

DO TARGET COST CONTRACTS DELIVER VALUE FOR MONEY?

A paper presented to the Society of Construction Law at a meeting in Leeds on 17th May 2011

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July 2011

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Introduction

Target cost contracts were originally developed in the infrastructure sector to deal with complex projects that had a high degree of risk around items such as ground conditions. The use of target cost and cost reimbursable contracts has continued to grow over the last ten years, particularly in the UK, where most major programmes of infrastructure work are now undertaken on a target cost basis. The success that such contracts have had in the UK has led to international interest: major projects across the Middle East and Asia are now being undertaken under target cost arrangements. However, in these austere times, the question is being asked: do they offer value for money? It is this question which I address in this paper.¹

This paper is produced from a practical, as opposed to legal, perspective, based on personal experience and discussion with other members of the construction industry, both in the UK and internationally. The examples come from the NEC3 Engineering and Construction Contract (ECC3);² however, the issues raised would apply to most standard forms of target cost contract available.³

The paper sets out the principles of how target cost contracts work and the benefits they are intended to deliver. It then considers whether value for money is being achieved under these arrangements and examines the key risks and issues that can impact on this and how these factors may be mitigated.

What is target cost?

There is no set definition of a target cost, even in most of the contracts which give effect to it. Here is my own working definition:

'A target cost is a genuine pre-estimate of the most likely outturn cost for the project, as defined in the contract documentation.'

¹ The paper derives in part from Ian Heaphy, 'The pain/gain game', RICS Construction Journal, September-October 2010; 'Pricing up project costs', RICS Construction Journal, November-December 2010; and 'Construction share tips', RICS Construction Journal, February-March 2011.

² *NEC3 Engineering and Construction Contract* (London, Thomas Telford, 2005, with June 2006 amendments).

³ Eg the *ICE Conditions of Contract*, Target Cost Version (London, Institution of Civil Engineers, 1st ed, February 2006); or the *IChemE Form of Contract: Target Cost Contracts – The UK Burgundy Book* (London, Institution of Chemical Engineers, 2003).

The basic principle is that a target cost is agreed and then the contractor is paid for the work undertaken on a cost reimbursable basis. The payments to the contractor are made on the basis of the contractor's accounts and records, provided to the employer for inspection on an 'open book' basis.

At the end of the project, the final target cost, which is the original target cost plus any changes, is compared to the actual cost expended by the contractor. If the actual cost is lower than the target cost, a saving has been made, and shared between the parties on a pre-agreed percentage basis – referred to as 'gain share'. Conversely, if the actual cost is higher than the target cost there is an overspend, shared between the parties on a pre-agreed percentage split – referred to as 'pain share'.

Target cost contracts: benefits

The principle benefit of target cost arrangements is their ability to align the objectives of the parties, which helps to create a partnering environment. The contractor and employer are both encouraged to work together to control costs, sharing the risk of over- or underspend through the gain share/pain share mechanism. The open book approach helps to build trust between the parties, through the sharing of this sensitive information by the contractor and the visibility to the employer of the true cost of the project to the contractor.

As the employer has access to the contractor's accounts and records, this makes the agreement of variations easier than other traditional forms of contract. When a contractor puts forward the price of a variation, the employer will already have some knowledge of the actual cost the contractor is paying for the items being claimed. This process reduces the opportunity for the contractor to try to inflate its quote in order to make additional returns. It also makes it easier for the contractor to prove its costs and for the employer to agree to them, as they are evidenced by records.

Although access to the contractor's accounts and records makes it easier to agree the cost of changes, it does not remove the age-old tension between two parties with divergent objectives – one to minimise the evaluation of change and one to maximise it. So debate can and will still occur over valuing changes.

A target cost contract can accommodate change more easily and, through the shared risk aspect, there is greater flexibility for the employer to develop the project post award. Similarly, a target cost can be agreed at an earlier stage than a traditional fixed-price lump sum contract and can allow an earlier start on site.

These factors also lead to a reduction in the potential for claims, as the contractor will ultimately have to substantiate all costs claimed and will get little benefit from claiming costs that cannot later be justified. The result should be a more cost-effective procurement route for certain types of projects, compared to more traditional fixed price or remeasurement approaches.

Do target cost contracts offer value for money?

A number of employers, consultants and contractors have started to question whether target cost contracts actually deliver the value for money envisaged when they were selected. Whilst some employers are still moving towards target cost arrangements, others are now moving away from them; and some employers are looking to restructure how they set up and manage target cost contracts, due to problems encountered on previous projects.

One issue that seems to occur frequently is that employers and contractors adopt target cost arrangements without a full understanding of the how the process works – in particular the additional risk that the employer takes on compared to a fixed price contract; and how this risk needs to be effectively managed. This is manifested in a lack of control of the target cost value, so that the process becomes little more than a cost reimbursable arrangement, with limited incentive for the parties to perform efficiently.

In many target cost arrangements, the actual cost has substantially increased, which creates obvious problems for an employer. However, in my experience, even where there is a substantial increase in actual cost there are few examples of contractors suffering from pain share. In most cases, the gain share/pain share calculation seems to result in neutral or positive gain share. Should a contractor expect to make gain share on every target cost contract or only a proportion? Using the definition suggested above – that a target cost is a genuine pre-estimate of the likely outturn cost of a project – one could argue that on the law of averages this estimate is likely to be right on some occasions and wrong on others.

Given the risks inherent in the construction process and the fact that many of these are carried by the contractor, should one expect that on average half the target cost contracts a contractor undertakes will result in gain share, the other half a pain share? Perhaps not, as the intention is that the contractor should be able to work with the employer to create efficiencies and reduce cost. However, one would still expect, given the nature of the arrangement and the problems that contractors can encounter, that pain share will occur relatively frequently. It would be interesting to understand what contractors' expectations are when they bid for target cost contracts and whether they anticipate that they are going to make a loss on a proportion of the projects for which they tender. Does this make good commercial sense?

Setting the target cost

A target cost can be set via a competitive tender process or by negotiation. For this to occur, the project must have an adequate level of completed design. This does not mean that the project has to be fully designed; often target costs are set on performance specifications or outline design. However, as with any contract, the contractor has to be able to determine what it is required to do and the risk it will carry under the contract; so the more detail that can be provided for the target cost, the better.

A target cost should represent a genuine pre-estimate of the most likely outturn cost. The use of the term 'genuine' suggests that a level of reasonableness and good faith should be used, so that the cost developed accurately reflects the likely costs of construction.

The phrase 'most likely outturn cost' is used, since in order for the target cost to work effectively it should represent the best estimate of the cost of construction; it should not be a tender figure which the contractor believes is low enough to win the project but not sufficient to deliver all the works required. This is to avoid the all too common situation in fixed price contracting, where the contractor will bid at a level below the cost it thinks the project will actually take to construct but at a level which it thinks will make it the lowest bidder and therefore gain it the work.

The range of approaches can be seen in Figure 1, where the horizontal line represents the outturn cost of the project.



The left-hand side of the diagram shows a traditional tender situation, where the contractor knowingly bids a lower figure than what it believes is the likely outturn cost, but feels obliged to do so in order to be successful at tender stage. The contractor is then driven, post contract, to seek to recover this shortfall by generating variations and claims.

The middle part of the diagram shows a target cost approach set at the most likely outturn cost. The contractor, knowing that it has sufficient money in its target cost to construct the works, can now put its efforts into seeking to create efficiencies in construction, resulting in savings shared through the target cost mechanism. The employer is able to shift its efforts away from defending variations and claims towards working with the contractor to help create these efficiencies that both parties will share.

Figure 1

However, a note of caution about setting a target cost comes from the righthand part of the diagram. Here the target cost is set at an inflated level, above the most likely outturn cost. In this situation, the contractor is able to make gain share not through efficiencies but by simply delivering the project at the expected outturn level – or even slightly higher, depending on how inflated the target cost is. The contractor has no incentive to make savings and in fact may be tempted to overspend the realistic outturn cost, as it will get paid its actual cost and still potentially make a saving, creating gain share. So for a target cost to work effectively, it must be set at a level which reflects the outturn cost, but also at a level that creates the need for the contractor to make efficiencies in order to create savings.

Mechanisms to help set the target cost level

It is of course very difficult to accurately estimate the final outturn cost of construction, due to the nature of the construction business and the innumerable variables that can occur during construction. There are, however, a number of mechanisms that can be employed in order to try to get the target cost set at an appropriate level.

The most obvious method is to introduce an element of competitive tension into the process. This may take the form of the entire target cost being put out to tender; or, if a two-stage process or a framework agreement is being set up, key elements of the building blocks of the target cost can be competitively tendered, such as the overhead and profit percentages, rates for staff, labour and contactor's plant and (if sufficient detail is available) unit rates for activities.

Another approach, in isolation or in conjunction with the suggestions above, is to engage experts to constructively challenge the target cost. This should not only consider the quantities and unit costs used in the target cost, but perhaps more importantly review and positively challenge the construction methodology, sequencing, design and inherent buildability of the proposal. Similarly, a programme should be submitted with the target cost, which should be reviewed to undertake a critical path analysis, review logic links, time risk allowances and float. This is because the greatest driver for cost is not the unit rates but the values to which these are applied in terms of quantities and timescales – which are driven by the construction methodology and the programme. Benchmark data should be used to support the challenges to the target cost and programme.

A further approach is for the employer to set the target costs, based on its own budget figures. If this is the approach adopted, the employer will clearly need to engage with the contractor to ensure that it can deliver the project for the budgeted sum; or may enter into negotiations on how the sum may need to be adjusted to create an appropriate target cost value.

As with any tender or quotation, there has to be a basis for the price agreed. In my definition, the target cost is set based on the contract documentation. This is an important point to note, as it is essential to understand what is included and excluded from the target cost and the contractual allocation of risk between the parties.

Target cost contracts

ECC3 only comes into effect upon agreement, as with all contracts, and therefore does not cover pre-contract processes. There are no contractual provisions or guidance in ECC3 on how the target cost should be set and agreed. So the actual mechanism of target cost setting is down to the employer to determine in its instruction to tender, or any governing framework agreement.

ECC3 contains two target cost options:

- Option C target contract with activity schedule
- Option D target contract with bill of quantities

The key difference between these options is that the target cost under Option C is fixed once agreed and only subject to change via compensation events. In Option D the target cost is set via a bill of quantities that is subject to remeasurement during the course of the works. The final target cost is therefore only determined upon completion of the works.

Elements of a target cost

A target cost should represent the cost the contractor will incur in delivering the project, including an allowance for profit. It will comprise:

- the base cost
- overheads and profit
- the risk the contractor carries under the contract.

In essence, it should be built up in the same way, and contain all the same items, as a contractor would include in a traditional fixed price tender.

Base cost

The base cost comprises the physical works required to deliver the project as defined in the contract documentation, including:

- the measured work, ie the works to be undertaken directly by the contractor, often priced using historical unit rates or via a resource-loaded programme identifying the component parts of the cost
- the cost of temporary works
- sub-contractor costs
- preliminary costs, both fixed and time-related.

The base cost should be priced net of risk or, if risk has been allowed, then this should be clearly identified. This is to ensure that when subsequent

allowances for contractor's risk are calculated there is no double counting and therefore no 'risk on risk' included in the target cost.

Provisional sums do not feature under ECC3 and therefore there are no contractual processes to deal with them. However, provisional sums do often occur in target cost arrangements, either under an amended ECC3 or a bespoke form of target cost contract. The use of these needs to be carefully considered, as these items are in effect neutral from a gain share/pain share perspective, since the original value allowed in the target cost build up is omitted and replaced by the actual value once the work is known and instructed. Having a small element of the works executed on a provisional sum basis is not a problem; however, if you have a large proportion of the works executed in this manner then a large part of the target cost will have no gain share/pain share applicable to it and will in effect be entirely cost reimbursable.

Contractor's fee

Under target cost contracts there is normally some form of allowance for the contractor's overheads and profit. Under ECC3 this is called 'the Fee'.⁴ The key issue with the Fee is to have complete clarity over what it covers, as opposed to what forms part of the base cost. The contract should provide this clarity, though often the level of detail provided can still create grey areas that can lead to disagreements later.

The types of cost that normally form part of the Fee are:

- head and regional office overheads
- head and regional office staff
- insurance
- o profit

These are costs which cannot be easily or accurately allocated to a project on an actual cost basis.

Risk

In all tenders produced by a contractor there will have to be an allowance made for the risks it will carry under the contract. The contractor's risks will be defined by the contract and it will have to bear the time and cost effects of all these risks, should any occur. The employer's risks are those items under the contract which will entitle the contractor to an extension of time and/or additional monies.

In the case of a competitively tendered target cost, the level of risk allowed is a commercial decision and the contractor has to take a view on the level of time and cost risk it can afford to allow, to cover its risks and still remain competitive. Where a target cost is negotiated, agreement on the risk can be

⁴ NEC3 (ECC3) Core Clause 11.2(8).

more difficult. The contractor will no doubt have a more pessimistic and cautious view on the risks it may face compared to the employer. This can create tension and is not an issue that can easily be resolved as risks, by their very nature, are subjective and are difficult to accurately quantify.

The contractor's risk allowance will form part of the target cost and therefore, part of the gain share/pain share calculation. Hence the contractor's risks are in effect shared between the contractor and employer. Once set, the risk allowance is not subject to amendment post-contract: it is not revised based on which risks actually occur or the extent to which they occur. Outside of the target cost, the employer will also hold a risk budget or contingency sum to cover the risks it holds under the contract. This employer's risk budget does not form part of the target cost, but will be added to the target cost if an employer's risk event occurs.

Risk under ECC3

One of the key functions of any contract is to allocate risk between the parties, be that financial, time, quality or insurable risks. ECC3 very effectively allocates risks between the parties by clearly defining which risks belong to the employer and identifying them as compensation events.⁵ One of the stated compensation events is employer's risks,⁶ which imports into the compensation event section the employer's insurable risks.⁷ All other risks – those not covered by compensation events – are the contractor's.

From a financial perspective, a contractor tendering for a project under ECC3 should be able clearly to understand what risks it has to allow for in its price and which risk events, if they occur, will entitle it to be compensated in terms of time and cost. Even though ECC3 has such a clear allocation of risk within its terms and conditions, many users new to the form seem to think that the allocation of risk is undetermined and that it is through the agreement of the target cost that the ownership of risk is allocated. This is a fundamentally flawed approach, as it will lead to immediate conflict with the contractual allocation of risk.

It is both possible and sensible to review the contractual allocation of risk between the parties and perhaps to negotiate reallocating risk. Such a process of 'buying and selling risk' has in my own experience proved very beneficial. However, if any risk transfer is agreed, the standard ECC3 has to be amended to capture this change in risk allocation, either through the introduction of additional employer's risks in the Contract Data Part 1⁸ or via a Z clause – an additional condition of contract, itself included in the Contract Data.

⁵ NEC3 (ECC3) Core Clause 60.1.

⁶ NEC3 (ECC3) Core Clause 60.1(14).

⁷ NEC3 (ECC3) Core Clause 80.1.

⁸ The Contract Data has two parts, Part 1 being completed by the employer and Part 2 by the contractor.

Tender assessment

One factor often overlooked when considering the operation of target cost contracts is the tender assessment process. Due to the interaction between the target cost value and the actual cost, leading to a gain share/pain share calculation, one has to consider both of these elements when evaluating tender returns.

The comparison of the target cost values should be a relatively straightforward process, but one then has to consider what the final target cost value could be. To do this one can model a potential final target cost value by creating an allowance for a level of change that could occur, priced in accordance with the data supplied by the tenderers in their commercial offer.

In assessing the potential actual cost that the tenderers could recover under the contract you can again use the data supplied in the tenderers' commercial offer to estimate at least part of the potential outturn cost.

Once these two calculations have been made, a series of models can be run to test different potential gain share/pain share scenarios that could occur, depending on which tenderer is selected. Clearly such an approach is in part subjective and needs to be considered as such; no doubt these financial calculations will form part of a broader assessment, involving qualitative as well as quantitative measures.

Maintenance of the target cost

A target cost is subject to change, both positively and negatively, as with a fixed-price contract. The time and cost effect of change is evaluated in accordance with the contract, which is normally a repeat of the same process originally used to set the target cost. In effect, a change is assessed as a 'mini target cost', built up of base cost, Fee and contractor's risk.

It is essential that the target cost is 'maintained': that changes are agreed as soon as they occur, if not in advance. This enables the target cost to continue to reflect the current scope of works and allows the gain share/pain share calculation to remain valid. Unfortunately, in practice a large number of target costs are not actively maintained, and changes are not managed and agreed contemporaneously with the events. An undesirable consequence of this is that the target cost may in some cases become ineffectual and the project defaults to an entirely cost reimbursable basis.

The simple, though unsatisfactory, solution to this is to reset the target cost to match the actual cost. This is often seen as an easier, non-confrontational solution than going back and agreeing the cost and time effect of each change, which is what the contract envisages. The parties can at least take some comfort in the fact that the employer is paying what the project actually costs, and not 'over the odds'. However, this approach removes any incentive for efficiency from the contractor and eliminates cost and time certainty for the employer: it should be strenuously avoided.

Cost reimbursement

Cost reimbursable contracts, as the name implies, means you reimburse the contractor their 'cost'. However, what do we mean by 'cost'? Does it include:

- the cost of construction?
- o direct and indirect costs?
- on-site and off-site costs?
- overheads and profit?

The fundamental point to understand with cost reimbursable contracts is that the employer does not pay the actual cost of construction – it is very difficult, if not impossible, to calculate the total actual cost incurred by the contractor in delivering a project. The only way to determine this would be to set up a contracting business with its own bank account to undertake the specific project. Clearly, this is not a sensible or efficient way to operate; and contractors normally have multiple projects underway at any one time.

To deal with this difficulty, cost reimbursable contracts contain a set of rules over what 'costs' can be claimed and how. For example, under ECC3 Options C & D the contract contains a definition of Defined Cost, which determines what costs the contractor can recover on a cost reimbursable basis.

Defined cost under ECC3

Defined Cost is defined under sub-clause 11.2(23) as:

• 'the amount of payments due to Subcontractors for work which is subcontracted ... and

and

• the cost of components in the Schedule of Cost Components for other work

less any Disallowed Cost.'

In accordance with this definition, subcontractor's costs are recovered as a direct cost based on the actual value paid to the subcontractor for the work they carry out that is necessary for the works, regardless of location.

The contractor's 'other' costs are then recovered in accordance with the rules laid out in the ECC3's Schedule of Cost Components (SoCC). The SoCC is split into the following sections

- o People
- Equipment
- Plant and Materials
- o Charges
- Manufacture and fabrication

- o Design
- Insurance

Costs can only be claimed under one cost component and only if the cost has been incurred in order to 'Provide the Works'.⁹

People

People, under ECC3 terminology, covers all personnel directly employed by the contractor, including both staff, labour and labour only subcontractors.

A key factor in a claim for payment of People costs is that the People have to be working within the Working Areas.¹⁰ The Working Area is a defined term in ECC3 and covers the site and any other areas designated by the contractor in the Contract Data Part 2. Areas can only be designated as Working Areas if they are necessary for 'Providing the Works' and are solely for use on the project. This definition has been crafted to exclude any 'shared' areas that the contractor may have which are providing services or support to other projects as well as the one in question. Such costs are recoverable but under a different part of the SoCC and under differing rules.

Under the heading of People, the contractor is principally able to recover the direct costs of employment of his staff and labour. The verification of staff costs can be an issue, as many contractors do not charge the real, actual cost of staff to projects. Often a contractor's internal costing system will allocate staff costs on a pro-rata or salary costing rate basis. This is often due to the sensitivities of displaying to their own staff the salary details of other staff members. Another issue is that certain costs paid to staff members, such as bonuses, occur on an annual basis and other costs cannot be determined in advance or even in the month in which they are incurred, such as mobile phone charges or the cost of fuel cards. This has lead some contractors to move away from allocating the real actual cost of staff to some form of annualised cost based on estimates supported by historic data.

This is not necessarily an issue, but an employer will want to ensure that the apportionment of time and cost to their project is accurate and that the salary costing rate is based on the actual cost of the employee with reasonable allowances for any unconfirmed annualised costs.

Equipment

Equipment under ECC3 covers contractor's plant and temporary works. As with People the cost of Equipment can only be claimed if it is incurred within the Working Area. If the Equipment is hired then the actual cost paid by the contractor is recoverable. Where the Equipment is owned by the contractor or an affiliated company, the contractor is paid according to either the rates for Equipment included by the contractor in Contract Data Part 2 or at a notional equivalent external hire rate for items which are not listed.

⁹ NEC3 (ECC3) Core Clause 11.2(13).

¹⁰ NEC3 (ECC3) Core Clause 11.2(18).

In the case of Equipment purchased specifically for the project, a calculation is made based on the purchase price less the residual value of the Equipment at the end of the project, with the contractor being paid the difference.

Plant and materials

Plant and Materials in ECC3 terminology are items for incorporation into the works.¹¹ These costs are relatively easy to deal with, as the contractor is paid the actual costs incurred in their purchase and delivery.

Charges

Charges are split into a number of separate headings, each being dealt with slightly differently.

The first heading is the cost of the provision and use of water, gas and electricity within the Working Areas, which is paid at actual cost. The second is the cost of payments made to public authorities or other properly constituted authorities – again paid at actual cost. The third heading is payments for a listed set of items which includes matters such as buying or leasing of land; inspection certificates; consumables and equipment provided for the project manager and supervisor. These items are once more paid at cost.

We then have the fourth and final heading under Charges, which unlike all the other elements is not paid at cost; instead, it is calculated via the application of a Working Area overhead percentage. This percentage is a figure included by the contractor in Contract Data Part 2, which is applied to the total cost of People. The resulting figure is then paid to the contractor to cover for 'overhead costs incurred within the Working Areas'.¹² The contract provides a list of the items covered by the Working Area overhead percentage. It does seem strange that in a target cost contract, where payment is made on a cost reimbursable basis, a notional percentage is used to cover 'overhead' items, rather than paying these at actual cost.

The drafters do express the view that in making such items recoverable at a predefined percentage they are placing a little more risk on the contractor, for example in relation to the risk of excessive wastage of tools. However, in my experience many employers and contractors do not understand how this part of Defined Cost works and have found it difficult to calculate and validate the percentages quoted under this heading. I have also had personal experience of the difficulties that can be faced when attempting to audit contractor's costs to identify and remove the items covered by the Working Area overhead percentage from the contractor's claims for payment.

In my experience most employers amend the SoCC to remove the Working Area overhead percentage, instead making the items covered by it recoverable on the basis of the actual cost incurred in their provision. This may transfer

¹¹ NEC3 (ECC3) Core Clause 11.2(12).

¹² NEC3 (ECC3) Schedule of Cost Components, item 44.

some limited risk back to the employer but makes the operation of Defined Cost much easier.

Manufacture and fabrication and design

These two items are different from the preceding elements, as these relate to costs incurred *outside* the Working Area; they are designed to allow recovery by the contractor for costs incurred in shared facilities. An example would be a fabrication yard owned by the contractor which makes heating and ventilation ducts for use across their portfolio of projects; or a design team based in the contractor's head or regional office.

Clearly it would be difficult if not impossible to determine the proportion of the actual cost of these shared facilities that should be allocated to the project; so an alternative method is used, whereby the contractor in Contract Data Part 2 provides hourly rates for employees working in these locations, which are then multiplied by the hours worked on the project. A pre-agreed percentage, again included in Contract Data Part 2, is then added to the resulting value to provide a contribution to the overhead costs of these shared areas.

One important point of note is that the costs of design covered by this part of the SoCC is for designers that are direct employees of the contractor. If the designers are a sub-consultant then their cost would be recovered by the contractor as subcontractor costs.

Insurance

Insurance is a slightly odd part of the SoCC, as it covers items that are deducted from cost. The rationale is that monies that are recovered, or that should be recovered, from insurers should not also be paid by the employer. Therefore, the costs of events for which the contractor is required to insure under the contract are deducted from cost, as are any other items paid to the contractor by its insurers.

Issues can be encountered in relation to this item in respect of identifying and valuing insurable events, as claims are often settled many months or years after the project has been completed. A further matter that causes problems is insurance excesses. Often claims will not be made against an insurance policy as they are below the excess level, or, if they are made, are paid less the excess. In such cases questions can be raised as to who bears these costs.

However, ECC3 is clear:

'Any amount not recovered from an insurer is borne by the employer for events which are his risk and by the contractor for events which are at his risk.'¹³

¹³ NEC3 (ECC3) Core Clause 85.4.

Verifying actual cost: audit

As payment is made on a cost reimbursable basis, an employer will want to undertake some form of check to ensure that the costs being claimed by the contractor are valid. This process will normally take the form of an audit of the contractor's financial accounts and records, which should be made available on an open book basis. The audit will normally be undertaken on a sample basis, with items to be verified selected on a targeted and random basis. Items selected will be checked from order through delivery to invoice/certificate and ultimately to banking records.

The level and detail of the audits will be determined by the employer/project manager and has to be sufficient to give confidence that the amounts being claimed are valid. Traditionally, a 10% sample is used as a basis, the level of audit being extended if problems are identified. More recent innovations have led to the development of IT-based audit techniques which undertake a 100% audit.

However, the key part of the verification exercise on cost reimbursable contracts is reviewing the resources on site and material deliveries to ensure that these are correct and not excessive. Simply checking that the costs have been incurred is a relatively straightforward process. The real challenge is making sure the costs should have been incurred in the first place and that they represent value for money.

A further area that can cause problems is internal/intergroup charges, such as the provision of services by a subcontractor or supplier who is an affiliated company of the contractor. In such a situation, there may be a concern that the contractor will not have sought alternative competitive quotations and that, through its parent company, they will recover 'profit on profit' by charging a Fee on top of the cost (which includes profit) charged by the internal or affiliated company.

In all checks however, one has to be mindful of the quality of the People, Equipment or Plant and Materials being provided, compared to the cost. It may be that the contractor is paying a higher than open market rate for an item but the quality it provides is greater and therefore overall value for money is achieved.

Actual cost v fee

Many target cost contracts provide lists of what is included in the Fee and what is included in the actual cost. One has to be careful with such an approach, as almost inevitably some elements of cost are missed from either list and then debate can ensue over whether these costs form part of the actual cost or the Fee. I particularly like how ECC3 deals with this potential issue by defining what costs form part of the Defined Cost and then stating that all

other costs are covered by the Fee.¹⁴ This eliminates the need to define what is covered by the Fee, as it contains anything not recovered as Defined Cost.

It is very important that contractors fully understand what the contract determines as contained within the Fee, as opposed to what they would normally expect to include within an overheads and profit percentage. I am aware of a number of cases where contractors have assumed that certain items, such as head or regional office based staff, will be recoverable as part of the Defined Cost but which are actually covered by the Fee – leading to problems post contract.

Under ECC3, the Fee is a percentage to be applied to the total Defined Cost.¹⁵ On this basis, the more the contractor incurs as Defined Cost the greater the value of the Fee. This has the potential to drive the wrong behaviours, but these should be combatted by the gain share/pain share mechanism. However, due to some of the issues that can occur in setting the target cost at the appropriate level and the choice of certain gain share/pain share mechanisms, this may not in itself be sufficient. To deal with this, employers are increasingly seeking to fix the Fee at the point of setting the target cost. In others words, they freeze or ring-fence the Fee and make this a lump sum amount, then be claimed as a fixed amount per month or on certain milestones. On this basis the contractor has an extra incentive to reduce Defined Cost and so increase the recovery of Fee as a percentage of the Defined Cost.

Disallowed costs

Disallowed costs are costs which the contractor may have incurred and which fall within the definition of Defined Cost, but for which the employer does not have to pay under the contract.¹⁶ These are normally costs which the contractor either cannot prove or has only incurred due to some form of failing or negligence on their part. Disallowed costs are therefore borne entirely by the contractor.

Some disallowed costs are relatively simple to define and apply in practice, such as:

- resources not used to provide the works, ie a piece of plant that is no longer required but which is still being charged to the project
- materials not used to provide the works, ie materials ordered in excess of that required to complete the works, after allowing for reasonable wastage.

However, some disallowed costs are much more subjective and difficult to accurately define, identify and capture. This specially concerns situations where, in the employer's view, the contractor has been inefficient, negligent or simply made mistakes. Most employers would not expect to pay for such failings but under many cost reimbursable contract forms they may find they

¹⁴ Under the NEC3 (ECC3), there are in fact two fee percentages: a subcontracted fee percentage and a direct fee percentage.

¹⁵ NEC3 (ECC3) Options C, D & E, clause 11.2(23).

¹⁶ NEC3 (ECC3) Options C, D & E, clause 11.2(25).

have to. The reason is that it is very difficult to frame words that can cover the wide variety of events that could lead to such costs and also the resulting behaviours this will drive in the contractor.

One area that creates considerable debate is the cost of rectifying defects. The cost of rectifying defects after completion is normally easy to identify and deal with and most contracts make this cost disallowable. However, the real issue is around defects which are identified and rectified prior to completion. Should these costs be disallowable?

An immediate response from an employer may well be 'yes', as why should it pay for the contractor's mistakes? However, the reality is not as simple, since the cause of the defect has to be ascertained and the conduct of the contractor examined. An employer also has to consider the behaviours it will drive in the contractor if it make such costs disallowable; for example, the contractor may be tempted to hide defective work rather than rectify it at its own cost. Also, if you do allow such costs to be recoverable prior to completion but not post completion this will drive the contractor to rectify defects prior to completion, meaning that there will be minimum snags at handover, often seen as a real benefit by employers. As the disallowed costs are not recoverable by the contractor as part of Defined Cost, it will have to allow for the risk of these deductions within its Fee and therefore, one could argue, the employer will pay towards these items anyway.

There is also a word of caution in respect of the assessment and deduction of disallowed costs. It would appear that the view of the courts is that when assessing payment and specifically the issue of disallowed costs, the Project Manager has to act as an independent certifier and has to be fair and reasonable in its assessment.¹⁷

Value for money tests

In a cost reimbursable situation, there is a need to drive efficiency in the contractor and its supply chain. The key driver for ensuring that value for money is achieved and that the contractor is efficient should be the gain share/pain share mechanism. However, where the contract is purely cost reimbursable, or where the target cost has been set at an inflated level, this key driver is not present.

Most target cost contracts recognise this potential issue and have specific clauses to address this. This is the approach ECC3 takes:

'Amounts included in Defined Cost are at open market or competitively tendered prices with deductions for all discounts, rebates and taxes which can be recovered.'¹⁸

This clause works well, because it allows the contractor either to competitively tender the elements of Defined Cost or demonstrate that they have been secured at open market prices, ie benchmarked and shown to be comparable to

¹⁷ Costain Ltd v Bechtel Ltd [2005] EWHC 1018 (TCC).

¹⁸ NEC3 (ECC3) Core Clause 52.1.

the market. However, there can often be debate over what represents an open market or competitively tendered price and many employers seek to enhance this clause with further requirements; for example, making it mandatory to seek, say, three competitive tenders for any sub-contract over £50,000.

One however, has to be mindful that a stringent requirement to seek competitively tendered prices for all elements of a Defined Cost can cause issues; for example, the level of work that such a requirement can generate.

A much greater issue is the impact it can have on the contractor's pre-existing supply chain arrangements and its potential to create a drive for the lowest cost, rather than best value. Many contractors already have preassembled supply chains and/or framework agreements with the key subcontractors/suppliers and a reason why contractors are engaged is for their skill and ability in creating and managing an effective supply chain. Therefore, creating a requirement to competitively tender all elements of the supply chain may well conflict with these existing arrangements.

Time

One area that is often overlooked when considering the operation of target cost contracts is the interface between time and money. The starting-point of ECC3 is that the obligations as regards time are the same in all the main options A to F.

It is entirely permissible to include 'delay damages' – the phrase ECC3 uses to describe liquidated and ascertained damages – to incentivise the contractor to perform to time; such delay damages, if incurred, will not be recoverable by the contractor as part of the Defined Cost. However, any additional preliminary costs or the like incurred in any period of delay will be recoverable as part of the Defined Cost, even if the period of delay is entirely the fault of the contractor.

Therefore, one could suggest that where there are no, or very low delay damages in the contract, the contractor will have a limited incentive to mitigate delay so as to achieve completion by the completion date. This may encourage the employer to include delay damages in the contract, so as to drive performance to time. However, if delay damages are included, the contractor can choose to accelerate the works so as to mitigate delay and achieve completion by the completion date. If it chooses this course of action, it will potentially be able to claim the costs of any such acceleration as part of the Defined Cost, to which its Fee will be applied on top.

Ultimately, the key driver for the contractor to perform to time should be the gain share/pain share mechanism, stemming from a target cost set and maintained at an appropriate value. Where this is the case, the contractor will want to complete as soon as possible so as to reduce costs, create gain share and avoid pain share. However, as can be seen above, if the target cost is not set correctly or maintained effectively, the incentive for the contractor to perform can be lost, and with it the drive towards timely completion of the works.

Gain share/pain share mechanism

The gain share/pain share mechanism is at the heart of target cost arrangements: it forms the key driver in aligning the objectives of the parties to work together to create efficiency and reduce costs. There is no right or wrong gain share/pain share mechanism; in fact, there are a myriad of different mechanisms that can be used.

Most such mechanisms work on the basis of a percentage split of overspend or savings between the contractor and employer. The split itself is often 'banded', based on the percentage of overspend or savings made compared to the target cost. The simplest gain share/pain share allocation is a straight 50:50 split of all over- and underspend. This is often seen as the most equitable, because both parties equally share the risk, which helps develop partnering behaviours. This approach is also less likely to encourage the contractor to drive up the target cost value or maximise the value of change. However, it includes no cap on the pain share to the employer, who cannot accurately predict what its final payment will be. It may also be argued that there is not enough incentive for the contractor to mitigate cost, but in reality the potential of paying half the cost of the overspend should provide this.

The simple 50:50 model is often replaced by a sliding scale of percentages, whereby the employer allocates increasing percentages of gain share/pain share between the parties. The most common option is for the employer to split the first 10% of over- and underspend equally between the parties but to then alter the allocation above and below these percentages. Normally the employer will increase the pain share percentage in the bands above 110% to give the contractor a greater share of the overspend and similarly the employer will decease the percentage gain share to the contractor below 90% of the target cost (commonly a 75:25 split).

Some employers have reversed this approach and have actually increased their exposure to pain share, by increasing overspend brackets (ie over 110%) and decreasing their percentage of any underspend (ie below 90%). This is unusual, but some larger employers are better able to carry the financial risk of overspend against the target cost and would rather do so than allocate it to the contractor. Similarly, increasing the percentage gain share to the contractor will motivate it to mitigate cost.

A sliding scale of gain share/pain share often also includes a cap on the employer's potential payments. At a certain level, normally above 120% and below 80%, the employer will allocate 100% percent of overspend and 0% of underspend to the contractor. This reduces the employer's financial exposure and increases the financial risk to the contractor.

The employer will also be better able to predict what the final payment will be, subject to any changes. On the downside, the contractor may seek to increase the target cost or maximise changes, to avoid hitting the pain share cap. This approach is often referred to as Guaranteed Maximum Price (GMP) – in my opinion a completely inappropriate term. There is no guarantee that the price will not be exceeded, as the value of the target cost and therefore the

final payment, which is a percentage of this value, will move with compensation events. The contractor may also not be as motivated to try to make savings below the 90% level as it gets a reduced return; certainly not below the 80% level where it gets no return; in fact, the contractor may actually try to *increase* costs to ensure that no savings occur below the gain share threshold.

The key factor in the choice of gain share/pain share model is the potential behaviours it will drive in the parties. Because differing models alter the financial allocation of risk between the parties, some employers leave the model blank at tender stage and ask each contractor to suggest differing models as part of its commercial offer.

Forecasting outturn cost

Under target cost and cost reimbursable contracts, forecasting the final outturn cost of a project can be an issue. The reality (perhaps true of all contracts, at least from the contractor's perspective) of such arrangements is that the actual cost of the project will not be known until the project is completed, and often not until several months later, when all the accounts in the supply chain have been settled.

Unlike fixed price contracts, where the employer has a running final account based on the original contract value (plus or minus agreed changes), under a target cost contract the contractor is paid its actual cost, which can vary greatly during the construction phase. Difficulties can arise around forecasting costs still to be settled, such as accruals and liabilities for materials received; or work undertaken but not yet invoiced. Even more difficult is forecasting costs not yet ordered or agreed, or the final value of disputed compensation events or the like. This is then further complicated by the need to reconcile the costs expended to date with the value of work done. It may be that, for example, a project is 50% complete in terms of physical progress, but that 75% of the costs have been incurred. Does this mean that the project will overspend? Or it is simply that the more expensive elements have been completed and the project should have expended 85% of the costs by this stage, so in fact a gain share should be predicted?

In order to deal with these issues, it is recommended that some form of earned value analysis is undertaken, which overlays progress of the physical works on the costs incurred. This gives a picture of the value of work done, compared with the cost of work done, leading to an understanding of current financial performance and a forecast of future financial performance.

A failure to forecast the outturn cost of a project accurately can often cause major difficulties to an employer, who can quite suddenly find that a project on which it thought it was going to make savings suddenly turns into a loss, for the simple reason that the contractor has spent more than it thought it would. I have been party to some very difficult meetings where an employer has had to go back to its board for more funding on a project. When questioned on what has changed, what is the additional scope or risk event that has occurred to create the need for the additional monies, the response is 'Nothing: it's just cost more than we thought!'.

Conclusions

Target cost contracts are increasing in use globally as they create a greater alignment of parties' objectives to reduce costs and create savings. They can provide a better mechanism than traditional fixed price or remeasurement contracts for dealing with risk and provide greater flexibility to the employer. They help create partnering-type behaviours due to the need for openness and transparency of costs – which helps in reducing the potential for claims and disputes.

However, the question is whether such benefits are actually being realised; in particular, whether target cost contracts do deliver value for money. The answer can be 'yes', 'no' and 'maybe', due to the range of issues, of which this paper has discussed the principal ones above.

Target cost contracts can and will deliver value for money only when:

- 1. The target cost is set at a level which requires the contractor and the employer to work together to create efficiencies beyond those normally expected on such projects;
- 2. The target cost is actively managed and maintained so as to remain valid and to continue to drive performance;
- 3. The gain share/pain share mechanism drives the right behaviours in the parties to seek savings and avoid pain; and
- 4. The contractor performs in an efficient manner, mitigating risk.

Unless all these aims are achieved, value for money will not be achieved.

In reality, value for money under a target cost contract is driven by the same factors as under any procurement route. However, employers need to realise that they are sharing a greater degree of risk in respect of the contractor's performance under a target cost contract than they would under a fixed price arrangement. If the contractor is efficient, works well and makes savings, the employer will share in this and achieve value for money. However, if the contractor is inefficient and performs badly then, subject to the limited grounds for disallowed costs, the employer will have to share in any resulting overspend.

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