. In Walter Lilly and Co Limited v. Giles Mackay and Another [2012] EWHC 1773 (TCC); [2012] 28 Const. L.J. Issue 8, page 622, Akenhead J said that a contractor was entitled to an extension of time for concurrent delay. In reaching that conclusion he referred to a number of first-instance decisions, including Henry Boot Construction (UK) Limited v. Malmaison Hotel (Manchester) Limited [1999] 70 Con LR 32 (where the point was conceded) and the Scottish case of City Inn Limited v. Shepherd Construction Limited [2010] BLR 473 (where a different approach was adopted). Keating on Construction Contracts, 10th Ed., paragraph 8-014 takes the opposite view. It states: "However, where there are concurrent causes of delay (one the contractor's responsibility and the other the employer's) the prevention principle would not be triggered because the delay would have occurred anyway absent the employer delay event."

Two more first instance decisions are cited in support of that proposition: Adyard and Jerram Falkus Construction Limited v. Fenice Investments Incorporated (No. 4) [2011] EWHC 1935 (TCC). In Adyard, Hamblen J said, at paragraph 279, that "there is only concurrency if both events in fact cause delay to the progress of the works and the delaying effect of the two events is felt at the same time".

For reasons which will become apparent below, it is unnecessary to resolve this potential difference of opinion on this appeal. For present purposes, these authorities are relevant only of the possibility that a contractor may be entitled to an extension of time for the whole period of concurrent delay (even where the work could not have been completed any earlier than it actually was because of the contractor's default), which has led employers to introduce the sort of bespoke amendment on which this appeal turn.

The ostensible unfairness for a contractor who recovers nothing (and instead pays liquidated damages for delay) if there is concurrent delay to completion was also considered by Coulson LJ in 'Prevention or Cure? Delay Claims and the Rise of Concurrency Clauses' where he states:³⁶

A period of concurrent delay, properly arose because a delay had occurred for two separate reasons, one being the responsibility of the contract or/and one the responsibility of the employer. Each could argue that it would be wrong for the other to benefit from a period of delay from which the other is equally responsible. In this case the parties had sought to reverse the Malmaison approach to say that, rather than the contractor, it would be the employer who would benefit from the concurrency difficulties. The court said that 'either result may be regarded as harsh on the other party; neither could be said to be uncommercial or unworkable.

³⁶ The Rt Hon Lord Justice Coulson, 'Prevention or Cure? Delay Claims and the Rise of Concurrency Clauses', Pinsent Masons Lecture given in Hong Kong on 15 November 2018 and presented to the Society of Construction Law at a meeting in London on 5 February 2019, Paper 219 published by the Society of Construction Law at paragraph 41.

Scotland

In Scotland, apportionment was first put forward by Lord MacLean in John Doyle³⁷ where he said:

...we are of the opinion that apportionment of loss between the different causes is possible in an appropriate case. Such a procedure may be appropriate in a case where the causes of the loss are truly concurrent, in the sense that both operated together at the same time to produce a single consequence. For example, work on a construction project might be held up for a period owing to the late provision of information by the architect, but during that period bad weather might have prevented work for part of the time. In such a case responsibility for the loss can be apportioned between the two causes, according to their relative significance.

In the *City Inn* case at first instance, Lord Drummond Young, referring to the JCT Standard form of Building Contract, Private Edition with Quantities 1980 edition, said:

Where there is true concurrency between a relevant event and a contractor default, in the sense that both existed simultaneously, regardless of which started first, it may be appropriate to apportion responsibility for the delay between the two causes; obviously, however, the basis for such apportionment must be fair and reasonable. Precisely what is fair and reasonable is likely to turn on the exact circumstances of the particular case.³⁸

This view was affirmed by a majority of the Inner House of the Court of Session on the appeal. The apportionment approach has been followed in Hong Kong where in *W. Hing Construction Company Ltd v. Boost Investments Limited*³⁹ the judge stated:

Much case law has developed on this thorny question of concurrent delay, which turns on the wording of each particular EOT clause, as well as considerations of, e.g., what is the 'dominant' delay. The relevant case law has been helpfully reviewed by Lord Drummond Young in the recent Scottish case of City Inn Limited v. Shepherd Construction Limited [2007] Scottish Court of Sessions CSOH 190 (30 November 2007) at paragraphs 10-21, in which he reached the following principal conclusions, with which I respectfully agree –

(1) the Architect ought not to assess delay using a 'coldly logical approach', but instead should use a 'practical common sense approach', bearing in mind that the over- riding objective under the EOT clause is to grant a 'fair and reasonable' EOT.

(2) the fact that the contractor is already in delay himself is not, in itself, a sound reason not to grant an EOT; what is fair and reasonable is a question of fact to be determined according to the judgment or discretion of the Architect on the particular facts of each case.

(3) where there is true concurrency in delaying events it may, in some cases, be appropriate to apportion responsibility for the delays between the two parties so as to arrive at a fair and reasonable assessment.'

³⁷ John Doyle Construction Ltd v. Laing Management (Scotland) Ltd [2004] BLR 295 paragraph 16.

³⁸ City Inn, note 4 at paragraph 19.

^{39 [2009]} BLR 339 High Court of Hong Kong.

Similarly, apportionment appears to be favoured by the courts in France.⁴⁰ Put simply, apportionment is premised on the requirements of good faith in the performance of contracts as set out in Article 1104 of the French Civil Code and the principle of full compensation as set out in Articles 1231 and 1232 of the French Civil Code whereby a party is 'compensated for the loss he has suffered – no more and no less – and for the gain of which he has been deprived'.

The Society of Construction Law Delay and Disruption Protocol Second Edition

Where concurrent delay has been established, the contractor should be entitled to an extension of time for the employer delay to completion, dealt with in accordance with Core Principle 5. The contractor delay should not reduce the extension of time entitlement due to the contractor as a result of the employer delay. As discussed above, the Protocol's position on concurrent delay is influenced by the English law prevention principle, by virtue of which an employer cannot take advantage of the nonfulfilment of a condition (for example, to complete the works by a certain date), the performance of which the employer has hindered. The Protocol's approach to the treatment of concurrent delay (once established) prevents arguments about whether an employer delay occurring concurrently with a contractor delay actually hinders the Contractor's progress in any way.

Where an employer delay to completion and a contractor delay to completion are concurrent, the contractor may not recover compensation in respect of the employer risk event unless it can separate the loss or expense that flows from the employer risk event from that which flows from the contractor risk event. If it would have incurred the additional costs in any event as a result of concurrent contractor delay, the contractor will not be entitled to recover those additional costs. In most cases, this will mean that the contractor will be entitled to compensation only for any period by which the employer delay exceeds the duration of the contractor delay.

United Arab Emirates

If the contract is silent or ambiguous on the issue of concurrent delay, the position under UAE law is not clear as the issue of competing causes of delay and concurrency are not expressly addressed in the UAE Civil Code. However, it is generally understood that various principles of UAE law favour an apportionment approach, where liability for the delay is apportioned between the parties in accordance with their respective degrees of fault. This approach is consistent with Articles 246, 290 and 291 of the UAE Civil Code, which emphasise 'good faith' and the principle that persons should take responsibility for any harm they have themselves caused. Article 390 of the UAE Civil Code is also relevant because this allows a tribunal full discretion to ensure that compensation reflects the actual loss and could be argued to allow downwards adjustment of liquidated damages where there is concurrency.

⁴⁰ The prevention principle also features in French law. Article 1147 of the Civil Code provides that, 'a debtor shall be ordered to pay damages, if appropriate, either by reason of the non-performance of the obligation, or by reason of delay in performance, in circumstances where the non-performance does not result from an external cause which is non-attributable to the debtor, so long as there is no lack of good faith on his part,' on the basis that external cause (*cause étrangère*) would include, according to case law, acts by the principal.

Switzerland

Swiss law is far from settled on the topic of concurrent delay. The Swiss general damages regime – which provides for apportionment – also govern claims to damages and entitlement for concurrent delay. Article 44(1) of the Code of Obligations states:

Where the injured party consented to the action which caused the loss or damage, or circumstances attributable to it helped give rise to or compound the loss of damage or otherwise exacerbated the position of the party liable for it, the court may reduce the compensation due or even dispense with it entirely.⁴¹

Generally, where there are two (or more) independent causes of delay that at least partially overlap, and one is a contractor delay and one is an employer delay, the general rule is that the contractor is entitled to an extension of time notwithstanding his or her own delay but not to additional costs due to the employer's delay. This 'time-no-money approach' is the Malmaison Approach.

Conclusions

Absent any express definitions of concurrent delay to completion, tribunals are likely to treat the term 'concurrent delay' to mean the occurrence of delay to completion of the works caused by two or more delay events that are the responsibility of the employer and the contractor respectively. Parties are free to define both concurrent delay and address how concurrent delay ought to be evaluated (including apportionment if that was the agreed preferred option). The prevention principle is not an absolute rule of law and can be circumvented by express wording. Tribunals will not readily ignore the allocation of risk in the construction contract.

Concurrent delay is of fundamental importance in characterising ostensible compensable delay events and thus in the assessment of overall delay to completion of the works. Put another way, if, at the point at which delay events impinge the critical path there is concurrent delay and if the contractor has no entitlement when there is concurrent delay (either under the terms of the contract or the applicable law), then both delay events become contractor risk events such that the concurrent delay affects the subsequent and overall delay analysis. This practical aspect of concurrent delay and prospective delay analysis is overlooked and may explain why it often said that cases of 'true concurrency' are extremely rare.⁴²

Many jurisdictions give entitlement to the contractor when there is concurrent delay to completion. As at July 2019, the position under English law appears to be moving and the favoured approach is now likely to be that concurrent delay to completion means that a contractor is not entitled to an extension of time or to additional money.

⁴¹ Swiss Code of Obligations, Article 44(1).

⁴² The Rt Hon Lord Justice Coulson, 'Prevention or Cure? Delay Claims and the Rise of Concurrency Clauses', Pinsent Masons Lecture given in Hong Kong on 15 November 2018 and presented to the Society of Construction Law at a meeting in London on 5 February 2019, Paper 219 published by the Society of Construction Law at paragraph 28: 'In my experience, true cases of concurrent delay are extremely rare. But, because they are so often asserted, the problems to which concurrency gives rise need to be addressed'.

The Malmaison Approach has been undermined by judicial support (from two judges now in the Court of Appeal) for the proposition that the prevention principle is not applicable where there is concurrent delay and thus provides no basis to relax the 'but for' test of causation. It is feasible that English law now develops apportionment as a basis to provide relief for contractors. There has been little substantive discussion about this specific issue,⁴³ and there would need to be a reconsideration of the 1993 Law Commission Report 'Contributory Negligence as a Defence in Contract', which stated that:⁴⁴

Apportionment of the plaintiff's damages on the ground of contributory negligence should be available in actions in contract where the defendant is in breach of an express or implied contractual duty to take reasonable care but not where he is in breach of a contractual term which imposes a higher level of duty (which we refer to as 'strict').

Given the direction of travel and the fact that the 'time not money' approach may be disappearing, ultimately, parties are able to best protect themselves by drafting contracts to reflect the commercial deal in respect of concurrent delay.⁴⁵ Coulson LJ puts the position clearly and conclusively:⁴⁶

it seems likely that the popularity of concurrency clauses will continue to grow. On their face, they represent an attempt by the parties expressly to apportion responsibility for concurrent delay, and North Midland is authority for the proposition that such clauses do not offend

43 David Barry, 'Concurrent Delay in Construction Law', (2011) Const LJ concluded: While Lord Drummond Young's second stage (the apportionment of liability and damages when a dominant cause is not discernible) is attractive from the perspectives of reasonableness and practicability, it is submitted that this approach is not well founded in law, because it is unsupported by either statute or authority, and it requires an unnatural interpretation of the subject EOT contract clause. However, it is recommended that those responsible in the industry for the drafting of contracts ought to consider giving legal effect to Lord Drummond Young's suggested apportionment approach through the re-drafting of the standard EOT clauses. Alternatively, the legislature might wish to provide the necessary legal foundation for the use of apportionment in construction contracts through statute.

This rule has developed to preserve that the employer's right to levy liquidated damages in cases of concurrent delay. But the prevention principle can be excluded by the parties' agreement. The parties may have intended the period of delay to be apportioned between the employer and the contractor, allowing proportionate recovery of liquidated damages. The apportionment approach has been criticised on the basis that it promotes uncertainty, but the current default rule of time but not money is just as uncertain because, to avoid the injustice of the all-or-nothing rule, it relies on difficult concepts of 'effective' or 'dominant' causation to explain the real cause of the delay.

44 Law Commission, 'Contributory Negligence as a Defence in Contract' (HMSO 1993), Law Com No.219.

45 For example parties could follow the wording used in *North Midland Building Ltd v. Cyden Homes Ltd* discussed above or the wording used in the Australian standard form AS2124–1992, Cl. 35.5, fifth paragraph, which states that: 'Where more than one event causes concurrent delays and the cause of at least one of those events, but not all of them, is not a cause referred to in the preceding paragraph, then to the extent that the delays are concurrent, the Contractor shall not be entitled to an extension of time for Practical Completion.'

46 The Rt Hon Lord Justice Coulson, 'Prevention or Cure? Delay Claims and the Rise of Concurrency Clauses', Pinsent Masons Lecture given in Hong Kong on 15 November 2018 and presented to the Society of Construction Law at a meeting in London on 5 February 2019, Paper 219, published by the Society of Construction Law at paragraph 45.

See also Mischa Balen, 'Concurrent Delay, Over-Determination and the Problem of Default Rules', (2016) 32 *Construction Law Journal*, Issue 3, 2016 who provides support for apportionment stating:

against the prevention principle. There is no reason in principle why a workable concurrency clause could not be agreed which worked the other way to the one in North Midland: in other words, one which provided that, if there was concurrent delay, the contractor would be entitled to an extension of time, and loss and expense.

The triad thesis, antithesis, synthesis amalgamated with the complexity of judicial and arbitral tribunal thinking is an apt way to signpost the direction of travel with concurrent delay to completion.

Appendix 1

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