01 July 2019

ATTENTION: Dr Matthew Butlin, Presiding Commissioner
SA Productivity Commissioner
South Australian Productivity Commission
GPO Box 2343,
ADELAIDE SA 5001

BY EMAIL:  sapc@sa.gov.au and giselle.oruga@sa.gov.au

Dear Dr. Matthew Butlin,

RE: INQUIRY INTO GOVERNMENT PROCUREMENT STAGE 2

Management of Errors and Omissions and subcontract payments for better outcomes

The act of making subcontractors responsible for "errors and omissions" in documentation designed and completed by other parties in contracts is neither efficient nor effective. Nor is it equitable. This common practice coupled with a superintendent who contracts out of their obligation to act fairly and reasonably, creates a beast (Appendix 1). As 84% of AS contracts are amended this has become the standard across construction contracts (Appendix 2).

Further, these heavily amended contracts are forcing subcontractors to be the unwilling bankers for unsecured interest-free loans to builders; operating in this manner is not conducive to building local resources nor is it productive.

COMMENTS ON GENERAL CONCERNS WITH OPINION AND OR EXAMPLES

Tender cost

- As a mechanical services contracting company O'Connor expended over $100,000.00 tendering the SA Law Courts, and although we were in the preferred team, the project did not proceed.

- This affects our ability to reinvest in the business.

- The Government needs to reduce similar occurrences.
Unfair contract terms
- We were the mechanical contractor on the super school projects where the Consultant AECOM designed in ground copper heating pipework with annealed joints, which later failed. Whilst we excluded design responsibility from our contract, our PI insurance was held responsible as we didn’t insist that the works couldn’t proceed as designed by AECOM and the contract excluded the use of proportional liability. The consultant was not held responsible for their error (defective design).
- The allowable legal framework of contracts needs to be corrected to build trust. There is nothing wrong with unamended AS contracts.
- The major unfair contract terms are those making subcontractors responsible for “errors and omissions” in the design and documents by others provided to them.
- Having an independent superintendent to administer contracts is crucial and contracting out of common law rights should be legislated against. The parties, the Project Manager and the Supervisor need to move toward acting in a spirit of mutual trust and co-operation. This will aid in collaboration, transparency, communication and project management as works will be process driven requiring active and prospective management of risk.

Inefficient allocation of risk
- Using the contract to shed risk is not as effective as managing it, more focus is required on the management of risk.

Capability of public authorities
- If we used unamended Australian standard contracts, it would be easier to align government resources with learning an unamended standard contract. Therefore, aiding in building and maintaining the capabilities of public authorities. These contracts should be in plain English drafting, present tense, and there should be no cross-referencing of clauses – this will aid in good management, flexibility and clarity.

Opportunities to streamline
- In my opinion, independent superintendents could aid with this.
Access to Government work
- Do not have issue here.

Support for innovation
- Current contracts are failing to incentivise innovation and collaboration, with detrimental implications for productivity and overall building quality.

Value for money
- We would like to see more value placed on the ability to manage risk and time.

The level of performance, reporting and accountability of public authorities
- We support the government rewarding high performing individuals.

The level of compliance of public authorities with the government procurement framework
- Not familiar with this.

The performance and impact of the Industry Participation Policy
- We see the impact as positive.

Unnecessarily risk adverse
- Agree and it is counterproductive to growth.

BACKGROUND OPINION:

Contracts are the foundation upon which trust can be built. They provide certainty.

The complexity of construction projects can make them fertile grounds for disputes. Principals are driven to minimise risk (without necessarily reducing or managing it) through the drafting of contract terms and conditions that transfer risk onto other parties. These behaviours are often unreasonable, using the lack of equality on available information and power imbalances between contracting parties, and often project risk is transferred onto those least capable of managing it.

This creates the beast that is the current construction industry.
"REIGNING IN THE BEAST!"

The Construction Industry is batting way above its average when it comes to insolvencies and associated disruption.

Insolvency (or liquidation) in the Australian Construction Industry is all too common. The Construction Industry accounts for 8 to 10% of the country’s Gross Domestic Output but has 23% of insolvencies. Note the following;

➢ Billions did not get paid due to insolvencies.
➢ Unfair contract terms/allocation of risk massively contributed to the high level of insolvencies in the building industry.
➢ 84% of AS subcontracts are heavily amended
➢ Contracts are often too complex for construction professionals who are experts in different fields (i.e. PM, Engineering, Plumbing, Drafting etc.
➢ Main Contractors, Subcontractors and Sub-Subcontractors have an ever decreasing ability to influence (or even hold) Contract Terms and Conditions. This creates a counterproductive barrier to “Surviving and Prospering” and hence the prosperity of local industry (i.e. less local resources, employment and training opportunities).
➢ Imbalances and information asymmetries provide stronger parties with natural incentives to manipulate arrangements in their favour.
➢ Most building and construction projects involve a chain of top-down contracts where those financing the project are often far removed from other contracting parties.

OPINION ON THE ROLE OF GOVERNMENT:

It is a fundamental role of government to provide a workable legislative and regulatory framework that sets clear rules and strong enforcement when necessary.

The Commonwealth Government has sought to bolster the legislative and regulatory framework with:

➢ the passage of the Building and Construction Industry Security of Payment Act 1999 (state based),
➢ the Personal Property Securities Act 2009 (Cth),
The Treasury Legislation Amendment (Small Business and Unfair Contract Terms) Bill 2015 aimed to provide enhanced mechanisms for small businesses to pursue remedy for unfair contract terms. 

We need this extended to the industry as a whole for all contracts.

The recent proposed amendments by Coalition Ministers Robert and Cash are encouraging (Appendix 3). The 2015 Bill was designed to stop the use of unfair contract terms however for the most part Australia’s largest corporations continue to dictate these unfair contracts and ignore the will of parliament. The ACCC, the ALP and the Coalition have all expressed that they want the will of parliament enforced hence the amendments.

Important sections of the proposed amendments include:

- Not only will unfair contracts be illegal (not just null and void) but there will be fines for breaches.
- The definition of small business to cover companies up to 100 employees and the contracts that are covered will have no monetary threshold.
- Bans will be extended to governments.
- This change will mean contracts will need to be rewritten.

The failings of the proposed amendments are the limits on its coverage and the definition of a standard contract. The UK position referring to standard terms is more effective.

RECOMMENDATIONS:

(Procurement processes proposed reform options to positively impact on employment)

1. Government should commit to the role of model client by adopting best practice contract conditions and innovative procurement arrangements that encourage the equitable sharing of risk and return across the supply chain through the use of AS contracts.立法the use of unamended AS contracts to fairly allocate risk throughout the chain, removing unfair contract terms as a norm.

2. Reduce the amount of credit provided by subcontractors to the industry.

3. In collaboration with industry, utilise the CIF to devise and develop new and innovative models to be implemented across both the public and private sectors.
4. Increase the role of the Industry Advocate and the Small Business Commissioner in the oversight of building and construction contracts by establishing direct channels for compliance, complaints and investigation relating to unfair contract conditions in the sector.

Yours sincerely,

[Signature]

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Construction insolvency in Australia: reining in the beast

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Abstract

Insolvency has become endemic in the Australian construction industry. The scale of the problem has reached such proportions that both the NSW Parliament and the Senate have, in recent times, commissioned inquiries into construction insolvency. This paper aims to identify the reasons as to why the construction industry is so susceptible to insolvency, evaluate the effectiveness of any existing insolvency protection measures available to construction firms, and to identify proposed future measures to address the factors causing construction insolvency. The results of a questionnaire survey designed to discover the extent of the construction insolvency problem, as well as building contractors’ views with respect to the causes and regulation of construction insolvency, in South Australia are presented. The research found that there is an appetite amongst building contractors for the introduction of further regulation to address construction insolvency. Further, although the research found underbidding to be the biggest contributory factor towards construction insolvency, it appears to be the most difficult factor to address through regulation which explains the paucity of recommendations which directly address underbidding emanating from the Senate inquiry in 2015.

Keywords: Construction insolvency, underbidding, security of payment, phoenix companies.

Paper type: Research article

Introduction

Insolvency represents one of the biggest contemporary issues facing the Australian construction industry. No other single industry sector in Australia is blighted by the scourge of insolvency anywhere near to the same extent as is the construction industry. Data submitted by the Australian Securities and Investment Commission (ASIC) to the Senate Economic References Committee (SERC) (2015) shows that over the period 2009-10 to 2013-14, the construction industry (which produced 8 to 10% of national gross domestic product) accounted for 23% of all external administrations in Australia1. The same data reported 2,153 corporate insolvency events in the construction industry in the 2013/14 financial year. Notably, these figures do not include insolvent non-corporations (such as small sole traders which account for 60% of all construction businesses) who have entered into bankruptcy. If bankruptcies of non-corporations were added to corporate insolvencies, no doubt the construction insolvency statistics would be even more alarming.

A large proportion of construction insolvencies are experienced by small contractors and sub-contractors; entities with assets of less than $10,000 (BIS Shrapnel, 2012). This is perhaps unsurprising as the vast majority of construction firms are small specialist trade contractors. These

1 The next largest single identifiable industry is retail trade, accounting for 10% of all external administrations.
alarming insolvency statistics, coupled with several recent high profile insolvencies of large building contracting firms leaving hundreds of subcontractors and suppliers unpaid, have in recent times prompted the NSW Parliament (Collins, 2012) and the Senate (SERC, 2015) to conduct urgent inquiries into the construction insolvency problem.

Some may argue that insolvency of firms within a particular industry is not necessarily a bad thing; that natural wastage weeds out the financially weaker, less efficient and commercially reckless from the financially stronger, more entrepreneurial and commercially savvy operators. Whilst this ‘survival of the fittest’ view may have some foundation per se, in the case of the construction industry it fails to recognise the fact that, due to the hierarchical contracting chains on construction projects, the ill-advised actions of one higher ranking ‘officer’ in the chain of command can be fatal to countless other ‘good soldiers’ following behind. As evidence for this, one need look no further than one of the many high profile head contractor insolvencies in recent years – such as Southern Cross Constructions (NSW) Pty Ltd in New South Wales and Tagara Builders Pty Ltd in South Australia to name just two – which have affected hundreds of subcontractors and suppliers and left in their wake tens of millions of dollars owing to creditors. It is this vulnerability of those contractors lower down the contracting chain to the actions of those above which justifies regulation to ensure that principal contractors carry out business in an ethical, responsible and commercially sound manner.

This paper aims to identify the key reasons for the construction insolvency problem in Australia, evaluate the effectiveness of any existing measures available for construction firms to protect themselves against the effects of insolvency and consider what can be done in the way of proposed future measures to address it. The results of a questionnaire survey designed to discover the extent of the construction insolvency problem and building contractors’ views with respect to the causes and regulation of construction insolvency in South Australia are presented.

Reasons for the construction insolvency problem

It is due to a combination of characteristics which are found in the construction marketplace that insolvency has proliferated in the industry. These characteristics include:

- the pyramidal contracting chains on construction projects;
- a predominance of trade credit throughout the construction industry;
- the unsecured creditor status of building contractors and suppliers for work done and/or goods supplied;
- poor payment practices;
- underbidding leading to the prevalence of tight, or even zero, profit margins in the construction industry;
- illegal phoenixing activity;
- undercapitalised firms, which are not financially resilient; and
- poor strategic business management skills of many, particularly smaller, contractors.

Pyramidal contracting chains

Subcontracting is endemic in the construction industry, with subcontractors providing the vast majority of building work on construction sites, as it facilitates the most cost efficient method for contractors to engage specialised labour. As such, contractors may be categorised according to which tier in the overall contractual structure they are engaged in (see Figure 1). Tier 1 contractors are those contractor firms who are directly engaged under contract by the building developer. Tier 1

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2 Martial analogies are not uncommon with respect to construction payment – see, for example, Christopher Rankin and Bob Gaussen’s submissions to the Senate Economics References Committee (2015: 14).

3 See further Collins (2012: 8).

4 See further Small Business Commissioner, South Australia (2016: 5).
contractors are head contractors who establish and run the construction site and manage construction activities to deliver the general contract works. Tier 1 contractors typically procure the labour and materials necessary to physically carry out the construction works by engaging tier 2 contractors under contact. On commercial projects, tier 2 contractors are typically medium to large contractors specialising in the construction of one particular trade (e.g., concreting, masonry, joinery, electrical etc.). Tier 2 contractors supplement their full-time workforce by engaging smaller tier 3 contractors who then, in turn, may supplement their workforce by engaging even smaller tier 4 contractors. Contractors towards the bottom of the contracting chain may very well be small one person sole trader firms.

The existence of pyramidal subcontracting chains on construction projects, as illustrated in Figure 1, means that subcontractors are financially vulnerable to an insolvency or poor payment practice of a contractor higher up in the contracting chain. As stated by the Queensland Building Services Authority (QBSA) (2001), the financial failure of any one party in the contractual chain can cause a domino effect on other parties with those at the bottom most at risk in the event of a client or contractor defaulting. The collapse of one element of the contractual chain or the failure to pass on monies owed can create enormous financial strain on the other parties.

![Figure 1: Contractual chains on a construction project (Coggins et al 2016: 36)](image)

**Predominance of trade credit**

Construction firms take much more trade credit from their suppliers (two to three times as much, depending on the measure used) as a proportion of their balance sheet than do firms in the rest of the economy (Ive and Murray, 2013). In 2012, in his inquiry into NSW construction insolvency, Collins, (2012) found that the average contractual payment terms between principal contractors and their subcontractors in New South Wales fell somewhere between 45 and 80 days, and in the worst cases extended to between 90 and 120 days.

This commercial pressure to extend trade credit terms to principals is passed on down the contractual chains in the construction industry, as each tier in the chain attempts to obtain ever

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5 Subsequent to this finding, the NSW Parliament introduced prompt payment provisions into the Building and Construction Industry Security of Payment Act 1999 (NSW) requiring that progress payments under a construction contract become due and payable on the date occurring no later than 15 business days after a payment claim is made by a head contractor, and no later than 30 business days after a payment claim is made by a subcontractor.
generous credit terms from firms in the tier below in order to finance their works. This results in
the perverse state of affairs whereby the smallest and most vulnerable construction businesses
effectively end up financing the construction works on a construction project. Consequently,
smaller construction contractors are exposed to extremely poor cash flow and high risk of payment
default which accentuates the likelihood of insolvency.

The prevalence of trade credit in the construction industry may be explained by the dominant
bargaining position of principal contractors who, as providers of future revenue to their
subcontractors, wield considerable influence in commercial transactions with them. Ive and Murray
(2013) refer to this as ‘dominance hypothesis’, and note that under ‘dominance hypothesis’
subcontractors may lose money by providing credit to their principals at a cheaper rate than they
can obtain it.

Unsecured Creditor Status

An unsecured creditor is a person who is owed money by a business, but does not have a security
interest, or charge, over the credit extended (Coggins et al., 2016). Typically, most of the building
contractors and suppliers who carry out works and/or supply goods on a construction project are
unsecured creditors. In the event of the liquidation of an insolvent business, under corporations
law the proceeds from the realisation of the company’s assets must be paid out to creditors in the
following order of preference: monies owed to secured creditors, fees and expenses due to the
liquidator, any outstanding wages and superannuation contributions owed to the company’s
employees and, finally, the debts owed to the company’s unsecured creditors.

If the proceeds are not sufficient to repay all the debts owed to unsecured creditors, as is often the
case, whatever funds remain are distributed between the unsecured creditors on a pro-rata basis.
This means that they may only see a small fraction of the money they are owed (e.g. 30 cents in the
dollar) and, furthermore, it may well be up to 12 months before this money is paid.

Indeed, ASIC figures indicate that insolvent businesses in the construction industry had, at the very
least, a total shortfall of liabilities over assets accessible by their creditors of $1.625 billion in
2013/14 (SERC, 2015). There are some measures which building contractors and suppliers may
choose to adopt in order to protect themselves against losses caused by the insolvency of their
principal. Contractors and suppliers, for example, may purchase trade credit or insolvency
insurance; although many find the cost of such insurance prohibitive and damaging to
competitiveness when tendering. There have been several reports and enquiries which have
considered the introduction of statutory insolvency insurance to protect subcontractors (see, for
example, Collins (2012); Security of Payment Taskforce (WA) (2001).

All these reports, however, have advised against the introduction of such a scheme due to, amongst
other reasons:

- insolvency insurance providing no incentive for principal contractors to avoid behaviour
  that could bring about insolvency, knowing that should their businesses fail, they will not
  bear personal responsibility for the repayment of their debts; and
- no information being available to suggest that the cost of administering such a potentially
  expensive scheme would be less than the cost of insolvencies in the sector (Collins, 2012).

In Australia, principals often require their contractors to provide performance bonds as a form of
security. This protects a principal against any extra costs in completing the works under the contract
by being able to call in the bond amount from the providing surety in the event the contractor
becomes insolvent. In the USA, although not in Australia, the use of payment bonds is common
whereby a building owner requires their head contractor to provide a payment bond which

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6 Corporations Act 2001, s 556.
7 Although, according to s 561 of the Corporations Act 2001, claims by employees for unpaid entitlements have priority over
secured creditors with floating (but not fixed) charges.
guarantees payment from the surety to any of the head contractors’ unpaid subcontractors in the event of head contractor insolvency. This avoids subcontractors obtaining liens over the owner’s site.

Contractors and suppliers may also be able to create a security interest over any unpaid goods and materials, which they have supplied to a principal and are not yet installed into the building works, by inserting a retention of title clause into the contract. In such a case, in order to protect this security interest from other secured creditors, a contractor or supplier needs to register their security interest on the Personal Properties Securities Register (PPSR).

Poor payment practices

Undervalued, withheld and/or non-payment of contractors is both a major cause and effect of construction insolvency. There have been several building and construction industry security of payment reviews in Australia over the past 20 years, for example Price Waterhouse (1996); QBSA (2001); Cole (2003); Stenning and Associates (2006) which have concluded that a significant security of payment problem has existed for decades.

Such poor payment practices have persisted despite the introduction of ‘proof of payment’ clauses into several standard forms of building contracts in the 1990s, which require a contractor, as a precondition to payment, to provide their principal with evidence that they have paid their subcontractors all monies due and owing. Indeed, the independent inquiry into construction industry insolvency in NSW heard much evidence that false statutory declarations are submitted to the principal by head contractors when, in fact, their subcontractors have not been paid, and that such false declarations were not policed (Collins, 2012).

The Senate Economics References Committee (2015) found that poor payment practices towards subcontractors are caused by the little regard that head contractors often have for the impact of the financial pressures on subcontractors together with the view that, due to their surfeit, subcontractors are expendable and may be easily replaced without financial detriment (due to the holding of retention monies and work received on credit) if they become insolvent.

Additionally, it is not uncommon for contractors, even those who are normally reputable, to find it difficult or impossible to avoid poor payment practices towards their subcontractors when they are inflicted by financial difficulties which may have been caused by their underbidding or the poor payment practices or insolvency of their own principal. Where poor payment practices occur, as illustrated in Figure 2, there is a risk that a vicious cycle of insolvency, non-payment, financial difficulties and poor payment practices may be triggered.

In the worst cases, this vicious cycle may spiral down the hierarchical contractual chain whereby the construction insolvency of a principal contractor plunges unpaid contractors in the tier below into financial difficulties thereby forcing them to engage in poor payment practices with their own subcontractors which leads to construction insolvency.

It is due to this long track record of poor payment practices in the industry that all eight state and territory parliaments across Australia have progressively introduced (between 2000 and 2011) statutory adjudication for payment disputes under somewhat diverse building and construction industry security of payment legislation. Whilst there is general consensus that security of payment legislation has improved payment culture within the industry, there is still much scope for improvement. As Coggins and Bell (2015) note, although adjudication usage rates might at first sight appear quite healthy, there is some evidence to show that adjudication is not as well used as it might have been due to a lack of knowledge about the legislation, as well as a reluctance of contractors to endorse their payment claims as being made under the Act for fear of losing future work. In an attempt to continually improve the effect of the legislation on security of payment,

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8 Workers and mechanics liens legislation is prevalent in many US states.

9 The PPSR was established under the *Personal Properties Securities Act 2009* (Cth).
there have over the past couple of years been significant amendments made, in particular, to the Queensland and NSW Acts which has widened the diversity even further between the legislation interstate\textsuperscript{10}.

Figure 2: Vicious cycle of insolvency, non-payment, financial difficulties and poor payment practices (Coggins and Lord, 2014, p.225)

In recent years, to further enhance security of payment, there have been calls for the introduction of project trust accounts or project bank accounts (Collins, 2012; SERC, 2015), which require progress payment monies paid by the owner to a head building contractor to be deposited into a trust or project bank account from which all subcontractors are to be paid before the head contractor is permitted to access the monies for their own use. Indeed, project bank accounts have been trialled on selected government projects in NSW\textsuperscript{11} and WA\textsuperscript{12} over the past 2 to 3 years, and have recently been recommended for use on South Australian (Small Business Commissioner, South Australia, 2016) and Commonwealth Government projects (SERC, 2015). Additionally, a mandatory requirement for retention monies to be held in trust accounts for projects in excess of $20 million was introduced into NSW on 1 May 2015. Such trust or project bank accounts prevent the head contractor from using the subcontractors’ progress payment monies and/or associated retention monies for other purposes (e.g., transferring the monies to pay subcontractors on another project), and also protect the subcontractors’ progress payment monies from the head contractor’s secured creditors (e.g., the bank) in the event of head contractor insolvency.

**Underbidding**

The predominant method of tendering used in the construction industry is that of competitive lump sum tendering. This typically encourages high levels of competition in which contractors contractually commit themselves to deliver the specified contract works for a fixed contract sum. Accordingly, Williamson et al. (2004, p.61) observe that “The construction industry consists of a set of markets that form a very competitive system, so competitive that it has been said to be one of the closest systems to perfect competition.”

Gerber and Ong (2013) note that price competitiveness is accentuated amongst construction tenderers by owners:

- often viewing price as the most decisive criterion for award contracts, and
- sometimes encouraging too many contractors to tender for a project, particularly in the case of government projects, due to accountability for public funds.

As Gerber and Ong (2013, p.22) state,

“\textit{Against this backdrop, contractors are motivated to win a tender by submitting an abnormally low bid notwithstanding any inherent complexities the project may face.}”

\textsuperscript{10} Furthermore, the ACT Legislative Assembly has recently passed amendments to their legislation, and a consultation process is currently underway for a raft of proposed wide sweeping amendments to the South Australian legislation (Small Business Commissioner, South Australia 2016).

\textsuperscript{11} See further: https://www.procurepoint.nsw.gov.au/construction-procurement-direction-c2013-02


Coggins, Teng and Rameezdeen
In times of economic downturn, competition intensifies even further as a result of “bidding war[s] for the shrinking pool of work which leaves scarcely any profit margin” (Australian Financial Review, 2012, p.44, cited by Collins, 2012, p.8). Indeed, in periods of prolonged economic downturn, it is not uncommon for building contractors to adopt a marginal cost pricing strategy – where firms tender to cover the cost of labour, materials and plant (variable costs) to construct the contract works and whatever contribution they can obtain towards covering fixed costs such as head office overheads and returns/profits to the business owners – in an attempt to keep the business running in the short term and ride through the harsh economic climate. Alternatively, firms sometimes may underbid on one project in order to obtain a cash flow to meet payments on another project (Creighton, Handford and McLure, 1995).

The practice of intentionally bidding at a price lower than cost is sometimes referred to as ‘suicide bidding’. A suicide bidding strategy is often associated with a premeditated ‘claims mentality’, i.e. contractors who deliberately underbid with the intention of clawing back losses and forgone profit by submitting numerous claims during construction. However, this strategy is highly risky, and often results in disputed claims and financial difficulties for the winning contractor, which may kick-start the vicious cycle of insolvency illustrated in Figure 2. Alternatively, ‘unwarranted optimism’ has been cited as a reason for some contractors’ underbidding (Fenwick Elliott, 2015).

The highly competitive nature of the construction market may lead to head contractors engaging in ‘bid shopping’, which is widely viewed to be an unethical practice. Bid shopping involves head contractors attempting to use the lowest tender price submitted by a subcontractor in a competitive tender process as a ‘bargaining chip’ in order to drive down tender prices even further by negotiation. As Uher and Davenport (2009, p.211) observe, “Despite the presence of codes of ethics and tendering, bid shopping is actively employed by general contractors.”

Bid depositories, which are typically administered by contractors’ associations13, are used in some US states and Canadian provinces in order to prevent bid shopping. In these jurisdictions, building owners may choose to conduct the tender process for their construction project through a bid depository. Where bid depositories are used, subcontractors submit their tenders on the various trade packages to the bid depository who then pass a copy of the bids to both the building owner and the head contractors who have confirmed their intention to tender for the general project works. The head contractors then compile their own tenders for the general contract works, which must identify which subcontractor’s tender was used for each trade, and submit them to the building owner. This prevents bid shopping as the building owner has received the subcontractors’ tendered prices from the bid depository, thus bringing transparency to the tendering process. It should be noted, however, that the effectiveness of bid depositories has been somewhat curtailed in the USA by a number of anti-trust legal cases where plaintiff contractors and subcontractors have successfully argued that bid depositories have led to restraint of trade or competition – for example, by only allowing subcontractors who are members of a particular association to submit bids to the bid depository14.

**Illegal phoenix activity**

Illegal phoenix activity involves the deliberate liquidation of a company, after having transferred the indebted company’s assets to a new company, in order to avoid paying creditors, tax or employee entitlements15. According to the ATO (2016) website, illegal phoenix activity is typically characterised by the new entity:

- carrying out similar or the same business activities as the former company,
- having directors who are family members or close associates of the director(s) of the former company,

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13 E.g., the Associated General Contractors of America in Maine, USA.
• operating under a similar trading name to the former company, and
• using the same business premises and telephone number (particularly mobile number) as the former company.

In the worst cases, rogue company directors may become serial ‘phoenixers’, deliberately liquidating company after company in a systematic and cyclical manner (PwC, 2012). The Cole Royal Commission into the Building and Construction Industry found that ‘there is significant [illegal] phoenix activity in the building and construction industry (SERC, 2015, p.68). Furthermore, SERC (2015) received anecdotal evidence which indicates that phoenixing is considered by some in the industry as merely the way business is done in order to make a profit.

Illegal phoenix activity contributes further to losses which unpaid construction contractors and suppliers suffer due to the insolvency of their principal. The PwC report prepared for the Fair Work Ombudsman on phoenix activity,\(^\text{16}\) found that an estimated annual cost of $1.93 billion was suffered by businesses as a result of phoenix companies not paying debts or not providing the goods and services that have been paid for by creditors. Although this figure is across all industries, SERC (2015, p.72) commented that “it should be remembered that it is likely that the construction industry accounts for the greatest incidence of illegal phoenixing.”

Furthermore, phoenix activity accentuates the damaging phenomenon of underbidding. The Senate Economic References Committee (2015, p.73) received a number of submissions that “phoenix companies are awarded projects through 'net-of-tax-tendering': that is where companies tender quotes calculated on the basis that they will not pay taxes.”

### Undercapitalised firms

Undercapitalisation is a commonly cited reason for construction insolvency. In 2013/14, approximately 20% of external administrators’ reports lodged with ASIC nominated undercapitalisation as a cause of business failure (SERC, 2015). Undercapitalisation may be defined as a firm having insufficient funds to carry out their day- to-day business. The Security of Payment Taskforce (WA) (2001, p.8) observes that,

> Because the mainstream construction industry is heavily fragmented and specialised with capital equipment usually available for short-term hire it is possible to commence contracting in the industry with very little working capital. So long as there is timely payment for work done, and suitably generous terms of trade and credit available from suppliers, the business can survive on very high gearing or even cash flow alone.

As such, it is typical for construction firms to have little in the way of owner capital; hence, they need to rely on credit and borrowed capital. As Collins (2012) identifies, insufficient capital together with excessive debt is one of the most common causes for construction insolvency. Insufficient working capital and the resultant dependency on timely cash flow means that many construction firms are not financially resilient in the event of payment problems.

### Poor business management skills

The Senate Economic References Committee (2015) found that poor financial and business acumen was a principal cause for insolvencies in the industry, and received submissions from professional associations such as the Master Builders Association and the Housing Industry Association stressing the importance of ensuring that entrants into the industry receive more business skills training before being allowed to practise. The Security of Payment Taskforce (WA) (2001) found that the construction industry is more prone to poor business practices because it is usually technical skill rather than business acumen that induces people to become contractors or subcontractors.

Poor business practice manifests in several ways such as, for example, persistent underbidding through a lack of appreciation of true business costs, a failure to understand both contractual risks

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\(^{15}\) This definition has been adapted from the ASIC and ATO websites.

\(^{16}\) As cited by the Senate Economic References Committee (2015: 72).
and terms leading to the inability to recover unexpected losses, and poor cash flow management. Such practices can lead to the rapid demise of a construction business, especially in the harsh and risky financial environment of the construction industry.

The need for empirical research into construction insolvency

Although much anecdotal evidence exists within government commissioned reports with respect to the causes of construction insolvency (as discussed above), there appears to be little in the way of empirical data obtained via survey of construction industry participants. This paper attempts to take a first step in this direction by presenting the results of a pertinent questionnaire survey targeted at South Australian building contractors. Whilst the survey is limited to the South Australian market, it may be argued the similar nature and characteristics of the construction industry inter-State (particularly in terms of procurement, tendering and regulation) suggests that the results may be representative of building contractors’ views nationwide. Having said this, it is recognised that a far more satisfactory approach would be for similar surveys to be carried out in each state and territory, especially given the differing levels of economic activity occurring between them. Accordingly, further research along this line is recommended. The details of the research approach adopted and results obtained for the South Australian survey are presented below.

Research method

A questionnaire survey was carried out by the authors with the aim of discovering the views of building contractors operating in South Australia (SA) with respect to the extent, causes and regulation of construction insolvency. A questionnaire survey is a systematic method of collecting primary data based on a sample (Tan, 2002). Tan (2002) further highlighted that the purpose of a questionnaire survey is not to consider a specific case in depth but to capture the main characteristics of the population at a given time. Saunders, Lewis and Thornhill (2009) suggested that a questionnaire survey is best suited to a situation where most of the questions are standardized. A questionnaire comprising four distinct sections was developed based on the factors identified in the literature review as follows:

- Section 1 encompasses general demographics of the study sample,
- Section 2 comprises questions to capture respondents’ perception of the impacts of insolvency in the South Australian construction industry,
- Section 3 captures the factors that cause insolvency in South Australia, and
- Section 4 captures respondents’ awareness regarding mitigation measures that could be used to protect firms from insolvency.

The sampling frame for the study comprised building contractors operating in the South Australian construction market (as the unit of analysis) ranging from relatively small to large and including both head contractors and subcontractors. Therefore, the targeted sample for the survey was general and trade building contractors who had been prequalified for category 3 building work by the SA Department of Planning Transport and Infrastructure. Category 3 building works for general building contractors covers contracts between $2 million to $4 million and for trade contractors covers contracts between $500,000 to $1 million. Although prequalified for category 3 works, several contractors in the survey sample were also prequalified for larger contract works at the category 2 level and, sometimes, also the category 1 level. Using the SA Government’s Building Project Information Management System (BPIMS) database, 174 contractors were electronically invited to complete questionnaires. Forty-two questionnaires were completed and returned, giving a response rate of 24%.
Results

Data Analysis

The questionnaire survey responses were analysed using the following techniques: (1) frequencies; (2) measures of central tendencies (ranking analysis); (3) relative agreement index, and (4) correlation analysis. The IBM (Version 21) Statistical Packages for Social Sciences (SPSS) software was used for the analysis.

**Frequencies:** Section 1 of the survey instrument was mostly composed of profile of the sample structured around nominal variables. According to Forza (2002), the relevant type of analysis for such data is “frequencies analysis” and it enables the reference to the number of times various subcategories of certain phenomenon occur.

**Measures of Central Tendencies:** Some of the questions in Sections 2 and 4 use a Likert scale to obtain respondents’ opinions on impacts of insolvency and effectiveness of mitigation measures as discussed in the research methods section. The underlying objective of this analysis was to ascertain the relative magnitude of the issue and the effectiveness of purported solutions through the examination of the reported descriptive statistics (mean scores, standard deviation and coefficient of variation). As with previous studies (Kumaraswamy and Chan, 1998; Yuan, Shen and Wang, 2011; Doloi et al., 2012) rank differentiation where two or more variable had the same mean values was achieved through examination and selection of the variable with the lowest standard deviation or coefficient of variation (CV). Based on the classification used to discuss the degree of central tendency, a benchmark of 3.40 was used to identify the significance of the responses. It should however, be noted that different approaches exist in literature for ascertaining the cut-off points when a 5-Point Likert scale is used to measure the levels of agreement. For example, Yuan, Shen and Wang (2011) adopted the cut-off mean value of 3.00.

**Relative Agreement Index (RAI):** In addition to measures of central tendency, RAI was used to rank the perceived effectiveness of different mitigation measures put forward to respondents under section 5 of the questionnaire survey. According to past researchers, RAI provides an unbiased tool to rank these measures according to the following equation (Holt, 2014).

\[
RAI = \frac{\sum W}{A \times N}
\]

Where:
- \(W\) = weighting as assigned by each respondent in a range 1 to 5 of the Likert scale;
- \(A\) = the highest weight (5);
- \(N\) = the total number in the sample.

Profile of study sample

The positions of the individuals who responded on behalf of their firms are shown in Table 1. It shows that majority (59.5%) of the respondents were at executive level, either as the Chief Executive Officer, General Manager or Director of their respective firms, followed by senior managers representing operations (16.7%), commercial management (11.9%) and contracts management (11.9%). It is very clear that the majority of respondents occupy very high management positions in the company and are capable of assessing the companies' financial performance and future prospects.
Table 1: Job positions of respondents

<table>
<thead>
<tr>
<th>Position</th>
<th>Number of respondents</th>
<th>%</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner, Chief Executive Officer, Chief Operating Officer, General Manager, Director, Managing Director</td>
<td>25</td>
<td>59.5</td>
<td>59.5</td>
</tr>
<tr>
<td>Associate Director, Office/Branch Manager, Operations Manager, Project Manager</td>
<td>7</td>
<td>16.7</td>
<td>76.2</td>
</tr>
<tr>
<td>Commercial Manager, Estimating Manager, Estimator</td>
<td>5</td>
<td>11.9</td>
<td>88.1</td>
</tr>
<tr>
<td>Contracts Manager, Contract Administrator</td>
<td>5</td>
<td>11.9</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: 1 Total number of respondents based on 42 completed responses to this question

Table 2: Organisational profile of study sample

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number of respondents</th>
<th>%</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main role (sector)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General building</td>
<td>16</td>
<td>38.1</td>
<td>38.1</td>
</tr>
<tr>
<td>Trade</td>
<td>26</td>
<td>61.9</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Principal type of construction work</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>38</td>
<td>90.5</td>
<td>90.5</td>
</tr>
<tr>
<td>Public Works</td>
<td>4</td>
<td>9.5</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Length of activity in the construction industry (years)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 5</td>
<td>2</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td>6 - 10</td>
<td>3</td>
<td>7.1</td>
<td>11.9</td>
</tr>
<tr>
<td>11 - 15</td>
<td>4</td>
<td>9.5</td>
<td>21.4</td>
</tr>
<tr>
<td>16 - 25</td>
<td>12</td>
<td>28.6</td>
<td>50.0</td>
</tr>
<tr>
<td>&gt; 25</td>
<td>21</td>
<td>50.0</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Number of employees</strong></td>
<td>1</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>3 - 10</td>
<td>5</td>
<td>11.9</td>
<td>14.3</td>
</tr>
<tr>
<td>11 - 20</td>
<td>10</td>
<td>23.8</td>
<td>38.1</td>
</tr>
<tr>
<td>&gt; 20</td>
<td>26</td>
<td>61.9</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes: 1 Total number of respondents based on 42 completed responses to this question; 2 Based on average number of employees per year.

The profile of the study sample is reported in Table 2. Of the forty-two respondent firms,

- 62% operate as trade contractors and 38% as general building contractors;
- 90% of the respondent firms primarily participate in the commercial construction sector and 10% in the public construction sector;
- 50% of the firms have been operating in South Australia for more than 25 years, 29% between 15 to 25 years, 10% between 10 to 15 years, 7% between 5 to 10 years, and 5% for less than 5 years; and
- 62% of the firms employ more than 20 full-time employees, 24% between eleven to twenty full-time employees, 12% between three to ten full-time employees, and 2% between one to two full-time employees.

Vulnerability to insolvency

Respondents were asked to indicate on a scale of 1 to 5 how vulnerable they believe the South Australian construction industry is to business insolvency. With a mean score of 4.07 and a standard deviation of 0.80, respondents have sent a clear message that the prospect of insolvency is high for construction businesses in South Australia as shown in Table 3. More than two thirds
of the respondents (76%) gave a ranking of either 4 or 5, indicating that the vast majority believed the construction industry is highly vulnerable to insolvency.

Respondents were also asked to indicate on a scale of 1 to 5 how much of a threat they believe the insolvency of other construction firms was to the financial wellbeing of their own organisation. A mean score of 3.43 indicates that respondents are not ruling out the impacts on the financial wellbeing of their own company due to the insolvency of other firms. Almost half of the respondents gave a ranking of either 4 or 5, indicating that they believe the financial wellbeing of their firm was under considerable threat from the insolvency of other construction firms. However, the robustness of this finding is somewhat undermined by the relatively low mean and relatively high standard deviation values of the responses as compared to those with respect to industry vulnerability to business insolvency.

Table 3: Respondents’ perception on vulnerability to insolvency and threat on financial wellbeing

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>MS</th>
<th>SD</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>How vulnerable SA construction industry to business insolvency</td>
<td>2.00</td>
<td>5.00</td>
<td>4.07</td>
<td>0.80</td>
<td>19.66</td>
</tr>
<tr>
<td>How much of a threat other companies’ insolvency could pose on the respondents’ company</td>
<td>1.00</td>
<td>5.00</td>
<td>3.43</td>
<td>1.07</td>
<td>31.20</td>
</tr>
</tbody>
</table>

Notes: Based on total number of 42 responses; 1MS=Mean score where 5= Very high; 4=High; 3=Moderate; 2=Low; 1=Very low; 2SD= Standard deviation; 3CV=Coefficient of variation

The above perceptions were verified by asking the respondents how many times in the last 3 years their firm has lost money owing to insolvency of other firms. As shown in Table 4, 74% of the respondents’ firms have lost money at least once during last three years. This confirms a serious situation where vulnerability of, and threat to, firms due to insolvency is very high pointing to the need for urgent mitigation measures to be put in place to deal with the issue.

Table 4: Magnitude of threat due to insolvency of other firms

<table>
<thead>
<tr>
<th>Number of times the company has lost money owing to insolvency of other firms</th>
<th>Number of respondents¹</th>
<th>%</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;4</td>
<td>2</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>19.0</td>
<td>23.8</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>35.7</td>
<td>59.5</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>14.3</td>
<td>73.8</td>
</tr>
<tr>
<td>Never</td>
<td>11</td>
<td>26.2</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: ¹Total number of respondents based on 42 completed responses.

In order to establish the interactions among these three variables, the ‘Pearson correlation coefficient’ and ‘Coefficient of determination’ was computed and the results summarised in Table 5. It provided an opportunity to test the possibility of respondents’ past experience to determine the perceptions on vulnerability and threat. Similarly, it verified whether the perceived vulnerability and threat have a common founding.

The significant correlations were between losses and vulnerability (r=0.403; n=42; p=0.008) and vulnerability and threat (r=0.493; n=42; p=0.001) suggesting that respondents perception on vulnerability to insolvency is influenced by past losses to the company and potential threats posed by insolvency of other companies. This finding relates to the very high mean score given by respondents to the potential vulnerability of construction firms in South Australia with very low coefficient of variation (MS= 4.07; CV=19.66). This indicates that perceived vulnerability is a collective voice and founded through past experience rather than a spontaneous response.
Table 5: Results of Pearson’s correlation coefficients (r) and coefficient of determination (r²) among vulnerability, threat and losses

<table>
<thead>
<tr>
<th>Variable</th>
<th>Losses</th>
<th>Vulnerability</th>
<th>Threat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Losses</td>
<td>1.000</td>
<td>16.24</td>
<td>4.84</td>
</tr>
<tr>
<td>Vulnerability</td>
<td>0.403**</td>
<td>1.000</td>
<td>24.30</td>
</tr>
<tr>
<td>Threat</td>
<td>0.220</td>
<td>0.403**</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Note:** **Correlation is significant at (p < 0.01) level (2-tailed)**

Factors influencing insolvency

Respondents’ views were sought on five factors that are responsible for insolvency at the firm level according to the literature discussed earlier. The factors beyond the firm level were not within the scope of this study and not included in the questionnaire survey. Respondents were initially asked to simply indicate whether the believed each of the factors per se contributed to the insolvency problem. As shown in Table 6, most respondents identified poor payment practices as a cause of insolvency followed by underbidding, poor financial management skills, procurement methods and undercapitalised firms. Respondents were also asked to rank these five factors comparatively in ascending order (1 = most contributory factor, 2 = next most contributory factor, etc.) according to level of contribution to the construction insolvency problem. As shown in Figure 3, forty-eight percent of the respondents ranked underbidding as the most contributory cause followed by poor financial management skills (24%), undercapitalised firms (14%), procurement methods (12%), and poor payment practices (7%).

Table 6: Respondents’ agreement on factors influencing insolvency

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor payment practices</td>
<td>40</td>
</tr>
<tr>
<td>Underbidding</td>
<td>39</td>
</tr>
<tr>
<td>Poor financial management skills</td>
<td>37</td>
</tr>
<tr>
<td>Procurement methods</td>
<td>34</td>
</tr>
<tr>
<td>Undercapitalized firms</td>
<td>28</td>
</tr>
</tbody>
</table>

**Note:** Based on total number of 42 responses

Figure 3: Contribution to construction insolvency ranking ((1 = most contributory factor, 2 = next most contributory factor, etc.)
Mitigation measures

Respondents were asked to indicate their firm’s awareness and use with respect to various measures that are currently available in the construction industry to protect firms from the effects of insolvency. As shown in Table 7, awareness of all these measures was high with the exception of the personal properties securities register of which about 50% of respondents were aware.

Table 7: Firms’ awareness of mitigation measures that are currently available

<table>
<thead>
<tr>
<th>Measures</th>
<th>Frequency</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Construction Industry Security of Payment Act</td>
<td>42</td>
<td>1</td>
</tr>
<tr>
<td>Prequalification of tenders</td>
<td>41</td>
<td>2</td>
</tr>
<tr>
<td>Contractual clauses requiring Contractor to provide proof of payment to their subcontractors</td>
<td>40</td>
<td>3=</td>
</tr>
<tr>
<td>Retention</td>
<td>40</td>
<td>3=</td>
</tr>
<tr>
<td>Performance bond/bank guarantee</td>
<td>39</td>
<td>5</td>
</tr>
<tr>
<td>Contractual clauses allowing Principal to take work out of hands of an insolvent contractor</td>
<td>35</td>
<td>6</td>
</tr>
<tr>
<td>Personal Property Securities Register</td>
<td>26</td>
<td>7</td>
</tr>
</tbody>
</table>

*Note: Based on total number of 42 responses*

As shown in Table 8, respondents indicated that the use of these measures in their firms varied with retention being the most popular followed by performance bonds, prequalification of tenders and so on. Interestingly, the uptake of the building and construction industry security of payment legislation and contractual ‘take out’ clauses were relatively low. The use of the personal properties securities register was very low indicating this measure is not well used among construction firms operating in South Australia. Surprisingly, although respondents were well aware of the construction industry security of payment legislation, its usage was not as high as expected.

Table 8: Firms’ usage of mitigation measures that are currently available

<table>
<thead>
<tr>
<th>Measures</th>
<th>Frequency</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention</td>
<td>34</td>
<td>1=</td>
</tr>
<tr>
<td>Performance bond/bank guarantee</td>
<td>34</td>
<td>1=</td>
</tr>
<tr>
<td>Prequalification of tenders</td>
<td>31</td>
<td>3</td>
</tr>
<tr>
<td>Contractual clauses requiring Contractor to provide proof of payment to their subcontractors</td>
<td>29</td>
<td>4</td>
</tr>
<tr>
<td>Building and Construction Industry Security of Payment Act</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>Contractual clauses allowing Principal to take work out of hands of an insolvent contractor</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Personal Property Securities Register</td>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>

*Note: Based on total number of 42 responses*

Respondents were also asked to indicate on a scale of 1 to 5 how effective they believe these measures to be with respect to preventing construction insolvency and lessening of financial impacts to the firm. As shown in Table 9, three measures were included under prevention of insolvency and four under lessening of financial impacts. With the highest mean score, respondents have indicated that Building and Construction Industry Security of Payment Act is the most effective out of the three measures in preventing insolvency. However, with a mean score of 2.73 that measure is not considered to be statistically significant in preventing insolvency (MS=3.40). Except for performance bonds (MS=3.36), the other three measures were not considered significant by respondents in lessening financial impacts due to insolvency. Personal property securities register was considered to be the least effective out of the four factors. A high disparity could be observed among respondents with regard to effectiveness of measures such as personal property securities, prequalification of tenders and proof of payment (CV>50%).
Table 9: Respondents’ perception on effectiveness of mitigation measures on preventing insolvency and lessening of impact of insolvency

<table>
<thead>
<tr>
<th>Prevention of insolvency</th>
<th>Min</th>
<th>Max</th>
<th>MS(^1)</th>
<th>SD(^2)</th>
<th>CV(^3)</th>
<th>RAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Construction Industry Security of Payment Act</td>
<td>1.00</td>
<td>5.00</td>
<td>2.73</td>
<td>1.19</td>
<td>43.59</td>
<td>0.58</td>
</tr>
<tr>
<td>Prequalification of tenders</td>
<td>1.00</td>
<td>5.00</td>
<td>2.44</td>
<td>1.25</td>
<td>51.23</td>
<td>0.49</td>
</tr>
<tr>
<td>Contractual clauses requiring Contractor to provide proof of payment to their subcontractors</td>
<td>1.00</td>
<td>5.00</td>
<td>2.20</td>
<td>1.10</td>
<td>50.00</td>
<td>0.44</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lessening of financial impact</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance bond/bank guarantee</td>
<td>1.00</td>
<td>5.00</td>
<td>3.36</td>
<td>1.19</td>
<td>35.42</td>
<td>0.67</td>
</tr>
<tr>
<td>Retention</td>
<td>1.00</td>
<td>5.00</td>
<td>2.69</td>
<td>1.16</td>
<td>43.12</td>
<td>0.54</td>
</tr>
<tr>
<td>Contractual clauses allowing Principal to take work out of hands of an insolvent contractor</td>
<td>1.00</td>
<td>5.00</td>
<td>2.69</td>
<td>1.28</td>
<td>47.58</td>
<td>0.54</td>
</tr>
<tr>
<td>Personal Property Securities Register</td>
<td>1.00</td>
<td>5.00</td>
<td>2.02</td>
<td>1.12</td>
<td>55.45</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Notes: Based on total number of 42 responses; \(^1\)MS=Mean score where 5= Very high; 4=High; 3=Medium; 2=Low; 1=Very low; \(^2\)SD= Standard deviation; \(^3\)CV=Coefficient of variation

Government intervention

Respondents were asked to comment on the need for government intervention to protect construction firms from insolvency and help the construction industry to improve its efficiency. The descriptive statistics of the responses are shown in Table 10. Firstly, the respondents were asked to indicate on a scale of 1 to 5 how urgent they believe is the need for government regulation in order to reduce construction insolvency in South Australia. With a mean score of 3.83, they agreed that there is urgency for the government to act. More than half (59\%) of the respondents believe that government regulation is either urgently or very urgently needed. A relatively low CV (26.63\%) indicates a high agreement among respondents for urgent government intervention. Secondly, the respondents were asked to indicate either in the affirmative or negative as to which specific mischiefs (or areas) government intervention is needed in order to address the insolvency problem. They indicated that government intervention is most needed in order to address underbidding followed by poor payment practices, poor financial management and undercapitalization as shown in Table 11.

Table 10: Respondents’ perception on need for government intervention

<table>
<thead>
<tr>
<th>How urgently government regulations should be introduced to reduce construction insolvency in South Australia</th>
<th>Min</th>
<th>Max</th>
<th>MS(^1)</th>
<th>SD(^2)</th>
<th>CV(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.00</td>
<td>5.00</td>
<td>3.83</td>
<td>1.02</td>
<td>26.63</td>
</tr>
</tbody>
</table>

Notes: Based on total number of 42 responses; \(^1\)MS=Mean score where 5= Very high; 4=High; 3=Moderate; 2=Low; 1=Very low; \(^2\)SD= Standard deviation; \(^3\)CV=Coefficient of variation

Table 11: Areas where government intervention is mostly needed

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underbidding</td>
<td>35</td>
</tr>
<tr>
<td>Poor payment practices</td>
<td>34</td>
</tr>
<tr>
<td>Poor financial management skills</td>
<td>31</td>
</tr>
<tr>
<td>Undercapitalized firms</td>
<td>28</td>
</tr>
</tbody>
</table>

Note: Based on total number of 42 responses
Discussion of results

In accordance with the high incidence of construction insolvencies reported in recent times, the survey found that building contractor firms in South Australia firmly viewed that the construction industry is vulnerable to insolvency. The survey also found, although to a lesser statistically significant extent, that building contractor firms in South Australia view the insolvency of other construction firms as a threat to their own firm. It is perhaps surprising that this particular finding was not more robust given both that the industry operates on the basis of hierarchical contracting chains and that the survey also found that a majority of the respondent firms had lost money at least twice over the past three years due to the insolvency of other firms.

The three factors most identified by the respondents as being a cause of the construction insolvency problem were poor payment practices, underbidding, and poor financial management skills. However, in terms of comparative level of contribution to the construction insolvency problem, the respondents found the top three most contributory causes to be underbidding followed by poor financial management skills and undercapitalised firms. Somewhat surprisingly, perhaps, although the vast majority of respondents identified that poor payment practices was a factor causing construction insolvency, they found it to be the factor which least contributes to the construction insolvency problem. One possible explanation for this could be the focus of Australian parliaments in recent years on passing extensive building and construction industry payment legislation which has improved to some degree the payment culture generally within the industry. Although, having said this, the survey also found that security of payment legislation (along with prequalification of tenders and contractual ‘proof of payment’ clauses) was not statistically significant as a measure per se for preventing construction insolvency. This latter finding accords with the fact that a high construction insolvency rate still exists in NSW despite security of payment legislation having been in operation there since the year 2000.

The survey found that awareness of respondents was high with respect to certain existing measures – namely security of payment legislation, prequalification of tenders, contractual ‘proof of payment’ clauses, performance bonds/bank guarantees and contractual ‘take out’ clauses – for firms in the construction industry to protect themselves against both insolvency and financial impact of insolvency. However, respondents’ awareness of the personal property securities register as a means of protecting their security interests in the event of insolvency was significantly lower.

Of these measures, regular use of retention monies, performance bonds, prequalification of tendering contractors and contractual ‘proof of payment’ clauses was high. In comparison, use of the building and construction industry security of payment legislation and contractual ‘take out’ clauses was relatively low, with use of the personal properties securities register being very low. The relatively lower usage of security of payment legislation may possibly be explained by the potential for use of the legislation to negatively impact upon the future working relationship between contractor and principal. The low usage of the personal properties securities register may be explained by the lack of awareness of the register found to exist amongst many of the respondents. The use of retention, contractual ‘take out’ clauses and the personal properties securities register were not found to be statistically significant in the opinions of the respondents as measures per se for lessening the financial impact of others’ insolvency upon their own firm. Only the use of performance bonds or bank guarantees was found to have any significance in this respect.

The survey found, to some degree of statistical significance, that the respondents believe urgent government intervention is needed in order to tackle the construction insolvency problem. More specifically, the survey also found that over 80% of the respondents desire further regulation to address underbidding and poor payment practices, with 74% desiring further regulation to address poor financial management skills, and 67% desiring further regulation to address undercapitalisation of firms.
Conclusion

The Australian construction industry is characterised by an extremely high rate of business insolvency due to a unique combination of characteristics present in the construction marketplace including contracting chains, trade credit, poor payment practices, underbidding, undercapitalisation of firms and poor business skills. The construction insolvency problem is accentuated by the phenomenon of phoenix companies, where new companies arise out of the ashes of old companies that have been deliberately traded into insolvency. Phoenixing further fuels poor payment practices and underbidding with the construction industry.

In addressing the construction insolvency problem, Australian parliaments have to date directed most of their regulatory focus towards tackling of poor payment practices via the enactment and subsequent amendment of the various building and construction industry security of payment legislation which exists nationwide. Although this has been a huge step in the right direction in encouraging a fairer payment culture, the legislation by itself has proven to be insufficient to alleviate in any significant way the construction insolvency problem. As evidence for this, one need look no further than the NSW experience where 1,113 construction insolvencies occurred in the 2011/12 financial year (Collins, 2012) despite security of payment legislation having been operational there for over a decade. As such, a multi-faceted regulatory approach is needed to address the construction insolvency problem, of which security of payment legislation is but one, albeit important, component.

The questionnaire survey data presented in this paper indicates that there is an appetite amongst building contractors to address the construction insolvency problem – particularly in the key areas of poor payment practices, poor financial management skills, undercapitalisation and underbidding. With respect to the first three of these areas, the recent SERC (2012) report into insolvency in the Australian construction industry has made recommendations to tighten regulations via, amongst other things: unification of the building and construction industry security of payment legislation (by the enactment of a Commonwealth act), the trialing and evaluation of project bank accounts on Commonwealth projects, closer scrutiny and prosecution of false ‘proof of payment’ statutory declarations, random financial health spot -checks on construction firms by building license regulators, requiring building license holders to demonstrate they hold adequate financial backing for the scale of intended project, and requiring building license holders to provide evidence they have completed an agreed level of financial and business training program (SERC, 2015). Additionally the Committee made several recommendations with respect to introducing regulatory measures in order to curb illegal phoenixing activity.

Notably, however, the Senate Economics References Committee (2015) did not make any recommendations which directly addressed the issue of underbidding in the construction industry. The practice of underbidding was found by the survey data presented in this paper to be the biggest contributor to construction insolvency. The paucity of recommendations to directly address underbidding is understandable given that the regulation of pricing would likely be viewed as an unreasonable incursion into the territory of free market economics and anti-competitive in nature. It is suggested that preliminary proposals for further consideration, with respect to measures which could potentially restrict underbidding practice, may include: the introduction of bid depositories on government projects to eradicate bid shopping; prohibiting ‘bad faith’ underbidding as a requirement of the national Building Code or state building codes (where they exist), thereby banning offenders from tendering on government-funded projects; and looking into the legal feasibility of the Australian Competition and Consumer Commission bringing actions for misleading and deceptive conduct, under Section 18 of the Australian Consumer Law, against bad faith underbidders.

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19 Although, the Committee (2015: 165) did consider the Law Reform Commission of Western Australia’s (1995: 54) explanation that the use of trust accounts on construction projects would render it not to be in a head contractor’s interest to underbid for a project.
Having said this, it is recognised that it will be difficult to detect where the fine line has been crossed between a contractor pricing a tender over competitively (perhaps due to poor financial estimating or unwarranted optimism) in good faith (i.e. ‘unwarranted optimism’), and a contractor deliberately pricing a tender below cost in bad faith with the intention of subsequently attempting to reclaim losses via contractual claims, poor payment practices to subcontractors and/or phoenixing their company to escape tax and other liabilities. Nevertheless, given the scale of construction insolvency in Australia and the direct impact which underbidding has upon the problem, further investigation into how underbidding can be discouraged may be too important an issue to ignore.

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Standard Forms of Contract in the Australian Construction Industry
Research Report

Professor John Sharkey AM
Matthew Bell
Wayne Jocic
Rami Marginean

June 2014
Part A – Introduction

Every year, hundreds of thousands of contracts are entered into for construction work in Australia. The work undertaken under these contracts, and the value of that work, is extremely varied, ranging from minor home renovations to multi-billion dollar infrastructure and resources projects.

The complexity and diversity of risks, and the administrative procedures involved in construction projects, have together resulted in industry perception that use of standard forms of contract tends to minimise avoidable transaction costs and overall leads to greater efficiency in procurement. However, it seems increasingly to be the case that – especially in high-value commercial projects involving sophisticated industry participants (including legal advisers) – standard forms are less frequently being used and, where they are used, they are heavily amended.

In late 2013, Melbourne Law School’s construction law program, with the support of the Society of Construction Law Australia, launched a research project to investigate whether these perceptions reflect current practice in the Australian construction industry. It sought to assess the current use and effectiveness of the range of standard forms of construction contract in Australia, particularly in terms of their ability to reflect an appropriately-balanced risk allocation and to facilitate efficient project administration.

The research project involved a web-based survey (which collected data between November 2013 and February 2014) and interviews with construction industry stakeholders (between January and March 2014). It was undertaken, and this Report was prepared, by a research team comprising the following Melbourne Law School personnel:

- Professor John Sharkey AM (Honorary Professorial Fellow)
- Matthew Bell (Senior Lecturer and Co-Director of Studies; lead author of this Report and Responsible Researcher under the Melbourne Law School’s Human Ethics Advisory Group approval for this project)
- Wayne Jocic (Senior Lecturer)
- Rami Marginean (Research Assistant).

This Report outlines the key findings of the research project. In addition, it flags a number of matters arising from this initial project which, in the research team’s view, warrant further research.
Message from the Dean of Melbourne Law School

I am delighted that Melbourne Law School has been able to provide support for this important research.

Melbourne Law School is an outstanding research institution with internationally recognised scholars who strive to produce research of the very highest quality. This report is one example of important research being undertaken at the Law School in conjunction with members of the profession and industry to provide insight and understanding into the important practical issues in law. It was a pleasure to deepen our connection with the Society of Construction Law Australia, whose support of this project I gratefully acknowledge.

The construction law program at the Law School has long been recognised as one of the world’s leading teaching programs within this specialty area of scholarship and practice. Students and teachers within the program have published widely and received recognition at the highest levels for their scholarship, including by way of international construction law essay prizes.

In 2013, our construction law program’s research capability received a significant boost through the appointment by the University of Mr John Sharkey AM as an Honorary Professorial Fellow. John is one of Australia’s most experienced and highly-respected construction law practitioners and has published and lectured widely in the area, including having been a subject coordinator in the Melbourne Law Masters from 2000-2013.

The detailed research project which has led to publication of this Report represents the first major research venture undertaken under Professor Sharkey’s leadership. My thanks and congratulations to him, Matthew Bell, Wayne Jocic and Rami Marginean for the expertise and hard work that they have put into this Report. The Report represents a significant milestone in the continuing development of our construction law program, and I am delighted to commend it to members of the construction law community.

Professor Carolyn Evans
Dean
Harrison Moore Professor of Law

Message from the Chair of the Society of Construction Law Australia

The questions of ‘What contract should I use?’ and ‘What amendments should I make?’ are constantly asked by developers, owners and contractors and constantly answered by their advisers.

Lying behind the questions are issues of cost effectiveness, efficiency, appropriate risk allocation and familiarity. The preferences which have developed over many decades are very often manifested in bespoke contracts or very heavily amended standard form contracts.

How have these preferences developed? Is there a better approach; that is, an approach which will see improvements in cost effectiveness and efficiency? What is the role for standard form contracts? An understanding of these questions and the possible answers to these questions could have a significant impact on the construction industry.

It is this potential impact which motivated the Society of Construction Law Australia to support this University of Melbourne research project. The choice of Professor John Sharkey AM, to lead the project, and the experience and wisdom which Professor Sharkey could bring to bear, brought added interest to the project.

The Society is grateful for the opportunity to support this important project and looks forward to continuing to participate in the discussion which this report is certain to provoke.

Phillip Greenham
Melbourne Law School’s Construction Law Program

Melbourne Law School brings together leading local and international scholars, alumni, researchers and members of the legal profession to provide students with a range of transformative experiences, both inside and outside the classroom. Melbourne Law School staff and students commit to excellence and strive to make a difference to our local community and beyond.

Melbourne Law School commenced teaching graduate courses in construction law in 2000. The program offers a specialist Master of Construction Law and Graduate Diploma in Construction Law. The specialisation in construction law has been tailored to give construction lawyers and professionals in building, construction, engineering and associated industries the specialised legal knowledge to take the next step in their careers. Working with teachers who are leaders in their fields, and fellow students from throughout Australia and around the world, students have a unique opportunity to gain a thorough understanding of this vital area of law and its interaction with the commerce and practice of the industry.

www.law.unimelb.edu.au/constructionlaw

The Society of Construction Law Australia

The object of the Society is ‘to promote the education, study and research (and publication of the useful results of such research) in the field of construction law and related subjects both in Australia and overseas for the benefit of the public and the construction industry.’

The Society was founded in 2009. It is a single national organisation of members drawn from all professions involved with construction, industry representatives and the legal profession who share an interest in construction law. The Society encourages the widest possible involvement of all its membership and encourages discourse across the broad spectrum of issues which comprise the subject of construction law.

www.scl.org.au

Acknowledgements

The research team acknowledges with thanks the contribution of the following organisations and individuals:

- The project was funded by grants by the Dean of Melbourne Law School and by the Society of Construction Law Australia.
- The following organisations allowed (and, in many cases, actively assisted in) the promotion of the survey to their respective memberships:
  - Australian Constructors’ Association
  - Australian Construction Industry Forum
  - Australian Institute of Architects
  - Civil Contractors Federation
  - Consult Australia
  - Engineers Australia
  - Master Builders Australia
  - Melbourne Law Masters construction law program
  - Property Council of Australia
  - Society of Construction Law Australia.
- The many construction industry professionals, lawyers and students who participated in the survey or interviews.
- The Melbourne Law School Construction Law Advisory Board and many colleagues within or associated with the Law School who provided valuable advice in the planning and implementation stages of the project.

Photo credits: front cover – top left and middle: Property Council of Australia; others: Matthew Bell; back cover – Brookfield Multiplex, Glenn Hester Photography.
Part B – Summary of findings

This Report into the use of standard forms of construction contract in Australia is based upon:¹

- survey responses by 295 individuals, representing 379 projects, between December 2013 and February 2014; and
- 47 interviews conducted by the project team between January and March 2014.

The experience reflected in these survey responses and interviews covers a diverse range of participation in the industry (including lawyers and industry professionals), project types, contract values and geographical locations.

Our primary findings are summarised as follows.²

**Attitudes towards standard forms (section 4)**

- There is broad support in principle for the industry having available to it standard forms of contract which are capable of being used without substantial amendment.

- However, a majority (54%) of respondents believe that there is no such form currently available.

**Use of standard forms (section 5)**

- **Overall**, 68% of the contracts reported upon were based upon standard forms.³

- There is, however, wide variation in the rate of usage depending upon factors including:
  - where the contract sits within the ‘contracting chain’: 75% of head contracts use a standard form as a base, compared to 33% of subcontracts/trade contracts;⁴
  - **Contract value**: use of standard forms is close to universal on contracts with a value less than $100,000, ranges between 66% and 78% on values between $100,000 and $500 million, and drops to 28% on values over $500 million;⁵
  - **Location**: a lesser proportion of contracts use standard forms in the States and Territories where mining and resources projects predominate (WA, NT and Queensland – here, the range is (43%-58%)) compared to the ACT, NSW, SA, Tasmania and Victoria (65%-100%);⁶ and
  - **Contracting sector**: use of standard forms is highest in the residential building sector, remains high in the commercial building and process engineering sectors, and drops progressively through the public sector and private sector infrastructure sectors, with the lowest use being in the mining and resources infrastructure sector.⁷

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¹ See section 3.
² As is noted throughout this Report, the degree of confidence with which the various findings can be stated depends upon a range of factors including sample size, so the specific discussion should be referred to.
³ Section 5.1.
⁴ Section 5.2.
⁵ Section 5.3.
⁶ Section 5.4.
⁷ Section 5.5.
Which standard forms\(^8\) are being used? (section 6)

- Overall, the Australian Standards forms continue to dominate the Australian construction contracting landscape. In aggregate, the four main forms (AS4300 (23% of projects using a standard form), AS4000 (18%), AS2124 (17%) and AS4902 (14%)) represent close to 70% of the standard forms which are used, as reported upon in this survey. Applying that 70% to the 68% of projects overall which use standard forms, these forms are used in nearly half of all projects reported upon in this survey.
- The Australian Standards major works forms are used across all sectors (other than for residential building with a private individual as principal) and across all contracting values (although no AS4000 forms were reported as being used on projects with a value in excess of $500 million).
- The FIDIC forms are only used on relatively high value projects (>100 million), in private sector infrastructure (both mining and non-mining) and process engineering projects.
- The GC21 form is primarily used in NSW, but there is also some use of it in Queensland; we found that it was used only for contracts with a value over $5 million.
- The ABIC MW form is little used outside relatively small value (up to $5 million) contracts; its primary use is to be found in the residential building sector where the owner is a private individual but it also has some use in the commercial building (private sector principal) and infrastructure (public sector principal) sectors.

Which party makes the decision to use the standard form? (section 7)

- The principal (55%) or the principal’s lawyer (26%) were responsible for choosing the standard form in more than 80% of cases.

Why are standard forms used? (section 8)

- The dominant factor identified by participants was ‘familiarity with the form’\(^9\).

Amendment of standard forms (sections 9-12)

- 84% of the contracts which employed a standard form were amended from the relevant published form\(^10\).
- Whilst we did not attempt systematically to identify the extent of amendments, the responses in interviews indicated that the amendments are typically voluminous.
- The incidence of amendment exceeds 75% across almost all contract values, contracting sectors and standard forms, and is particularly high in the following categories:
  - Contract value: $50 million–$100 million (94%); $100 million–$500 million (97%); >$500 million (100%)\(^11\)
  - Contracting sector: residential building-commercial developer (95%); private sector infrastructure (non-mining/resources) (95%); private sector infrastructure (mining/resources) (100%); process engineering (100%)\(^12\) and
  - Forms: AS2124 (97%); AS4300 (98%); FIDIC (100%)\(^13\).
- The primary reason identified for amending standard forms was the ‘need to shift risk’.\(^14\)
- As to the types of clauses which are amended from (including added to) the standard forms, the highest incidence of amendment across all forms, contracting sectors and values was in respect of: extensions of time (76% of forms where amendments were reported), delay damages (including liquidated damages) (71%), site conditions (68%), payment (65%) and variations (63%).\(^15\)
- That said, there were substantial variations across categories as to the types of clauses amended. For example (but, see section 11 for further, detailed analysis):
  - the highest incidence of amendment in respect of extension of time clauses was in the residential building-commercial developer sector (92%) and contract values from $20 million to $50 million (84%); and
  - limitations of liability were added to 48% of forms overall, but this incidence rose to 73% in the private sector infrastructure (mining and resources) sector.
- Overall (but, this was subject to wide variation in views), the perception of amendment of standard forms was that it led to\(^16\):
  - increased understanding between the parties and efficiency in project administration (which may be regarded as positive outcomes); and
  - increased need for legal advice, outturn cost and disputation (negative outcomes).

\(^8\)See section 1.1 for an overview of the forms referred to in this Report.
\(^9\)Section 8.2.
\(^10\)Section 9.1.
\(^11\)Section 9.2.
\(^12\)Section 9.3.
\(^13\)Section 9.4.
\(^14\)Section 10.
\(^15\)Section 11.
\(^16\)Section 12.
Part C – Background and methodology

1. Background

1.1 Standard forms of contract in the Australian construction industry

1.1.1 Overview

The range of forms available in Australia today has its origins in the forms promulgated by professional bodies in the late 19th and early 20th centuries in the United Kingdom and then Australia. Typically, these forms have evolved by a process whereby a consensus is forged among various industry interest groups and reflected in a standard form, that form becomes increasingly the subject of amendments, and then the interest groups sit down once again in an endeavour to document a revised common approach.

The fact that many of the standard forms are developed through a process of negotiation and discussion has important consequences. First, such ‘consensus’ forms are more likely to be ‘fair’ to all parties. For example, both the ABIC MW form and AS4000-1997 (both of which are discussed further below) have been put forward on the basis that they reflect the ‘principled’ risk allocation promoted in the National Public Works Conference/ National Building and Construction Council Joint Working Party No Dispute report of 1990. Secondly, in a negative sense, they are likely to contain many compromises.

The difficulties in getting the agreement of all parties concerned when a new form is being developed or where amendment is required mean that almost all standard form contracts – including those discussed in this Report – contain anomalies and ambiguities, and that these are likely to remain part of the form until adverse legal interpretation necessitates amendment. The individual organisations usually advise their members of the problem areas and often suggest amendments which might be incorporated.

Aside from such ‘consensus’ standard forms, forms drafted from the point of view of one of the parties also continue to have wide use in the Australian industry. For example, in the public sector:

- the Australian Department of Defence (through its Defence Support and Reform Group) has its own suite of facilities contracts for the construction and maintenance of its significant estate throughout the country, including the Head Contract (current version, HC-1 2003), Managing Contractor (MCC-1 2003) and Medium Works (MW-2 2004) forms; and
- the NSW Government has a suite of contracts as part of its ‘Procurement System for Construction’, including GC21 Edition 2 (essentially, for projects valued at over $1 million), MW21 and Minor Works (less than $1 million) and Mini Minor Works (less than $50,000).

Private-sector organisations, whether they be procurers of, or contractors for, construction work, likewise commonly put into the market bespoke forms representing the terms on which they expect to do business. An example of a peak industry body promulgating such a form explicitly to represent its preferred contracting strategy is the Project Contract PC-1 1998, published by the Property Council of Australia. Whilst PC-1 is not widely used nowadays (as noted in section 6.1 below, less than 1% of the forms reported upon in the survey used PC-1), its drafting forms the basis for many contracts, whether bespoke or standard forms used by particular organisations. Notably, HC-1 2003 (used, we found, in 2.1% of projects employing a standard form) is derived from PC-1, although the form has been significantly adapted to address specific concerns of the Department of Defence.

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17 This section is adapted from ch 8 of Ian Bailey and Matthew Bell, Construction Law in Australia (3rd ed, 2011).
In addition, particular sectors within the industry have their own forms. In the process engineering sector, for example, the use of internationally-recognised forms is not unknown (but, as our survey indicates (see section 6), remains relatively infrequent) in Australia. Such forms include the ‘rainbow’ of forms (so-nicknamed because of the colours of the covers of the various contracts in their printed forms) published by FIDIC (Fédération Internationale des Ingénieurs-Conseils – International Federation of Consulting Engineers)\(^{21}\) and the New Engineering Contract (the latest version of which is the 2013 edition of NEC3) published by the Institution of Civil Engineers (ICE)\(^{22}\) based in England.

The FIDIC forms were revised in 1999 by introduction of new edition “Red” (construction designed by the employer), “Yellow” (plant and design-build), “Green” (short form) and “Silver” (EPC/ turnkey) forms. It has had its spectrum augmented in subsequent years by a form for dredging (2006); a variant on the ‘Red’ book to incorporate the requirements of Multilateral Development Banks (2006); and a ‘Gold’ book for design-build-operate delivery (2008). A Subcontract for use under the Red book was issued in 2011, and a ‘Representative Agreement’ was published in 2013. At the time this Report was being prepared, it was understood that FIDIC was preparing a ‘second edition’ of its suite.

The NEC3 suite\(^{23}\) is designed to foster a collaborative approach to contracting, with the forms themselves being flexible in scope and expressed in simple language. There are also the Infrastructure Conditions of Contract, promulgated by the Civil Engineering Contractors Association and the Association for Consultancy and Engineering, which are based upon the ICE Conditions (which themselves date back to the middle of the 20th century).\(^{24}\) Also available to the Australian industry is the suite of contracts published by the Institution of Chemical Engineers (IChemE),\(^{25}\) which also is based in the UK. This suite was last revised in 2013 and includes forms based on lump sum, reimbursement and target cost remuneration strategies.\(^{26}\)

### 1.1.2 Australian Standards

The Australian Standards (AS) suite of construction contracts (along with various forms for associated works and services) is prepared by the Standards Australia Committee on General Conditions of Contract (previously known as ‘OB/3’, now ‘MB/010’) and published by Standards Australia Limited (part of SAI Global).\(^{27}\)

The Australian Standard forms are identifiable by way of a two-part code – the first being the Australian Standard number and the second the year of publication. The latter can be crucial to identifying the form being referred to; for example, different AS2124 versions were published in 1978, 1981, 1986 and 1992.

At present, the suite comprises:

- AS4000-1997 (“General Conditions of Contract” – for construct-only delivery)
- AS4901-1998 (sub-contract for use with AS4000)
- AS4902-2000 (variant of AS4000 for design and construct delivery)
- AS4903-2000 (sub-contract for use with AS4902)
- AS4122-2010 and 4904-2009 (consultants’ agreements)
- AS4905-2002 (minor works contract – superintendent-administered) and AS4906-2002 (minor works contract – principal-administered)
- AS4910-2002 (equipment supply with installation) and AS4911-2003 (equipment supply without installation)
- AS4912-2002 (periodic supply of goods)
- AS4915-2002 (project management)
- AS4916-2002 (construction management)
- AS4917-2003 (construction management trade contract)
- AS4918-2003 (asset maintenance and services – superintendent’s version (AS4920-2003 is the principal’s version and AS4921-2003 the short version))
- AS4949-2001 (work order).

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\(^{21}\) See [www.fidic.org](http://www.fidic.org).

\(^{22}\) See [www.ice.org.uk](http://www.ice.org.uk).

\(^{23}\) See [www.neccontract.com](http://www.neccontract.com).


\(^{25}\) See [www.icheme.org](http://www.icheme.org).

\(^{26}\) See the article by Tony Dymons and Michael Mendelblat at (2013) 30 *International Construction Law Review* 274.

\(^{27}\) See [www.saiglobal.com](http://www.saiglobal.com).
AS2124 and AS4000 are designed for use on major building and engineering projects where a 'superintendent' is engaged to administer the contract. The superintendent may be an independent professional (or a firm of consultants) or an employee of the principal. The contract price may be calculated as a lump sum or re-measurement (schedule of rates/bill of quantities) or a combination of these.

Though Standards Australia intended to discontinue publication of the AS2124-1992 edition (which itself replaced the superseded 1978, 1981 and 1986 editions) when the AS4000 contract was released, it remains available as a current Standard.

As at the time of preparation of this Report, a process initiated by Standards Australia to revise (at least) the major works forms was well underway. See, further, section 2.3 below as to the potential interplay between that process and this research project.

1.1.3 ABIC
The Australian Building Industry Contract suite (ABIC) is promulgated through a Joint Development Committee which is a joint venture of Master Builders Australia Ltd and the Australian Institute of Architects (AIA). It is designed for use with an architect as the principal's representative.

The original version of the major works contract (ABIC MW-2001) was based upon the Construction Industry Contract (CIC-1 1997) which was produced by the (then Royal) Australian Institute of Architects alone. The current version (ABIC MW-2008) has evolved significantly from that base.

Forms in the ABIC suite are updated from time to time to add clarity or to reflect minor changes to the relevant law, and a full revision occurs approximately every three to five years. It is understood that the next edition is expected to be published later in 2014.

The suite currently comprises:28
- ABIC MW-2008 (major works), with residential works variants for each State and Territory
- ABIC MW-SC-1 (subcontract under MW form; there are also short form subcontracts)
- ABIC SW-2008 (simple works), with residential works variants for each State and Territory
- ABIC SW-SC-1 (subcontract under SW form; there are also short form subcontracts)
- ABIC BW-1 2002 (basic works (up to $50,000 in value))
- ABIC BW-SC-1 (subcontract under BW form)
- ABIC EW-1 2003 (early works).

1.1.4 Other standard forms
There are numerous standard forms produced apart from those discussed above. Many public authorities and local government bodies have their own standard forms. Moreover, Master Builders Australia Ltd and its (State-based) member associations produce standard forms for various purposes.29

Master Builders recommends the use of certain Australian Standards and the ABIC suite but also has its own forms (some of which are for use nationally and others in certain States and Territories) including:30
- BC3 (commercial) and BC4 (residential) – lump sum
- CM2012 – Construction Management Contract
- CP3 (commercial) and CP5 (residential) cost plus contract (there are also other cost plus-based forms in the suite)
- DB1, RBC-1 and RBW 2014 (contract sum >$500,000) – domestic (residential) building

30 See www.masterbuilders.com.au/portfolios/contracts for further guidance about each form and when it is to be used.
• DECON 2013 and DECON 2 – design and construct, lump sum
• GCC5 – head contract for commercial construction (with SC-7 subcontract)
• HC6 – new homes
• HIC5 – home improvement
• LSC2 – Commercial Building Contract
• MWC-C (commercial) and MWC-1 (residential) – minor works
• PB-1 – pool building
• PM2 – project management
• SWC – small works and SWC-R – simple works
• TC2012 – trade contract under CM2012 (also trade contract TC-H).

1.2 The legal underpinnings of standard forms

The subject matter of this Report is ‘contracts’. That term has many different connotations. In this Report, it is largely being used to refer to documentation which reflects the parties’ agreement, but – in the classical legal conception – a ‘contract’ is in fact the (legally-binding) agreement itself. The legal conception of construction contract documentation proceeds from an assumption that it reflects the parties’ ‘deal’ and, therefore, the parties will be bound by it whether or not they fully understood (or, in fact, actually agreed to) the terms which are recorded.

This assumption is especially prevalent in commercial arrangements (as opposed to those involving individuals as consumers, where to a certain extent, the position has been modified by the common law and legislative intervention). In many ways, this assumption sets the context for the way in which standard forms of construction contract are used in Australia and, we think, helps explain many of the findings in this Report.

It is, therefore, worth restating the basic legal principles applicable where parties seek to escape their liabilities and obligations on the basis that they did not fully comprehend what they were signing up to.

These are illustrated by the High Court of Australia’s decision in Toll (FGCT) Pty Ltd v Alphapharm Pty Ltd. In that case, an agent of the pharmaceutical company signed a standard form ‘application for credit’ to have Finemores (now Toll) distribute its Fluvirin vaccines. He did not notice the limitation of liability clause on the back of the form. Finemores failed to keep its trucks at the correct temperature and the vaccines spoiled.

Toll admitted negligence but sought to rely upon the limitation clause to exclude its liability. Ultimately, the High Court found in its favour. In doing so, the Court took the opportunity to restate the relevant rule as follows:

‘[W]here there is no suggested vitiating element, and no claim for equitable or statutory relief, a person who signs a document which is known by that person to contain contractual terms, and to affect legal relations, is bound by those terms, and it is immaterial that the person has not read the document.’

Applying this principle to the construction sphere, Justice David Byrne has observed that, by the time a dispute stemming from inappropriate conditions reaches the court,

‘[t]he law is very much powerless … to set things aright. It accepts, as it must, that, subject to limited exceptions, a contract freely entered into between competent parties must be given effect to. The seeds of the financial disaster for all the parties … had been sown months before.’

In a commercial context, therefore, in the absence of recognised vitiating factors in the formation of the contract, a standard form contract should be assumed to be binding in accordance with its terms as objectively interpreted. In turn, the onus is on the person or organisation signing it to understand those terms. This does not mean that the formal contract is by any means the ‘be-all and end-all’ for project success – as many interviewees noted, the relationship between the parties and their ability to avoid and resolve issues during the project is crucial. However, the contract inevitably does become vital if that relationship breaks down and the parties need to have recourse to their respective legally-enforceable rights.
1.3 Previous research

As was noted above, a key reason for this research project being undertaken is that there is a dearth of publicly-available data as to the Australian construction industry’s use of, and attitude towards, standard forms of contract. That said, the topic has been (at least, indirectly) the subject of research in the past two decades, including the following reports:

- Athol Yates and Bill Sashegyi, ‘Effective Risk Allocation in Major Projects: Rhetoric or Reality?’ (2001 – ‘Yates and Sashegyi Report’); and

Both of these studies were undertaken in the framework of risk allocation and management for major projects. Thus, whilst neither of them investigated specifically the types of contract forms which were used, the touchstone for each study was ‘principled’ (or ‘efficient’) risk allocation of the type espoused by Professor Max Abrahamson and carried through, to various degrees, in Australian standard forms.38 A key focus of these studies, therefore – related to the aims of this Report – was the extent to which parties to construction contracts were taking on risks through the contract which they were not best placed to control or manage.

The Yates and Sashegyi Report sought to determine whether ‘there was a difference between efficient risk allocation and actual risk allocation’ in major projects carried out in Western Australia.39 It was undertaken by the WA Chamber of Commerce and Industry and the Institution of Engineers Australia (now, Engineers Australia). The research was by way of a survey, sent to industry participants in early 2001, which received 122 responses.

The Blake Dawson Report focused upon ‘developing a better understanding of approaches to risk identification, risk allocation and risk management, and the impact of those approaches on project outcomes’.40 It was undertaken by law firm Blake Dawson (now, Ashurst Australia) with the support of the Australian Constructors Association, the Energy Supply Association of Australia and Infrastructure Partnerships Australia. The research was based upon surveys of, and interviews with, industry participants, conducted between May and December 2010. The survey related to projects completed over the past five years with a minimum project value of A$20 million. Survey responses were received from 121 participants.41

Findings from this research which are of primary relevance to the current project include:

- Significant differences exist in the perceptions of principals and contractors as to whether risk is allocated in construction contracts on the principled/ efficient basis referred to above; whilst the figures differed across the studies, the percentage of principals which believed that risk had been allocated on such a basis was in the range 70-87% yet it was 35-55% for contractors.42
- The risk categories most commonly identified as being key (time, design, scope and site conditions) were also the risks most commonly viewed as being inappropriately allocated.43
- The most important factor influencing risk allocation in major projects was the requirements of the principal. This was identified in the Blake Dawson Report by 83% of respondents, compared to the ability of a party to manage or price the risk, which were identified, respectively, by 56% and 36%.44 Similarly, in the Yates and Sashegyi Report, 79% of contractors and 33% of principals believed that risks were allocated at the project delivery stage (that is, following contractual negotiations) on the basis of minimising risk to the principal.45
- A substantial majority of the parties to major projects (according to the Blake Dawson Report, in the order of 80-90%)46 have risk identification, management and allocation policies; however, parties reported that such processes had been put in place in around 60% of projects.47

The current Report does not focus on risk allocation to the same extent as these previous studies. That said, a number of key findings from these previous studies were matters in respect of which this Report has been able to make observations. These are identified in the following table. Whilst the previous surveys and the current Report differed in their methodology and sample size,48 the relevant findings are broadly consonant.

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41 Blake Dawson Report, p 30.
42 Extrapolated from Yates and Sashegyi, pp 7-8; Blake Dawson Report, p 12.
44 Ibid p 14.
46 Blake Dawson Report, p 15.
48 For example, as noted above, the Yates and Sashegyi Report was conducted in 2001 and based upon 121 responses from Western Australia only whereas the current survey was Australia-wide and received 286 responses overall and 47 responses in respect of WA projects.
<table>
<thead>
<tr>
<th>Findings in Yates and Sashegyi/ Blake Dawson Reports</th>
<th>Applicable findings in this Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the majority of contracts (the Yates and Sashegyi Report puts the figure at around 60%), the risk clauses in the contract varied from those in the relevant standard form.</td>
<td>Overall, 84% of the standard forms used were amended.</td>
</tr>
<tr>
<td>Inappropriate risk allocation was perceived to lead to detrimental project outcomes, in particular:</td>
<td>Overall (but, there was a wide variation of responses on these points), amendments to the standard forms were seen as leading to increases in:</td>
</tr>
<tr>
<td>• 70% of the respondents to the Yates and Sashegyi survey (86% of contractors and 43% of principals) observed that changes to the risk allocation at the project delivery stage were likely to lead to claims; and</td>
<td>1. understanding between the parties (greatest increase);</td>
</tr>
<tr>
<td>• 59% of contractors and 38% of principals believed that the project cost would have been lower if risk had been allocated on the principled basis referred to above.</td>
<td>2. need for legal advice during the project;</td>
</tr>
<tr>
<td>Industry standard forms were used in 47% of contracts (Western Australia, 2001).</td>
<td>3. project outturn cost;</td>
</tr>
<tr>
<td>The most commonly-used standard forms used (WA, 2001) were AS2124 (44%), AS4000 (5%) and AS4300 (13%).</td>
<td>4. efficiency in project administration; and</td>
</tr>
<tr>
<td>The most widely-used forms Australia-wide are AS4300 (23%), AS4000 (18%), AS2124 (17%) and AS4902 (14%). In WA, they are AS2124 (20%), AS4000 (15%), FIDIC (10%) and AS4902 (10%).</td>
<td></td>
</tr>
</tbody>
</table>

49 Yates and Sashegyi Report, pp 9, 16, 22.
50 Section 9.1; breakdowns are set out throughout section 9.
51 Blake Dawson Report, p 7.
54 Section 12.
55 Yates and Sashegyi Report, p 43.
56 Section 5.1.
57 Section 5.4.
58 Yates and Sashegyi Report, p 44.
59 Section 6.1.
60 Figures produced by applying the overall rate of usage of standard forms (68%) to the WA-specific figures in section 6.3.
2. Aims of this research

2.1 Key questions and the approach this study undertakes to answering them

This research project aims to make a substantial, evidence-based contribution to the continuing evolution of the use of standard forms of construction contract in Australia.

Its primary aim is to suggest ways of approaching the following key questions:

1. How are standard forms being used in the Australian construction industry in 2014?
2. What ought to be the role of standard form construction contracts in the Australian construction industry in 2014?
3. To the extent there is a mismatch between current practice and an optimal role, what strategies (whether by way of amending existing forms, developing new forms or otherwise) should be put in place to address it?

The study seeks to fulfil this aim by providing a snapshot of current practice in relation to the use of standard forms on Australian construction projects as at early 2014. Our research has, therefore, been directed to the following key questions:

- To what extent are standard forms being used on Australian construction projects?
- Where they are being used, how are they being used?

Acknowledging from the outset the extraordinary diversity of modes in which construction projects operate in Australia,\(^\text{61}\) and the inevitable limitations of our data-collection exercise (see section 3), we have nonetheless sought to offer as comprehensive and detailed a picture as possible of how standard forms are being used. To do this, we set up our survey and analysed its data to identify correlations across numerous variables.

This Report, therefore, is directed primarily towards the first of the three questions identified above – how are standard forms being used? It also offers insights into the types of issues which ought be considered by construction industry stakeholders in framing the debate around the next stage of evolution of Australian standard forms.

These issues include, crucially:

- the extent to which the Australian construction industry values the availability of a standard form which is capable of being used without substantial amendment;\(^\text{62}\) and
- current perceptions as to whether such a form currently is available to the Australian construction industry.\(^\text{63}\)


\(^{62}\) Section 4.1.

\(^{63}\) Section 4.2.
2.2 Further research

Our findings in respect of the key questions referred to in section 2.1 above are summarised in Part B and set out in detail in Part D.

In addition to these findings, in the course of the research, the project team has encountered certain issues relating to the use of standard forms which we consider merit further, detailed research. Whilst we were able in this Report to make preliminary findings in respect of some of them, more focused research could allow for more meaningful analysis.

These include:

- More detailed investigation of the correlation (if any) between contract value and standard form use, especially at the higher contract value end (see section 5.3). It would also be of interest to ascertain the total value of projects which are let each year based upon the various forms.
- The extent of amendments made to standard forms (section 9 makes findings in relation to the proportion of standard forms which are amended to some extent, and section 11 sets out data in respect of the types of clauses which are amended, but the survey did not – other than by reference to observations made in interviews – provide data indicating directly how extensive those amendments are).
- More detailed correlation, against factors including the type of form, contract value and contracting sector (and other possible factors, such as the forms’ readability, format, accessibility to non-lawyers and incorporation of document automation systems), as to the following matters dealt with in a preliminary manner below:
  - Which party made the decision to use the standard form (section 7);
  - Factors going to use of standard forms (section 8); and
  - Factors going to why standard forms are amended (section 10).
- Perceptions as to the effect of amendments to standard forms upon project outcomes (some preliminary findings on this are set out in section 12).
- The role of lawyers (whether external to the organisation or in-house) in recommending forms of contract and amendments to them (section 10).

The project team would be happy to discuss these potential avenues further with interested researchers and – to the extent that it is consistent with the human ethics approval granted in respect of this Project (see section 3 below) – make available to them more detailed data than has been published in this Report.

Moreover, we believe it would be useful to refine the survey in the light of our findings and repeat it periodically – perhaps, every two to three years – in order to ascertain whether (and, if so, how and why) attitudes towards and use of standard forms change over time.

2.3 Australian Standards revision process

As was noted in section 1.1.2 above, Standards Australia is currently engaged in a process for revision of (at least) its major works contract forms. Although this research project has been undertaken at arm’s length from this process, members of the project team are broadly aware of its aims and progress.

To that end, we expect that findings in this Report – whether as to the Australian Standards forms or more generally – will be of interest to those charged with revising those forms. In addition, we have set out in Appendix 2 a compilation of feedback on the Australian Standards forms which goes to specific aspects of the current forms.
This project has been undertaken in accordance with a methodology approved by the Melbourne Law School Human Ethics Approval Group. That methodology involved two key elements: a web-based survey and interviews. Each of these was conducted on an anonymous basis: the survey did not collect identifying details of participants (unless they opted-in to be contacted to undertake an interview) and, in the interviews, participants were given the option whether or not comments were to be attributable to them: most chose not to make them so attributable.

3.1 Survey

The survey questions are set out in Appendix 1. Essentially, participants were invited to answer questions about the contracts which were used on up to three construction projects undertaken in Australia during the past five years of which they had knowledge, either as a direct project participant or an adviser.

The survey was web-based, using the SurveyMonkey tool. The web link, which participants could click on if they wished to undertake the survey, was disseminated to potential participants in a number of ways, including:

- Direct emails to students, alumni and associates of the Melbourne Law School construction law program, and members of the Society of Construction Law Australia;
- News items on webpages of the Australian Construction Industry Forum and Society of Construction Law Australia; and
- Social media, including via the Twitter and LinkedIn feeds maintained by the Melbourne Law School construction law program.

The survey was available online to participants from 3 December 2013 to 14 February 2014. 295 individuals participated in the survey. The ability of participants to report on up to three projects in their responses meant that responses were received in respect of 379 projects (that said, given that the survey did not ask participants to identify the projects reported on, it is possible that multiple participants reported in respect of the same project).

The somewhat diffuse nature of the survey’s dissemination, including the overlap in recipient cohorts (for example, many Melbourne Law School alumni are also members of the Society of Construction Law Australia) makes it impossible to state with certainty the number of potential participants in the survey. However, it was likely in the order of 2,000-3,000, resulting in a notional response rate of approximately 10-15%.

Survey participants identified themselves as falling within a range of project party types, and could identify more than one type. There were 419 responses to the question ‘Which of the following roles describes your own involvement in the project? (Please choose as many as apply.)’, with the results as follows:

![Bar chart showing the distribution of roles described by survey participants.](image)
Respondents to the survey represented, therefore, the perspectives of a diverse range of project participants (though, none identified themselves as being funders/financiers). Approximately half were lawyers, a little over a quarter were drawn from within the primary contracting parties and a little over a quarter from consultants (of which, more than half were contract administrators and independent reviewers).

Survey participants were not asked to describe their primary location. However, it is evident from the locations of projects reported upon, and the interviews, that participants were drawn from every State and Territory of Australia, and – whilst most participants were based in the major cities – there was a substantial representation of participants based in rural and regional areas.

### 3.2 Interviews

The research team conducted 47 interviews between January and March 2014. 39 (83%) were conducted by telephone and 8 (17%) face-to-face. The majority of interviewees had self-selected through a prompt in the survey, but several were approached directly by the research team on the basis that they had significant experience in relation to standard forms.

The interviewees represented a range of perspectives within the industry, falling broadly into the following categories:

![Graph showing distribution of interviewees by role]

They were overwhelmingly industry participants and advisers with substantial experience in the area, including construction firm executives, senior public servants, in-house lawyers at large contracting and consulting firms, law firm principals, senior counsel and representatives of peak bodies. Most respondents had significant experience relating to the construction industry: 81% had 10 or more years, and 51% had 20 or more years.
Part D - Detailed findings

This Part provides the research team’s detailed findings in relation to this research project. It does so, under each heading (reflecting the questions), by presenting the relevant data in tabulated and chart form. The Report seeks to make use of all meaningful data but anticipates that not all survey respondents responded to every question and, as such, there are differences in the sample sizes for each element reported upon. Where relevant, these sample sizes are noted: for example, by numbers at the tops of columns.

Commentary on the findings is provided for most questions, including by reference to observations arising from the interviews conducted for the purposes of this research project.

4. Attitudes towards standard forms

4.1 Broad support in principle for standard forms

Participants were asked to indicate whether they agreed with the statement ‘The Australian construction industry needs to have available to it standard forms of contract which are available for use without substantial amendment.’ 197 responses were received, with the responses summarised in the chart below. The aggregate of these responses placed the mean between ‘slightly agree’ and ‘strongly agree’.

‘experienced industry participants were supportive of the idea that a form might be available for use without substantial amendment across the industry’
In line with this apparent strong support (at least, in principle) for standard forms, many interviewees made comments along the lines of this statement from a contract administrator with more than 20 years’ experience: ‘they establish a benchmark of reasonableness and this benchmark is important for the industry to have.’

That said, 98 survey participants (33.2%) skipped the question: such a lack of response could be indicative of a range of attitudes to the question and should be taken to temper the confidence that otherwise would exist as to support for standard forms.

4.2 Suitability of currently-available forms

Participants were asked whether, in their view, there is any current standard form of contract which is capable of being used without substantial amendment in the Australian construction industry. 197 responses were received, with 98 survey participants (33.2%) skipping the question. The responses are set out in the chart to the right.

Thus, whilst there is strong support in principle for the availability of standard forms which are capable of use without substantial amendment (see section 4.1), a clear majority of respondents indicated that there was no such form currently available. One interviewee – a commercial manager for a tier 2 contractor – commented that there is at present no satisfactory standard form in Australia capable of use without substantial amendment and that contractors ‘put up with’ the Australian Standards ‘because they have to’.

The interviews undertaken for this research project provided insights into the complex foundations underpinning these responses. Broadly speaking, experienced industry participants were supportive of the idea that a form might be available for use across the industry without substantial amendment. One lawyer suggested that development of such a form would be a worthwhile cooperative project in which the Federal and State governments should take a lead. However, interviewees identified a number of challenges to such development, primarily the diversity of types of projects which it would need to cover and the need to anticipate increasingly-sophisticated (and constantly evolving) legislative and financing requirements.

65 Substantial investment has in fact already been made into public-sector contracting suites, such as those of the Department of Defence and NSW Government – see section 1.
4.3 Forms viewed as being capable of use without substantial amendment

Of the respondents who indicated that there is a standard form of contract currently available capable of use without substantial amendment, a range of responses was received as to which form that might be. These are summarised in the chart below. The aggregate number of forms identified exceeds the number of participants (90) who responded to the question, because participants were able to identify more than one form as being suitable. The only forms which received significant support as being suitable were AS4000 and AS2124 (though, an additional seven responses referred generally to the Australian Standards suite). There is therefore a partial correlation between perceived suitability of the forms and the forms’ frequency of use (as is noted in section 6.1 below, the four most widely-used forms are (in order) AS4300, AS4000, AS2124 and AS4902). However, there is also an apparent correlation between perceived suitability and frequency of amendment – as is noted in section 9.4, the reported rates of amendment of AS4000 and AS2124 are 88% and 97% respectively.

Figures at the top of each column indicate number of responses received.
It may be, therefore, that the results indicated in the chart above primarily reflect the high degree of familiarity in respect of these forms (see, further, section 8.2) rather than, necessarily, a widely-held view that they are, in fact, suitable for use without amendment.

It does need to be acknowledged, however, that the (relatively) high degree of perception that the Australian Standard forms are suitable was also reflected in our interviews with highly-experienced industry participants. Whilst almost everyone who commented on the issue noted that the forms were outdated and in need of revision (a fact implicitly acknowledged by Standards Australia itself through its initiation of the review process referred to in section 2.3), comments received included that:

- there was ‘nothing much wrong’ with the forms (in-house lawyer in a government department); and
- the suite ‘met the market’ for the ‘middle band’ of projects, especially bearing in mind that the head contract risk allocation then needs to be backed down to let subcontracts (lawyer/superintendent).

The chart also indicates that there is support – albeit small – for the suitability of forms outside of the four key Australian Standards forms. Our interviews reflected this support; generally speaking, where interviewees had used ABIC, GC21, Defence or NEC forms, they had a reasonably positive view of them. Particular observations included:

- On **ABIC**, a compilation of feedback from architects who had used it includes descriptions of it being reliable, available for a range of projects, balanced in risk allocation, practically-focused in terms of contract administration and written in simple language; on the other hand, some non-architect interviewees saw the form as giving too much discretion and protection to architects.

- On **GC21**, a number of interviewees commented positively along the lines that it had had a lot of thought go into it (including specific issues such as eschewing the traditional dual agent/certifier role for the superintendent and replacing the traditional concept of practical completion with ‘defects free completion’) and that its associated processes (such as contracting workshops) assisted in avoiding disputes. There was also praise for the ‘mini minor works’ (flowchart) form. That said, contractors complained in the interviews about the ‘defects free’ regime and lack of a limitation on delay damages and various other aspects (though noting that they needed to accept these aspects in order to qualify at tender time).

- Similarly, on the **Defence** forms (in respect of which we only received one comment in interviews, from a lawyer), it was noted that they work ‘quite neatly’ from an administrative point of view and that the ‘just in time’ training allowed specific issues of concern to be addressed for particular projects.

- Likewise, only one interviewee commented on the **NEC** form. However, they indicated a very positive view of the experience with the form, reporting that, by using the cost reimbursable form rather than a traditional lump sum approach for a complex relocation project, substantial savings on out-turn cost were achieved.
5. Use of standard forms

5.1 Overall

This chart is a compilation of responses to the survey question "Thinking... about the contract with which you were primarily involved on the project... was that contract based upon a standard form?" 377 responses were received to that question, of which 255 (67.6%) were 'yes' and 122 (32.4%) 'no'. In other words, standard forms were used as at least a base in approximately two-thirds of contracts across all contracting sectors and values.

5.2 Breakdown by position of contract within the contracting chain

This chart indicates that standard forms are more commonly used in 'head' or 'main' contracts (between the principal/owner/developer and contractor/consultant) than subcontracts and trade contracts (the latter term describing contracts entered into directly by a principal in a construction management arrangement).

The survey questions (see Appendix 1) sought information about where reported-upon contracts sat within the 'contracting chain'. 377 responses were received. Most contracts (80.6%) were the 'head' or 'main' contract and the bulk of the remainder were subcontracts and trade contracts (14.3%). A very small number fell into the 'supply agreement' (2.4%) or 'other' (2.7%) categories: these were excluded from the analysis for this chart.

‘standard forms were used as at least a base in approximately two-thirds of contracts across all contracting sectors and values’
5.3 Breakdown by initial contract value

The survey sought to obtain a comprehensive picture of contracting in all aspects of the construction industry in Australia – it therefore set no upper or lower threshold for participation by reference to contract value.\(^{66}\) In turn, the survey employed categories of contract value based upon the initial (unvaried) contract scope rather than final project outturn cost. This was primarily to ensure comparison of ‘apples with apples’ and also because many of the projects reported upon were still in progress.

The use of categories rather than absolute contract values does not allow for a strict linear assessment of the correlation between use of standard forms and contract values. That said, the chart does indicate that standard form use is close to universal on contracts with a value less than $100,000 (albeit based on a relatively small sample size), ranges between 66% and 78% on values between $100,000 and $500 million and then drops sharply on values exceeding $500 million. This correlates with a view expressed in the interviews that, specifically, the Australian Standards, were most suitable for use in the ‘middle band’ of projects.

\(^{66}\) This is by way of contrast with, for example, the Blake Dawson Report which only sought responses in respect of projects with a contract value exceeding $20 million – see p 31 of that Report.
5.4 Breakdown by project location

The survey data indicates, when aggregating all contracting sectors, that a lesser proportion of contracts use standard forms (whether amended or unamended) in the States and Territories where mining and resources projects predominate (WA, NT and Queensland – here, the range is 43%-58%) compared to the ACT, NSW, SA, Tasmania (albeit only one project was reported upon) and Victoria (range 65%-100%). This correlates with the findings based upon sectors (see section 5.5 below).

The ‘other’ category primarily represented work being done by Australian government agencies in Australian external territories.

5.5 Breakdown by contracting sector

This chart indicates a diversity of level of use of standard forms (whether amended or unamended) across sectors. Use is highest in the residential building sector, remains high in the commercial building and process engineering sectors, and drops progressively through the public sector and private sector infrastructure sectors, with the lowest use being in the mining and resources infrastructure sector.

Whilst further, detailed research would be required to confirm this, and to analyse its detailed implications, it may be surmised that a number of factors contribute to these results, including that:

- standard forms are not available for all delivery methodologies (see section 1.1), being primarily directed to building projects on a ‘traditional’ (construct only/ design and construct) head contract basis rather than for relationship-based models such as alliancing; and
- contracting in the residential building sector is the subject of substantial legislative intervention, including, in many States and Territories, the mandatory inclusion of certain warranties and other matters. 68 This, along with the relatively small value of the bulk of residential projects, would appear to militate in favour of using the numerous standard forms which are available in order to minimise transaction costs.


‘use of standard forms is highest in the residential building sector, with the lowest use being in the mining and resources infrastructure sector’
6. Which standard forms are being used?

The chart in section 6.1 aggregates 250 responses across all contract values, geographic locations and contracting sectors. Breakdowns by reference to each of these factors, in respect of the most widely-used major works forms (AS4300, AS4000, AS2124, AS4902, GC21, ABIC MW and FIDIC), are provided in the charts following in sections 6.2-6.4.

The chart in section 6.1 also reflects our key finding that, overall, the Australian Standards forms continue to dominate the Australian construction contracting landscape. In aggregate, the four main forms represent close to 70% of the standard forms which are used, as reported upon in this survey. Applying that 70% to the 68% of projects overall which use standard forms (see section 4.1), these forms are used in nearly half (48%) of all projects reported upon in this survey.

There appears to be a large gap in usage between the AS forms and the other commercially-available suites of forms for major works: the ABIC MW form was used in 2.4% of projects (albeit the ‘Simple Works’ form was slightly more frequently used, at 4.0%) and FIDIC forms in 2.0% of projects. Only one project in the entire survey was reported as using the NEC3 form.

The breakdowns in sections 6.2-6.4 provide the basis for drawing out a number of detailed observations. In terms of the degree of confidence with which these observations may be stated, however, varying sample sizes apply. These are noted in brackets beside the relevant category. For example, whilst the second chart in section 6.3 indicates, on its face, that (of the most widely-used forms) only AS2124, AS4000 and AS4300 are used in South Australia, this was based on a sample size of 8 contracts in total for that State. Similarly, in section 6.4, the ‘100%’ result for use of ABIC in the ‘residential building contracts – private individual as principal’ sector was based on a sample size of only 2 for that category, and the results in respect of process engineering were based on a sample size of 9. It needs also to be emphasised that the data relates only to contracts where a standard form was used – as noted in section 5.5 above, less than half of the contracts in the infrastructure sectors used a standard form.

That said, (at least) the following observations may be made with a reasonable degree of confidence:

- the AS major works forms are used across all sectors (other than for residential building with a private individual as principal), including across the public and private sectors, and for project delivery methods (such as process engineering) for which they are not specifically designed;
- those AS forms are also used across all contracting values, although no AS4000 forms were reported as being used on projects with a value in excess of $500 million;
- the FIDIC forms are only used on relatively high value projects (> $100 million), in private sector infrastructure (both mining and non-mining) and process engineering projects;
- the GC21 form is primarily used in NSW, but there is also some use of it in Queensland; whilst, as was noted in section 1.1.1 above, it is designed for use on contracts with a value exceeding $1 million, our survey responses indicated that it was used only for contracts with a value over $5 million; and
- the ABIC MW form is little used outside relatively small value (up to $5 million) contracts; the primary use is to be found in the residential building sector where the owner is a private individual, but it also has some use in the commercial building (private sector principal) and infrastructure (public sector principal) sectors.

These findings are also broadly consonant with observations arising from the interviews in respect of use of, and attitudes towards, these standard forms (see section 4.2 above).
6.1 Overall

This chart aggregates the 250 responses to question 12 of the survey (see Appendix 1), which asked participants who had previously indicated that the relevant contract was based upon a standard form to identify the form.

‘the four main Australian Standards forms represent close to 70% of the standard forms which are used’
6.2 Breakdown by initial contract value

**Applying value categories to forms**

‘the Australian Standards forms are used across all contracting values (although no AS4000 forms were reported as being used on projects with a value in excess of $500 million)’

Figures in brackets indicate the number of responses analysed for each value category.
Applying forms to value categories

‘the FIDIC forms are only used on projects with a value over $100 million, in private sector infrastructure and process engineering projects’

Figures in brackets indicate the number of responses analysed for each form.
6.3 Breakdown by project location

Results from the ACT, NT and Tasmania are not taken into account in the charts in this section 6.3 due to their almost negligible number (respectively, 5, 7 and 1 contracts using a standard form).

Applying forms to locations

‘the GC21 form is primarily used in NSW, but there is also some use of it in Queensland’
Applying locations to value categories

Figures in brackets indicate the number of responses analysed for each location.
6.4 Breakdown by contracting sector

Applying forms to sectors

Figures in brackets indicate the number of responses analysed for each form.

‘the Australian Standards major works forms are used across all contracting sectors (other than for residential building with a private individual as principal), and across the public and private sectors’
### Applying sectors to forms

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<tbody>
<tr>
<td>Residential building - commercial developer</td>
<td>7.2%</td>
<td>14.3%</td>
<td>40.5%</td>
<td>31.9%</td>
<td>4.8%</td>
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<tr>
<td>Residential building - private individual as owner</td>
<td>100.0%</td>
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<td></td>
<td></td>
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<tr>
<td>Commercial building - private sector principal</td>
<td>4.1%</td>
<td>14.3%</td>
<td>38.7%</td>
<td>26.3%</td>
<td>18.4%</td>
</tr>
<tr>
<td>Commercial building - public sector principal</td>
<td>19.0%</td>
<td>15.0%</td>
<td>28.6%</td>
<td>6.8%</td>
<td>GC21 28.6%</td>
</tr>
<tr>
<td>Infrastructure - private sector principal (not mining/resources)</td>
<td>40.0%</td>
<td>20.0%</td>
<td>4.0%</td>
<td>6.7%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Infrastructure - private sector principal (mining/resources)</td>
<td>45.5%</td>
<td>9.1%</td>
<td>9.1%</td>
<td>FIDIC forms: 18.2%</td>
<td></td>
</tr>
<tr>
<td>Infrastructure - public sector principal</td>
<td>28.2%</td>
<td>12.8%</td>
<td>21.1%</td>
<td>10.3%</td>
<td>GC21 20.5%</td>
</tr>
<tr>
<td>Process engineering</td>
<td>44.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figures in brackets indicate the number of responses analysed for each sector.
7. Which party makes the decision to use the standard form?

<table>
<thead>
<tr>
<th>Party</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>54.6%</td>
</tr>
<tr>
<td>Principal’s lawyer</td>
<td>25.8%</td>
</tr>
<tr>
<td>Superintendent or project manager</td>
<td>9.8%</td>
</tr>
<tr>
<td>Architect</td>
<td>6.1%</td>
</tr>
<tr>
<td>Builder</td>
<td>3.0%</td>
</tr>
<tr>
<td>Financier</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Frequently, it was not possible to determine which party made the decision to use a particular standard form. Where it was possible, respondents sometimes indicated that multiple parties were responsible. The chart above reflects this.

Despite these limitations, it is clear that the principal (in more than 54% of cases) and the principal’s lawyer (in nearly 26% of cases) were primarily responsible for the decision. Together, the principal or the principal’s lawyer were responsible for choosing the standard form in more than 80% of cases.

‘the principal or the principal’s lawyer were responsible for choosing the standard form in more than 80% of cases’
8. Why are standard forms used?

8.1 Overall

This chart aggregates responses to a question which asked participants to indicate, in respect of the factors listed, their perception of where each of those factors sat on a spectrum from ‘not at all important’ to ‘very important’ (‘don’t know’ was also available). Each of the identified factors was, in aggregate, regarded as falling on the ‘important’ side of the spectrum, with ‘familiarity with the form’ being regarded as the most important factor and ‘gaining a commercial advantage’ the least.

The data which produced this chart (and also the data which produced similar charts in sections 10 and 12) produce a mean, as indicated, but are based on widely variable results. By way of indication of this spread, we have marked on the chart one standard deviation either side of the mean. In a normal distribution, this would indicate the range within which 68% of the results for each matter lie. However, for this data, the markings are by way of indication only given the limitations inherent in using a five-point scale.

So, in this section 8, the standard deviation for each category (based on representing the range between ‘not at all important’ to ‘very important’ as a 5-point scale), is: familiarity (1.1), suitability of the risk profile (1.2), ease of contract administration (1.2), minimising costs (1.2), reflects the deal (1.2), form well-drafted (1.2), form recommended (1.6), commercial advantage (1.3).

Participants were also able to nominate other factors. That said, the most commonly nominated factor also related to familiarity of one or more parties with the standard form. Small numbers of respondents nominated factors such as suitability of the standard form for the particular project or a preference for that standard form over another particular standard form.
8.2 Familiarity

The finding that familiarity was the most important factor (by a substantial margin – the mean score for it was 4.21 out of 5, compared with the next highest score of 3.75 out of 5) has, we think, significance in at least two ways:

- It helps explain why AS2124 and AS4300 – two forms which were intended by Standards Australia to become redundant and be withdrawn from sale upon the publication of, respectively, AS4000 (in 1997) and AS4902 (in 2000) – remain, as noted in section 6.1 above, respectively the third-most-used and most-used standard forms in Australian construction.
- Conversely, it indicates that ‘new’ forms (at least, in the Australian context) seeking to gain a foothold in the market on a competitive basis (such as ABIC, FIDIC and NEC3) – as opposed to government-mandated forms such as the Defence Suite and GC21 – need to overcome familiarity-generated inertia; this goes, arguably, to the relatively low use of these forms discussed in section 6.

Observations made in the interviews add detail to this picture:

- A strong theme came through that ‘familiarity’ does not necessarily mean ‘informed familiarity’. For example:
  - One highly-experienced project manager commented that the Australian industry is ‘at large, very naïve in their contractual obligations’.
  - Several interviewees commented in respect of their own (contracting) organisations along the lines that the company had used standard forms for relatively low-value/risk projects for several years (contracting) organisations along the lines that the company had used standard forms for relatively low-value/risk projects when the company was in its early years of development. The organisation had continued to use those forms as it moved into contracting of (often significantly) greater value and complexity and had then been ‘caught out’, either through deficiencies in the forms or by other continuing to resource the project management of the project as though it were a low-value/risk project.
- Amongst those who may reasonably be regarded as possessing a detailed knowledge of the various available forms (for example, “front-end” construction lawyers and in-house counsel), most described the currently-available forms in terms of being a “baseline” only, which then ought to be modified.
- The interviews confirmed that familiarity was a key factor in why forms other than the Australian Standards are rarely selected for use where a party has a choice (that is, leaving aside forms such as Defence and GC21, which essentially are mandated for the relevant work). For example, one architect who had worked extensively with the ABIC contracts and had a fairly positive view of them, observed that the ABIC MW form is seldom used “not because it has a bad reputation but simply because most large institutions have a heavily-amended version of AS2124 or AS4000 which has been knocking around the project management team for years”.
- Indeed, a number of interviewees identified familiarity as a reason why the newer Australian Standards forms (AS4000 and AS4902) were not as widely used as the older ones (AS2124 and AS4300). One lawyer opined that the newer forms are “better drafted” but that they are not as widely used due to a combination of familiarity (or, in their view, “stubbornness”) and the fact that they did not make any significant changes to the risk allocation vis-à-vis the older forms.

8.3 Risk allocation

The survey indicates that factors relating to risk allocation – including ‘suitability of the risk profile’, ‘reflecting the deal’ and gaining a commercial advantage’ – remain of importance to project parties in their choice to use a standard form. These underpinned the investigations in the Blake Dawson and Yates and Sashegyi Reports referred to in section 1.3.

8.4 Minimising transaction costs

The survey results, and observations made in the interviews, support the continued currency of the oft-stated premise that standard forms are used so as to minimise transaction/ legal costs.69 However, where standard forms are amended, any such gains in efficiency may be reduced: see section 12, which reports upon perceptions that amendments lead to increases in the need for legal advice, project outturn cost and disputation.

The interviews indicated a perception, at least on the part of contractors, that unnecessary amendment leads to higher project outturn costs. For example:

- One tier 2 contractor indicated that they have been prepared to offer clients a lower price on a lump sum contract if the client entered into an unamended Australian Standard contract; and
- An in-house lawyer at an engineering consultancy firm who is responsible for reviewing the several thousand consultancy contracts which that firm enters into each year estimated that approximately half of the forms are bespoke, requiring a significant in-house and external legal spend.

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69 See, eg Philip Loots and Donald Charrett, Practical Guide to Construction Contracts (2009), pp 32-34.
9. What proportion of standard forms are amended?

Our key finding in this section is that, where standard forms are used, overwhelmingly they are amended by the parties from the published form. Overall, 84% of the forms reported upon (from a sample size of 243) were amended. The incidence of use of amended forms amongst the four most widely used forms ranged from 88% (for AS4000) up to 98% (for AS4300).

The question which generated the data for this section asked participants to identify whether the general conditions, rather than project-specific information of the type set out in Annexure Part A to AS2124, were amended. However, the survey did not specifically ask respondents to identify the extent of such amendments (as is noted in section 2.2 above, we have suggested this as an area for further research). That said, a number of interviewees made observations along the lines that the amendments to standard forms that they typically see are more voluminous than the general conditions themselves.

A number of further findings may be identified from the data represented in the charts in this section. These include:

- the extent of use of amended forms was high across all contract values, contracting sectors and forms (although section 9.4 only reports upon the seven most widely-used major works forms);
- indeed, the only categories where use of amended forms did not exceed 75% were:
  - contract value: <$100,000 (67% amended) and $100,000-$1 million (54%);
  - contracting sector: residential building-private individual (47%) and commercial building-public sector principal (72%); and
  - forms: GC21 (63%).

9.1 Overall

See section 9.1.

See section 9.4.

See section 6.
9.2 Breakdown by initial contract value

Figures above each column indicate the number of contracts, based upon standard forms, reported upon for each value category.

‘the extent of use of amended forms was high across all contract values, contracting sectors and forms’
9.3 Breakdown by contracting sector

Figures above each column indicate the number of contracts, based upon standard forms, reported upon for each sector.

Form amended
Form not amended

Residential building - commercial developer as principal
Residential building - private individual as principal
Commercial building - private sector
Commercial building - public sector
Infrastructure private sector principal (not mining and resources)
Infrastructure private sector principal (mining and resources)
Infrastructure public sector principal
Process engineering
### 9.4 Breakdown by form

<table>
<thead>
<tr>
<th>Standard Form</th>
<th>Form Amended</th>
<th>Form Not Amended</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS4300-1995</td>
<td>53</td>
<td>1.9%</td>
</tr>
<tr>
<td>AS4000-1997</td>
<td>42</td>
<td>11.9%</td>
</tr>
<tr>
<td>AS214-1992</td>
<td>39</td>
<td>2.6%</td>
</tr>
<tr>
<td>AS4902-2000</td>
<td>30</td>
<td>10.0%</td>
</tr>
<tr>
<td>GC21</td>
<td>16</td>
<td>37.5%</td>
</tr>
<tr>
<td>FIDIC forms</td>
<td>5</td>
<td>100%</td>
</tr>
<tr>
<td>ABIC MW</td>
<td>5</td>
<td>20.0%</td>
</tr>
<tr>
<td>PC-1 1998</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>NEC 3</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>JCC</td>
<td>1</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figures above each column indicate the number of contracts, based upon standard forms, reported upon for each form.

‘in 30 years’ experience as a project manager, they had only seen an Australian Standard document used unamended on two occasions’
10. Why are standard forms amended?

Like the chart in section 8, the chart below aggregates responses to a question which asked participants to indicate, in respect of the factors listed, their perception of where each of those factors sat on a spectrum from ‘not at all important’ to ‘very important’ (‘don’t know’ was also available). Participants likewise were also able to nominate other factors. The factors nominated were generally imprecise concepts such as ‘risk allocation’. A smaller number of responses nominated disparate specific factors such as corporate policy, financiers’ demands and particular clauses.

‘overall, “need to shift risk” was regarded as the primary reason for amending standard forms’
It will be noted that, overall, the ‘need to shift risk’ was regarded as the primary reason for amending standard forms.

As in section 8, the standard deviation for each category (based on representing the range between ‘not at all important’ to ‘very important’ as a five-point scale) is relevant. These standard deviations (as indicated by the ranges marked on the chart) were: ‘need to shift risk to another party’ – 1.1, ‘need to amend to reflect regulatory requirements’ – 1.4, ‘increased ease of contract administration through modification of the form’ – 1.3, ‘form perceived to be poorly drafted’ – 1.3.

Given the high rate of usage (see section 6) of forms – primarily AS2124, AS4300, AS4000 and AS4902 – the published versions of which have not been substantially amended for well over a decade, it is not surprising that, overall, the ‘need to reflect statutory requirements’ was identified as an important factor. This also correlates with the findings in section 11 that clauses dealing with relatively recent statutory requirements such as GST and security of payment are added to approximately 60% of standard forms.

The question of why standard forms are amended was one on which the interviews were especially enlightening. Essentially – and, noting that our findings here must be regarded as preliminary only – there seems a clear divide in perception between lawyers and lawyers’ clients as to where the ‘blame’ lies for excessive amendment of standard forms. A sense of the divide may be gleaned from the following representative sample of views:

- changes are driven by lawyers rather than their clients; when clients are apprised of the effects of the changes suggested by their lawyers (such as in relation to ownership of ‘float’ in the contractual program), they often say that they do not want the changes to be made;
- lawyers are risk averse and put to their clients a conservative, high-watermark risk position (ie one which amends the forms to be more onerous to the counter-party);
- external lawyers have a financial interest in (and internal legal departments need to ‘justify their existence’ by) ‘selling’ suites of contracts, sets of amendments and providing ongoing advice during the project; and
- lawyers often have a poor understanding of the technical and commercial implications of their amendments, such as in advising upon contract-specific issues for insertion into the Annexure (contract particulars).

• About clients, by lawyers:
  - clients can be very conservative (especially where they have encountered adverse events on previous projects) and want certainty of risk transfer – this is what drives more draconian risk allocation;
  - many contractors make the mistaken assumption that they understand the legal implications of the standard forms and discount the need to make amendments simply to remove known ambiguities (the ‘qualifying cause of delay’ definition in AS4000 and AS4902 was identified in this context);
  - certain amendments are uncontroversial, such as to anticipate statutory requirements (eg workplace health and safety, security of payment) or to allow for more efficient contract administration; however, even such uncontroversial amendments will necessarily add significant volume to the standard form; and
  - whilst amendments may be voluminous, once contractors work through them and the reasons for them they will usually be acceptable, especially where contractors are at the more sophisticated end of the market.

Sitting behind these observations is, we think, a broader issue as to the evolving role of construction lawyers. Whilst this issue is beyond the direct scope of this Report, we have identified this (see section 2.2) as an area for further, detailed research.

‘there seems a clear divide in perception between lawyers and clients as to where the “blame” lies for excessive amendment of standard forms’
11. What types of clauses are amended?

Section 11 reports upon the relative incidence of amendments to standard form contracts based upon key risk, legislative, administrative and other matters. The questions generating the relevant data made a distinction between clauses amended from those in the standard form and those added to the standard form. This distinction is generally carried through in the reporting below, largely to make digestion of the large data set more manageable. Where the distinction is not explicit, it may be assumed that ‘amended’ is referring to both ‘amended’ and ‘added’ clauses.

11.1 Overall

The charts in section 11.1 indicate the overall incidence of amendments/additions across all forms, contracting sectors and values. They were generated by comparing the total number of responses in respect of each matter to the total number of responses which indicated that a standard form had been amended in respect of one matter or more. So, for example, in respect of standard forms which were amended to any extent, 76% were reported as having had the extension of time clauses amended and 41% the change in law clauses. These are the same figures as those set out in the ‘All Sectors’ row of the charts in section 11.3 (breakdown by initial contract value) – a slightly different data set was used for the charts in section 11.2 (breakdown by contracting sector) but the overall percentages are only marginally different (within 1-2%).

Throughout this section 11, it needs to be borne in mind that sample sizes for the underlying data varied, as follows:

<table>
<thead>
<tr>
<th>By initial contract value</th>
<th>Sample size</th>
<th>By sector</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $100,000</td>
<td>3</td>
<td>Residential building - commercial developer as principal</td>
<td>37</td>
</tr>
<tr>
<td>$100,000-$1 million</td>
<td>12</td>
<td>Residential building - private individual as principal</td>
<td>7</td>
</tr>
<tr>
<td>$1 million-$5 million</td>
<td>30</td>
<td>Commercial building - private sector principal</td>
<td>43</td>
</tr>
<tr>
<td>$5 million-$20 million</td>
<td>32</td>
<td>Commercial building - public sector principal</td>
<td>18</td>
</tr>
<tr>
<td>$20 million-$50 million</td>
<td>25</td>
<td>Infrastructure (roads, ports, energy etc) - private sector principal (not mining and resources)</td>
<td>20</td>
</tr>
<tr>
<td>$50 million-$100 million</td>
<td>29</td>
<td>Infrastructure - private sector principal (mining and resources)</td>
<td>11</td>
</tr>
<tr>
<td>$100 million-$500 million</td>
<td>52</td>
<td>Infrastructure - public sector principal</td>
<td>37</td>
</tr>
<tr>
<td>Greater than $500 million</td>
<td>9</td>
<td>Process engineering</td>
<td>10</td>
</tr>
</tbody>
</table>
The data indicate that, overall, there is a high level of amendment (including addition) to standard forms. As is noted in section 2.2 above, it would be useful for further research to be undertaken into such amendment by reference to the specific forms. However, it may be surmised – given the high level of use and amendment of the Standards Australia forms noted in previous sections – that the Standards Australia forms are routinely being heavily amended in respect of multiple matters.

Across all forms, contracting sectors and values, the highest incidence of amendment is in respect of:73

- Extensions of time – 76%;
- Delay damages (including liquidated damages) – 71%;
- Site conditions – 68%;
- Payment generally (security of payment (addition) – 60%);
- Variations – 63%;
- Warranties as to quality – 62%;
- Claims (including time bars) – 62%; and
- Goods and Services Tax (addition) – 60%.

The lowest incidence of amendment is in respect of:

- Dispute Avoidance Procedures (addition) – 8%;74
- Contract administration (addition) – 23%; and
- Inspection/ testing – 30%.

Generally speaking, the interviews indicated a similar spread of incidence of specific amendments. The most commonly commented-upon amendments were in respect of limitations of liability (discussed further below) and time bars: many contractors regarded the latter as being of concern from a risk allocation and administrative burden point of view.

The breakdowns by contracting value and sector (set out, respectively, in sections 11.2 and 11.3) reveal substantial variations within these, and other matters. By way of summary in relation to the types of clauses identified above as having the highest incidence of amendment:

73 ‘Project-specific requirements’ also had a high incidence (at 68%) – it has, however, been excluded from further analysis as the finding is unremarkable in this context – in other words, it is inherent in the nature of standard forms that they will, to varying extents, be unable to anticipate such requirements.

74 That said, the survey also found that 56% of the disputes clauses were amended and ADR clauses were added in 36% of contracts using standard forms, so the overall rate of amendment in respect of disputes remains high.

75 The only sector where there was no substantial incidence of amendment (indeed, an incidence of 0% was recorded) in respect of GST was residential building with a private individual as principal. This likely may be explained by the fact that (as was noted in section 5.5) the legislative requirements in respect of such contracts are highly prescriptive; in turn, the forms typically used in this sector (such as those produced by the Housing Industry and Master Builders Associations) are updated frequently, so provision for GST is usually made in these contract forms.

<table>
<thead>
<tr>
<th>Clause type</th>
<th>Incidence overall</th>
<th>Highest incidence By initial contract value</th>
<th>By sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensions of time</td>
<td>76%</td>
<td>$20-50 million: 84%</td>
<td>Residential building – commercial developer principal: 92%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Infrastructure – private sector principal (mining and resources): 91%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Process engineering: 90%*</td>
</tr>
<tr>
<td>Delay damages (including LDs)</td>
<td>71%</td>
<td>$50-100 million: 83%</td>
<td>Residential building – commercial developer principal: 92%</td>
</tr>
<tr>
<td>Site conditions</td>
<td>68%</td>
<td>$50-100 million: 83%</td>
<td>Residential building – commercial developer principal: 89%</td>
</tr>
<tr>
<td>Payment generally</td>
<td>65%</td>
<td>$5-20 million: 78%</td>
<td>Residential building – private individual principal: 86%*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Residential building – commercial developer principal: 84%</td>
</tr>
<tr>
<td>Variations</td>
<td>63%</td>
<td>&gt;$500 million: 78%*</td>
<td>Process engineering: 80%*</td>
</tr>
<tr>
<td>Warranties as to quality</td>
<td>62%</td>
<td>&lt;$100,000: 100%*</td>
<td>Residential building – commercial developer principal: 78%</td>
</tr>
<tr>
<td>Claims (including time bars)</td>
<td>62%</td>
<td>$1-5 million: 73%</td>
<td>Residential building – commercial developer principal: 84%</td>
</tr>
<tr>
<td>GST75</td>
<td>60%</td>
<td>$5-20 million: 72%</td>
<td>Residential building – commercial developer principal: 81%</td>
</tr>
<tr>
<td>Security of payment</td>
<td>60%</td>
<td>$50-100 million: 76%</td>
<td>Residential building – commercial developer principal: 84%</td>
</tr>
</tbody>
</table>

* indicates sample size 10 or fewer: see above
The tables give rise to a number of further, detailed observations (albeit they need to be tempered by reference to the respective sample sizes, as noted above), including:

- **Limitations of liability** (including in respect of ‘consequential loss’), along with **caps on liquidated damages** were identified in our interviews by several contractor representatives as being a vital part of their organisations’ preferred risk matrix for contracts. However, none of the most widely-used standard form construction contracts in Australia currently incorporates such general limitations. The survey differentiated between amendments to and additions of such clauses to contracts. Its findings may be summarised in this respect as follows:

<table>
<thead>
<tr>
<th>Clause type</th>
<th>Incidence overall</th>
<th>Highest incidence</th>
<th>Lowest incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>By initial value</td>
<td>By sector</td>
</tr>
<tr>
<td>Limitations of liability (amendment)</td>
<td>52%</td>
<td>$100-500 million: 69%</td>
<td>Infrastructure – private sector principal (mining and resources): 82%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Commercial building – private sector principal: 60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limitations of liability (addition)</td>
<td>48%</td>
<td>&lt;$100,000: 67%*</td>
<td>Infrastructure – private sector principal (mining and resources): 73%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Process engineering: 60%*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cap on liquidated damages</td>
<td>39%</td>
<td>&gt;$500 million: 67%*</td>
<td>Process engineering: 60%*</td>
</tr>
</tbody>
</table>
|             |                   |                   |                   | Commercial building – public sector principal (17%)

* Indicates sample size 10 or fewer: see above

‘limitations of liability along with caps on LDs were identified by several contractor representatives as being a vital part of their organisations’ preferred risk matrix’

- Overall, there seems to be a relatively low level of amendment (except in relation to payment clauses) in residential building contracts with a private individual as principal. That said, it was only in this sector that there was any substantial reporting of use of **dispute avoidance procedures** (29%) These findings were, however, based upon a sample size of 7.
- The only sectors where there was a high reported incidence of addition of clauses in respect of **government policy requirements** were where there was a public sector principal – commercial building (61%) and infrastructure (51%).

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76 AS2124-1992 and AS4300-1995 include caps on liquidated damages (see clause 35.7) but AS4000 and AS4902 do not. Limitations on liability are included in several widely-used consultancy forms, including AS4122-2010 – see Bailey and Bell, above n 17, pp 283-4. For commentary on current contracting practice, see Patrick Mead, ‘Exploring Limitations of Liability and Exclusions of Categories of Loss’ (2014) 26(4) Australian Construction Law Bulletin 22.
11.1.1 Clauses amended from standard form

Percentages indicate incidence of amendment of the relevant type of clause amongst standard form-based contracts which have been amended to any extent.
11.1.2 Clauses *added to* standard form

Percentages indicate incidence of amendment of the relevant type of clause amongst standard form-based contracts which have been amended to any extent.
### 11.2 Breakdown by initial contract value

#### 11.2.1 Clauses amended from standard form

<table>
<thead>
<tr>
<th>Clause Type</th>
<th>&lt;$100,000</th>
<th>$100,000-$1M</th>
<th>$1-$5M</th>
<th>$5-20M</th>
<th>$20-50M</th>
<th>$50-100M</th>
<th>$100-500M</th>
<th>&gt;$500M</th>
<th>ALL CONTRACT VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary matters</td>
<td>67%</td>
<td>33%</td>
<td>40%</td>
<td>53%</td>
<td>40%</td>
<td>34%</td>
<td>63%</td>
<td>44%</td>
<td>48%</td>
</tr>
<tr>
<td>Access to the site</td>
<td>33%</td>
<td>50%</td>
<td>37%</td>
<td>59%</td>
<td>52%</td>
<td>62%</td>
<td>62%</td>
<td>89%</td>
<td>56%</td>
</tr>
<tr>
<td>Performance security</td>
<td>33%</td>
<td>50%</td>
<td>47%</td>
<td>47%</td>
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</tr>
<tr>
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<td>56%</td>
<td>52%</td>
<td>59%</td>
<td>64%</td>
<td>56%</td>
</tr>
<tr>
<td>Warranties as to quality</td>
<td>33%</td>
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<td>63%</td>
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<td>72%</td>
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<td>72%</td>
<td>72%</td>
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</tr>
<tr>
<td>Site conditions</td>
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<tr>
<td>Programming</td>
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<td>79%</td>
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<tr>
<td>Extensions of time</td>
<td>33%</td>
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<td>63%</td>
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<td>83%</td>
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<td>78%</td>
<td>63%</td>
</tr>
<tr>
<td>Delay damages</td>
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<td>66%</td>
<td>66%</td>
<td>83%</td>
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<td>79%</td>
<td>63%</td>
</tr>
<tr>
<td>Payment</td>
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</table>

Percentages indicate incidence of amendment of the relevant type of clause amongst standard form-based contracts which have been amended to any extent.
### Clauses amended from standard form (cont.)

<table>
<thead>
<tr>
<th>Contract administration / superintendent</th>
<th>Safety requirements / WHS</th>
<th>Environmental requirements</th>
<th>Inspection / testing</th>
<th>Limitations of liability</th>
<th>Variations</th>
<th>Completion / handover</th>
<th>Termination rights</th>
<th>Final completion</th>
<th>Claims</th>
<th>Disputes</th>
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<tr>
<td>&lt;$100,000</td>
<td></td>
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<td></td>
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<td>25%</td>
<td>42%</td>
<td>33%</td>
<td>50%</td>
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<td>47%</td>
<td>73%</td>
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<td>43%</td>
<td>60%</td>
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<tr>
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<td>38%</td>
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</tr>
<tr>
<td>$100-$500M</td>
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<td>50%</td>
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<td>52%</td>
<td>65%</td>
</tr>
<tr>
<td>&gt;$500M</td>
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<td>56%</td>
<td>44%</td>
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<td>56%</td>
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<td>44%</td>
<td>56%</td>
<td>67%</td>
</tr>
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<td>ALL CONTRACT VALUES</td>
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<td>53%</td>
<td>43%</td>
<td>31%</td>
<td>53%</td>
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<td>49%</td>
<td>49%</td>
<td>45%</td>
<td>63%</td>
</tr>
</tbody>
</table>

Percentages indicate incidence of amendment of the relevant type of clause amongst standard form-based contracts which have been amended to any extent.
### 11.2.2 Clauses added to standard form

<table>
<thead>
<tr>
<th></th>
<th>Limitations of liability</th>
<th>Cap on liquidated damages</th>
<th>Acceleration through delay</th>
<th>Workplace Health and Safety</th>
<th>Fitness for purpose warranty</th>
<th>GST</th>
<th>Security of payment / adjudication</th>
<th>Project-specific circumstances</th>
<th>ADR</th>
<th>Dispute Avoidance Procedures</th>
<th>Government policy requirements</th>
<th>Contract administration</th>
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<td>70%</td>
<td>36%</td>
<td>8%</td>
<td>31%</td>
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</table>

Percentages indicate incidence of amendment of the relevant type of clause amongst standard form-based contracts which have been amended to any extent.

0-25% 26-50%  51-75%  76-100%
11.3 Breakdown by contracting sector

11.3.1 Clauses amended from standard form

<table>
<thead>
<tr>
<th>Preliminary matters</th>
<th>Access to the site</th>
<th>Performance security</th>
<th>Change in law</th>
<th>General risk assumption and insurance</th>
<th>Warranties as to quality</th>
<th>Design</th>
<th>Site conditions</th>
<th>Programming</th>
<th>Extensions of time</th>
<th>Delay damages</th>
<th>Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential building - commercial developer as principal</td>
<td>65%</td>
<td>70%</td>
<td>81%</td>
<td>70%</td>
<td>73%</td>
<td>78%</td>
<td>81%</td>
<td>89%</td>
<td>68%</td>
<td>92%</td>
<td>92%</td>
</tr>
<tr>
<td>Residential building - private individual as principal</td>
<td>29%</td>
<td>29%</td>
<td>14%</td>
<td>0%</td>
<td>0%</td>
<td>14%</td>
<td>29%</td>
<td>29%</td>
<td>14%</td>
<td>29%</td>
<td>14%</td>
</tr>
<tr>
<td>Commercial building - private sector principal</td>
<td>47%</td>
<td>49%</td>
<td>58%</td>
<td>35%</td>
<td>49%</td>
<td>72%</td>
<td>49%</td>
<td>72%</td>
<td>40%</td>
<td>84%</td>
<td>79%</td>
</tr>
<tr>
<td>Commercial building - public sector principal</td>
<td>50%</td>
<td>44%</td>
<td>50%</td>
<td>61%</td>
<td>56%</td>
<td>61%</td>
<td>78%</td>
<td>61%</td>
<td>44%</td>
<td>78%</td>
<td>83%</td>
</tr>
<tr>
<td>Infrastructure (roads, ports, energy etc.) - private sector principal (not mining and resources)</td>
<td>35%</td>
<td>55%</td>
<td>60%</td>
<td>35%</td>
<td>50%</td>
<td>65%</td>
<td>45%</td>
<td>60%</td>
<td>50%</td>
<td>70%</td>
<td>65%</td>
</tr>
<tr>
<td>Infrastructure - private sector principal (mining and resources)</td>
<td>36%</td>
<td>64%</td>
<td>82%</td>
<td>45%</td>
<td>55%</td>
<td>82%</td>
<td>82%</td>
<td>82%</td>
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<td>91%</td>
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</tr>
<tr>
<td>Infrastructure - public sector principal</td>
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<td>41%</td>
<td>30%</td>
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<td>35%</td>
<td>35%</td>
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<td>46%</td>
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</tr>
<tr>
<td>Process engineering</td>
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<td>70%</td>
<td>20%</td>
<td>70%</td>
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<td>60%</td>
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<td>90%</td>
<td>70%</td>
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<tr>
<td><strong>ALL SECTORS</strong></td>
<td><strong>47%</strong></td>
<td><strong>56%</strong></td>
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<td><strong>41%</strong></td>
<td><strong>54%</strong></td>
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<td><strong>68%</strong></td>
<td><strong>51%</strong></td>
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<td><strong>71%</strong></td>
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</table>

Percentages indicate incidence of amendment of the relevant type of clause amongst standard form-based contracts which have been amended to any extent.
### Clauses amended from standard form (cont.)

<table>
<thead>
<tr>
<th>Clauses</th>
<th>Contract administration / superintendent</th>
<th>Safety requirements / WHS</th>
<th>Environmental requirements</th>
<th>Inspection / testing</th>
<th>Limitations of liability</th>
<th>Variations</th>
<th>Completion / handover</th>
<th>Termination rights</th>
<th>Final completion</th>
<th>Claims</th>
<th>Disputes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential building - commercial developer as principal</td>
<td>65%</td>
<td>62%</td>
<td>46%</td>
<td>36%</td>
<td>51%</td>
<td>76%</td>
<td>68%</td>
<td>68%</td>
<td>54%</td>
<td>84%</td>
<td>86%</td>
</tr>
<tr>
<td>Residential building - private individual as principal</td>
<td>29%</td>
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<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>29%</td>
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<tr>
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<td>53%</td>
<td>33%</td>
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<td>60%</td>
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<td>58%</td>
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</tr>
<tr>
<td>Commercial building - public sector principal</td>
<td>72%</td>
<td>44%</td>
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<td>44%</td>
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<td>56%</td>
<td>61%</td>
</tr>
<tr>
<td>Infrastructure (roads, ports, energy etc.) - private sector principal (not mining and resources)</td>
<td>40%</td>
<td>45%</td>
<td>40%</td>
<td>35%</td>
<td>50%</td>
<td>65%</td>
<td>40%</td>
<td>55%</td>
<td>55%</td>
<td>55%</td>
<td>45%</td>
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<tr>
<td>Infrastructure - private sector principal (mining and resources)</td>
<td>64%</td>
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<td>55%</td>
<td>36%</td>
<td>82%</td>
<td>73%</td>
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<td>64%</td>
<td>45%</td>
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</tr>
<tr>
<td>Infrastructure - public sector principal</td>
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<td>49%</td>
<td>30%</td>
<td>49%</td>
<td>54%</td>
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<td>27%</td>
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<tr>
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</tbody>
</table>

Percentages indicate incidence of amendment of the relevant type of clause amongst standard form-based contracts which have been amended to any extent.
### 11.3.2 Clauses *added to* standard form

<table>
<thead>
<tr>
<th>Clause Type</th>
<th>Limitations of liability</th>
<th>Cap on liquidated damages</th>
<th>Acceleration through delay</th>
<th>Workplace Health and Safety</th>
<th>Fitness for purpose warranty</th>
<th>GST</th>
<th>Security of payment / adjudication</th>
<th>Project-specific circumstances</th>
<th>ADR</th>
<th>Dispute Avoidance Procedures</th>
<th>Government policy requirements</th>
<th>Contract administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential building - commercial developer as principal</td>
<td>51%</td>
<td>43%</td>
<td>51%</td>
<td>73%</td>
<td>78%</td>
<td>81%</td>
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<td>84%</td>
<td>54%</td>
<td>6%</td>
<td>22%</td>
<td>27%</td>
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<tr>
<td>Residential building - private individual as principal</td>
<td>29%</td>
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<td>14%</td>
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<td>0%</td>
<td>0%</td>
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<td>29%</td>
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<tr>
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<td>56%</td>
<td>0%</td>
<td>61%</td>
<td>44%</td>
</tr>
<tr>
<td>Infrastructure (roads, ports, energy etc.) - private sector principal (not mining and resources)</td>
<td>45%</td>
<td>35%</td>
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<td>35%</td>
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<tr>
<td>Infrastructure - private sector principal (mining and resources)</td>
<td>73%</td>
<td>45%</td>
<td>18%</td>
<td>36%</td>
<td>55%</td>
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<td>45%</td>
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<tr>
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<td><strong>48%</strong></td>
<td><strong>60%</strong></td>
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<td><strong>68%</strong></td>
<td><strong>36%</strong></td>
<td><strong>8%</strong></td>
<td><strong>32%</strong></td>
<td><strong>23%</strong></td>
</tr>
</tbody>
</table>

Percentages indicate incidence of amendment of the relevant type of clause amongst standard form-based contracts which have been amended to any extent.

0-25% 26-50% 51-75% 76-100%
12. Perceived outcomes from amendment of forms

The relevant question in the survey asked participants to indicate, on a scale ranging from ‘much decreased’ to ‘much increased’, their perceptions as to whether the relevant amendments to the standard form affected certain matters relating to project outcomes.

Overall, amendments to the standard forms were seen as leading to (beneficial) increases in:

- understanding between the parties (greatest increase);
- efficiency in project administration,

but also to (detrimental) increases in:

- need for legal advice during the project;
- project outturn cost;
- disputation (least increase).

There was, however a wide spread of responses on these points. As was the case in sections 8 and 10, therefore, the standard deviations for each factor are also relevant: ‘understanding between the parties’ was 1.2, ‘need for legal advice during the project’ 1.1, ‘project outturn cost’ 1.0, ‘efficiency in project administration’ 1.2, and ‘disputation’ 1.0.

Interviewees offered a range of observations relevant to these perceived outcomes. Consistent with the discussion in section 10, there seemed to be a division in perceptions as between industry professionals and lawyers (especially, lawyers who themselves are involved in amending the contracts).

A number of contractors and project managers commented that transaction costs are increased where contracts are amended without good reason and that contractors will include a contingency in their tendered prices for such amendments where it is possible to do so (a number of comments were received along the lines that, when work is scarce, contractors need to accept contracts on any terms). Other comments received included that too much reliance is put on the contract as a risk management tool, neglecting contract management techniques which can lead to more favourable project outcomes.

On the other hand, lawyers involved in drafting amendments tended to point out that the amendments they were making were generally necessary, and would be seen to be so when explained to the parties. Indeed, some lawyers and contract administrators noted that disputation is increased where contract forms which do not reflect the parties’ agreement are used. In other words, it was their view that it is more efficient in the long run to spend time amending the form to reflect the ‘deal’ rather than proceeding with an inadequately tailored contract document.

Section 12.
Appendix 1 – Survey questions

1. Have you worked on or otherwise been engaged in connection with any construction projects in Australia during the past five years, either as a project participant or adviser?
   - Yes
   - No

We are now going to ask you a series of questions in relation to projects in which you have been involved. When you come to the end of these questions, you will be prompted to answer the same questions in relation to up to two further projects.

2. In what year did the project commence?

3. Procurement method. (Please choose the option which best describes the primary contract.)
   - Construct only
   - Design & Construct
   - Construction Management
   - Managing Contractor / ECI
   - Alliance
   - Partnering arrangement
   - Other (please specify)

4. Payment method. (Please choose the option which best describes the primary contract.)
   - Lump sum
   - Reimbursement / remeasurement (eg on a schedule of rates basis)
   - Other (please specify)

5. Sector.
   - Residential building commercial developer as principal
   - Residential building private individual as principal
   - Commercial building private sector principal
   - Commercial building public sector principal
   - Infrastructure (roads, ports, energy etc) private sector principal (not mining and resources)
   - Infrastructure private sector principal (mining and resources)
   - Infrastructure public sector principal
   - Process engineering
   - Other (please specify)

6. Where was the project primarily undertaken?
   - Australian Capital Territory
   - New South Wales
   - Northern Territory
   - Queensland
   - South Australia
   - Tasmania
   - Victoria
   - Western Australia
   - Other including external territories and foreign aid projects (please specify)

7. What was the total project value?
   - Less than $100,000
   - $100,000 - $1 million
   - $1 million - $5 million
   - $5 million - $20 million
   - $20 million - $50 million
   - $50 million - $100 million
   - $100 million - $500 million
   - Greater than $500 million
8. Which of the following roles describes your own involvement in the project? (Please choose as many as apply.)

- Overview commercial decision-maker
- Superintendent / contract administrator
- Independent reviewer
- Contractor / subcontractor / supplier
- Consultant not a party to the contract (other than superintendent / lawyer)
- Financier
- Legal adviser  external solicitor
- Legal adviser  barrister
- Legal adviser  in house
- Dispute resolution (adjudicator, arbitrator, mediator, etc)
- Other (please specify)

Thinking now about the contract with which you were primarily involved on the project...

9. What was the initial contract value?

- Less than $100,000
- $100,000 - $1 million
- $1 million - $5 million
- $5 million - $20 million
- $20 million - $50 million
- $50 million - $100 million
- $100 million - $500 million
- Greater than $500 million

10. Where did that contract sit within the ‘contracting chain’? (Please choose the option which best describes the contract.)

- ‘Head contract’ (entered into by principal with a contractor)
- Subcontract / Trade contract
- Supply agreement
- Other (please specify)

11. Was that contract based upon a standard form?

- Yes
- No

12. Upon which of the following standard forms was that contract based?

- AS2124 1992
- AS4000 1997
- AS4300 1995
- AS4902 2000
- JCC
- ABIC MW
- FIDIC forms
- NEC 3
- GC21
- PC1 1998
- Other (please specify)

13. Which party made the decision to use the form?

- Your organization (or the organization which you advise)
- Another party
- Don’t know

If another party, please identify the decision maker by role (i.e. banker, lawyer for the principal, designer, etc)

14. Please indicate (using a scale from 1-5 where 1 was ‘not important’ and 5 ‘very important’; ‘don’t know also available) how important each of the following reasons was for that form being chosen.

- Familiarity with the form of the party choosing it
- Form recommended / mandated by party’s organization (eg government tendering requirements / peak body recommendation)
- Best ‘reflects the deal’
- ‘Suitability of the risk profile’
• Gaining a commercial advantage for the party procuring the work
• Form well drafted
• Ease of contract administration through use of the form
• Minimising transaction / legal costs
• Other (please specify)

15. Were the general conditions (i.e. the standard terms, not project specific information set out in, eg, Annexure Part A to AS2124) of the standard form you used amended from the published standard form?
• Yes (amended)
• No (not amended)

16. Please indicate [using a scale from 1-5 where 1 was ‘not important’ and 5 ‘very important’; ‘don’t know also available] how important you understand each of the following factors was in driving amendments to the standard form.
• Need to shift risk to another party

17. Which party was the risk shifted to (contractor, consultant, subcontractor etc)? [question only asked where answer to question 16 was 3, 4 or 5]

18. Please indicate [using a scale from 1-5 where 1 was ‘not important’ and 5 ‘very important’; ‘don’t know also available] how important you understand each of the following factors was in driving amendments to the standard form.
• Need to amend to reflect regulatory requirements (eg GST, residential building legislation)
• Form perceived to be poorly drafted
• Increased ease of contract administration through modification of the form
• Other (please specify)

19. As best you can recall, which of the following types of clauses in the standard form were amended? (Please select as many as apply.)
• Preliminary matters (including regulatory approvals)
• Access to the site
• Performance security (retention / bank guarantees etc)
• Change in law
• General risk assumption and insurance
• Warranties as to quality
• Design

20. As best you can recall, which of the following types of clauses were added to the standard form? (Please select as many as apply.)
• Limitations of liability
• Cap on liquidated damages
• Acceleration through delay
• Workplace Health and Safety
• Fitness for purpose warranty
• GST
• Security of payment / adjudication
• Project specific circumstances
• Alternative / appropriate dispute resolutions
• Dispute Avoidance Procedures (eg DRBs)
• Government policy requirements (eg industrial relations codes)
• Contract administration (eg independent reviewer)

21. For each of the following, please indicate [using a scale from 1-5 where 1 was ‘not important’ and 5 ‘very important’] your view as to whether, compared to the form unamended, the amendments to the form increased or decreased the:
• Understanding between the parties
• Efficiency in project administration
22. Please indicate [using a scale from 1-5 where 1 was ‘not important’ and 5 ‘very important’] how important you understand each of the following factors to be in the standard form being used unamended.

- One party was in a position to ‘dictate the deal’

23. Which party was that (principal, contractor, financiers etc)? [question only asked where answer to question 22 was 3, 4 or 5]

24. Please indicate [using a scale from 1-5 where 1 was ‘not important’ and 5 ‘very important’] how important you understand each of the following factors to be in the standard form being used unamended.

- Familiarity with the form of the party choosing it
- Satisfactory risk profile
- Increased ease of contract administration through use of the form
- Other (please specify)

[Survey respondents were then given an opportunity to respond to questions 2-24 in respect of up to two additional projects.]

73. To what extent [using a scale from 1-5 where 1 was ‘strongly disagree’ and 5 ‘strongly disagree’; ‘don’t know’ also available] do you agree with the following statement?

‘The Australian construction industry needs to have available to it standard forms of contract which are capable of being used without substantial amendment.’

74. In your view, is there any current standard form of contract which is capable of being used without substantial amendment in the Australian construction industry?

- Yes
- No

[questions 75-76 only asked where answer to question 74 was ‘yes’]

75. Which form?

76. For which type of project/s is the form capable of being used without substantial amendment?

77. Would you be willing to be interviewed (by phone or in person) by a member of the research team for this project in order to obtain more detailed views from you?

- Yes [prompts participant to enter contact details]
- No
Appendix 2 – Specific feedback on Australian Standards forms

As was foreshadowed in section 1.1.2, we reproduce here – without further comment or, necessarily, endorsement – feedback noted by the project team received during interviews for this project. This listing does not purport to be comprehensive (bearing in mind, as noted in section 3.2, that we conducted 47 interviews and each covered different specific subject matter), nor representative of any particular interest group. It is also presented in the awareness that Standards Australia is engaged in an ongoing process of industry consultation, so many of these issues may already have been received and considered.

General – formatting
- Forms should be based upon sectors (commercial building, infrastructure etc) rather than delivery methodologies (construct only/ design and construct, etc as at present)
- Sub-clauses should be more easily referable rather than their current un-numbered format
- AS copyright and licensing requirements make it difficult to adapt AS contracts as required (AS4122-2010 was specifically mentioned in this context)
- Need greater guidance/ default positions for the contract-specific information in the Annexure Part A, so as to minimise taking of unreasonable positions
- Where contractors/ subcontractors ‘vulnerable’, should be a checklist indicating clearly how the standard risk allocation has been amended
- Delete Annexure Part B (changes to the standard form) – does not reflect current reality of marked-up documents
- Consider inclusion of optional risk profiles

Specific risk matters
- Should be an exclusion of consequential loss and general limitation of liability (10 respondents)
- Should be an overall cap on liquidated damages (3 respondents), make clear that LDs are the sole remedy in respect of the relevant delay, and clarify effect of entering ‘nil’, etc, in Annexure Part A
- Principal should not be able to set off across multiple contracts (see, eg, cl 37.6 of AS4000)
- Principal should have a right to suspend works (and pay costs accordingly)
- The consultancy contracts should dovetail better with the typical novation process, including back-to-back limitations of liability (or lack thereof)
- Greater clarity and rigour required around programming (eg whether contractor retains ‘float’); consider adoption of SCL UK delay and disruption protocol or separate annexure for programming requirements
- Latent conditions: needs to be greater clarity as to what is (and is not) a ‘latent condition’ and a more structured process than the current ‘deemed variation’ approach – the latter means that many general/ non-specific claims are being funnelled through the variations process as alleged latent conditions
- Contamination caused by the contractor should be specifically addressed
- Remove the requirement for provision of notices before having access to performance security (2 contract administrator respondents and one lawyer in private practice) – means, in effect, that principal unable to access security as required when contractor becomes insolvent
- Qualifying cause of delay definition (AS4000/AS4902) confusing and should revert to traditional ‘shopping list’ of events (AS2124/AS4300) (4 respondents)
- Should be greater clarity around ambiguities and discrepancies, eg, by including a severability clause and having the contractor bear some risk for discrepancies
- Dual roles of superintendent should be better addressed
- Should include a concept of key personnel
- References to bankruptcy should be removed from major works forms since so few individuals are party to these contracts
- Insurance requirements require review (eg, it may not be possible to have the principal as a named insured)

The approach of information provision as a means of addressing inequality of bargaining position is a feature of residential building contracting by reason of statutory intervention – see, eg, Domestic Building Contracts Act 1995 (Vic).
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Government delivers an entrepreneurs’ paradise

ROBERT GOTTLIEBSEN

Australia has now arguably become the world’s leading nation in creating an environment to enable entrepreneurship to thrive. This is by far the greatest achievement of the Morrison government and indeed it’s the first time Australia has been a world leader in major international strategies since Paul Keating defined the nation by leading us to float the dollar and develop many closer ties with Asia. The unique Australian model is likely to be followed by other developed countries because it will be an essential part of the new global and Australian banking paradigms.

Keating started with a vision and, with the essential backing of Bob Hawke, developed policies to implement the vision. The Morrison government’s global entrepreneurship leadership was created in an entirely different way but is no less dramatic for the nation. Rather than starting with the vision, two ministers in the Morrison government set themselves six highly ambitious goals to help small business and entrepreneurs.

Few thought the goals could be achieved, particularly as the two ministers — Michaelia Cash and Stuart Robert — have totally different personalities and were even on different sides of the 2018 leadership battle.

But in achieving “the impossible” the two ministers suddenly catapulted Australia from a laggard into world leadership in creating a favourable environment for entrepreneurs and small business.

It’s a strange coincidence that our world ranking achievement was completed on the eve of The Australian’s publication of The List, cataloguing the entrepreneurial achievements of Australia’s 250 richest people in the tradition of the BRW Rich 100 which I helped start in 1983.

We now have a looming election and its clearly possible an ALP government will not implement the policies because the ALP is all about big business and big unions.

But I am optimistic because the ALP has not opposed any of the Cash-Robert steps and in some cases recognised the problems before the Coalition.

Global banking is moving into a new era where a much greater proportion of lending will be directed around the cash created by supply chains and other agreements that generate cash flow.

This type of lending is possible using current technology but, as I pointed out just last month, it will boom as blockchain technology is embraced in business systems. Already in Australia, NAB, Suncorp and a number of other banks have launched cash flow-based small business lending products but this is merely the forerunner of this new paradigm which will also involve non-bank lenders.

In most developed countries, and certainly in Australia, governments and large corporations have believed that it is their divine right to dictate contracts to smaller enterprises that are grossly unfair and enable the large organisation to change at will the terms, including prices and quantities. In these contracts there is no corresponding right for the small enterprise — it’s a case of take it or leave it.

International legal firms have developed global skills in devising horrific clauses. In Australia and also in many other countries tax offices attack small enterprises at random with no justifiable cause and only allow appeals to mates in the tax offices. You cannot have cash flow/supply chain lending on the basis of these contracts and tax antics.

In Australia back in 2015 the parliament, almost unanimously, passed unfair contracts legislation designed stop the practice. But for the most part the boards of Australia’s largest corporations declared it was their divine right to dictate these unfair contracts and ignored the will of parliament. Rarely have we seen such blatant arrogance by any group in the nation.

A frustrated and angry ACCC chairman Rod Sims proposed a series of measures to enable the will of parliament to be enforced. The ALP immediately backed him, which is really encouraging. But Cash and Robert proposed going much further than Sims.

Not only will unfair contracts be illegal (not just “null and void”) but there will be fines for breaches. The small business definition is to be widened to cover enterprises with up to 100 employees and the contracts covered will have no value threshold (currently $300,000). Most importantly, unfair contract bans are to be extended to government. This revolution means many millions of contracts will need to be rewritten. Australia will lead the world in the incorporation of small business in the cash flow lending paradigm.

Meanwhile the small business tax tribunal — again rare in the world — will stop its indiscriminate attacks on small enterprises.

Government will pay bills in 20 days and those supplying it must do the same thing. In a few more steps we will have either quick payment of bills or at least clearly defined rules — another essential for cash flow lending.

It’s true that in years gone by big slabs of small business ran on a cash basis, with irregular arrangements with staff and that was boosted by the tax office actions in arbitrarily withholding ABN numbers. The small business tax tribunal will make sure ABN numbers are available to promote proper practices while the use of debit and credit cards and the activities of the regulators is transforming the way a big portion of small business conducts its activities.

Small business already employs half the workforce and that proportion is set to rise sharply as large enterprises embrace the new technologies. All of the above are essential ingredients in the looming change in wealth creating.

We can be proud that in the chaos of Canberra we have become world leaders in this area but there is a lot more to do and we have to hope that the next government, whether it be ALP or Coalition, takes the baton and runs with it.