CHAPTER 2

CONTRACT LAW

"Subject to public policy and statute law, parties to a contract can agree to do anything."[5]

"Parties to a contract between themselves are entitled to allocate risks, obligations and rights as they choose."[6]

2.1. Freedom of contract

A **contract** is a binding agreement voluntarily entered into between two or more parties that is enforceable in a court of law according to its terms. In modern societies where there is a division of labour and an emphasis on individual autonomy, it is the law of contract which enables the exchange of goods and services to take place in an orderly and predictable way. The fact that the law will enforce contracts provides predictability which is of great importance to trade and industry, as it enables businesses to plan for the future and to allocate risks. It is no exaggeration to say that the law of contract forms the basis of a stable and peaceful society.

The doctrine of freedom of contract could be defined as the ability of legal persons (e.g. natural persons over 18 years of age and properly constituted companies) to enter into a binding agreement to do anything: "Any persons capable of making a contract are free to enter into any contract they may choose: and providing the contract is not illegal or voidable, it is binding upon them."[7] This freedom to contract about anything has a long history in the English common law.[8] However, unless the contracting parties agree at all times on what the contract means, and the consequences of breach or non-fulfilment of the terms of the contract, such a "binding" agreement would be illusory unless there is a mechanism for resolving disputes which will be accepted by all parties. Irrespective of the dispute resolution mechanism agreed by the contracting parties, under the rule of law, the courts have ultimate authority in respect of interpretation and enforcement of the contract terms or deciding on the consequences of breach of the contract.

Modern courts uphold freedom of contract, subject only to the limitations that a contract which is contrary to public policy or statute law will not be recognised by a court as legally binding, and accordingly will not be enforced. Public policy is largely concerned with the potential for manifest unfairness or injustice within a given situation. "Thus, the courts may disregard or refuse effect to contractual obligations which, whilst not directly contrary to any express or implied statutory prohibition, nevertheless contravene "the policy of the law" as discerned from a consideration of the scope and purpose of the particular statute."[9] For example, it is against public policy to "oust the jurisdiction

of the court", and a contract term having that effect will not be upheld by a court.[10] However, consistent with the doctrine of freedom of contract, where the parties have agreed on a private dispute resolution mechanism such as arbitration, the courts usually defer the resolution of disputes to the parties' chosen mechanism. The apparent tension between the public policy principle of the courts' ultimate authority to decide legal rights, and the parties' freedom of contract right to adopt alternative dispute resolution mechanisms is discussed further in Chapter 25. Statutory and judicial constraints on freedom of contract are considered in ¶2.4.

One important consequence of freedom of contract is that, in the absence of statutory intervention via unfair contracts legislation,[11] the parties will be held to the specific bargain they have made, irrespective of whether it is fair, reasonable or is consistent with common practice or "normal" contracts of that type. The starting point for any question in relation to a contract is therefore: "What does the contract require?" If the relevant provisions of the contract are clear and unambiguous, then those provisions will prevail over any common practice or what might be fair and reasonable or what has happened in the past in respect of other contracts in similar circumstances. No matter how sympathetic a judge might be to the plight of a contractor who entered into a loss-making contract, the terms of the contract alone will determine the outcome in any legal proceedings. This principle was well illustrated in *Bottoms v York Corporation*,[12] where an inexperienced Contractor entered into a contract to construct a sewer, without being provided with any geotechnical information or making any investigations. In the event, the material encountered in the excavations required an extremely expensive form of construction which the Contractor had not allowed for. The Employer refused to change the contract conditions as it was entitled to do, and the Contractor repudiated the contract. In comments which would be equally relevant in similar circumstances today, the judge stated:

> "I do not see any way of relieving the plaintiff from this contract into which he entered, and my judgment, therefore, must be in favour of the Corporation. At the same time, I think he has been hardly used, and I express my regret that the Corporation did not do what they were entitled to do, that is, refuse the lowest tender. I do not think that he and they were on level or on equal terms in coming to this bargain, and I think greater precaution should have been taken to inform him of the inevitable liability, of the inevitable loss, ruin, which was before him if he entered into the contract upon these terms."

The supremacy of the specific contract terms over any common law provisions that might otherwise apply has been summed up as follows:

> "A basic principle of the common law of contract, to which there are no exceptions that are relevant in the instant case, is that parties to a contract are free to determine for themselves what primary obligations they will accept. They may state these in express words in the contract itself and, where they do, the statement is determinative; but in practice a commercial contract never states all the primary obligations of the parties in full; many are left to be incorporated by implication of law from the legal nature of the contract into which the parties are entering. But if the parties wish to reject or modify primary obligations which would otherwise be so incorporated, they are fully at liberty to do so by express words."[13]

2.2. Common law

In adjudicating a dispute between two contracting parties in court, the judge will decide the outcome based on the body of applicable law relevant to the particular circumstances of the dispute. The applicable law may include law enacted by the Government in legislation or regulations (**statute law**), that which is found in the judgments of previous court cases (**the common law**), as well as that separate body of law known as **equity** which was developed in the UK Court of Chancery to supplement, correct and mitigate the strict rules of common law. Judgments of superior courts in the common law jurisdictions[14] are published in a wide range of Law Reports, and these form the primary source and authority for the common law. Judges are also required to determine the meaning of statutory provisions where this is in issue in a dispute, and statutes must therefore be interpreted and applied in accordance with any such judge made "clarification". The significance and importance of reported judgments of relevant cases in determining the applicable law therefore cannot be overemphasised.

Determining the applicable common law to a particular dispute may not be an easy matter, because of the potentially wide source of judgments, and the differences between different jurisdictions or even between judges within the same jurisdiction. In principle, the judgments in other common law jurisdictions (particularly England, New Zealand and Canada, but also other ex-English colonies such as the USA, South Africa and Singapore) may be consistent with the common law in Australia, and relied upon by Australian judges if the factual circumstances are sufficiently similar. However, any judgment from a different jurisdiction (and that includes a different State of Australia) must be carefully reviewed for any relevant differences in the applicable statutory framework, or whether it has been overruled by a relevant court in the applicable jurisdiction. In simplistic terms, the judgments of an Australian State Court of Appeal constitute binding authority in respect of the common law in that State, subject to any relevant Australian High Court authority. In the absence of binding authority in one Australian State, a judgment from a superior court in another Australian State, England or another common law country may be very persuasive authority as to the applicable common law, however it is not binding. Notwithstanding apparent differences between judgments of different States, Australia (unlike the USA) has a unified common law, and the High Court is its final arbiter. In this book, judgments from a range of common

law countries are quoted as authority for various principles of construction law, where the authors consider they constitute part of the Australian common law.

As an illustration of the different ways in which the common law of negligence has developed in different jurisdictions, Australia and the United Kingdom have different tests in respect of the duty of care that a person owes to another to avoid that person suffering economic loss. The three stage test for imposing a duty of care on a person to avoid economic loss to another enunciated by the House of Lords[15] has been specifically rejected by five justices of the Australian High Court.[16]

Notwithstanding the common law principles applicable to construction contracts in general, the doctrine of freedom of contract means that contracting parties may decide that those principles do not apply to a particular contract. In the event that the contractual terms evince the parties' clear intention to "cover the field" in respect of a certain aspect, the common law is ousted to that extent.[17] Conversely, unless the parties have intended to exclude common law rights, those rights will complement the contractual rights specifically provided for in terms of the contract. Contract terms may state that common law rights or rights "otherwise at law" are specifically preserved in addition to the rights conferred by the contract. In every case, whatever words are used, whether common law rights are preserved or excluded is a question of the meaning of the terms of the contract.

The process the court uses to determine (construe) what a document (such as a contract or a statute) means is referred to as **construction** of the words used. The process of construction of the terms of a contract is discussed further at ¶2.8.

2.3. Australian Contract Code

It is apparent from the foregoing discussion on the application of the common law, as revealed by a myriad of court judgments, that determining the Australian common law of contract as applied in any particular situation is not a trivial exercise. The situation is somewhat different in civil law jurisdictions, such as most European countries, China etc, where the law is codified in statutes. Thus, to determine the law of contract in for example Germany, one has recourse to a single readily available document, the German Civil Code, which sets out all the applicable rules, rather than a large, ill-defined and ever expanding set of judicial precedents enshrined in case law.

Some common law jurisdictions have tried to codify contract law into a comprehensive series of written rules that provide a "one-stop shop" for determining the applicable law. The US Restatement (Second) of Law of Contracts does this, and although it does not have statutory authority in any jurisdiction, it is continually resorted to by judges as having great persuasive authority. In the USA, most States have codified the Uniform Commercial Code, and many States (including California) have revisions to the Uniform formulation.

The Uniform Commercial Code, in one or another of its several revisions, has been enacted in all of the 50 US states, as well as in the District of Columbia, the Commonwealth of Puerto Rico, Guam and the US Virgin Islands This document contains some 400 clauses to provide a comprehensive code of contract law.

Ellinghaus and Wright have formulated a draft of an "Australian Contract Code" that could replace the existing common law rules that affect contractual transactions. This code was presented by the two academics in a discussion paper to the Law Reform Commission of Victoria in 1992, who stated in the Introduction: "The Commission believes that the Code is a comprehensive statement of contract law that can provide the solution to all possible contract problems. The Code can also be easily read and understood by people who are not lawyers."[18] In their discussion paper, Ellinghaus and Wright have shown examples of how application of the Code to specific situations is consistent with High Court authority.

Whilst the Code has not received any statutory support, and in the intervening period the number of contract cases in the Law Reports has continued to burgeon, the authors of this book consider that (with one or two exceptions) it is a very useful concise summary of the current law of contract in Australia. Its brevity (only 27 clauses) is a result of its high level of generality. The use of plain English without any legal definitions makes it easy for non lawyers to use. In the words of Ellinghaus and Wright: "The potential advantages of codifying contract law are obvious. Having authoritative statements of the rules in one document makes it easy for any person who wishes to consult the law to find it. Codifying the law also creates an opportunity to simplify it. This makes it more accessible both to lawyers and to non lawyers. These two features of codes promote greater awareness of the law, and encourage its use."[19]

A notable feature of the Code is the central role played by the concept of 'unconscionability' as an organising principle which can subsume many existing contractual doctrines. This approach is not inconsistent with a number of High Court cases which have referred to the concept of conscience in respect of contractual or 'equitable' obligations. The Code authors' use of 'unconscionable' as meaning 'offending against conscience' was chosen in preference to rival concepts such as 'justice', 'reasonableness', 'fairness' and 'good faith',[20] all of which can be found in the case law.

The Australian Contract Code is included in Appendix A as a useful summary reference for those readers who require an overarching view of Australian contract law. Those provisions that may be inconsistent with current Australian law are footnoted.

2.4. Constraints on freedom of contract

2.4.1. Statutory constraints

Whilst freedom of contract is regarded as one of the cornerstones of the English and Australian common law and has been zealously upheld by the courts over centuries,

parliaments have long found it necessary to legislate to constrain freedom of contract in various ways. In addition to illegality/unenforceability of certain contractual terms, statutory intervention can take the form of implying terms into all contracts of a particular type, creating statutory rights that coexist with contractual rights, or mandating the way in which a court or tribunal is to settle disputes or determine contractual rights. Some of the legislative restrictions on freedom of contract are based on the recognition that parties to a contract do not necessarily have the equal bargaining power assumed by classical contractual theory, typical of consumer contracts where an individual consumer has little opportunity to negotiate unfair or one-sided terms out of a contract. The *Security of Payment* legislation discussed later in this book is a recent example of legislative intervention to freedom of contract that was intended to protect certain rights of contracting participants in the construction industry in Australia, irrespective of their contractual bargaining power. The most far reaching statutory intervention in Australia is, however, the *Trade Practices Act 1974* (Cth), which is discussed in more detail at ¶2.5.

In the most general sense, every statute whose subject matter is relevant to the content of a contract between two parties potentially impacts on the freedom of those parties to contract, by prescribing certain required conduct in particular circumstances, or proscribing certain conduct in other circumstances. In many cases such statutory intervention is indirect where the subject matter of the legislation only peripherally impacts the performance of the obligations under the contract. It is therefore necessary to identify and focus on those statutes that apply directly to the subject matter of the contract under consideration, and to understand how the relevant statutory provisions operate in conjunction with the terms of the specific contract in the particular circumstances. Of necessity, the examples of statutory intervention on freedom of contract referred to in this book are considered in isolation of the terms of any specific contract, and only refer generally to the most important relevant legislation.

The natural bias of courts to uphold freedom of contract and to take a narrow view of the construction of statutes which reduce that freedom is encapsulated in the following statement by His Honour Justice Kirby:[21]

> "Certainly, there are plenty of judicial dicta to suggest that courts will be slow to imply, where the applicable legislation is silent, a prohibition which interferes with the rights and remedies given to parties by the ordinary law of contract. This reluctance probably grows out of a recognition of the multitude of legislative provisions, important and unimportant, which may nowadays indirectly impinge upon the contractual relations of parties and, if enforced with full rigour, cause harsh and unwarranted deprivation of rights. In part, this reluctance may be no more than a species of the general rule of statutory construction that legislation will not be interpreted to deprive parties of basic rights at common law without a clear expression of the legislative will to do so." [citations omitted]

2.4.2. Public policy constraints

The constraints on freedom of contract imposed by public policy are those that the courts have stated as such. For example, courts have considered that the following types of contract, among others, are contrary to public policy, and have refused to enforce their terms:[22]

- contracts involving unlawful conduct;
- contracts defrauding the revenue;
- contracts prejudicing the impartiality of public officials;
- contracts fettering the ambit of statutory duties or powers;
- contracts prejudicial to national or international security;
- contracts prejudicial to the administration of justice;
- contracts excluding the jurisdiction of the courts;[23]
- contracts in restraint of trade.

It should be noted that one of these heads of public policy is that involving unlawful conduct: "Contracts to do what a statute forbids form an established category of illegal contracts which are void and unenforceable."[24]

A doctrine of good faith in the execution of contracts is emerging in Australia (particularly in NSW), and could be considered as the most recent head of public policy to be used by some Australian courts to constrain freedom of contract.[25] This is still very much a developing area of contract law in Australia, and has been the subject of much academic discussion.[26] At the time of writing the High Court had not addressed whether there is an implied obligation of good faith in the execution of all commercial contracts, and accordingly the common law in this area is not settled. However, it is open to contracting parties to include an express provision that they will act in good faith, and breach of that obligation will entitle the innocent party to damages.

Case example

In a contract for mining operations, the parties agreed to act in good faith in all matters relating to carrying out of the works, derivation of rates and interpretation of the contract. The Contractor agreed to carry out contract mining operations at rates based on cost estimates, but inflated its cost estimates to obtain additional payment. At trial, the judge found that in a contract requiring disclosure of confidential operating costs, a contractual obligation of good faith required the Contractor to formulate those costs honestly,[27] and this was upheld on appeal.[28] The judge awarded substantial damages for breach of the good faith obligation, and this was upheld by the High Court.[29] The judge at first instance found that an express contractual obligation to act in good faith required the parties to act honestly, and with goodwill and cooperation where

CHAPTER 13

COMMENCEMENT, DELAYS AND SUSPENSION

> "... in the contract one finds the time limited within which the builder is to do this work. That means, not only that he is to do it within that time, but it means also that he is to have that time within which to do it.
>
> ...
>
> In my judgment, where you have a time clause and a penalty [liquidated damages] clause, it is always implied in such clauses that penalties [liquidated damages] are only to apply if the builder has, as far as the building owner is concerned and his conduct is concerned, that time accorded to him for the execution of the works which the contract contemplates that he should have."[358]
>
> "In determining what is a reasonable time as respects any particular details and instructions, factors which must obviously be borne in mind are such matters as the order in which the engineer has determined the work shall be carried out ..., whether requests for particular details or instructions have been made by the contractors, whether the instructions relate to a variation of the contract which the engineer is entitled to make from time to time during execution of the contract, or whether they relate to part of the original works, and also the time, including any extension of time, within which the contractors are contractually bound to complete the works.
>
> In mentioning these matters, I want to make it perfectly clear that they are not intended to be exhaustive, or anything like it. What is a reasonable time is a question of fact having regard to all the circumstances of the case."[359]

13.1. Commencement of Works

The date of commencement of the Works is usually specified in the Contract and is the date from which the contractual date for Practical Completion of the Works (**Date for Practical Completion**) is computed, albeit usually implicitly. However, delay in commencement typically does not have the contractual consequences that lateness in Practical Completion does.

It is desirable that the Contract should state a time limit within which the Engineer is to give the order to commence the Works, and the time period within which the

Contractor is then to commence. In the absence of specified times, reasonable time periods would be implied from the date of acceptance of the Tender. If the order to commence the Works is not given timeously, the Employer would ordinarily be liable to pay damages for any unreasonable delay in breach of contract. However, the Engineer can avoid damages for breach by giving an order to commence on time and granting an extension of time for Practical Completion and costs to cover any delay in giving possession of the Site.

If the Contractor does not commence the Works due to causes sanctioned by the Engineer or wholly beyond the Contractor's control, the failure by the Contractor to proceed without delay would not be a breach of any contractual term requiring execution of the Works "with due expedition and without delay" (the due diligence clause). However, unless the Contractor claims an extension of time, the time lost may eventually lead to liquidated damages for delay in Practical Completion. A Contractor may regard delays such as this on the critical path at the outset of a project as less important than delays towards the end of the project, reflecting the wish to avoid confrontation at an early stage in the project arising from default by the Employer. Such an approach is shortsighted; it is virtually impossible for the Contractor to fully assess its risks of subsequent delays arising from its own culpable actions later in the project and therefore its ultimate need for extensions of time to avoid liquidated damages. It would be sensible for a Contractor to make all legitimate claims for extensions of time in accordance with the requirements of the Contract to ensure that these are available at a later stage if necessary.

13.1.1. Possession of the Site

Depending on the specific terms of the Contract, the Employer's initial obligation is usually to give possession of the Site, or sufficient access, to the Contractor on the commencement date. Failure to give possession of the Site to the Contractor as provided for in the Contract amounts to a breach of the Employer's obligations, which may entitle the Contractor to claim damages and an extension of time for the breach. Reference should be made to ¶6.2 for a caution on the difficulties that a Contractor may face in relation to "sufficient" access.

In the absence of an appropriate termination clause, mere delay by the Employer in fulfilling its obligations generally would not entitle the Contractor to terminate the Contract, unless time is of the essence of the Contract. Generally, time is only of the essence in a contract if there is a term to this effect, or it has been made so by a notice of rescission issued pursuant to one of the clauses in the Contract.

Once it has obtained possession of the Site, the Contractor is then generally entitled to remain in possession of the Site until Practical Completion of the Works, unless the Contract has been lawfully terminated. However, there may be circumstances where the Contractor is required to give possession back to the Employer at some stage during the Contract period (for example, where the Contract requires the Employer to

perform some works on the project prior to the Contractor completing its Works). It may also apply where there is provision for staged Practical Completion and handover of the Works.

In the absence of a specific contractual term to the contrary, the Contractor is entitled to possession of the Site to the exclusion of other contractors during performance of the Works. For this reason, a contract may provide that the Contractor must permit other contractors on site to execute other works on behalf of the Employer. The Contractor should carefully assess the potential costs and risks of disruption that could arise from such joint possession prior to entering into the Contract.

Possession of the Site by the Contractor is, in many cases, required only in sequence or stages, and "the Site" may be an indeterminate area which is difficult to define precisely. The definition of the Site provided in the conditions of contract is not usually, by itself, satisfactory and whenever possible the other contract documents (if any) should define it and the available means of access to it as precisely as possible. Provision should also be made in the contract documents for areas needed by the Contractor for storage of materials or for reasonable access to the Site, notwithstanding that work may not actually be intended to take place in such areas either at all or for the time being.

13.2. Date for Practical Completion

The Date for Practical Completion must be specified by the Employer at the Tender stage of a project, unless the Employer is asking Tenderers to compete on time for Practical Completion. It is generally expressed as a date (e.g. 1 March 2010) rather than a period of time (e.g. 107 days from the commencement date). The Date for Practical Completion is calculated by adding the number of days the project is planned to take to complete to the planned commencement date, plus any extensions of time to which the Contractor is entitled under the Contract. If the Contractor fails to complete by the Date for Practical Completion and any extension thereto, the Employer will be entitled to payment of damages or a reduction in price (depending on the relevant terms of the Contract). However, should the Employer cause the delay, it is not entitled to damages if the Contractor fails to complete within the stipulated time.

The express obligation to complete by the Date for Practical Completion has very important legal consequences. Its absolute nature means that the Contractor is effectively at risk with regard to the Works until Practical Completion, subject to any express stipulation in the Contract to the contrary. Where the Contract fixes a Date for Practical Completion, the Contractor is obliged to complete by that date. Where the time for the Contractor to complete its contractual obligations is vitally important (i.e. the Contract specifies that "time is of the essence") and the Contractor fails to adhere to the time limit, the Employer may treat the Contract as terminated, provided that the Contractor's breach evinces an intention no longer to be bound by the Contract

(i.e. the Contractor has "repudiated" the Contract). The actual date on which the Contractor achieves Practical Completion is the **Date of Practical Completion.**

If the Contractor fails to complete the works timeously without excuse, the Employer is usually entitled to recover the damages it has sustained, or stipulate a reduction in the Contract price (depending on the terms of the Contract). Under the common law, the Employer would be entitled to all the damages it suffered which were reasonably foreseeable at the time the Contract was entered into, however this position is frequently altered by specific contractual provisions. Damages may be subject to agreed limitations, as commercial realities usually dictate that at the time of negotiating the Contract, the Employer should accept a limit on the Contractor's liability for prolonged delay. For example, the parties may have agreed to exclude or cap the monetary value of certain types of damages to a percentage of the Contract price, such as loss of profit or "consequential" losses (which should be explicitly defined). Alternatively, the parties may have agreed to cap damages by nominating an agreed pre-estimate of loss and damages in the form of **liquidated damages** for each day that the Date of Practical Completion exceeds the Date for Practical Completion. The terms of the Contract must be carefully construed to establish whether such liquidated damages are the Employer's sole remedy for late delivery of the Works, or whether common law (unliquidated) damages are also available.[360]

The Contract may stipulate conditions which make time of the essence, but in arriving at a decision as to whether those conditions have been fulfilled, a court will consider the Contract as a whole.[361] In general, a specific stipulation as to time will rarely make time of the essence in a Contract which provides for payment of liquidated damages for failing to complete by the Date for Practical Completion.[362]

Where the time for performance in a Contract has been stipulated and one party is in delay by its failure to perform it within that time, but "time is not of the essence of the contract", the other party can make timely performance a fundamental term by requiring performance within a reasonable time. The non defaulting party can do this by giving notice that, if the obligation is not complied with by a certain date (allowing a reasonable time), it will regard the Contract as at an end.[363] Where time is not of the essence of the Contract but one of the contracting parties elects to make it so by giving notice, it should ensure that the notice is clear and unequivocal, so that the other contracting party is aware of the consequences of a failure on its part to perform within a reasonable time.[364]

13.2.1. Liquidated damages

The Employer may claim liquidated damages for delay in Practical Completion where, pursuant to the Contract, work has been taken out of the Contractor's hands and the Date for Practical Completion is overrun. In this situation, the Employer may recover from the Contractor not only the liquidated damages for the delay before Taking-Over, but also liquidated damages to cover the full period from the Date for

Practical Completion fixed by the Contract to the Date of Practical Completion. The Contractor will be entitled to an extension of time only for unnecessary delay in getting a new Contractor to take over the work or unnecessary delay caused by the substitute Contractor.[365]

Where the Contract has been validly terminated for unreasonable delay, the position is different and the principles relating to breach of the entire Contract will apply. In these circumstances, the Employer is only entitled to recover liquidated damages for delay before termination of the Contract, plus its proven damages for delay after termination. In *British Glanzstoff Manufacturing Co Ltd v General Accident, Fire and Life Assurance Co Ltd*,[366] it was held that liquidated damages could not be claimed for the period after termination of the Contract when the whole works were in another Contractor's hands.

The Employer will not be entitled to recover the liquidated damages nominated in the Contract if those liquidated damages were not a genuine pre-estimate of the damage that the Employer would suffer as a result of late completion of the works,[367] i.e. if the liquidated damages amount to a penalty. [It should be noted however that the judges in some old cases referred to liquidated damages themselves as a penalty, e.g. *Wells v Army & Navy Cooperative Society*.] If the Employer is not entitled to rely upon the liquidated damages provisions in the Contract, it will have to prove the damage it suffered through the late Practical Completion of the Works, and this may be a time consuming and expensive exercise.

It is therefore in the Employer's (and usually the Contractor's also) interests not only for the liquidated damages rate specified in the Contract to be a genuine pre-estimate, but that there are contemporaneous records which document the rational basis on which it was determined. It is no bar to the validity of liquidated damages that the amount subsequently proves to be different (either higher or lower even to the extent of zero) to the actual damages suffered, provided it was a reasonable estimate of the foreseeable losses at the time the Contract was entered into.[368] Records of the basis of calculation of liquidated damages prepared at Tender time would normally be very persuasive evidence to a court that the amount was a genuine pre-estimate of damages, and therefore not a penalty.

13.2.2. Practical Completion requirements in the specification

Where staged Practical Completion of portions of the Works are required and this is set out in the Contract, it must clearly state which portions of the Works are to be completed by when, and further, the liquidated damages attached to late Practical Completion of that portion. The Contractor must ensure that its Tender and other cross-references to Practical Completion are consistent with this requirement.

13.3. Programme

13.3.1. General requirements

The provision of a **programme** of activities, their start times and durations by the Contractor is vital to the successful completion of the Contract. It is for the Engineer and the Employer to decide in what form they require the programme — e.g. **critical path** network, linked bar chart, or **PERT** — in such detail as the Engineer may require. The actual form in which the programme is to be submitted by the Contractor should be identified by the Employer in the Contract documents, either by way of a sample or by reference to commonly understood types of programme, to avoid subsequent debate as to its adequacy. For example, a milestone programme may be provided by the Employer setting out the parameters within which the Contractor must carry out its work. It is not unknown for a Contractor to contrive disagreement on the programme from inception, thereby obstructing its true intent and value.

The programme is important for both Contractor and Employer, particularly from the Employer's point of view in relation to the obligations it is required to fulfill under the Contract, which may include provision of Employer's drawings, access to the Site, completion of any necessary civil engineering work, and obtaining import licences, etc. The programme prepared by the Contractor should therefore include both the Employer's and the Contractor's obligations, notwithstanding that it is generally the Contractor's sole responsibility to maintain this document. An accurate, properly prepared and maintained programme could also be crucial in determining the disrupting effect of any delays which may occur during the course of the Contract and whether the Contractor is entitled to an extension of time under the relevant extension of time provisions.

The programme should be sufficiently detailed to enable arrangements to be made by the Employer for access to, or possession of, the various parts of the Site in good time. In engineering contracts, possession is made available in stages more often than in building contracts. Advance notice is also often required to enable the Engineer to exercise any powers conferred upon it by the contract documents, to control and select the method of working, or to approve stages of construction, or to suspend the work on the grounds of safety. The Engineer should be fully informed at any time of the Contractor's intentions, and this can be particularly important if major technical difficulties are encountered.

Compliance with programme dates

The Contract should be drafted so that the Engineer has the power to order the Contractor to revise the programme if the progress of the Works either falls behind or leads the programme. The Contract should be drafted in this way because it is far better that the parties should at all times be working to a programme which reflects the actual progress of the works, rather than the desired progress of the works. Construction contracts which provide the Engineer with this power generally also provide that if the

Engineer requires a revised programme, the Contractor is entitled to be paid the cost of the revisions to the programme if the modifications arise for reasons for which the Contractor is not responsible.

Insofar as Practical Completion dates are concerned, a construction programme is, in essence, a statement of the order of working rather than a statement of dates having contractual force. The Contractor is normally required under the Contract to submit, at the request of the Engineer, the order and the proposed method of working. Full information as to the Contractor's "arrangements" — i.e. its methods and intentions — may also be required under the Contract at any subsequent time on the Engineer's request. It is suggested that this information should be incorporated as part of the Contract, as it will determine not only the progress of the Contractor, but also the performance by the Engineer and the Employer of their obligations.

The practical implications if the Contractor fails to comply with its programme obligations under the Contract will be far reaching, as the Contractor will be deprived of valuable evidence upon which to have its claims for extension of time or costs of acceleration evaluated. Further, the Engineer may not be able to adequately judge the Contractor's applications for extension of time. The Employer can achieve an effective sanction on the Contractor if it is stipulated that a programme has to be provided by the Contractor at the Tender stage. Alternatively the Contract could require the programme to be provided before the Contractor is permitted to enter the Site, or that interim payments can be withheld by the Employer until the Contractor has complied with such an Engineer's request.

The Employer's rights and obligations

Since, in nearly all cases, it will be impossible for an Employer to show that the clause containing the Contractor's programme obligations is a fundamental term of the Contract or that it has suffered damage if its Engineer's requests are not complied with, neither an action for breach of contract nor the withholding of moneys otherwise due are in practice likely to be available to the Employer to require the Contractor to comply with its programme obligations. An important characteristic of engineering contracts, as compared to building contracts, is the much higher degree of interest in, and control over, the Contractor's methods of working by the Employer. The modern tendency is for the Employer, through the Engineer, to become more intimately involved with the monitoring of the Contractor's progress — on the basis that the legal remedies afforded the Employer in case of a breach are inadequate when compared with the benefits derived by the Employer in ensuring timely and satisfactory compliance by the Contractor.

If the Contract requires the Employer to provide information to the Contractor by a particular date, the programme may be used by the Contractor to justify a complaint that the late provision of that information has delayed its works, thereby entitling it to an extension of time.

From the Employer's point of view the programme enables the Engineer to monitor the progress of the work, and thus to advise the Employer at an early stage whether the Contract will be completed timeously, or whether the Contractor should be ordered (if there is such a power under the Contract) to speed up the progress of the works (**acceleration**). Where timely completion is of major importance and the Contract has discrete **milestone** dates for separable portions of the Works, a contractual provision enabling the imposition of liquidated damages for failure to achieve milestone dates in addition to liquidated damages for late Practical Completion is recommended. For example, Annexure A of AS 4000-1997 provides for liquidated damages to be specified for each separable portion.

13.3.2. Programme float

Programmes which are agreed with or approved by the Engineer, and which show Practical Completion considerably in advance of the Date for Practical Completion (i.e. which show Contractor's "float" in the programme) may, depending on the terms of the Contract, still be used by the Contractor to justify an extension of time claim (and associated delay costs) for issues such as the late supply of information by the Employer or the Employer's failure to give access to the Site. For example, cl 34.3 of AS 4000-1997 provides that the Contractor is entitled to an extension of time if "the Contractor is or will be delayed in reaching practical completion by a qualifying cause of delay". Under such a contractual provision, the fact that the Contractor completes the Works before the Date for Practical Completion would not affect its ability to successfully raise a claim for an extension of time.

However, a contractual term which confines an extension of time for a qualifying cause of delay to a delay that causes Practical Completion to be achieved after the relevant Date for Practical Completion would not give the Contractor the benefit of its programme "float". In the authors' experience, such a contractual provision in which the Employer "owns" the float is not conducive to the preparation or maintenance of a realistic programme by the Contractor, since there is no incentive for the Contractor to include any float in its programme to allow for the inevitable risks and vicissitudes of construction. These risks to the Date of Practical Completion are likely to be implicit in the Contractor's planning of its work, notwithstanding the programme it submits to the Engineer, which may have been prepared to show multiple critical paths all projecting Practical Completion on the Date for Practical Completion. Such a one-sided contractual provision is likely to lead to considerably more time disputes, since any delay to any critical path on the programme will, at least in theory, extend Practical Completion beyond the contractual Date for Practical Completion.

13.3.3. Acceleration

The Contract may entitle the Employer to require Practical Completion of the Works or part thereof earlier than the initial Date for Practical Completion stated in the Contract. In the absence of a specific contractual provision the Employer is unable to order

acceleration of the Contractor's work, and accordingly a broadly worded acceleration clause is usually desired by Employers. For example, an "Employer-friendly" version of an acceleration clause is achieved by adding to AS 4000-1997 cl 32 Programming, the following clause:

32A Acceleration

(a) The Superintendent may, at any time, direct the *Contractor* in writing to provide the *Superintendent* with the following information in relation to the proposed acceleration of the WUC ("*Contractor's Acceleration Proposal*") —

(i) details of the additional labour and *construction plant* which the *Contractor* considers shall be required to comply with the proposed acceleration;

(ii) an estimate of the hours of work which shall be required to be performed by the *Contractor* outside the working hours or the working days defined in the *Contract* and the *construction program* to enable the *Contractor* to achieve the proposed acceleration;

(iii) details of additional supervision which the *Contractor* shall be required to provide to achieve the proposed acceleration;

(iv) the *Contractor's* extra costs and expenses which it may incur in achieving the proposed acceleration, which must be reasonable and substantiated; and

(v) a draft revised *construction program* showing the proposed revised *date for practical completion* which shall, subject to approval in accordance with Clause 32, be implemented to achieve the proposed acceleration.

(b) The *Contractor* shall provide the *Superintendent* with the *Contractor's Acceleration Proposal* within 7 days of receipt of the direction given under Clause 32A(a).

(c) On receipt of the *Contractor's Acceleration Proposal*, the *Superintendent* may do any one of the following —

(i) advise the *Contractor* by notice in writing which expressly refers to the *Contractor's Acceleration Proposal*, that the *Principal* accepts the *Contractor's Acceleration Proposal* in which case, subject to Clause 34.1, the *date for practical completion* shall be revised to the date contained in the *Contractor's Acceleration Proposal* and the *contract sum* shall be adjusted by the amount accepted by the *Principal* in the *Contractor's Acceleration Proposal*; or

(ii) reject the *Contractor's Acceleration Proposal* and either:

(A) inform the *Contractor* there will be no acceleration of the *WUC*; or

(B) require that the *Contractor's* extra costs and expenses associated with the direction to accelerate under Clause 32A be determined under Clause 36.4.

arising from another contractor completing the Works, including the correction of Defects, until the subsequent contract has been completed. Accordingly, there may be a substantial delay after termination before any money is paid to the Contractor, or its securities released.

20.6. Termination without cause

Many construction contracts have a provision which entitles the Employer to terminate the Contract at any time for its own convenience, which might include financial difficulties or lack of demand for the constructed facility. The Contractor would be well advised to scrutinise the provisions of such a clause carefully before it enters into the Contract, to ensure that the provisions in respect of notice and valuation on termination are fair and reasonable, and will cover all its likely losses and damages attributable to the termination. The Contractor should also ensure that such a clause would not permit the Employer to terminate the Contract and carry out the work itself, or give it to another contractor.

CHAPTER 21

SUSPENSION AND TERMINATION BY CONTRACTOR

> "Where one party is entitled to determine the contract at common law, he will also be entitled to damages to compensate him for his loss. Where a party is terminating under an express provision of the contract, he will only be entitled to such further remedy as the contract gives him."[560]

21.1. Contractor's entitlement to suspend work

A breach of contract by the Employer, e.g. failure to pay a progress payment to which the Contractor is entitled, does not automatically entitle the Contractor to suspend its work under the Contract. Absent a breach by the Employer of a fundamental obligation under the Contract justifying termination, the Contractor may be in breach of contract itself if it suspends work because of the Employer's breach of contract. A Contractor is however entitled to suspend work in the circumstances specifically provided for in the Contract or if it has statutory authority to do so.

An example of a contractual clause referring to suspension can be found in standard form contract AS 4000-1997, cl 33.2. The NPWC 3 standard form contract also provides for this situation in slightly more detail under cl 34.3. For example, a Contractor wishing to suspend the Contract must provide written notification for suspension and explain reasons for the justification of the suspension.

Each of the *Security of Payment Acts* in Australia defines circumstances in which a Contractor is permitted to suspend carrying out construction work or supplying related goods and services under a construction contract without breaching the contract. In NSW, Victoria and Queensland, where the Employer fails to provide a payment schedule and pay the claimed amount, or fails to pay all of the scheduled amount on or before the due date for the progress payment, the Contractor is entitled to suspend work after giving notice of its intention to do so. The Contractor is not liable for any loss or expenses incurred by the Employer as a result of its suspension. Further, the Employer is liable to pay any loss or expenses incurred by the Contractor as a result of the removal of any part of the work or supply from the Contract.[561] In Western Australia and the Northern Territory, the Contractor has a similar right to suspend work if the Employer does not pay the amount of the Adjudicator's determination, without prejudice to any other contractual rights the Contractor may have.[562] Where the Contract falls within the statutory definition of construction contract, these statutory rights to suspend work are a valuable addition to any rights the Contractor may have under the Contract.

21.2. Termination by Contractor

21.2.1. Default of Employer

The profound consequences of default by the Employer are not always fully appreciated. As noted in the previous chapter, a contract can be terminated under the common law for a sufficiently serious breach of contract, and this applies equally to serious breaches by the Employer. In addition, construction contracts commonly contain a termination clause which entitles the Contractor to terminate the Contract in certain defined circumstances.

However, it may be very difficult for the Contractor to disengage from a contract, even if the Employer is in serious default of its obligations. The Contractor may have obligations towards vendors and subcontractors which will have to be paid whether or not the Contractor terminates, and these costs may not be able to be recovered from the Employer in the event of termination.

An Employer also cannot be heard to say that a contract has become impossible and at the same time claim that the Contract should remain in existence so as to enable the Employer to carry on under it in a truncated form. This applies also where the Employer wrongfully prevents the Contractor from performing or in any way puts it out of the power of the Contractor to complete the Works. That is because of the doctrine of prevention, discussed in ¶15.4.

21.2.2. Repudiation by the Employer

Where an Employer demonstrates an inability or unwillingness to perform its obligations under the Contract,[563] or is in breach of an essential term of the Contract[564] (an act of repudiation), this may give the Contractor the right to terminate the Contract under the common law. The act of repudiation may be either express or inferred from the Employer's conduct.

Refusal by an Employer to give possession of the Site will constitute a repudiation.[565] In *Carr v JA Berriman Pty Ltd*,[566] repudiation was inferred from the conduct of the Employer wrongfully refusing to give possession of the Site to the Contractor, and removing the fabrication of steel work from the Contract. If the Employer refuses to give drawings, plans, or instructions when obliged to do so, this would constitute repudiation if such drawings or plans are an essential element of the Contract, or the Employer's refusal manifests an intention not to perform or be bound by the Contract.

Where a Contractor seeks to accept repudiation of a contract because the Employer has delayed in giving possession of the Site or in giving drawings, plans or instructions, the Contractor, in order to establish a breach of a material obligation on the part of the Employer, must allege and prove that such delay was wrongful in that it was unreasonable and material. Mere lateness would not amount to repudiation, but to a breach entitling the Contractor to claim damages, provided the Employer or its Engineer had been

placed in default.[567] Any such lateness on the Employer's part would also affect its right to claim damages for delay in Practical Completion.

21.3. Payment on termination

The Contractor's rights to payment on termination depend on whether the Contract was terminated under the common law or under the Contract. If it is terminated under the Contract, the amount of payment due to the Contractor will be determined in accordance with the provisions of the Contract. Under the common law, and in the absence of a contractual term to the contrary, if the Contractor elects to accept the Employer's repudiation of the Contract, the Contractor then has a further election between the alternative remedies of damages for breach of contract, or a quantum meruit for the value of goods delivered or services provided.

If the Contractor elects damages for breach of contract, it is entitled to be placed in the position it would have been in had both parties fulfilled their obligations. It would therefore be entitled to recover the unpaid balance of the contract price, less the amount it would have cost the Contractor to complete the Contract or, in other words, its loss of profit. The Contractor will not be entitled to its loss of profit, or the full amount of its profit if it could have mitigated its damages but did not do so. If the Contractor accepts the Employer's repudiation of its obligations, and the Employer thereafter requests the Contractor to complete the work, it may have to do so in order to mitigate its damages. The onus rests on the Employer to prove that the Contractor could have and did not mitigate its damages.

In circumstances where the Contractor is in a loss making situation on the Contract, a quantum meruit is the equivalent of the holy grail, because it sets the Contract aside. The Contractor is then entitled to be paid a reasonable amount for the work done and materials and plant supplied, without reference to the remuneration agreed under the Contract. The availability of a quantum meruit in these circumstances has been subject to considerable academic criticism, but as confirmed by a recent Court of Appeal decision in Victoria,[568] until the High Court rules otherwise, that is the state of the common law in Australia. An Employer can protect itself from such uncapped liability by ensuring that the Contract has a provision which precludes a quantum meruit in the event that the Contract is repudiated.

A reasonable remuneration or quantum meruit for the total contract price of the project is not available to the Contractor in the face of a repudiatory breach of the Contract unless the Contractor has accepted the repudiation and rescinded the contract. Where the Contractor has completed or substantially completed its contractual performance, there is no opportunity for it to accept the repudiation of the Contract, and elect the award of a quantum meruit, and it will be restricted to the remedies provided for in the Contract.[569]

It is worth noting that construction contracts approved by the World Bank accept that the Employer's liability is unlimited, in the circumstances of termination because of the Employer's default. The World Bank recognises that if the Contractor cannot limit its overall liability under the Contract, it would be unfair for the Employer to be able to do so.

CHAPTER 22

RISK AND RESPONSIBILITY

> "The theory of Risk has developed in the past twenty years or so to such an extent that it is now common knowledge that for a contract to be performed in an effective manner, the inherent risks must be allocated to the contracting parties on some logical basis, which should be made known to them. Thus, it has been said that the main purpose of a contract is to identify the principles of allocating the risks facing the contracting parties."[570]

22.1. Indemnities

The risks of loss or damage to property and of death and personal injury, and the legal responsibility for such eventualities between the Employer and the Contractor, should be allocated in a manner which reflects their respective ability to prevent such loss, damage, or injury from occurring. It is in the Employer's interests of obtaining the best Tender prices that allocation of risks should also permit the Contractor to be able to assess its risks on a fair and reasonable basis, without having to allow in its Tender price for contingencies that may never occur. Risks for which the Contract assigns the legal responsibilities and liability for the risks materialising to the Contractor are called **Contractor's risks** and those for which the Contract assigns the legal responsibilities and liability for the risks materialising to the Employer are called **Employer's risks.**

The insurance of the risks associated with the construction of the Works must be distinguished from the legal responsibilities and liability of the parties assigned to them in the Contract. The apportionment of such responsibilities and liabilities between the parties applies whether or not the associated risks are insured. In practice, many of the risks apportioned to the Employer are risks for which insurance cannot be obtained, or which can only be insured with difficulty or at a very high premium.

Construction contracts usually provide that the Contractor must indemnify the Employer in respect of risks assumed by the Contractor under the Contract and vice versa. Such contractual indemnities not only make the risk allocation regime clear, but also may provide greater compensation than would be available for breach of contract alone. Whilst it may be desirable for each party to have in place appropriate insurance that responds to losses arising from the enforcement of indemnities, such insurance may not be required under the Contract or available on commercially acceptable terms. Prior to entering into a Contract, a prudent Contractor or Employer will carefully scrutinise the proposed contractual terms in respect of risk, indemnities and insurance to ensure that they are, to the extent possible, consistent. Further, any uninsured risks

must be both understood and acceptable within corporate guidelines if potentially large and perhaps unsustainable financial losses are to be avoided.

22.2. Contractor's care of the Works

22.2.1. Accident or injury to workmen

The Contract usually provides that the Contractor, or its subcontractors where appropriate, is liable for, and indemnifies the Employer against, any claims arising in connection with the death or injury of any of their respective employees, unless such death or injury is caused by acts or defaults of the Engineer, the Employer, or other contractors whom the Employer may have engaged and are working on the Site — in such cases, the Employer should be required to indemnify the Contractor against all such claims arising. This is a fair apportionment of liability and both parties can arrange suitable insurance against these liabilities without difficulty.

Irrespective of the requirements of the Contract, the Contractor is bound to see that reasonable care is taken to supply its employees with, and to maintain, proper equipment and plant and material, and to see that its employees have a safe place of work and a safe system of work. It is also liable for any injury caused to an employee by the negligence of any other employee. The Contractor is also obliged to comply with applicable occupational health and safety legislation. Contractual terms to the effect that the Contractor is liable for death or injury of its employees merely restate the common law and relevant statutory provisions. However contractual indemnities ensure that the Employer will not suffer any loss in the event that an injured Contractor's employee chooses to seek compensation from a "deep pocket" Employer.

Babcock v Brighton Corp[571] is a case which goes unusually far in holding the Employer fully liable for the safety of its employees, but may be taken as a warning of how careful a prudent Employer will have to be to protect its workers in order to avoid liability. "A", an employee at an electrical substation, was injured while making a test because he removed a screen between the dead and live parts of the switchboard. "A" had learnt to do this from a fellow employee and had then pointed out the dangers, but had been told that if no risks were taken nothing would be done, and, in fact, the usual practice in the station was to remove the screen. "A" had later been appointed to do dangerous work, had been given a copy of the regulations, which forbade removal of the screen, and had been told to make himself familiar with them. The court held that A's Employer was liable for A's injuries in that it had not provided a safe system of work simply by telling "A" to follow the regulations, and even if it had originally supplied a safe system it had allowed the system to be ignored. "A" was not himself guilty of contributory negligence because he had followed the example of his superiors.

22.2.2. Contractor's responsibility for the care of the Works

The Contractor is normally totally responsible for the care of the Works from the commencement date until the risk transfer date. The Contractor should also be required

to be responsible for the care of any part of the Works upon which it is performing any outstanding work during the defects liability period until that work is completed. This reflects the philosophy that the Contractor should be responsible for matters which are within its control.

22.2.3. Incidence of risk for damage to the Works

The Contract normally allocates the responsibility for damage to the Works until Practical Completion between the Employer and Contractor, according to the nature of the risk or damage, and similarly makes special provision for the period of maintenance. The risk of loss or damage occasioned by earthquake, flood, hurricane and the like lies with the Contractor until the work has been completed, assuming the Contract provides for payment to be made on completion of the work.[572] The damage for which the Contractor is normally responsible is:

(a) until Practical Completion — damage from any cause whatever, except:
  (i) the "riot, war, invasion, etc" group of risks;
  (ii) a cause due to the Engineer's design of the Works; or
  (iii) any qualification justified by the "legally and physically impossible" saving of the contractual conditions; and
(b) during the maintenance period — damage actually caused by the Contractor while working on the Site.

In the event that loss or damage to the Works occurs through causes which fall within any of the Contractor's risks, the Contractor will have to make good the loss or damage at its own cost, subject of course to any relevant insurance which provides coverage for the loss. Except to the extent that the Contractor can show that the loss or damage has been caused by any of the Employer's risks, the Contractor is liable to make good the loss or damage forthwith at its own cost, even if the loss or damage has occurred through no fault of the Contractor. The Contractor's liability to make good the loss or damage is therefore not confined to those cases where there has been some breach of contract or statutory duty or some negligence on the part of the Contractor or any of its subcontractors or employees. The only other qualification on the Contractor's obligation to make good loss or damage would be an impossibility, which in the context of construction contracts is probably limited to some supervening event making completion of the Works as a whole impossible and thereby frustrating the Contract (unless there is some contractual provision which provides relief to the Contractor). Frustration is discussed in ¶8.1.3.

The Contractor should be obliged not only to make good any defects in the Works which appear during the defects liability period, but also to make good any damage to the Works caused by such defects. Thus the Contractor would remain liable during the defects liability period for any loss or damage caused by its defective design, materials, or workmanship. This would also apply if loss or damage were caused by the Contractor

during the defects liability period, e.g. whilst carrying out Tests on Practical Completion after a Taking-Over Certificate has been issued. Unlike the position before Taking-Over where, except in the case of loss or damage caused by the Employer's risks, no fault on the part of the Contractor is required to impose liability on it, after the risk transfer date the Contractor's liability for loss or damage to the work should be limited to those cases where the loss or damage is caused by the Contractor. Thus the Contractor's liability after Taking-Over must be founded upon some breach of contract or of statutory duty, or of negligence.

Construction contracts may provide for the Employer to do so but more commonly require the Contractor to insure the Works themselves against various kinds of damage, especially damage by fire;[573] such provisions are designed to protect the Employer from claims, and to ensure that the Contractor has the financial resources to repair any damage to the Works. Contractual provisions relating to insurance are considered in Chapter 23.

22.2.4. Responsibility to rectify loss or damage

Where the Contractor has a responsibility to rectify loss or damage to the Works from "any cause whatsoever", these words may be wide enough to include any act or neglect of the Employer or its servants, so that the Contractor may be liable to reinstate the loss or damage free of charge notwithstanding that the Employer or its servants have negligently damaged the Works.[574] A prudent Contractor undertaking such a contractual obligation will ensure that its insurance appropriately responds to such risks.

22.2.5. Passing of risk of loss or of damage to the Works

The risk transfer date in relation to the Works or a section thereof should be the earliest of either:

(a) the date of issue of the Taking-Over Certificate; or

(b) the date when the Engineer is deemed to have issued the Taking-Over Certificate or when the Works are deemed to have been taken over; or

(c) the date of expiry of the notice of termination when the Contract is terminated by the Employer or the Contractor.

Once the risk of loss or damage to the Works has passed from the Contractor on the risk transfer date, its liability in respect of the Works is limited. The responsibility for the care of the Works passes to the Employer, subject to the fulfilment of the Contractor's obligations in respect of Defects after Taking-Over and to making good loss or damage caused by the Contractor during the defects liability period.

22.2.6. Third parties — damage to property and injury to persons

The Contractor's liability in respect of loss or damage to the property of third parties, and also the property of the Employer other than the Works, and claims of death or personal injury to the extent that such claims occur before the issue of the defects

liability certificate, should be provided for in the Contract. The Contractor should be liable to the extent that the loss, damage, or injury is caused by its defective design, materials, or workmanship or by its negligence or breach of statutory duty or that of its subcontractor's employees and agents. This liability is based on fault.

The Contractor's liability arising from such a defaulting act is totally unaffected by the passing of the risk transfer date and of responsibility for the care of the Works from the Contractor to the Employer. It should be noted that not only is the Contractor made liable for such matters but it is usually required to indemnify the Employer against any such claims. The reason for this is that third parties whose property is lost or damaged, or whose person is injured, will, in the nature of things, be likely to take proceedings against the Employer rather than the Contractor. The risks of such liabilities being incurred by the Contractor can however easily be insured under an appropriate public third party and products liability insurance policy.

Occasionally, the Employer or the Contractor carries out the work in such a way that it damages the property of third parties. Thus, Highway Authorities may recover the cost of special repairs from persons who have subjected a highway to damage. Any highway or bridge anywhere must be dealt with by the Contract, since large special units for incorporation into engineering works may need to traverse the whole country by road from the point of manufacture to the Site. Specific authority would be required for persons to carry out temporary strengthening works to bridges or highways to enable their vehicles to use them without damage, though no doubt such authorities would have a general power to make such arrangements. These matters may also be prescribed in applicable legislation relating to the relevant authorities and utilities.

22.3. Employer's risks

In general terms the risks assigned to the Employer are usually either those over which the Contractor has no control (e.g. defects in the design of the Works by the Employer or the Engineer), or risks of loss or damage which flow from the Employer's decision to construct the Works (e.g. damage which is the inevitable result of the construction of the Works in accordance with the Contract). These are risks which it would not be fair or appropriate to allocate to the Contractor with the resulting legal liability which would flow from them. Some of these risks may not be insurable and, if they were allocated to the Contractor would result in the Contractor allowing in its price for potential liability which might never arise, resulting in an increased price to the Employer. For example, it may not be appropriate in the case of the risks of riot, commotion, or disorder to restrict these risks to those cases where the riot, etc, occurs only in the Employer's country or the country where the Site is located. However, if the riot, etc, is confined to the employees of the Contractor or of its subcontractors, this should be a Contractor's risk wherever the riot, etc, occurs.

Any risk which an experienced Contractor could not have foreseen or, if it was foreseeable, against which reasonable measures to prevent loss, damage, or injury from

occurring could not have been taken, is usually allocated to the Employer. Again this reflects the philosophy that risks allocated to the Contractor should be those against which it can reasonably control or protect itself. To the extent that loss or damage to property or death or personal injury occurs in consequence of any of the Employer's risks, the Employer should be made liable for them under the Contract, and should be required to indemnify the Contractor against any such claims.

22.4. Consequences of Employer's risks

Legal liability to make good any loss or damage to the Works consequential on any Employer's risk materialising, would be at the Employer's expense. The Contractor would generally be required to carry out the necessary rectification work, provided that the Engineer gives the Contractor instructions to do so. The Contractor would then be entitled to be paid a reasonable price for making good the loss or damage agreed with the Employer. If the price cannot be agreed then the ultimate remedy for the Contractor and Employer is to have the price determined by the applicable dispute resolution procedure.

22.5. Intellectual property rights

Where it is the Contractor's responsibility to design the Works, it must ensure that, in so doing or in manufacturing and operating the Works, the intellectual property rights of any third party are not infringed. Accordingly, the Contractor is usually required to indemnify the Employer against any such claims of infringement.

Similarly, it is appropriate that the Contract also provides that the Employer indemnifies the Contractor against any claims of infringement of intellectual property rights arising as an unavoidable result of the Contractor's compliance with the Contract, or as a result of the Works being used by the Employer in a manner inconsistent with the Contract.

22.6. Limitation of liability

Sometimes the legal liability of both parties is modified by limiting the damage recoverable to that reasonably foreseeable at the time the Contract was made, by restricting the parties' rights to make claims against each other for loss of profit, loss of use, loss of production, or loss of contract, or for indirect or consequential damage, except in specific circumstances. The Contractor's maximum liability may be stipulated and sometimes, except in the case of gross misconduct, any liability of the Contractor for loss or damage to the Employer's property after the defects liability period has expired is excluded. Of course this cannot affect any liability of the Contractor for any claims by third parties because they are not parties to the Contract.

The remedies provided by the Contract for the Employer and the Contractor are, except in the case of gross misconduct or actions arising under the *Trade Practices Act* (or the comparable *Fair Trading Act* legislation in the respective State jurisdictions), usually intended to be the only remedies for claims which the parties may have against each other. The intention is that claims which do not fall within the provisions of the Contract are to be excluded altogether so that any claims that may be made against the other party must be based on some specific provision of the Contract and not upon some extraneous rule of law or practice. For example, if the claim has been excluded by the terms of the Contract, or has expired, it should not be possible to claim on an alternative basis that the cause of the claim is negligence rather than breach of contract. As with any other aspect of a specific Contract, the parties' intentions must be derived by construction of the terms of the Contract as a whole.

Indirect loss that flows from the direct losses caused by a breach of contract, e.g. economic loss such as loss of profits or customers because a facility is defective or completed late, are referred to as **consequential losses**. These may be specific to a person's particular circumstances, and may not be known by the other party to the Contract. It may be agreed that neither of the parties are liable to the other for claims for consequential losses, except the Contractor's liability for delay in Practical Completion and the specific provisions of the Contract which entitle the Contractor to receive profit on extra costs that it has incurred in certain circumstances. It will have been noted that the latter would apply only in those cases where it can be said that the Contractor's claim to extra cost has arisen through some breach of contract by the Employer or those for which the Employer is responsible. It may be argued that the Contractor who, by its breach of contract other than lateness, causes the Employer to lose the use of the Works, or to lose production or contracts, should be liable to the Employer. The availability of such a remedy will depend on the terms of the Contract.

Note that there is conflicting case law on the meaning of the term "consequential loss" as used in exclusion clauses. There is English case law that the term refers to losses recoverable only under the second limb of *Hadley v Baxendale*[575] [damages "such as may reasonably be supposed to have been in the contemplation of both parties, at the time they made the contract, as the probable result of the breach of it"]. An alternative view expressed by Nettle JA of the Victorian Court of Appeal is that "ordinary reasonable business persons would naturally conceive of 'consequential loss' in contract as everything beyond the normal measure of damages, such as profits lost or expenses incurred through breach".[576] To avoid any ambiguity and to ensure that those "consequential losses" intended, and only those intended, are excluded, the term should be clearly defined in the Contract.

It is not possible for parties to contract out of the *Trade Practices Act*, in an attempt to exclude liability for a contravention of this Act.[577]

22.7. Mitigation of loss or damage

When a contract has been breached, the innocent party is not entitled to sit back and allow damages to multiply. It has a duty to mitigate its loss and damage. To fulfill its obligation to mitigate, the claimant does not have to do everything that could conceivably be done to reduce or restrict the size of its claim. For example, if a Defect occurs in some part of the Works and causes damage which could be confined to that section of the Works, and if appropriate measures can be taken by the Employer, it must do its best to take those measures so as to prevent its loss from increasing.

CHAPTER 23

INSURANCE

> "While considering the subject of insurance generally, it should be borne in mind by non-legal readers that insurers, like commercial bondsman, expend considerable ingenuity in drafting and designing policies which on the surface appear to offer, but on informed and close analysis do not, the full protection expected and required by the assured, and also in employing every device of subrogation, or of settlement of claims in return for assignment of rights, in order to transfer, reduce or eliminate their own liability."[578]

23.1. General requirements for insurances

Contractors are free to take out insurance of any kind against any risk, whatever the Contract may require. It may be reasonable to suppose therefore, that contractual requirements for insurance would be limited solely to matters directly in the Employer's interest. However, this is not necessarily so, as the Employer may be severely prejudiced if the Contractor is unable to fulfil its contractual obligations due to the occurrence of a peril against which it could have insured but did not. The Contract should make provision for this eventuality to protect the Employer's position. Thus the interest of the Employer, where the Contractor is liable, is to ensure that sufficient insurance funds are available to avoid delay to the project or increased costs of finding a substitute contractor due to the Contractor being financially crippled by a liability or a claim.

An earlier edition of Hudson's made the following observations which are still generally applicable:

> "It is in fact essential, in drafting a provision requiring insurance, for the contract to specify the exact risk to be insured against, the person or persons for whose benefit the policy is to be taken out, the amount of cover required and the effect of the obligation upon any indemnities which, under the contract, may be due from one party to the other in relation to the carrying out of the works. Otherwise the insurance of one party against a specific risk may only result in the insurance company being able to recover upon an indemnity from the other, which may defeat the whole purpose of the requirement to insure, or the protection conferred by the indemnity provisions may itself be affected."[579]

It is important that the information required for insurance of the Works is given by the Employer at the Tender stage. Sensible limits for deductibles should be chosen

CHAPTER 26

CASE STUDIES

"Those who cannot remember the past are condemned to repeat it."[664]

"History is the witness that testifies to the passing of time; it illumines reality, vitalizes memory, provides guidance in daily life and brings us tidings of antiquity."[665]

26.1. "Successful" and "unsuccessful" projects

This final chapter endeavours to illustrate the practical application of the issues discussed at length in the preceding chapters, by looking at some of the features of the contracts for a number of major construction projects.

There have been numerous reviews of the construction industry in Australia and overseas that have endeavoured to identify the factors that contribute to project success or failure, or the incidence of disputes. This chapter briefly reviews the recommendations of two such Australian studies, to provide a benchmark of important contractual issues considered important for project success. An assessment is made of their contribution to the project case studies presented.

On the assumption that there are lessons to be learned from the delivery of projects that did not fulfil their expectations ("unsuccessful projects") as well as projects that did fulfil their expectations ("successful projects"), project case studies of both successful and unsuccessful projects are presented. Each project and its outcome is briefly described, as well as relevant aspects of the contractual arrangements. Factors which appear to have had an impact on each project's success or otherwise are outlined and some of the lessons learned identified.

26.2. "No Dispute"

In 1990 a wide ranging joint working party from the private and public sectors published "No Dispute".[666] This paper outlined a consensus view of best practice in the preparation of documents for tendering, selecting contractors and the contents of the contract so as to minimise the likelihood of disputes between contracting parties. It suggested other improvements such as alternative project procurement strategies, quality assurance and alternative dispute resolution practices such as mediation, conciliation etc. Importantly, No Dispute advocated that a balanced risk allocation should be incorporated into construction contracts, by adopting the Abrahamson risk allocation principles to achieve a fair risk allocation between the competing commercial interests

of the Employer and the Contractor. The principles of dispute avoidance enshrined in No Dispute are as applicable today as when they were first published, but in the authors' experience are not always reflected in contracts.

The Executive Summary of "No Dispute" lists a total of 124 recommendations under 12 separate headings. Although the report was published under the auspices of the National Public Works Conference and the National Building and Construction Council, it contains the caveat that neither body nor their constituent members necessarily accept the consensus recommendations in their entirety, but accept them as a valuable contribution to the building and construction industries. The recommendations range from issues of broad principles addressed to the industry as a whole to specific recommendations on the content of Tender and contract documents. The recommendations can be classified broadly into the following three categories:

- a desirable approach to determining and defining obligations under contracts and subcontracts ("principles");
- specific recommendations that impact on the content of Tender and contract documents ("specifics"); and
- management of execution of the Tender process and the project ("management").

By their nature, the specifics need to be addressed within a specific contractual framework, or in relation to a detailed consideration of the content of the clauses of standard form contracts. By contrast, the management issues are those which generally do not require any significant change to contract or Tender documentation, but can be implemented by a management decision to follow the recommendations. Both specific and management issues are outside the scope of this book.

A review of the "No Dispute" recommendations reveals the following broad principles applicable to Employers procuring a project:

1. Risks should be allocated between the contracting parties in accordance with the Abrahamson principles.
2. The parties should cooperate in the interests of the project.
3. The contract strategy should be determined by consideration of the Employer's most important contract objectives.
4. The Employer should adopt appropriate cost management and budgeting methods.
5. A fair and equitable system should be used for selection of contractors.
6. Consultants should be appointed on merit, with adequate allowance for the extent of services, fees and time for preparation of design documentation.
7. Construction advice should be available to the design team.
8. The designer should carry out reviews of construction to ensure that the design intent is achieved.

9. Nomination of subcontractors should only be used after careful consideration of the disadvantages.
10. A realistic time should be allowed for project completion.
11. Variations should be avoided to the extent possible by proper definition of requirements and preparation of good project documentation.

Many of these principles are widely accepted and recommended as part of a contract strategy intended to minimise the incidence of disputes, particularly the recommendation for balanced risk allocation[667] and the desirability of cooperation between the contracting parties.[668] A number of applications of some of these principles are illustrated in the following case studies of successful and unsuccessful projects.

26.3. "Re-engineering the construction delivery process"[669]

In view of a number of new initiatives in the construction industry undertaken in the last 10 years, Sidwell et al question the relevance of earlier studies in identifying success factors in the current environment. A research project carried out under the aegis of the Construction Industry Institute Australia in 2002, examined 10 case studies of Australian projects to determine project related factors critical to project success. The following factors were identified as the most important areas for project stakeholders to focus on:

1. **Cooperative project team.**
2. **Client's competency and commitment.**
3. **Continuity of key personnel on the project team.**
4. Well defined functional brief.
5. Complexity and level of technology incorporated into the project.
6. Regular monitoring of key objectives.
7. Effective communication process.
8. Availability of suitable contractors.
9. Consultant selection criteria.
10. Mechanism for reward and penalty.
11. Clear reporting lines.
12. Client's preparedness to absorb risk.
13. Shared responsibility to project problems.
14. **Equitable risk allocation.**
15. Selection of subcontractor.

These factors come under the following five broad groupings:

- Capabilities and commitment of the client to achieve outstanding project performance (factors 2, 4 and 12);

- Willingness of all project participants to work in a coherent manner (factors 1, 13 and 14);
- Need for a proper communication and monitoring mechanism (factors 6, 7, 10 and 11);
- Importance of adopting a proper selection process in engaging key project personnel (factors 3, 8, 9 and 15); and
- Complexity (factor 5).

The following four factors were found to be critical in explaining the overall project performance: (1) a cooperative project team, (2) client's competency and commitment, (3) continuity of key personnel on the project team, and (14) equitable risk allocation. A multiple regression analysis of questionnaire responses on these projects established that these factors explained 65% of the overall performance variance (29%, 18%, 12% and 6% respectively), consistent with findings by other researchers.[670]

26.4. Project case studies

In the following sections, case studies are presented of four successful projects and five unsuccessful projects, to illustrate aspects of contractual arrangements which have been identified or are believed to have contributed to project success or failure. The broad definition of an unsuccessful project used here is one in which there is an "unacceptable difference between expected and observed performance", a definition of failure used in the forensic engineering context.[671] Conversely, a successful project is one in which there is no such unacceptable difference between expected and observed performance. Performance expectations relate to time, cost and quality, and an unacceptable difference between expected and observed performance in respect of any one of these therefore constitutes an unsuccessful project. Clearly, unfulfilled expectations of time, cost or quality performance can found a dispute between contracting parties.

It should be noted that the "projects" considered here are confined to the construction contracts in respect of procurement of the facilities, and do not consider the entirety of the projects including financing, commissioning and operation. Clearly, shortfalls in the project financiers' expectations in respect of project financial returns (as in the case of the Channel Tunnel Rail Link), or commissioning problems (as in the case of Heathrow T5) may paint a different picture in respect of the overall "success" of a project as a whole. Equally, notwithstanding cost or time overruns during design and construction of an "unsuccessful" project, the overall project in operation may subsequently prove to be a success. Cost and time overruns on public infrastructure projects are the rule rather than the exception,[672] however the constructed facilities generally fulfil their intended function in accordance with their design requirements, and with the passage of years are likely to be regarded as successful.

The project case studies considered here illustrate different contractual approaches to the risks associated with time, cost and quality. The projects and their contract types are as follows:

UNSUCCESSFUL PROJECTS		SUCCESSFUL PROJECTS	
Project	Contract Type	Project	Contract Type
West Gate Bridge (1970)	Cost plus erection only	Øresund Bridge (2000)	Design & construct
Channel Tunnel (1994)	Design & construct	Channel Tunnel Rail Link (2007)	Project Management
Heathrow Express Tunnel (1994)	Design & construct	Australian National Museum (2001)	Alliance
Scottish Parliament House (2004)	Construction Management	Heathrow T5 (2008)	Alliance
Boston "Big Dig" (2007)	Project Management		

26.5. Summary of issues identified in case studies

The sources used for these case studies report on a variety of different aspects of the contracts and their performance, and it is impossible to compare them on any consistent basis. However, these sources do enable a subjective assessment of some of the factors that appeared to have had an impact on project outcome. The following table provides the authors' assessment of each of the four successful and five unsuccessful projects against the 15 project related factors critical to success identified in "Re-engineering the construction delivery process".

Based on information contained in the source references used to prepare the brief summaries of each project below, an attempt has been made to identify whether each factor has made a positive or negative contribution to the project performance, signified by a tick or a cross respectively. The references consulted do not provide sufficiently comprehensive information to form a view in respect of each factor for each project, and a blank cell in the table therefore indicates that the influence of the respective factor is unknown. The absence of complete information for each of the projects considered precludes any comprehensive comparison or definitive conclusions, however the identification of negative contributions to unsuccessful project performance and positive contributions to successful project performance should be noted.

Project related factors critical to project success ["Re-engineering the construction delivery process"]	West Gate Bridge (1970)	Channel Tunnel (1994)	Heathrow Express Tunnel (1994)	Scottish Parliament House (2004)	Boston "Big Dig" (2007)	Øresund Bridge (2000)	Channel Tunnel Rail Link (2007)	Australian National Museum (2001)	Heathrow T5 (2008)
1. Cooperative project team	✗	✗	✗	✗			✓	✓	✓
2. Client's competency and commitment		✗		✗	✗	✓	✓	✓	✓
3. Continuity of key personnel on the project team	✗			✗				✓	✓
4. Well defined functional brief		✗		✗		✓		✓	✓
5. Complexity and level of technology incorporated into the project			✗					✓	✓
6. Regular monitoring of key objectives				✗			✓	✓	✓
7. Effective communication process	✗		✗	✗				✓	✓
8. Availability of suitable contractors	✗	✗				✓	✓	✓	✓
9. Consultant selection criteria									✓

Project related factors critical to project success ["Re-engineering the construction delivery process"]	West Gate Bridge (1970)	Channel Tunnel (1994)	Heathrow Express Tunnel (1994)	Scottish Parliament House (2004)	Boston "Big Dig" (2007)	Øresund Bridge (2000)	Channel Tunnel Rail Link (2007)	Australian National Museum (2001)	Heathrow T5 (2008)
10. Mechanism for reward and penalty	✗	✗	✗	✗	✗		✓	✓	✓
11. Clear reporting lines	✗			✗			✓	✓	✓
12. Client's preparedness to absorb risk		✗				✓	✓		✓
13. Shared responsibility to project problems	✗	✗	✗		✗		✓	✓	✓
14. Equitable risk allocation	✗	✗				✓	✓	✓	✓
15. Selection of subcontractor									

26.6. Unsuccessful projects

26.6.1. West Gate Bridge (1970)

West Gate Bridge over the Yarra River in Melbourne was procured in the late 1960s under a forerunner of a modern Public-Private Partnership. The private company Lower Yarra Crossing Authority (the Authority) was vested with appropriate powers to finance, construct and operate a toll bridge by enabling legislation. The bridge comprises twelve concrete spans on the east side and nine concrete spans on the west side, with five steel box girder spans crossing the Yarra, the central three spans being cabled stayed. The Authority procured the West Gate Bridge conventionally: it engaged eminent consulting engineers to prepare the designs and supervise construction, and contracts were let for the construction in accordance with the engineers' designs.

The original contract for fabrication and erection of the steel box girder spans of the bridge (Contract S) was based on a considerably amended Australian Standard General Conditions of Contract for Civil Engineering Works, with a number of other documents incorporated. Contract S required the consulting engineer (who was not a party to this contract) to provide the contractor with a set of bridge design calculations to enable it to prepare erection calculations. The contractor had no contractual mechanism to enforce compliance, and the calculations were never provided. The Contract S contractor fell so seriously behind its program such that it agreed with the Authority to retain the work of fabrication and subassemblies of the steel boxes, with all the other work of completion and erection to be carried out by another company (JHC) under a new contract (Contract E).

Contract E was a "cost plus" labour management contract in which JHC was responsible for the physical task of erecting the steel work, but had no responsibility for engineering decisions relating to final or erection stresses in the bridge. This contract had an exclusion clause which held JHC harmless in contract or tort for any failure to construct and complete the works or any defects, unless caused by gross negligence. This contractual arrangement put more responsibility on the consulting engineer and made its task more onerous, without changing its legal liability (which remained the skill, care and diligence contemplated by the common law and expressed in the provisions of the consultant's contract with the Authority).

Following the delays caused by the change of erection contractor for the steel spans, there was considerable pressure to complete the construction within specified times. A constant sense of urgency resulted in quick ill considered decisions and pressure and this brought about difficulty and delay and directly caused some serious errors of judgment.

The method of erection used by the original steelwork contractor, using two half spans jacked into position and joined along the longitudinal centreline, had not been used anywhere else in the world. This method of erection resulted in a mismatch between the camber of two half spans which JHC attempted to correct by the use of heavy

weights (kentledge). This caused a buckle in the upper flange near the middle of a span. About 30 bolts were removed from a transverse splice in the upper flange to correct this buckle, resulting in complete collapse of the span and the death of 35 people.

A Royal Commission was immediately constituted to report on the causes of the failure and whether any aspect of the design was inadequate. Although it found that the removal of the bolts was the immediate precipitating cause of the collapse, it found that the quality of the design was a very significant factor, as the factor of safety for many of the approved erection conditions was too low even without the addition of kentledge or the removal of the bolts. It concluded that: "... the basic cause of the tragedy at West Gate was the design inadequacies which led to the safety margins being much too low, and certainly lower than the specified values." However it also found that inappropriate contractual arrangements were contributing factors, particularly the disastrous confusion resulting from a failure to define the roles of the contractor's and engineer's staff.

A steel box girder bridge under construction at Milford Haven in Wales had collapsed several months before the West Gate tragedy, and the UK government appointed a Committee of Inquiry to report on the causes of that failure as well as West Gate. It recommended that the following four procedures were essential in constructing major steel box girder bridges, none of which had been followed at West Gate:

(a) an independent check of the Engineer's permanent design;

(b) an independent check of the method of erection and design of Temporary Works adopted by the Contractor;

(c) the clear allocation of responsibility between the Engineer and the Contractor; and

(d) provision by the Engineer and the Contractor of adequately qualified supervisory staff on site with their tasks and functions clearly defined.

26.6.2. Channel Tunnel (1994)

The Channel Tunnel between England and France might have had the longest gestation period of any project in history, as it was first mooted in 1750. Alas, this long gestation period was not put to good use in preparing detailed designs before the ultimate contract was entered into, as the following modern chronology demonstrates:

- 1958-60: Channel Tunnel Study Group carried out preliminary investigations.
- 1964-65: Investigation of a bored tunnel option.
- 1970-75: Political interest in the tunnel project.
- 1981: Inter-governmental working group was set up to investigate a privately funded crossing.