

Who owns the float and related legal issues

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1 Introduction

This article examines the legal and commercial implications of early and delayed completion of works. In particular, it considers the effect of construction programmes on the legal obligations of both principals and contractors.

Section Two of the article explores early completion. The initial material is theoretical: it analyses the conditions under which early completion might come about, and tracks the consequences for principal and contractor. This sets the backdrop for the later sections, in which the default common law position and that under five major standard form contracts are compared.

It is argued that, under common law, the Contractor will probably be entitled to plan to finish early. Further, some English and Australian authority suggests that the principal will, in some situations, be required to perform the contract so as to allow the Contractor to follow a programme planning early completion.

The article assesses the treatment of early completion under five of the most significant and popular: AS2124–1992, AS4300–1995, AS4000–1997, PC–1 and the 1999 series of FIDIC contracts.

Section Three deals with the situation where the works are delayed. Such delays are divided into those caused by the owner or its agents; by the Contractor; or by events beyond the control of all parties. The article then considers the right of the Contractor to an extension of time when the Contractor was planned to complete early or delay only affects an activity which has float.

2 Early Completion

This section of the article deals with the right of the Contractor to complete earlier than the contractually-specified date for practical completion. Section Three will examine the situation in which the Contractor plans early completion but is delayed by an event that might give rise to a right to an extension. The issue that will be explored is whether the Contractor is entitled to an extension of time if delay occurs but the Contractor can still complete by the contractual due date.

2.1 Commercial Considerations

Time-related costs form a significant proportion of the total cost of any project. Accordingly, if the Contractor can reduce the total time of construction, it may well reduce total costs. If the savings outweigh the costs of accelerated work, then it is clearly advantageous for the Contractor to try to reduce the period of construction, because the Contractor can:

- (a) plan to reduce construction time during tender or actual construction. If it occurs during the course of the tender, savings will be reflected in either:

- (b) offer a lower contract price; or
- (c) earn a higher profit.

In a competitive market, the tenderer will usually lower its price where savings can be achieved. If the Contractor's employees preparing the estimate did not plan to accelerate at the time of tender but the project manager engaged by the Contractor elects to do so in a way that reduces the cost of construction, profit should be maximised as the contract price was premised on a longer contract period and, therefore, higher time-related overheads.

Early completion of the works may or may not suit the owner's commercial objectives. However, if the facility being constructed is to be income-producing, it will usually be in the owner's interests to complete the works early so that income can be generated from the project earlier than originally anticipated. Obviously, it will also be to the owner's advantage if the reduced construction time is reflected in a reduced contract price.

Nonetheless, an accelerated programme may cause the owner some difficulties, including with:

- (i) cashflow;
- (ii) level of supervision; and
- (iii) the delivery of owner-supplied items.

For example, if the Contractor accelerates the work so that it is completed earlier than the contractual date for completion, the cash flow required by the owner to pay the Contractor will usually increase in proportion to the decrease in the time for construction. This is because the progress payment provisions under the major standard form contracts provide that the Contractor is entitled to be paid for the value of the work actually performed by it to that date.

The principal may have arranged finance for the project, with money becoming available at specified dates. If claims for progress payments exceed the amount available from the finance facility, the principal will be embarrassed, and perhaps unable to make payment on receiving a progress certificate.

Accordingly, if the rate of progress is important to the principal, the contract should deal with the possibility of the Contractor accelerating works. This can be done in a number of ways, including by:

- providing that the Contractor may not accelerate the works; or
- allowing the Contractor to accelerate the works, but providing that the maximum payments that it can receive match the arrangements made with the financier. Naturally, this will increase the Contractor's financing costs, which may mean that the anticipated savings through acceleration are lost and that the Contractor is no longer interested in completing early.

The second problem is that the Contractor may accelerate construction by working longer hours or by increasing the resources on site to such an extent that the resources of the architect, engineer or superintendent have to be

increased. In these circumstances, the architect, engineer or superintendent may be entitled to claim additional payment from the principal. Again, if the principal wishes to ensure that this is avoided, it may provide in the contract that:

- (a) the Contractor is not entitled to accelerate; or
- (b) it is entitled to accelerate, but if such acceleration increases the need for resources, the Contractor will pay for those extra resources. Again, such a provision would discourage the Contractor from accelerating where the costs of the measures are greater than the potential saving.

The third issue relevant to the principal where the Contractor unilaterally accelerates the programme is that the Contractor may require the principal to deliver materials earlier than possible. For reasons explained below, in the absence of an express term to the contrary, it is uncertain whether the Contractor will be able to insist that the principal supply such items earlier than anticipated at the time of contract. To avoid dispute, the principal would be well advised to deal expressly with this issue in any contract again by either:

- (a) providing that the Contractor is not entitled to accelerate; or
- (b) allowing it to accelerate as long as it does not result in any obligation to accelerate any activity for which the principal is responsible.

Where the Contractor provides a programme planning completion before the original contractual date of completion, the rights of the parties will be governed by the specific contract as moderated by the common law. If the contract does not specifically and validly cover early completion, the parties must rely on the common law. That situation is the subject of the next section; the position under the standard form contracts is examined later.

2.2 Common Law Right of the Contractor to Complete Early

In the English case of *Glenlion Construction Ltd v The Guinness Trust*,¹ the court assessed a contract that did not explicitly deal with a programme planning early completion. Two of the three major questions raised in *Glenlion* related to the Contractor's right to complete early:

- (a) whether the Contractor was entitled to carry out the works in accordance with the programme and to complete the works on the programme completion date; and
- (b) whether there was an implied term of the contract that the principal should perform the agreement so as to enable the Contractor to comply with the programme and to complete the work on the programme completion date where that was earlier than the completion date initially contemplated.²

¹ (1987) 39 BLR 94 ('*Glenlion*').

² *Ibid* 98–9.

In this case, the response to the first question was 'self evident'. Clause 21 of the 1963 JCT standard form contract to which the parties had agreed provides that the Contractor must complete '*on or before the Date for Completion* stated in the Appendix subject nevertheless to the provisions for extension of time'.³ It was further held that if the Contractor was entitled to complete by the programme date, then it was also entitled to carry out the works in such a manner that that earlier date could be met.

The second issue was whether, when proceeding with the works on the accelerated programme, the Contractor could expect the cooperation of the principal so that the principal had to accelerate the things that it was to do under the contract so as to allow the Contractor to complete within the accelerated time frame.

As a general proposition, the law will, where the purpose of the contract requires the cooperation of the parties, imply an obligation on all parties to do whatever is necessary to enable a contract to be carried out.⁴ However, that obligation is limited; as Devlin J puts it, cooperation may be enforced only 'to the extent that it is necessary to make the contract workable'.⁵ The cooperation required is 'for the benefit of the contract' rather than of one party.⁶

In *Glenlion*, the court refused to imply an obligation on the principal to assist with the accelerated programme. The critical distinction made in that case was that while the Contractor was *entitled* to complete early, it was not *obliged* to do so. (It was not obliged to do so because the programme in question was merely descriptive and did not constitute a contractual obligation.⁷)

The general duty to cooperate can only be implied where there is both an entitlement to complete early *and an obligation to finish by the earlier date*. It is only in that situation that failure to cooperate will affect the workability of the contract rather than merely the benefit to one party.

The entitlement–obligation distinction was approved in *J F Finnegan Ltd v Sheffield City Council*.⁸ There too it was held that the Contractor was entitled to plan to finish early but that it could not rely on the principal's cooperation for early completion. If, however, the programme attained contractual status, 'different considerations would have applied'.⁹ This view was supported in the Australian case of *Alucraft Pty Ltd (in liq) v Grocon Ltd*.¹⁰

In *Alucraft*, the Victorian Supreme Court explicitly considered the entitlement–obligation distinction and commented that it could not see why a programme

³ Ibid 95–6 (emphasis added).

⁴ There is a long line of authority for this proposition, starting with the English decision in *Mackay v Dick* (1881) App Cas 251, 263. See also *Butt v M'Donald* (1896) 7 QJL 68, 70–1; *Secured Income Real Estate (Aust) Ltd v St Martins Investments Pty Ltd* (1979) 144 CLR 597, 607; *Peters (WA) Ltd v Petersville Ltd* (2001) (2001) 205 CLR 126, 142.

⁵ *Mona Oil Equipment Co v Rhodesia Railways* [1949] 2 All ER 1014, 1018.

⁶ N C Seddon and M P Ellinghaus, *Cheshire and Fifoot's Law of Contract* (8th Australian ed, 2002) 417.

⁷ *Glenlion* (1987) 39 BLR 94, 103.

⁸ (1988) 43 BLR 130, 133 ('Finnegan').

⁹ Ibid.

¹⁰ (Unreported, Supreme Court of Victoria, Smith J, 22 April 1994) ('*Alucraft*').

'might not become a contractual document with contractual force.'¹¹ In this case, the contract did not specify starting or finishing dates and simply referred to the programme, which was 'to be advised.'¹² The Contractor approved the programme of a subcontractor which sets out start and finish dates. The Contract required the Subcontractor to comply with the approved programme. Accordingly, upon approval the Subcontractor was at risk of a claim for damages by the Contractor for failure to comply with the programme. There was no express term requiring the Contractor to provide access in accordance with the program.

The Subcontractor argued that a term should be implied that the Contractor 'would afford the [Subcontractor] sufficient access to the site to enable it to complete the works in accordance with the [Subcontractor's] approved program'.

While the Judge agreed with the Contractor that such a term could not be implied as a matter of law, he concluded that such a term could be implied as a matter of fact pursuant to the test laid down in *Codelfa Construction Pty Ltd v State Rail Authority of New South Wales*¹³ and *BP Refinery (Westernport) Pty Ltd v Shire of Hastings*.¹⁴ While the careful reasoning justifies the conclusion that the term can be implied as a matter of fact, it is submitted that such a term could have been justified on the basis that it was simply an example of the duty to co-operate, implied in all contracts in accordance with the principle established in *Mackay v Dick*¹⁵.

The *Alucraft* case is important because, by extension, it establishes that where the Contractor has programmed to complete early and has assumed a contractual obligation to so complete, the Principal has an obligation to co-operate with the accelerated program.

Thus, it appears that the Contractor is generally entitled to finish and to plan to finish early. That is clear under the JCT contract, and appears unlikely to be limited to its wording. However, *Glenlion*, *Finnegan* and *Alucraft* suggest that the term that the principal must perform the agreement so as to allow the Contractor to meet the programme will only be implied where the Contractor is obliged to follow the programme (unless there are relevant contractual provisions).

2.3 Position in Australia

The previous section examined the common law treatment of early completion of works. However, the only Australian case on point is *Alucraft*, a first instance decision of the Victorian Supreme Court. Both contractors and principals can benefit from the greater certainty of the standard form contracts. The five contracts considered here were selected as they are the most significant and commonly used in Australia today.

¹¹ Ibid 27.

¹² Ibid 1.

¹³ (1982) 149 CLR 337.

¹⁴ (1977) 16 ALR 363.

¹⁵ (1881) 6 App Case 251 at 263.

- (a) AS2124–1992;
- (b) AS4300–1995;
- (c) AS4000–1997;
- (d) PC–1; and
- (e) The FIDIC suite.

These contracts are considered in turn.

2.4 AS2124–1992

The relevant provision is clause 33. Subclause 33.1 is entitled 'Rate of Progress' and deals with the relationship between the obligations of the Principal and Contractor.

This clause concerns the possibility that the Contractor may propose an accelerated programme that requires that the Principal or Superintendent perform obligations earlier than would have been anticipated at the time of the contract.

It provides generally that the Contractor must proceed with due expedition and without delay, and that the Contractor shall not suspend the progress of work under the Contract except where the suspension is under the Contract or is directed or approved by the Superintendent. It also provides that the Superintendent may direct in what order and at what time stages of the work under the Contract are to be performed. If the Contractor cannot reasonably comply, the Contractor is to give the Superintendent written notice including reasons.

The Contractor is to give the Superintendent reasonable advance notice of when the Contractor requires any information, documents or instructions from the Superintendent or the owner, but the clause also expressly provides that the Principal and Superintendent are not obliged to furnish information, materials, documents or instructions earlier than anticipated at the time of contract. This is an important development on AS2124–1986, which did not include 'materials'. There are still other areas in which the Principal's or Superintendent's cooperation may be necessary, e.g. in progressive possession of the site. If these are of concern, the contract's special conditions should deal with these issues.

Clause 33.2 relates to the construction program. For the purpose of Clause 33, a 'construction program' is 'a statement in writing showing the dates by which, or the times within which, the various stages or parts of the work under the Contract are to be executed or completed.'¹⁶

A construction program is subject to the rights and obligations in Clause 33.1.

¹⁶ Emphasis added.

The Superintendent may direct the Contractor to provide a construction program within the time and in the form directed, or the Contractor may provide one voluntarily.

By providing a construction program the Contractor is not relieved of any obligations under the Contract. This includes the obligation to not, without reasonable cause, depart from an earlier construction program, whether it was provided to the Superintendent or included in the Contract.

This must be read in light of clause 35.2, regarding the time for practical completion: '[t]he Contractor shall execute the work under the Contract to Practical Completion by the Date for Practical Completion.'

Three points can be made in respect of AS2124–1992:

- (a) Subject to (b) immediately below, it is strongly arguable that if the programme provides for completion on the contractual date, the Contractor may unilaterally accelerate the works so that they are completed before the date stated in the programme. This is not overtly stated, but the interpretation is consistent with the direction that the Contractor work 'with due expedition and without delay' (clause 33.1). Further, the phrase 'by which' date is substantially similar to 'on or before', the phrase in the JCT contract that was held in *Glenlion* to imply an entitlement to finish before the contractual date for completion.¹⁷ More important, clause 35.2 stipulates the primary obligation in respect of time, which is to complete 'by' the date for practical completion.
- (b) Where the programme shows completion on the contractual date, it could be argued that while early completion of an individual activity is acceptable, the commencement of the next activity prior to the date anticipated for commencement may be a departure from the programme and therefore a breach of contract. This argument can be avoided by drawing the programme carefully.
- (c) Where the programme shows a date for early completion:
 - (i) the Contractor is bound to complete the works in accordance with the programme and will therefore be obliged to complete early;
 - (ii) a failure to meet the accelerated programme may result in the Contractor being liable for general damages for delay;
 - (iii) the propositions (i) and (ii) above cause tension when considered with the fourth paragraph of clause 33.1. That clause stipulates that neither the principal nor the superintendent is obliged to provide 'information, materials, documents or instructions' earlier than

¹⁷ *Glenlion* (1987) 39 BLR 94, 103.

should reasonably have been anticipated at the date of acceptance of tender.

Absent the express words in clause 33.1, it would be strongly arguable that if (as seems to be the correct interpretation) the Contractor is obliged to complete by an early completion date, the principal would, by the implied obligation of cooperation, be obliged to accelerate its activities to match the Contractor's. It would be unfair for the Contractor to be obliged to complete by the earlier date (and be exposed to damages) while the principal could delay compliance with the programme. Yet, the term which would normally be implied cannot be implied, as it would be inconsistent with clause 33.1. The possible answers to this difficulty are:

- that on a proper reading of the contract it provides a code setting out all of the principal's entitlements for delay. Hence, the principal's rights are limited to liquidated damages for failure to achieve practical completion by the Date for Practical Completion. This interpretation gives an answer that is commercially reasonable, and therefore, arguably consistent with what should be regarded as the objective intention of the parties.
- that, notwithstanding the express provision of the contract that neither the principal nor the superintendent need accelerate, damages are not available as the accelerated date is prevented by the principal.¹⁸ However, a prudent contractor should be reluctant to communicate, or seek approval of, a programme showing early completion, because of the probability that it may be exposed to increased liability as a consequence. This means that the contract encourages poor communication between the Contractor and principal. A properly advised contractor planning early completion should be reluctant to communicate its plans. This lack of communication is common, and can give rise to significant disputation where there has been a

¹⁸ This proposition is only sustainable by an extension of the Prevention Principle such that damages are not recoverable where an act or omission of the principal has prevented the Contractor from complying with the contract.

delay. In extreme cases, contractors have sought extensions of time and further remuneration as a consequence of their inability to complete early by reference to an uncommunicated programme. The absence of communication increases the principal's cynicism as the Contractor may contend that it is entitled to relief for delay even though it can complete by the date for completion.

2.5 AS4300–1995

As in AS2124–1992, clause 33 of AS4300–1995 deals with construction programmes and delay. The clause is almost identical in the two contracts, with only minor differences in language (eg, 'earlier construction program' (AS2124–1992) and 'earlier Contractor's programme' (AS4300–1995)) in clause 33.2. The same is true of clause 35.2, which still features the term 'by the Date for Practical Completion', and so seems very likely to allow early completion. There is, however, an important substitution in clause 33.1:

'The Superintendent shall furnish to the Contractor the information, materials, documents and instructions stated in Annexure Part A by the times or within the periods stated in Annexure Part A.'

The explicit reference to the Annexure makes it easy for the parties in effect to agree to be bound by the some aspects of the construction programme. Rather than relying on the vagueness of what might reasonably be anticipated at the time of tender, the parties can agree a timetable for important aspects of the principal's activities. From a practical point of view the problem with this approach is that it lacks flexibility to deal with changes that may occur to the program.

However, once again, without modification, as under AS2412–1992, the Contractor has a strong incentive to suppress a programme planning early completion lest it should be obliged to follow it without the cooperation of the principal.

2.6 AS4000–1997

Clause 32 of AS4000 relates to programming.

This clause provides that Contractor shall give the Superintendent reasonable advance notice of when the Contractor needs information, materials, documents or instructions from the Superintendent or the Principal, but also that the Principal and the Superintendent shall not be obliged to provide any of these earlier than should reasonably have been anticipated at the time of the contract.

It provides that the Superintendent may direct in what order and at what time the stages of the work under the Contract are to be carried out. If the Contractor cannot reasonably comply, the Contractor is to give the Superintendent written notice including reasons.

'Construction program' is defined in the same terms as under 2124-1992 and is deemed a Contract document. The clause provides that the Superintendent may direct the Contractor to provide a construction program within the time and in the form directed. The Contractor is not to depart from a construction program without reasonable cause.

There are some differences between the programming provision in AS4000–1997, and AS2124–1992 and AS4300–1995. The difference is signalled by the change in the name of the clause; the equivalent AS4000 clause (clause 32) is simply 'Programming' rather than 'Progress and Programming of the Works'. Further, there is no reference to 'Rate of Progress', and the first two paragraphs of clause 33.1 in AS2124–1992, which require the Contractor to proceed with the work 'with due expedition and without delay' and prohibit the Contractor from suspending the work, have been removed.

The entitlement to finish early is even more clearly spelt out. Clause 34.1 directs that the Contractor must reach 'practical completion by the date for practical completion'. Further, clause 34.8 allows for a bonus for early completion, so there can be little doubt that the Contractor may finish early.

Clause 32 provides that:

'The Contractor shall not, without reasonable cause, depart from a construction programme.'

Failure to comply with this is a substantial breach of contract under clause 39.2(c), which gives the principal the right to issue a notice to show cause, and if no reasonable cause is shown, to remove part of the work from the Contractor or to terminate the contract.

Further, clause 32 provides that the programme is a contract document. (Nevertheless, the definition of a construction programme remains the same as in the earlier AS contracts.) Accordingly, in so far as the programme identifies things that the principal is required to do, a failure to do these things on time is arguably a breach by the principal. By itself, such a failure would seem to be a breach of the duty to cooperate as the situation would satisfy the *Glenlion* requirement that the Contractor be obliged to complete earlier than the contractual date. The principal avoids this through the second paragraph of clause 32, which holds that the principal will not be required to provide things before the time that they would reasonably have been anticipated at the date of acceptance of tender.

Therefore, it may be concluded that:

- (a) it is again strongly arguable that if the programme provides for completion on the due date for completion, the Contractor can unilaterally accelerate the work so that completion is achieved before the date stated in the programme;
- (b) where the programme shows completion on the due date for completion, while early completion of an individual activity is acceptable, the commencement of the next activity prior to the

date anticipated for commencement will be a departure from the programme and therefore a substantial breach of contract; and

- (c) where the programme shows a date for early completion:
 - (i) the Contractor is bound to complete the works in accordance with the programme and must therefore complete early; and
 - (ii) a failure to meet the accelerated programme will be a substantial breach of contract under clause 39.

This situation is worse for the Contractor than under the other AS contracts. It would be harder to argue that the Contractor was not bound by the programme, and failure to comply might amount to breach. Yet the principal need only supply such information, materials, documents and instructions as should reasonably have been anticipated at the time of tender: probably well before the programme is submitted. This increases the prospects that a properly advised contractor will not communicate its intention to complete early.

2.7 PC-1

Clause 10 of PC-1 deals with time generally. Unlike the AS series of contracts, the Contractor must provide a programme.

Clause 10.2 provides that the Contractor must within 14 days of the Award Date prepare a program of the Contractor's Activities containing the details required by the Contract or which the Contract Administrator otherwise reasonably directs. The Contractor must update the program by the time intervals specified in the Contract Particulars to reflect any changes in the program or delays and must give the updated program to the Contract Administrator for approval.

Notwithstanding clause 10.2, the programme is somewhat attenuated by clause 10.3 which provides that any review of, comments upon or approval of, or any failure to review or comment upon, a program by the Contract Administrator will not relieve the Contractor from any liabilities or obligations under the Contract, especially (without limitation) the obligation to achieve Completion by each Date for Completion, or alter the time for performance of the Contractor's Activities or the Owner's or Contract Administrator's Contract obligations. It will specifically not constitute the granting of an extension of time or an instruction to accelerate, disrupt, prolong or vary any of the Contractor's Activities.

Clause 10.4 addresses the possibility raised in *Glenlion* that the programme could be binding¹⁹ and so reinforces the entitlement-obligation distinction.

If the Contractor chooses to accelerate progress, clause 10.4 provides that despite clause 3.3, neither the Owner nor the Contract Administrator will be obliged to assist or enable the Contractor to achieve Completion before any

¹⁹ (1987) 39 BLR 94, 103.

Date for Completion and the time for performance of the Owner's or the Contract Administrator's obligations will not be affected.

Thus, the following comments can be made about the programming provision set out in PC-1:

- (a) unlike AS4000–1997, PC-1 does not make the programme a part of the contract, nor does it provide that failure to adhere to the programme is a breach of contract;
- (b) the Contractor can accelerate the works without direction, however this in no way affects the principal's obligations under the contract. Unless the principal demands the acceleration, the Contractor will not be entitled to any extra payment; and
- (c) the focus of PC–1 is on achieving practical completion by the contractual date for completion. The Contractor does not suffer the threat of breach through non-compliance as it is not obliged to stick to a programme that plans early completion. Rather, the programme, which the Contractor must provide under clause 10.2, is designed to allow all parties to monitor performance and so ensure that works are finished by the date for completion.

2.8 FIDIC Contracts

In 1999, The Fédération Internationale des Ingénieurs-Conseils (FIDIC) published four standard form contracts intended to replace its earlier suite. The new contracts are the Conditions of Contract for Construction, the Conditions of Contract for EPC/Turnkey Projects, the Conditions of Contract for Plant and Design-Build, and the Short Form of Contract. Each is examined here.

The programming clauses under the Construction, EPC/Turnkey Projects, and Plant and Design-Build contracts are very similar. (One recurrent difference is the inconsequential change between 'Employer' and 'Engineer'. The differences have not been marked; the term 'Engineer' has been used.) The clause introduces the Programme and stresses its importance:

'The Contractor shall submit a detailed time programme to the Engineer within 28 days after receiving the notice under Sub-Clause 8.1 [Commencement of Works]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations.'

After considering what the programme should include, the clause continues:

'Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Employer's Personnel shall be entitled to rely upon the programme when planning their activities.'

It is clear that the Contractor will be entitled to plan to finish before the contractual date of completion. If the programme shows a date for completion that is earlier than the contractual date, the engineer can object that the programme does not comply with the contract (by not planning to complete by the contractual date for completion). If the engineer does not object, the Contractor will proceed as the programme dictates. This is consistent with clause 8.1, which directs that the Contractor should 'proceed with the Works with due expedition and without delay.'

The Contractor may further be obliged rather than merely entitled to complete by the programme date; there is some evidence that the programme is to be considered binding. Clause 8.3 states that the 'Employer's Personnel shall be entitled to rely upon the programme when planning their activities.' It would be unusual for this right not to be matched by an obligation on the Contractor's part. More significantly, clause 8.6 deals with the situation in which progress is, or will be, behind the programme and no extension of time is applicable:

'... the Engineer may instruct the Contractor to submit, under Sub-Clause 8.3 [Programme], a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.

Unless the Engineer notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [Employer's Claims] pay these costs to the Employer, in addition to delay damages (if any) under Sub-Clause 8.7 below.'

Despite the reference to the Time for Completion, the two immediately above paragraphs apply where:

- (a) actual progress is too slow to complete within the Time for Completion, and/or
- (b) progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 [*Programme*].

Therefore, the Contractor may well be obliged to complete by the programme date. It is less clear whether the principal must perform its obligations in line with the programme. As extracted above, the employer's personnel are 'entitled to rely upon the programme when planning their activities.' Nothing in the contract stipulates that that entitlement is binding. At best, one could argue that the phrase shows that the programme is intended to affect the behaviour of both parties. This should be read in light of clause 8.4, which says that the Contractor will be entitled to an extension of time for completion where the delay is caused by 'any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the site.' There is no guidance as to whether the extension of time is to the contractual date for completion or the programmed one.

In common law countries, however, *Glenlion* would suggest that because the Contractor is probably obliged to complete by the programme date, the principal should perform the agreement so as to allow the earlier completion. If this is so, the Construction, EPC/Turnkey, and Plant and Design-Build FIDIC contracts avoid the difficulties seen under the AS contracts because even though the Contractor is likely obliged to follow the programme, the principal probably cannot delay compliance.

The FIDIC Short Form of Contract deals with these matters simply. Under clause 7.2, the Contractor is to give the employer a programme compliant with the requirements in the Appendix. Absent any note in the Appendix to the contrary, it seems that the Contractor may finish early. This is strongly suggested by the language of clause 7.1: the Contractor 'shall proceed expeditiously and without delay and shall complete the Works within the Time for Completion' but is never made explicit.

This echoes the PC-1 focus on completion by the contractual date. There is no other reference to the programme, and it would appear to exist only so that the principal can monitor the progress of the Contractor. Thus, the Contractor will not be bound to follow the programme, and under the *Glenlion* entitlement–obligation distinction, neither will the principal have to comply with it.

3 Delayed Progress

In most construction contracts, the risk of delay is shared between the owner and the Contractor. The allocation of risk is determined by the type of delay actually suffered. Hence, delays have been divided into three types:

- (a) owner or superintendent-caused delays;
- (b) delays caused by events beyond the control of all parties (i.e., neutral delays); and
- (c) delays that result from the acts or omissions of the Contractor.

The contract may explicitly deal with these delays, in which case the allocation will be governed by the contract. The situation under the standard form contracts is explored below. Where the contract does not deal with delay, the parties will be left with the default common law allocation of risk.

The convention is that the risk associated with delays is shared as follows:

- (a) Where the delay is caused by the owner or its servants and agents, then the Contractor is entitled to:
 - (i) an extension of time, which relieves the Contractor from the imposition of liquidated damages; and
 - (ii) reimbursement for extra costs incurred as a result of the delay.

Therefore, the owner is allocated the risk of the delay.

- (b) With respect to neutral delays:
 - (i) the Contractor is entitled to an extension of time, and is thereby relieved from liquidated or general damages. On this basis, the owner bears the costs it incurs as a result of the delays; but
 - (ii) the Contractor is not entitled to any extra remuneration for neutral delays, and similarly bears its own costs.

Thus, the risk of delay is shared.

- (c) Where the delay is caused by the Contractor:
 - (i) the Contractor is not entitled to an extension of time and will be liable for liquidated damages unless it overcomes the delay by acceleration; and
 - (ii) it is not entitled to extra remuneration as a result of the delay, and is therefore obliged to pay its own prolongation costs.

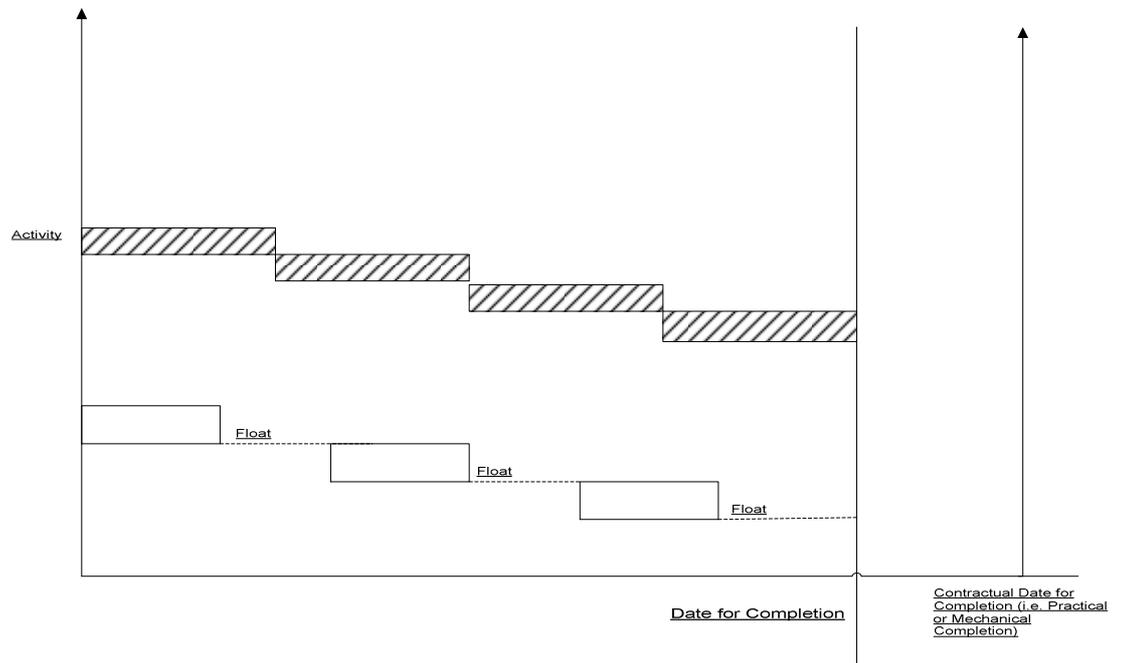
The entire risk of such delays rests with the Contractor provided that liquidated damages are sufficient to meet the principal's delay costs.

As will be seen below, the standard form contracts in use in this country allow changes to the default risk allocation through appropriate entries in the appendix. The following issues will be considered in the light of each of the standard form contracts:

- (a) the method of applying for an extension of time;
- (b) the right to extensions of time where the Contractor's programme anticipates early completion or shows float ('EOT and float'); and
- (c) the right to payment for delay.

Before considering these contracts, however, it is useful to discuss the concept of 'float'. Float is the period by which a non-critical activity can be delayed before that activity becomes critical.

Diagram 1 - Float



The existence of a float does not necessarily mean that practical completion will be achieved earlier than the contractual date for practical completion, because not all activities in a construction programme affect the agreed date for practical completion. The activities that do affect this date are called critical path activities. The late completion of non-critical path activities, in contrast, will not affect the date for practical completion if the extent of the delay is less than the available float.

The question then arises: 'Who owns or gets the benefit of the float?' Specifically, does delay to a non-critical activity entitle the Contractor to an extension of time when the critical work has not been delayed?

The answer depends on the construction of the particular contract.

3.2 Right to an Extension of Time Where the Contractor's Programme Anticipates Early Completion or Shows Float

A distinction may be drawn between:

- (a) a programme that shows early completion; and
- (b) a programme that shows float.

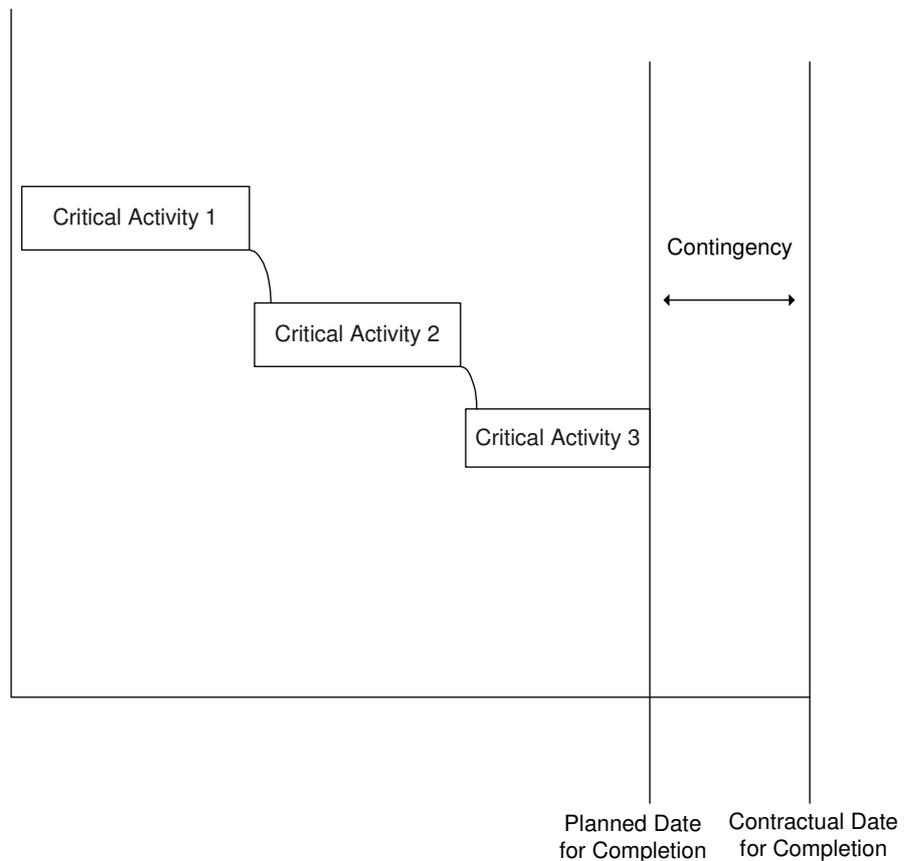
For the purposes of this article, float has been defined as the period by which a non-critical activity can be delayed before the delay to that activity adversely affects the planned date for completion (i.e. **not the contractual date for completion**).

The critical path to a program finishes at the date of planned completion not the contractual date. The gap between the planned date for completion and the

contractual date for completion has no programming significance. However, this gap is sometimes referred to in the industry as 'float'. This is confusing. For the purposes of this article it is important to distinguish between this gap and float. The expression 'float' when referred to in this article refers only to the amount of time available in non-critical activities which can be consumed without causing a delay to the planned date for completion (i.e. not the contractual date for completion).

It is important to understand what follows, that the question of criticality (and hence float as defined) is determined by reference to the planned date for completion rather than the contractual date. The slack or available time between the date of planned completion and the date for contractual completion is referred to in this article as '**contingency**'. That contingency is identified in Diagram 2. The reason for making the distinction between 'float' and 'contingency' as defined above, is that under the standard conditions of contract discussed in this article, the effect of these two types of slack periods is quite different.

Diagram 2 - Contingency



The effect of float and contingency on the Contractor's rights to extensions of time under the common standard forms are discussed below.

3.3 AS2124–1992 and AS4300–1995

These contracts are substantially similar in their treatment of the timing of works. The discussion relates primarily to AS2124–1992, however where AS4300–1995 significantly differs in its approach, this is noted.

Method of applying for an extension of time

Clause 35.5 provides:

'When it becomes evident to the Contractor that anything, including an act or omission of the Principal, the Superintendent or the Principal's employees, consultants, other contractors or agents, may delay the work under the Contract, the Contractor shall promptly notify the Superintendent in writing with details of the possible delay and the cause.

When it becomes evident to the Principal that anything which the Principal is obliged to do or provide under the Contract may be delayed, the Principal shall²⁰ give notice to the Superintendent who shall notify the Contractor in writing of the extent of the likely delay.'

The Contractor must make its claim for an extension of time under clause 35.5 within 28 days 'after the delay occurs'

Clause 35.5 lists eleven sub-clauses detailing events that will lead to an extension of time whether they occur before, on or after the Date for Practical Completion.²¹

Clause 35.5 states:

'If the Contractor is or will be delayed in reaching practical completion by a cause described in the next paragraph ... the Contractor shall be entitled to an extension of time for practical completion'.

Note that there must be a delay to practical completion but there is no reference to a delay in achieving practical completion by the Date for Practical Completion. This leads to the conclusion that there must be a delay to a critical activity. However, if a contractor has planned to complete early, it can suffer a delay in achieving practical completion and still complete on or before the due date for completion. Accordingly, where there is an accelerated programme and there is a delay to the critical path of that accelerated programme, the Contractor will, for the purposes of the clause, be delayed in reaching practical completion and will be entitled to an extension of time notwithstanding that completion could be achieved before the due date.

²⁰ AS4300–1995 requires that the principal and supervisor notify 'promptly'.

²¹ AS4300–1995 features a new paragraph here:

Notwithstanding the preceding paragraph the Contractor shall be entitled to an extension of time if the concurrent delay occurs after the Date for Practical Completion and the cause of the delay is one or more of the events listed in Clauses 35.5(b)(i), (iv), (viii) and (ix).

This is reinforced in the sixth last paragraph of Clause 35.5 which provides that in determining whether the Contractor is or will be delayed in reaching practical completion no regard will be given to whether the Contractor can reach Practical Completion by the Date for Practical Completion without an extension of time.

Therefore, unlike the other contracts discussed herein, the Contractor is expressly entitled to an extension of time even if it is working to an accelerated programme and can complete by the date for practical completion. That is to say, under the AS2124–1992 and AS4300–1995 contracts, the Contractor ‘owns’ the contingency.

Given that the clause is limited only to those activities that delay achieving practical completion (i.e., those delays on the critical path), the Contractor does not appear to be entitled to an extension of time merely because of a delay to a non-critical path activity. Where the delay is to a non-critical path activity, the Contractor does not own the float. Rather the float is available to be consumed by the first delay which occurs.

This raises an important issue. What if the float is completely used up by a breach by the principal? In that situation, there could well be a subsequent delay, attributable to the Contractor, where that delay is to a now critical event that would have been non-critical without the principal's breach. The principal has made the event critical, but at the time of the principal's delay it was not on the original critical path, did not cause a delay and therefore did not entitle the Contractor to an extension of time. This gives rise to complex issues associated with concurrent causes of delay. (Note that this concept is very different from concurrent delays, which are sometimes dealt with in standard form contracts.) These issues fall outside the scope of this article.

Right to payment for delay

The Contractor may be able to recover extra remuneration for delay on three bases:

- pursuant to clause 36;
- under clause 40.2, where the delay is caused by a matter which must be priced pursuant to that provision (eg, a variation or a latent condition); or
- as a result of a breach of contract.

(a) Clause 36

This provision provides for the payment of Delay or Disruption Costs by the Principal to the Contractor where the Contractor has been granted an extension of time under Clause 35.5 for any delay caused by:

- (i) any of the events referred to in Clause 35.5(b)(i); or

- (ii) any other event for which payment of extra costs for delay or disruption is provided for in the Annexure or elsewhere in the Contract

As discussed above, a Contractor that has programmed to complete early but has been delayed for one of the reasons identified in clause 35.5, is entitled to an extension of time. This is so even if the Contractor can complete by the contractual date for completion. It therefore follows, that if the Contractor is delayed as a consequence of an event stipulated by clause 35.5(b)(i), as the Contractor is entitled to an extension of time, it will be entitled to further remuneration pursuant to clause 36.

(b) Clause 40.2

This clause is used principally for quantifying the value of variations. It also concerns the valuation of adjustments to the contract sum under other clauses such as clause 12 (latent conditions).

Subparagraph (f) of that clause states:

‘If the valuation relates to additional costs incurred by the Contractor for delay or disruption the valuation shall include a reasonable amount for overheads but shall not include profit or loss of profit.’

While the Contractor may not recover profit under subparagraph (f), it should receive some profit through the valuation of the additional works the subject of variation. The actual profit recoverable in respect of the variation will be valued either pursuant to:

- (i) rates specified in the contract; or
- (ii) if the rates are not applicable, either:
 - the specified rates subject to an adjustment (to the extent that it is reasonable to use the specified rates); or
 - reasonable rates or prices (which will include an amount for profit).

(c) Claim for damages for delay

Clause 36(b) expressly reserves the right of the Contractor to claim damages at common law for breach of contract. There are many provisions in the contract that require the principal to perform some task within certain time frames. Where a breach can be established, damages will be available:

- (i) if the delay is to a non-critical activity, for the extra cost so incurred;
- (ii) for more extensive delay cost if the activity is critical, even if the Contractor can complete early.

Accordingly, the Contractor is entitled not only to an extension of time (which in the case of an accelerated program would re-create the contingency), **but also to further remuneration to return it to the same financial position as if the delay had not occurred.**

Other features of AS2124–1992 and AS4300–1995

Clause 35.5:

- (a) if there are concurrent delays, one of which would not give rise to a right to extension of time, then, to the extent of such concurrence, the Contractor will not be entitled to an extension of time.
- (b) In determining the length of an extension of time, the superintendent must have regard to whether the Contractor has taken all reasonable steps to preclude the occurrence of the cause and minimise the consequences of the delay.

3.4 AS4000–1997

Mechanism for applying for an extension of time

The extension of time provisions in AS4000 are substantially simplified. Clause 34 provides for Time and Progress.

Under clause 34 the Contractor will be entitled to such extension of time for carrying out works under the Contract (including reaching practical completion) as the Superintendent assesses if the Contractor is or will be delayed in reaching practical completion by a qualifying cause of delay and the Contractor gives the Superintendent, a written claim for an extension of time evidencing the facts of causation and of the delay within 28 days of when the Contractor should reasonably have become aware of that causation occurring.

In assessing each extension of time the Superintendent cannot have regard to whether the works under the Contract can reach practical completion without an extension of time or whether the Contractor can accelerate.

Accordingly, once again this form of contract makes it clear that the Contractor owns the contingency. As for float, the requirement that the Contractor must suffer a delay to completion means that the delay must be on the critical path. The result is that the float is available to be consumed by the first delaying event. As with the previous contracts there is no mechanism for reinstating that float.

The process required by the clause for the giving of an extension of time can be summarised as follows:

- (a) The Contractor must notify the superintendent in writing of the fact and extent of a delay within 28 days of the time that it should reasonably have become aware of a qualifying cause of delay that will affect practical completion (clause 34.3(b));
- (b) For each further delay, a new notice is required; and

- (c) The superintendent then has 28 days from receipt of the notice to assess the claim. If no written direction assessing the claim is received, there is a deemed assessment and direction for the EOT as claimed.

A qualifying cause of delay is defined as:

- '(a) any act, default or omission of the Superintendent, the Principal or its consultants, agents or other Contractors (not being employed by the Contractor);
- (b) other than:
 - (i) a breach or omission by the Contractor;
 - (ii) industrial conditions or inclement weather occurring after the date for practical completion; and
 - (iii) stated in Item 23.'

Item 23 provides that the parties may agree on causes of delay for which EOTs will not be granted. When both qualifying and non-qualifying delays overlap, the amount of the delay is apportioned according to the contribution of each cause. In passing, it should be noted that the definition of qualifying causes of delay is imprecise, and if this form of contract is used, it should be amended by listing some qualifying causes of delay in Item 23.

Extensions of time, float and contingency

It appears that, as with clause 35.5 of AS2124/4300, clause 34 of AS4000–1997 applies where the Contractor will be delayed in reaching practical completion. The Contractor will not be entitled to an extension of time merely because of a delay to a non-critical activity. However, in so far as the delay is critical and some of the contingency is consumed, the Contractor is entitled to an extension of time even if the Contractor can complete by the contractual date, thereby reinstating the contingency.

Right to payment for delay

Where the principal's act or omission delays the Contractor, the principal is liable for delay damages rather than extra costs for delays (clause 34.9). Accordingly, where there has been a compensable delay, the Contractor will be entitled to remuneration notwithstanding that it can complete by the contractual date for completion.

Differences between AS2124/4300 and AS4000

There are a number of significant differences between AS2124/4300 and AS4000–1997.

- (a) The 'shopping list' of causes of delay was replaced by a definition of 'qualifying delay'. Unfortunately, the definition is far from clear. The Contractor is also required to give notice of each additional delay.

- (b) In AS2124/4300, a failure by the superintendent to respond to a claim for an EOT within 28 days is a breach of contract (see clause 23). In contrast, under clause 34.5 of AS4000–1997, the Contractor is simply entitled to the EOT claimed if the superintendent does not respond.
- (c) Under AS4000, the superintendent must take the effects of concurrent delay into account and apportion responsibility for concurrent delays (clause 34.4). However, under AS2124–1992 and AS4300–1997, if there were concurrent delays and one of those delays did not entitle the Contractor to an extension of time, then no extension of time would be given (clause 35.5).

3.5 PC-1

Method of applying for an extension of time

The Contractor is entitled to claim an extension of time under clause 10.5 of PC–1 if, prior to the Date for Completion of the Works or a Stage, the Contractor is, or is likely to be, delayed by an Act of Prevention or a cause described in the Contract Particulars and which will prevent it from achieving Completion of the Works or the Stage by the relevant Date for Completion.

After the Date for Completion of the Works or a Stage, the Contractor is entitled to claim an extension of time if an Act of Prevention will, or is likely to, delay it in achieving Completion of the Works or the Stage.

The mechanism for making a claim is set out in clause 10.6.

The method of applying and obtaining an extension of time under the PC–1 contract is as follows:

- (a) the Contractor must apply for an extension of time within 14 days of the commencement of the occurrence causing the delay and include with this:
 - (i) detailed particulars of the delay (clause 10.6(a)(i));
 - (ii) details of the number of days extension of time sought (clause 10.6(a)(ii)); and
 - (iii) evidence that it will be delayed in achieving practical completion (clause 10.6(a)(ii));
- (b) where the delay extends beyond the initial 14 day period the Contractor must issue further such notices every 14 days after the first written claim until 7 days after the end of the effects of the delay (clause 10.6(b));
- (c) the Contract Administrator will then determine a reasonable extension of time (clause 10.8).

Extensions of time, float and contingency

PC–1 makes it clear that :

- (a) Before the Contractor is entitled to an extension of time it must show that there has been a delay to the critical path to completion. Accordingly, insofar as there is float that is consumed by the delay, the Contractor will not be entitled to a delay; and
- (b) Even where there is a delay to the critical path, the Contractor will not be entitled to an extension of time to the extent that it can still complete by the due date for completion. Hence, unlike the other contracts considered in this article, the principal and not the Contractor owns the contingency.

Clauses 10.5 and 10.7 make it clear that the Contractor must have been delayed in achieving practical completion by the Date for Practical Completion. Therefore, the principal 'owns' the Contingency.

Rights to payment for delay

PC-1 sets out an optional clause for payment of delay costs to the Contractor. If the parties exclude the clause from the contract, then the Contractor must rely on common law rights for breach of contract in order to obtain payment for its delay costs.

3.6 FIDIC Contracts

Method of applying for an extension of time

Clause 8.4 of the Construction and Plant and Design-Build contracts concerns extensions of time. The EPC/Turnkey Projects contract is identical except that it omits sub-paragraphs (c) and (d).

The requirements for making an extension of time claim can be summarised as follows:

- (a) As soon as practicable, and not more than 28 days after the Contractor became, or should have become, aware of the cause, the Contractor must give notice describing the event or circumstance that led to the delay. Where the notice is not given in that time, the claim fails.
- (b) The Contractor must keep contemporary records of the delay, and must make them available to the employer.
- (c) Not more than 42 days after the Contractor became, or should have become, aware of the cause, it must submit a detailed claim including full supporting particulars. That claim will be an interim one, and the Contractor must send monthly further interim claims until sending a final one 28 or fewer days after the end of the effect of the cause.
- (d) Within 42 days of receiving a claim, the employer must approve it, or disapprove it and provide detailed comments.

Extensions of time, float and contingency

The Contractor will be entitled to an extension of time when it submits a valid claim based on a delay caused by one of the permitted events or circumstances. Under clause 8.4, however, the delay must affect completion and the employer's taking over of the works. If the delay does not affect completion, the Contractor will not be successful in its claim, and so will lose the benefit of the float. Float will only exist with respect to tasks that are not on the critical path, and delays to such events will lead to extensions only where the delay causes the tasks to become critical.

Where the Contractor has planned to complete by a date earlier than the date for handover but is delayed (i.e. has suffered a delay on the critical path), the contingency will be eaten away. However, in that situation, the Contractor will be entitled to an extension of time if the cause of delay is one that permits an extension of time. Thus, the Contractor should not lose the benefit of the contingency.

Rights to payment for delay

Compensation for delay is dealt with by clause 8.7 in the Construction, EPC/Turnkey, and Plant and Design-Build contracts. Liquidated damages are payable for each day after the date for completion; the daily amount is set out in the Appendix to Tender. The Appendix may also set a maximum amount of aggregate delay damages.

The liquidated damages clause should give both parties certainty about compensation, and accordingly, the liquidated damages are the only damages payable (except where the employer terminates the contract for a reason given in clause 15.2).

Short Form of Contract

Clause 7.3 of the Short Form of Contract details the contract's treatment of delay.

'Subject to Sub-Clause 10.3 [regarding variations], the Contractor shall be entitled to an extension to the Time for Completion if he is or will be delayed by any of the Employer's Liabilities.

On receipt of an application from the Contractor, the Employer shall consider all supporting details provided by the Contractor and shall extend the Time for Completion as appropriate.'

The Employer's Liabilities are listed in clause 6.1; there are 16 events or circumstances including war, radiation, force majeure and failure by the employer. Where a listed cause delays the Contractor, the Contractor needs to apply to the employer, probably with supporting evidence, for an extension of time.

The focus of the delay is on the Contractor rather than completion, and where the delay affects the critical path and so eats into the contingency, the Contractor should be granted an extension. Nonetheless, the Contractor will

lose the benefit of the float unless the delay causes an event to become critical. In addition to extensions of time, the Contractor may be eligible for common law damages where the delay is caused by the employer's breach.

4 Conclusion

Too often, parties enter into agreements without considering the implications of their peculiar circumstances. When a principal, like a government department, has fixed cash flow, will it be able to avoid unscheduled payments where progress is more rapid than expected? What are the Contractor's rights where delays caused by the principal consume the float? Can the principal delay compliance with the construction programme and what will the commercial effect of that be? The answers to these questions, and many others, should drive the selection of the appropriate clauses.

The article has examined the legal and commercial implications of early completion and delayed progress, and has focused on the role of the construction programme. It has compared the positions at common law and under AS 2124–1992, AS4300–1995, AS4000–1997, PC–1 and the 1999 series of FIDIC contracts, and it is hoped that the detail of this analysis will be useful in itself. Nonetheless, the ultimate aim is to highlight the significance of subtle differences in commercial circumstances and contractual language, and so to challenge contracting parties to contract wisely.