

THE UTILIZATION OF FORMULAE IN OVERHEAD AND PROFIT CLAIMS

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Head office overheads are recognized as a justifiable head of claim in claims for loss and expense. However a major difficulty arises in their calculation. For tendering purposes head office overheads are frequently expressed as a factor of company turnover. The majority of claims in which head office overheads appear as a head of claim use a formula for their calculation in which overheads are related in some way to turnover. The main aim of this paper is to investigate the hypothesis that the decisions taken in numerous common law cases would appear to favour the use of a formula method in the recovery of additional general overheads and profit in claims for loss and expense. The text supports the hypothesis.

Keywords: claims, head office overheads, loss and expense.

INTRODUCTION

The level of head office overheads included in any contract is not directly dependant upon turnover but arises from policy decisions relating to a range of factors and costs flowing from these decisions such as rates, heating, lighting and telephones. Decisions as to the level of overheads appropriate to a particular company are made in anticipation of an expected level of activity.

Similarly, decisions as to the level of profit to be included are dictated by what the market will stand in terms of 'the going rate for the "sale" of a particular commodity'. Although a contractor will frequently tender in competition for a particular construction project, the contractor is in effect selling products and services on the open market and as such is influenced by market conditions. In simplistic terms these conditions are dictated by the amount of spare capacity available in the market at a particular point in time.

The fact that a construction project is delayed does not necessarily affect the office overhead costs to which a company is already committed although it could do so if for example the delay necessitated the employment of additional staff and/or additional rented office space.

According to Hughes and Barber (1992) there are two opinions as to how head office overheads should be evaluated in a claim for loss and expense which involves delay. One is that only those costs identifiable as a result of the delay are reimbursable; the second is that the contractor should receive a contribution to the total head office overheads "...calculated on the basis of the original contract price and time for completion, total company turnover and total head office overheads." They state that both opinions are valid given the circumstances of the particular case.

Various articles (Birchmore 1992, Knowles 1989, Roberts and Entwistle 1989, Simmonds 1989, Sims 1989a, Sims 1989b) would, on the face of it, give the impression that a formula method was the only acceptable method by which to calculate additional head office overhead costs. In fairness to Sims (1989a) he does make reference to the fact that ‘the application of a formula must be seen in the context of works that had turned out to be entirely different...’, but fails to qualify this statement as to whether he is referring to the application of a particular formula per se.

The following examination of case law will show that the decision regarding the application of the method of reimbursement for head office overheads has to be taken with regard to the particular circumstances giving rise to the head of claim.

The exact definition of what should be included as overheads has always been a problem and the discretion of management has been influential in this, particularly in respect of the selection of accountancy convention. This was highlighted in the case of *Hi-Speed Tools Ltd v Empire Tool Works* (1923) 25 OWN 172:

Items of overhead chargeable against the defendants in such a case are not all the items which the fancy of an accountant may place under that heading, varying with different systems of accounting; only such items as under the contract bear some definite relation to the particular work to be performed by the plaintiffs for the defendants should be allowed - they could not be ascertained by an estimate or customary percentage on the annual turnover of the business. The onus was on the plaintiffs to establish the claim; and unless the overhead expenses claimed was shown to have some relation to the fulfilment of the contract it could not be charged against the defendants.

The use of the accountant’s mathematical approach by the application of a formula for the determination of the level of overheads can offer an apparent easy option but is fraught with difficulties and the acceptance of audited statements should be viewed with caution as made clear in the judgement in *Ernst Steel Corporation v Horn Construction Div.* 481 NYS 2d 833 (1984):

It is clear from the testimony submitted by the plaintiff’s accountant that when labour costs increase, shop overhead necessarily increases and the formula which was used properly related Ernst’s overhead expenses to the increase in its labour costs allegedly caused by the delay.

The term *profit* and in particular *gross profit* can be particularly misleading and figures or allowances so described frequently include as one of their constituents a contribution to the head office and off site costs (see below *Peak Construction (Liverpool) Ltd v McKinney Foundations Ltd* (1970) 1 BLR 111).

ORIGINS

The recovery of head office overheads and profit can be said to originate in the case of *Hadley v Baxendale* (1854) 9 Ex 341 in which the principle of remoteness of loss was established. The rules resulting from this case were restated in the case of *Victoria Laundry (Windsor) v Newman Industries Ltd* [1949] 2 KB 528. However in *Czarnikow v Koufos* [1969] 1 AC 350, 389 a qualification was made which effectively excluded the recovery of damage “...which on the knowledge available to the defendant would appear to him as only likely to occur in a small minority of cases.”

The first reported case in which the question of head office overheads arose was the Canadian case of *Shore and Horwitz Construction Co. Ltd v Franki of Canada* [1964] SCR 589 in which the decision was made on the lines of the ‘lost opportunity’ principle outlined by Hughes and Barber (1992) or what is now referred to as ‘unabsorbed overheads’ (Mak 1998, Cassidy 1999)

A similar decision was taken in the case of *Peak Construction (Liverpool) Ltd v McKinney Foundations Ltd* (1970) 1 BLR 111 in which the plaintiff’s claim was for reimbursement of loss of profit. This may, on the face of it, seem to be at odds with the general discussion on head office overheads. The dicta of Salmon LJ however referred to the plaintiffs’ head office staff and the fact that the plaintiffs suffered considerable loss of gross profit. It must be taken from this that so called profit and in particular gross profit can include a portion of a contractor’s head office costs.

Another ‘lost opportunity’ example is *J F Finnegan v Sheffield City Council* (1988) 43 BLR 124, which is often cited as a precedent by contractors wishing to include the calculation of overheads and profit under a head of claim by use of a formula method.

Examination of this case however reveals that the matter in dispute was not whether the use of a formula method was to be allowed, but as to which formula method was to be used in the calculation. This particular case was under the JCT 1963 form of contract and the employer had, for whatever reason, ignored the specific requirement of Clause 24(1) to *ascertain* and used a formula method of his own devising to assess the sum for overheads. The judge, in his decision, used a formula that fell somewhere between the Hudson and Emden formulae, the overhead and profit percentage being “...based upon a fair annual average, ...”.

What is clear is the preference for some means of establishing a method of reimbursing a contractor for his lost opportunity to earn a contribution to his overheads and profit that follows the general common law principles for damages i.e. putting the parties, in so far as monetary compensation can, back into the position they were in if the breach had not occurred. The decision attempted to do that on the basis that the method proposed by the defendant did not fairly reimburse the plaintiff. It appears to be rather semantic on the part of various authorities to argue over whether or not this case gives approval to the use of the Hudson formula or not (The various comments follow reference by HH Sir William Stabb QC to his infinite preference for the Hudson formula).

ANALYSIS OF FORMULA METHODS AVAILABLE

In descending “....order of rank of reflecting reality....” (Turner 1989) the three better known formulae available as a means of assessing overhead cost (they can also be used for a profit calculation) are the Hudson formula, the Emden formula and the Eichleay formula. For comparison purposes they can be set down as follows:

Hudson formula

$$\frac{\text{Tendered head office overhead / profit \%}}{100} \times \text{Contract sum} \times \frac{\text{Period of delay}}{\text{Contract period}}$$

The formula uses the allowances for head office overheads which the contractor included in his tender for the contract as the bases for the claim and does not account for the fact that these may have been (intentionally or otherwise) unreasonably optimistic or pessimistic. The pessimistic aspect was highlighted in the judgement

made in the case *Ellis-Don v Parking Authority of Toronto* (1978) 28 BLR 98. When quoting from Hudson (Duncan Wallace 1995, pp. 598, 599), O’Leary J makes reference to the Hudson formula, together with the assumption that there was “no change in the market, so that work of at least the same general level of profitability would have been available at the end of the contract period.” The commentary in Building Law Report on the *Ellis-Don* case makes specific mention of the fact that the Hudson formula assumes that there has been no change in the contract price together with other considerations which must be taken into account such as the contractor avoiding loss of overheads by taking on other work, the need to mitigate damage by ensuring that staff are re-located from work on the delayed contract to other work.

Emden formula

$$\frac{\text{Actual head office overhead / profit \%}}{100} \times \text{Contract sum} \times \frac{\text{Period of delay}}{\text{Contract period}}$$

This is a refinement on the Hudson formula in that it utilizes actual head office overheads/profit percentage by dividing total overhead cost and profit by total turnover and ignores the profitability of the contract in question. In his judgement in the *Ellis-Don* case (Building Law Reports 98, pp 123, 124), O’Leary J refers to *Shore and Horwitz Construction Ltd v Franki of Canada* [1964] SCR 589 in which the method of calculating the overhead was based upon actual cost over the two years of the contract duration averaged out for the year’s operation of the business during which the delay occurred. Knowles (1992) suggests that preference for the use of actual costs was also shown by Mr Recorder Percival QC in the case of *Whittal Builders Company Limited v Chester-le-Street District Council* (1985) [1988] 11 ConLR 40 and also by HH Sir William Stabb QC in *J F Finnegan v Sheffield City Council* (1988) 43 BLR 124 (see above).

Eichleay Formula (Duncan Wallace 1986)

$$\frac{\text{Actual head office expenditure for original contract period}}{\text{Total of invoices for delayed contract}} \times \frac{\text{Total of all the enterprise's contract's invoices for the period of the delayed contract}}{\text{Period of delay}} \times \frac{\text{Contract period}}$$

Explanatory Notes:

1. Although Turner (1989: 234) uses Contract billings (US version) and Final account/Total accounts (British terminology), it would appear that the term *invoices* as used by Duncan Wallace (1986) and shown here is closer to the US term *billings*. This comment, however, is made without any detailed knowledge of American English.
2. It is preferable that, however the final sum is arrived at, primary loss and expense amounts are included.
3. Turner (1989: 234) gives the contract period divisor as ‘Days of Performance’, or actual period, which the author considers to be the correct one to use.

This formula has been used extensively in the United States and uses amounts actually paid rather than the contract sum and as such has a closer bearing on actual costs than the Emden formula. An improvement would be to use contract/actual period invoices which would introduce an “...element of hindsight and ignore chance factors which

may affect or distort the rate of invoicing on some or all of the contracts concerned.” (Duncan Wallace 1986).

USE OF FORMULAE

An overview of the general limitations of the formulae summarized above is provided by Turner (1989). These relate to ascertainment, duplication of payment, differences in contractor’s pricing structure, progress of work on site, differing concentrations of overhead costs dependant upon the nature of the disruption, inability to cater for disturbance without delay, recovery of overheads through variations and fluctuations, mitigation of loss and the acknowledgement of business risk

Case law to date has not provided any clear approval as to the use of formulae to assess the recovery of overheads. Where there is a contractual requirement to ascertain loss and/or expense, use of a formula is precluded (*Alfred McAlpine v Property and Land Contractors*, July 1995, 76 BLR 59). If no contractual restraint exists “...the agreed amount of any direct loss and/or expense ... shall be recoverable ... as a debt.” the use of a formula has not raised any judicial objections (*Norwest Holst Construction Limited v Co-operative Wholesale Society Limited* 1998, Official Referees’ Court Web-site, 8503fea23b5970868025663b0036fff9,htm).

Notwithstanding any contractual restraints, the parties are free to, and may well have agreed to the use of a formula. In such instances the disagreement usually involves the particular formula to be used and/or whether it is used in full or part. The use of a formula would appear to be available for use in both claims for additional overheads and those for lost opportunity (or unabsorbed) overheads (*Norwest Holst Construction Limited v Co-operative Wholesale Society Limited* 1998, Official Referees’ Court Web-site, 8503fea23b5970868025663b0036fff9.htm, §362).

EXCEPTIONS TO THE FORMULAE

The discussion so far has been on formula method as a means of assessing head office overheads/profit. There exists however case law which supports the case for reimbursement for actual costs incurred. The noted English case is *Tate & Lyle Food and Distribution Co. Ltd. v Greater London Council* [1981] 3 All ER 716, (1982) 1 WLR 149 in which acceptance was given that head office overheads were an acceptable head of claim. Forbes J was “...not prepared to advance into an area of pure speculation when it comes to quantum.”, this being reference to the fact that the plaintiff had claimed managerial and supervisory resources as a percentage of the total loss and damage (after previously saying that such expenditure could not be quantified), and “...feel(ing) bound to hold that the plaintiffs have failed to prove that any sum is due under this head.” The failure of this claim was because the plaintiffs did not keep proper records and could not prove their loss.

However the decision in the *Tate & Lyle* case contradicts Vaughan Williams LJ in *Chaplin v Hicks* [1911] 2 KB 786 CA: “The fact that damages cannot be assessed with certainty does not relieve the wrong-doer of the necessity of paying damages” and Atkinson J in *Aerial Advertising v Batchelors Peas* [1938] 2 All ER 788, 796: “...difficulty of proof does not dispense with the necessity of proof...”. McGregor (1988) “*the standard demanded can seldom be that of certainty*” supports these earlier dicta as does his general comment at §343:-

Even if it said that the damage must be proved with reasonable certainty, the word ‘reasonable’ is really the controlling one, and the standard of

proof only demands evidence from which the existence of the damage can be reasonably inferred and which provides adequate data.

Support for the *Tate & Lyle* case does however come from *Asquith v Curtin* [1971] 1 WLR 1731 (CA) in which a plaintiff failed to provide adequate data, and also in several US cases as cited in the Building Law Report commentary on *Ellis-Don v Parking Authority of Toronto* (1978) 28 BLR 98 at pp. 104, 105, in particular *Berkley Industries Inc v City of New York* (1978) 45 NY 2d 683 in which the Eichleay formula was used in a claim for increased overhead attributable to delay, when in actual fact “...all the expenditure for office overhead had been completed when the 87% level was reached.” and criticized as having “... at best, a chance relationship to actual damage and, at worst, no relationship at all.” Although criticism was made of Eichleay, and often quoted in that context, the *Berkley* case would appear to hinge on the fact that no increase had been incurred as expenditure on office overheads had been completed before the contract was finished.

Earlier reference has been made to the fact that authors of various articles seem to want to give the impression that a formula method of calculation is acceptable. Is the *Berkley* case another example of this in which an interpretation is put to suit particular requirements rather than a purely objective criticism?

Similarly Knowles (1993: 35) puts forward the submission that the *Tate & Lyle* case “...casts doubt on the formula methods of calculation only in so far as the contractor is unable to demonstrate a loss of opportunity to use the resources on other sites.” This is surely a statement to suit the readership of the document in which it is made. The dicta of Forbes J is quite clear (see above and below) and goes on to accept that “...such overheads are reimbursable in principle, but equally that they must be properly quantified, even if then expressed as a percentage.” The question of loss was that of the cost of managerial time spent in attending to the problems involved, not one of lost opportunity as Knowles contends.

A further case in support of *Tate & Lyle* is *Babcock Energy Limited v Lodge Sturtevant Limited* ORB 28 July 1994, CILL 981 in which it was accepted by HH Judge Humphrey Lloyd QC that the plaintiffs had a full order book and as a result work had to be farmed out to another company and agency staff employed. In contrast to the *Tate & Lyle* case however *Babcock* had kept proper records and these were accepted as a means of quantification, reference being made to the fact that:

The plaintiffs might have provided an alternative quantification by reference to the additional costs to them of employing others but I do not consider that they are obliged to do so if they can satisfactorily demonstrate the cost to them of time unnecessarily spent and therefore lost.

CONCLUSION

There seems to be little doubt that the principle of reimbursement for head office overheads has been established whether by way of reimbursement for actual additional costs incurred (e.g.: employment of additional staff, additional payment to existing staff) or by way of lost opportunity. It is in connection with the latter that the reimbursement of ‘loss of profit’ can also be considered, if claimed.

What is open to question is the proof required and the method adopted to achieve that reimbursement. On the question of additional staff costs, to quote Forbes J in the *Tate & Lyle* case: “I have no doubt that the expenditure of managerial time in remedying an

actionable wrong done to a trading concern can properly form the subject matter of a head of special damage. In a case such as this it would be wholly unrealistic to assume that no such additional managerial time was in fact expended. I would also accept that it must be extremely difficult to quantify. But modern office arrangements permit the recording of time spent by managerial staff on particular projects. I do not believe that it would have been impossible for the plaintiffs in this case to have kept some record to show the extent to which their trading routine was disturbed....". Given the current state of managerial techniques and technology and the trend towards establishing quality control systems, it is possible for records to be kept. Notwithstanding the dicta in *Chaplin v Hicks* it should be perhaps considered whether failure to keep such records be taken as the plaintiff not taking appropriate action to mitigate his loss. If a certain degree of cynicism may be allowed, it may be that records have always been available or not available, as has suited the advantage of the plaintiffs.

Anderson (1980-1992, § 851) refers to the fact that the evaluation of construction claims has been mainly the province of the quantity surveyor, that an appreciation of the principles of various disciplines is required to achieve a satisfactory outcome to this process, and that "Solutions which significantly offend the fundamental principles of any of these disciplines (chief of which being the construction process, management, economics and accounting, and law) are unlikely, in practice, to be satisfactory." The unwillingness of the legal system to allow business accounting methods to control principles of law rather than the other way round is illustrated in the case of *Huber Hunt and Nichols Inc v Moore* 136 Cal Rptr 603 (1977) in which a contractor considered that he was entitled to collect an entire loss as shown by his computerized accounting system simply because it was "...kept in accordance with standard business practices."

Perhaps this is a warning to the advocates of the various formulae. On the other hand should we consider that the law must move in accordance with changes in society (what is termed *public policy*) which include changes in business practice. One can possibly envisage two conflicting trends, though both emanating from the streamlining of business practice. One is the adoption of modern office management techniques and technology which allows records to be kept. The other is the convenient accounting technique of the application of a percentage (based on turnover) to cover fixed overhead costs. The movement of the law in accordance with the requirements of society are borne out by many examples in other spheres of both construction law and the law generally, all of which go beyond the scope of this paper.

The aim must be to provide justice at what is a reasonable cost and in a reasonable time span, which is another potential change confronting society (Woolf 1996).

Proof of loss must be paramount. However the judge in *Norwest Holst Construction Limited v Co-operative Wholesale Society Limited* (1998, Official Referees' Court Web-site, 8503fea23b5970868025663b0036fff9.htm, §344) does not demur in his statement that the arbitrator "...was making a finding, on the balance of probabilities ..." in respect of management time being lost to other contracts. On the question of lost opportunity the precedent of 'reasonable' can only apply when the market is in a steady state. Otherwise the state of the market has to be considered with each case, which was the situation in the *Norwest Holst* case. 'Reasonable' is also a word which changes according to the attitudes of society - in the 17th century it was reasonable to hang someone for stealing a loaf of bread - and also with the attitudes and outlook of the person using it. It is doubtful that 'two men' on the Clapham omnibus would have

the same reasonable attitude on every issue. The reasonable opinion of the third party who decides disputes will reflect their position in society, education, experiences, etc.

Handy (1991) when referring to changes in society states that "...discontinuous change is the only way forward for a tram-lined society..." and in defining what he means by discontinuous change considers that such change is not part of a pattern and not a continuous comfortable change. He paraphrases George Bernard Shaw's observation that all progress depends on the unreasonable man:

The reasonable man adapts himself to the world while the unreasonable persists in trying to adapt the world to himself, therefore for any change of consequence we must look to the unreasonable man...

If society needs change on a question of law must we follow the steady, time consuming 'comfortable' change through the reasonable man as enshrined in legal precedent or should we be looking to the unreasonable man?

On quantum the decision has to be made in the light of the circumstances. The use of formulae, is perhaps best suited in the 'lost opportunity' scenario given the overall nature of the loss and to the fact that a loose analogy could be made with some of the methods by which the contractor's original tender was formulated (*Norwest Holst Construction Limited v Co-operative Wholesale Society Limited* (1998); Duncan Wallace 1995; Anderson 1980-1992). A somewhat similar comparison (formulation of tender and the risk factor therein) may be made in connection with the method adopted by Clause 62 of the Engineering and Construction Contract for the pricing of Compensation Events.

In the event of increased overheads without the claim of lost opportunity being made, then the answer must be that of reimbursement for actual increases. It would be up to the plaintiff in such a situation to present the necessary information in order that the requisite calculations can be verified.

However, the original hypothesis of this paper was that the decisions taken in numerous common law cases would appear to favour the use of a formula method in recovery of additional general overheads and profit in claims for loss and expenses. The analysis of the literature available does validate the hypothesis. There is a tendency for common law decisions to favour formula utilization.

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