Risk management under standard forms of construction contracts

We discuss in this paper the extent to which UK and international standard form construction contracts and consultant appointments include binding provisions for proactive risk management, and consider the effectiveness of those provisions in avoiding or resolving disputes

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2 April 2016

The driving forces behind the growth of a risk management culture

In broad terms, risk is the impact of uncertainty on objectives, but is also often expressed in terms of a combination of the consequences of an event and the associated likelihood of occurrence of an event[1]. Applied to a construction project, risks can typically be classified based upon their possible timing of occurrence (pre, during or post construction phase), and their effect if they eventuate: personal injury or loss of life, material damage to the works being constructed or to the property of others, and pure economic and/or time loss for the construction team, for example when unforeseen physical conditions are encountered at site and make the construction operation more onerous than anticipated[2]. Construction is plagued by risks[3], and has been long perceived as a risky venture due to the wide matrix of risks which affect a construction project[4].

In contrast with this inherent uncertainty associated to the construction process, society at large expresses increasing demand for health and safety, as well as environmental hazards to be better controlled[5] and casualties to be limited if not nullified[6]. And project parties, and in particular project lenders/financers require an increasing level of certainty on quality, time and cost of a project and to see corresponding risks on those be minimized[7]. Risk inherently exists in construction and

[1] ISO 31000 (2009), 1.
[2] Bunni (2011), 43.
[3] Tah (2000), 107.
[4] Bunni (2011), 33.
[5] See for example in England & Wales the impact of an increasing legislation, through Health & Safety at Work Act 1974, CDM Regulations (1994, 2007 and now 2015), the Environmental Protection Act 1990, and the overarching influence of European Directives
[6] Bunni (2005), 94
[7] Scriven (1995), 73

cannot be ignored. However for Sir Latham, it can be "*managed, minimised, shared, transferred or accepted*"[8], for the better interests of project parties and of society.

This emphasis did echo a growing culture of risk management, openly and proactively addressing risk in construction operations, rather than keeping them hidden and open to prejudices when they eventuate, which started to emerge in the 80's upon the cornerstone work of Max Abrahamson, who defined that a construction party should bear a risk when it can control its occurrence, control its effect, or transfer it by insurance and/or have a preponderant economic benefit of running it[9].

Standard forms of construction contracts, and consultants appointments, have accordingly over the last decades increasingly tried to capture and allocate those risks, hence moving away from an initial no-risk sharing approach[10]. As per Phillip Capper[11], '*the management of construction risks is better achieved by more pro-active contractual strategies'*, and we shall see below to what extent those forms of contract, in the UK and on the international scene, include nowadays binding provisions for proactive risk management, and how effective those are in avoiding or resolving disputes.

Simple risk allocation or fully fledged risk management? The FIDIC and NEC3 perspective

FIDIC forms of Contract, arguably the most widely used standard forms of construction contract across the world[12], have adopted such principle of risk allocation. Their Procurement Procedures Guide defines that the most beneficial distribution of risks is to allocate each risk to the party that is best able to deal with and handle it[13]. FIDIC advocates that:

> a sensible, balanced risk sharing between the contractor and the employer results in the lowest overall total cost for completed projects[14].

In the FIDIC Red Book for instance, where the design is performed by or on behalf of the Employer and the Contract Price is defined on a re-measured basis, the Employer is bearing the risk of its own design, and of its own acts or omissions, and the Contractor is entitled to a cost, time and profit relief in case of late drawings or instructions[15], issues with access to the site[16], wrong

[8] Latham (1994), 13.
[9] Abrahamson (1983)
[10] Bunni (2011), 141
[11] Capper (1995), 15
[12] Clarke (2015)
[13] FIDIC (2011), 35
[14] (n 13)
[15] Sub-Clause 1.8
[16] Sub-Clause 2.1

setting-out data[17], or variations to the works[18] instructed by the Engineer. Clear binding provisions define these entitlements. The FIDIC White Book, for consultant's appointments, also reflects such risk allocation principle, with the consultant's being liable for any breach of his obligation to act with reasonable skill, care and diligence when delivering services[19], and with the client being liable, inter alia, for changed circumstances[20] to the execution of services, or changed scope of services[21].

Such practice of allocating risk is also found in the recent UK forms of contracts. The NEC3 Engineering and Construction Contract introduces for instance, under Clause 60.1, the concept of compensation events, i.e. those entitling the contractor to a cost and/or time remedy when a claim event occurs. Clause 8 does reflect the Employer's risks for loss or damage to the works; all the others being Contractor's risks.

However does clearly allocating risks means proactively managing those? Arguably not, as risk management is defined under the British Standard 4778 as follows:

> the process whereby decisions are made to accept a known or assessed risk and/or the implementation of actions to reduce the consequences or probability of occurrence.

Those forms of contract do seem to address the first part of that definition of risk management through their risk allocation, and when done properly this contributes to fewer disputes[22]. But how do they govern the second part, i.e. the proactive risk management part? For Grove, it is not enough to say that there should be a balance of risk or efficiency in risk allocation[23]. A tailor-made contract strategy suitable for the active joint management of risk by all parties is seen as more suitable than sole risk allocation, because not all the risks are foreseeable at the outset and much information is unavailable[24].

NEC3 incorporates express binding provisions in this respect, which require either Party to give early warning to the other of any event which is likely to have adverse effects on time, cost and/or quality of the works[25]. Those early warning events then form part of a Risk Register, where the

[17] Sub-Clause 4.7
[18] Clause 13
[19] Clause 3.3.1 and Clause 6
[20] Clause 4.5
[21] Clause 4.3
[22] Bunni (2011), 141
[23] Grove (2001)
[24] Thompson and Perry (1992)
[25] ECC Core clause 16

description of the notified risks is found, as well as of the actions which are taken to avoid or reduce the risk[26]. Either Party may then instruct the other to attend a risk reduction meeting and those who attend may cooperate – as this is not expressed as an obligation – in, inter alia, making proposals for risk avoidance or reduction and decide of the actions to be taken and by who in accordance with the contract. Along the same spirit, if an identified risk eventuates and causes a prejudice to the Contractor, he shall notify a compensation event within eight weeks of becoming aware of the event as otherwise he would lose all related entitlements under the contract. Although *prima facie* harsh on the Contractor, such express notice and time bar provisions can be seen, as per the words of (as he then was) Justice Jackson, as serving:

> a valuable purpose; such notice enables matters to be investigated while they are still current. Furthermore, such notice sometimes gives the employer the opportunity to withdraw instructions when the financial consequences become apparent[27]

This requires the Contractor to seek for an entitlement rapidly after it accrues, with the risk otherwise to lose it, hence serving a dual proactive project management and risk management purpose by giving the other Party the chance to timely act upon such occurrence in the view of mitigating its effect. Finally, all these acts under the contract are to be delivered in a spirit of mutual trust and co-operation[28].

At first glance FIDIC does not appear to have fully developed equivalent proactive risk management provisions. There is no such early warning clause as in NEC3, no Risk Register, no such risk reduction meeting, and no overarching obligation as to the spirit along which acts have to be performed. Would this mean that FIDIC is clearly one step behind NEC3 when it comes to proactive risk management? Perhaps not so clearly, as some similar provisions can nevertheless be found across the contract conditions, although not identified as clearly and expressly as in NEC3. The Red Book requires for instance the Contractor to:

> promptly give notice to the Engineer of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works"[29]

Other early warning notification duties can also be found in specific instances, such as the occurrence of unforeseeable physical conditions[30], or drawings or instructions lately issued to the

[26] ECC Core clause 11.2(14)
[27] *Multiplex Constructions (UK) Ltd v Honeywell Control Systems Ltd* [2007] EWHC 447 (TCC)
[28] Core clause 10.1
[29] Sub-Clause 8.3
[30] Sub-Clause 4.12

Contractor[31]. These early warning notifications are in addition to claim notification duties, which require a claim notice to be delivered within 28 days from when the Contractor '*should have become aware'* of it, hence not only when the Contractor becomes aware of the claim, making the whole claim management process somehow more onerous on the Contractor than under NEC3. A failure to comply with these early warning duties, in relation with a claim and beside the claim notification duties, would be sanctioned under the last paragraph of Sub-Clause 20.1 which states that

> any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim.

However consequences of such failure are arguably clearer under NEC3, where any failure to give early warning would make that any related cost would be solely borne by the Contractor since defined as Disallowed Cost[32].

Risk management under modern times – Recent trends under NEC3 and PPC2000 and their effects on construction disputes

Despite addressing the way to handle uncertainty under a construction project, those forms still rely on the Employer and his consultants' own views as those risks when preparing the contract. As recognized by Smith & Co:

> The effectiveness of risk management is improved if all parties to a contract have the same appreciation of the identified risks….This can be achieved if pre-contract discussions between the client and the contractor ensure a clear mutual understanding of the relevant risks[33]

This one-sided view of the construction operations makes the contract remaining potentially adversarial in nature, hence bound to disputes; a matter which Sir Egan recommended in 1998 to combat by partnering and de-fragmenting the supply chain[34], building upon Sir Latham's views[35]. It has been also held that traditional contract strategies for construction and their allocation of responsibilities and risks in standard conditions of contract are inappropriate for modern high-risk scenarios and complex projects[36], and that in some instances the earlier the whole project team is appointed the better the risk management process will be[37].

[31] Sub-Clause 1.9
[32] ECC Core clause 11.2(25)
[33] Smith & Co (2006), 94
[34] Egan (1998), 21
[35] (n 34), 9
[36] Rahman, Kumaraswamy (2001), 8
[37] Bennett & Pearce (2006), 249

NEC3 progressively followed that trend since the years 2000, by introducing an optional clause, called X12: Partnering, and by publishing in November 2015 an additional clause covering Early Contractor Involvement (ECI), for use with the ECC.

It might however well be that the form of contract reflecting these principles of proactive risk management to the largest extent is the PPC2000 form for Project Partnering. A Core Group of Partnering Team members is constituted, [38] operating an early warning system[39]. A Risk Register forms part of the Partnering Documents[40], risk management exercises are performed under the leadership of the Client Representative[41], risk contingencies can be integrated into the Agreed Maximum Price[42], and a full clause running over 4 pages is dedicated to risk management[43]. There is also a strong emphasis given on mutual benefits to be reached for all Partnering Team members[44], on decisions which are to be reached by consensus, and on the fact that an extensive list of pre-conditions on time, quality and price matters are to be met and agreed before construction starts on site[45].

Inherent to these conditions and their spirit is the development of a non-adversarial approach to construction operations, by promoting dialogue and consensus over confrontations. If followed, they have the potential of greatly contributing to dispute avoidance, especially as they foresee the possible recourse to a Partnering Adviser[46] which may assist the Partnering Team members in the operation of the Partnering Contract.

[38] Clause 3.6
[39] Clause 3.7
[40] Clause 2.6
[41] Clause 5.1 (iii)
[42] Clause 12.9
[43] Clause 18
[44] Clause 4.1
[45] Clause 14.1
[46] Clause 5.6

Proactive risk management provisions under standard forms of contract – the ultimate key factor for dispute avoidance/resolution?

As seen above, a proper risk allocation, as traditionally reflected by standard forms of contract, contributes in itself to dispute avoidance[47], but is only a fraction of what modern practices advocate for under the principles of proactive risk management in between the parties[48].

For Sir Latham, PPC2000 is the '*full monty of partnering and modern best practice*'[49]. It would further seem that, to date, no court cases have been reported on PPC/TPC forms of contract yet[50]. This could reflect their dispute avoidance effectiveness, although an important caveat is that only 5% of the UK construction industry practitioners record having used it over the 2014-2015 period, against 53% for NEC Contracts and 18% for FIDIC Contracts[51].

On the other hand despite the growing popularity of NEC3 forms of Contract, Waterhouse in the NBS Survey regrets that the '*number of disputes remain at comparable levels*' than before, due to a suggested '*persistent industry culture*'[52]. The project management principles endorsed by NEC3 are also said to be a burden on parties' resources, which therefore do not necessarily operate it as intended nor derive the intended benefits[53], and the widespread use of present tense in the contract provisions has been regarded by Justice Edward-Stuart as a '*triumph of form over substance*'[54].

Although FIDIC might arguably appear lagging behind NEC3 and PPC2000 in term of proactive risk management provisions, its primary international focus makes it prima facie probably more difficult to reflect such provisions in project environments made of different countries and cultures, with different sensitivities to risk[55]. It should be however noted that the 2008 FIDIC Gold Book is one of the rare forms of Contract providing for a Dispute Board which is expressly given a dispute avoidance role[56], this being an interesting feature since Dispute Boards, at least on major

[47] (n22)
[48] (n24)
[49] <http://www.ppc2000.co.uk/aboutppc.htm> accessed on 1 April 2016
[50] Mosey (2016)
[51] NBS Survey (2015), 18-19
[52] (n 51), 3
[53] Ramsay (2012) [22-007]
[54] Anglian Water Services Ltd v Laing O'Rourke Utilities Ltd [2010] EWHC 1529 (TCC) [28]
[55] (n 4), 33
[56] Sub-Clause 20.5 and Dispute Board Procedural Rule No.2

projects, are increasingly recognized for their ability to create valuable opportunities to avoid disputes by keeping proactive communication alive'[57]

The above questions marks raised as to the causation link in between proactive risk management provisions in contract and dispute avoidance, or their prompt resolution, inevitably poses the further question of whether, and to what extent, contract terms are effectively influencing the behaviour of parties to a contract? Egan noted that '*effective partnering does not rest on contracts*'[58] and Latham that '*endlessly refining existing conditions of contract will not solve adversarial problems*'[59].

Time will surely better tell the impact of those recent NEC3 and PPC2000 proactive risk management provisions on construction disputes.

> Whilst these documents represent current aspirations for the future direction of the construction industry, their effect, both in management and legal terms, remains to be established.[60]

[57] Chern (2015), 4
[58] (n 34), 30
[59] (n 8), vii
[60] Uff (2013), 366

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