

The NEC 3 Engineering and Construction Contract

A Commentary

Second Edition

Brian Eggleston

CEng, FICE, FStructE, FCI Arb

Blackwell
Science

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Preface

In the preface to my 1996 book on the second edition of the New Engineering Contract (ECC 2) I questioned whether it was necessary to scrutinise the detail of the contract when faith in its principles might be more important to users than the detail of its provisions. However, I went on to suggest that if the contract succeeded and gained widespread use then commercial pressures would prevail and the contract would need to be robust enough to withstand detailed analysis and criticism.

It was soon evident that ECC 2 was becoming a popular contract of choice for civil engineering works and for building works – and its usage remains on an upward curve. It has certainly succeeded. But it was also soon evident that there were problems with the contract, particularly with its compensation event procedures. The need for a third edition was obvious and urgent.

NEC 3 took a few years longer than expected to produce. Perhaps this reflected the difficulties of amending clauses written in a unique style with minimalistic drafting. Perhaps remaining true to the original concepts of the contract inhibited change. When NEC 3 did eventually emerge in 2005 it was not the comprehensive revision which might have been expected. Some useful changes to compensation event procedures had been made, a few gaps had been plugged here and there, and a few new clauses added. At first sight it seemed that not much had changed. But getting into the detail revealed a different picture. There has been significant change – probably far more than the draftsmen intended – and not all of it for the better.

My endeavour in writing this book has been to try to explain in ordinary language what the clauses of NEC 3 say and what I think they mean. Not everyone will share my views but if they do no more than provide food for thought I hope they will make some contribution to the use and development of the contract.

Brian Eggleston
May 2006

Author's note

Phraseology

The New Engineering Contract is a family of contract documents and the proper use of the acronym NEC is as a prefix rather than as the name of any single contract. This book is principally a commentary on the third edition of the NEC Engineering and Construction Contract – the main contract in the family. For convenience that contract is referred to throughout this book simply as NEC 3. Its predecessor is referred to as ECC 2.

Capitals

NEC 3 relies heavily on defined terms which have capital initials and identified terms which are in italics. However, for reasons of style which I hope make for easier reading, capitals and italics have been used sparingly in this book, and therefore both defined terms and identified terms appear usually in ordinary case.

Text of NEC 3

Very little of the text of NEC 3 is quoted in this book. I have assumed that readers will have to hand a copy of NEC 3 and the other forms in the family as appropriate.

Commentary on the text is against the June 2005 publication of NEC 3.

Content of book

I have endeavoured to cover in this book all the clauses of NEC 3 and all the changes from ECC 2. I have retained the general layout and some of the content of my book on ECC 2 whilst extending commentary on compensation events from one to five chapters.

Table of clause numbers

The published version of the NEC 3 contract contains a comprehensive index of subjects referenced to clause numbers. In this book a full table of clause

numbers with descriptions is referenced to chapter sections. The table is set out on pages 359–78.

Readers of this book who wish to have the benefit of a subject index will find it a straightforward matter to move from the subjects in the NEC 3 contract to the chapter sections in this book.

Chapter 1

Introduction

1.1 Development of NEC contracts

NEC 3 is a generic name for a family of contracts published for the Institution of Civil Engineers by Thomas Telford Services Ltd. NEC stands for New Engineering Contract and it is by this name that the contracts are generally known. The main contract and the subcontract were first published as consultative editions in January 1991. First formal editions followed in March 1993; second editions in November 1995; and third editions in June 2005.

It was always intended that there would be a family of New Engineering Contracts and in the short space of time between 1991 and 2005 other contracts were produced such that by 2005 the NEC 3 family comprised:

- the NEC 3 Engineering and Construction Contract
- the NEC 3 Engineering and Construction Subcontract
- the NEC 3 Professional Services Contract
- the NEC 3 Short Contract
- the NEC 3 Short Subcontract
- the NEC 3 Adjudicator's Contract
- the NEC 3 Term Services Contract
- the NEC 3 Framework Contract

The contracts are supported by officially published guidance notes, flow charts and an advisory document entitled *NEC 3 Procurement and Contract Strategies*. The Engineering and Construction Contract has six main procurement options and although one document (the *Black Book*) covers all six, each option is separately published. In all, as at June 2005, the complete set of NEC 3 documents comprised twenty-three volumes.

Background to NEC contracts

The background to the development of the New Engineering Contract does much to explain its style and content. In the 1980s there was on-going debate within the Institution of Civil Engineers, the lead body for the production of the ICE Conditions of Contract – at that time the standard form used for most civil engineering works in the UK – as to the direction of future contract strategies. At issue were questions as to whether the then existing standard forms adequately served the best interests of the parties by focusing on the

obligations and responsibilities of the parties rather than on good management, and whether an entirely new approach was needed to promote co-operation and to reduce confrontation. The prevailing view was that something new was needed, particularly for sizeable contracts where attention to good project management was the key to successful completion. So although confidence remained high that the standard ICE forms would remain the popular choice for routine civil engineering works, the Institution embarked upon the drafting and production of what is now the New Engineering Contract.

The drafting team was charged with three specific objectives for the contract:

- that it should be more flexible in its scope than existing standard forms
- that it should provide greater stimulus to good project management than existing forms
- that it should be expressed more simply and clearly than existing forms

It was, therefore, a matter of policy that the New Engineering Contract should be different from other standard forms in style and content.

For users of the contract the difference is of very significant practical effect. It used to be said that a good contract was never taken out of the drawer until it was needed. For the New Engineering Contract that rule does not apply. It is as much a manual of project management as a set of contractual conditions – and it should never be taken off the desk and put in the drawer.

Prospects for the future

The rapid expansion of use of the New Engineering Contract has been a remarkable success story. Contrary to intentions and to expectations the contract has within just a few years replaced ICE Conditions of Contract as the contract of popular choice for civil engineering works and it is already in widespread use for building, process and plant works. Although much used for major projects it is also used at more mundane levels. With the support base it has now built amongst clients and professionals, and with the range of contracts now available, there are real prospects that the New Engineering Contract in its various forms will become the dominant contract of the future.

1.2 Characteristics of NEC contracts

As noted above the New Engineering Contract was drafted with the objectives of achieving flexibility, stimulus to good project management, clarity and simplicity.

Flexibility

Flexibility is perhaps the most ambitious of these objectives. Thus the NEC 3 Engineering and Construction Contract aims to be an all purpose contract for all construction and engineering disciplines at home or abroad. It offers this through a combination of uniquely drafted provisions and a complex structure of options. Four distinct features are presented:

- discipline specific terminology and references to the practices of particular industries are avoided. Reliance is placed on a framework of general provisions written largely in non-technical language
- responsibility for design is not fixed with either the employer or the contractor but can be set at any amount from nil to total with either party
- primary options give a choice of pricing mechanism from lump sum to cost, *plus*
- secondary options allow the employer to build up the provisions in the contract to suit his individual policies

Stimulus to good management

Again, as noted above, much of the inspiration for the development of NEC contracts came from a belief that existing forms of contract no longer adequately served the best interests of the parties. The argument was put that expanding procurement strategies, changing practices in contracting, and developments in project management required contracts to focus as much on management as on the obligations and liabilities of the parties. So NEC contracts lay great emphasis on communications, co-operation, programming, and the need for clear definition at the outset of various types of information. Reports from users of NEC contracts suggest that improvements in project management are being achieved and that job satisfaction for those involved is better than with traditional contracts.

Clarity and simplicity

The approach adopted by the drafting team towards the objective that NEC contracts should be expressed more simply and clearly than existing forms of contract was to start from scratch rather than to build on old foundations. So NEC contracts are intentionally and conspicuously different from other standard forms in style and structure. They are written in non-legalistic language using short sentences and avoiding cross-references. Familiar phrases such as 'extension of time' and 'variations' are absent as is the regular use of the word 'shall' to signify obligations.

However, there is a price to pay for this brevity. Taken by themselves, the contracts are, at least for first time readers, more of a mystery than a model of clarity and simplicity. Fortunately, there are guidance notes and flow

charts to assist in general understanding and the application of the contracts.

Legal interpretation of the contracts is not so easily solved. Neither the guidance notes nor the flow charts are intended to be used for legal interpretation and the application of legal precedents from traditional forms of contract written in conventional drafting style can only be surmised. Which raises the question, have NEC contracts sacrificed legal certainty in pursuit of a new order? There are certainly some who feel that discarding conventional drafting amounts to discarding the accumulated contractual wisdom of generations. Throwing the baby out with the bath water is how one eminent construction lawyer put it. But others are far more optimistic and they suggest that to focus on the words of NEC contracts is to miss the point of the message; and that the courts, if called upon to do so, will have no difficulty in discovering the true intentions of the parties.

1.3 Structure of the NEC 3 Engineering and Construction Contract

In this chapter and thereafter in this book, NEC 3 means the NEC 3 Engineering and Construction Contract. ECC 2 means the second edition of the Engineering and Construction Contract.

Each NEC 3 contract is uniquely put together to meet the employer's needs by assembling clauses from the option structure and by particularisation in accompanying documents.

Option structure

In order to create a set of NEC 3 conditions for a particular contract, the employer:

- makes a selection from the six main options as to which type of pricing mechanism is to apply
- includes in the contract the nine sections of core clauses
- specifies which dispute resolution option applies
- includes such selection (if any) from the seventeen detailed secondary option clauses as he thinks fit
- includes in the contract under secondary option Z any additional clauses required by him or as agreed with the contractor

Main options

The main options comprise six types of payment mechanism:

- Option A – priced contract with activity schedule
- Option B – priced contract with bill of quantities

- Option C – target contract with activity schedule
- Option D – target contract with bill of quantities
- Option E – cost reimbursable contract
- Option F – management contract

Each of the main options is published in a separate volume which includes the relevant core clauses for the particular option. Additionally there is a single volume (the *Black Book*) covering all six options.

Core clauses

The core clauses are grouped into nine sections, numbered as follows:

- (1) general
- (2) contractor's main responsibilities
- (3) time
- (4) testing and defects
- (5) payment
- (6) compensation events
- (7) title
- (8) risks and insurance
- (9) termination

For each section there is a common set of core clauses and for some of the main options there are additional core clauses. There are two sets of dispute resolution clauses, labelled Options W1 and W2, from which a choice must be made.

Secondary options

The secondary option clauses are labelled under X, Y(UK)2, and Z prefixes. Not all would normally be regarded as secondary. Included within them are some matters such as retention and liquidated damages for late completion which most traditional contracts treat as essential. Other matters such as performance bonds and performance related damages are more obviously contract specific. The full list of secondary option clauses is considered in Chapter 3.

1.4 Feedback from ECC 2

It was evident from the usage growth of ECC 2 that the contract had many admirers and satisfied users. Anecdotal evidence suggested that when ECC 2 contracts were properly prepared, adequately staffed, and administered by a project manager who understood the philosophy of the contract and recognised the duties involved, they generally operated well. However, there were

reports of contractors losing large sums of money on some ECC 2 contracts and it is no secret that many disputes were referred to adjudication on both small and large ECC 2 contracts.

Feedback indicated various types of problems, in particular:

- preparation problems – these mainly related to incomplete works information and to a lesser extent incomplete contract data
- staffing problems – there is little doubt that it took some time for employers, contractors, and project managers to recognise the staffing needs of ECC 2 contracts – with the result that some contracts were understaffed and never properly operated, whilst others were staffed to the required strength but non-recoverable costs were sustained
- people problems – the requirement in ECC 2 for the parties and the project manager to act in a spirit of mutual trust and co-operation was frequently not understood or followed – one particular problem being the involvement of persons with management styles inherited from old style adversarial contracts
- compensation event problems – these were many and various with perhaps the most common being complaints of procedural overload, difficulties and costs of assessments, failures to use the quotation system, and confusion over time-bars

Preparation, staffing and people problems can hopefully be resolved by training and experience. Some of the compensation event problems of ECC 2 have been addressed in NEC 3.

1.5 Changes from ECC 2

The amount of change from ECC 2 to NEC 3 is quite small in volume terms – perhaps no more than 5% or so of the text. However, that belies the importance of the changes. There are new provisions of considerable potential impact and changes which significantly affect the operation of the contract. And as with changes generally to contracts and other formal documents, a change in one clause, however small, can have effects not immediately apparent on other clauses. For these reasons and because there has been quite an amount of re-arrangement and re-numbering, NEC 3 is best treated as a new contract rather than an update of ECC 2.

Significant new features

- key dates – these are dates set by the employer by which the contractor has to bring a stated part of the works to a specified condition
- risk register – a register maintained by the project manager and intended to include all risks stated in the contract data or subsequently identified by the project manager and the contractor

- key performance indicators – aspects of performance for which targets are set in an incentive schedule
- prevention provisions – new clauses by which the employer carries the time and cost risks of events similar to, but potentially wider than, *force majeure*
- entire agreement clause – statement that the contract is the entire agreement between the parties
- quotations treated as having been accepted – new provisions indicating the contractor's right to submit quotations for compensation events
- limitation of liability – new option clause limiting the contractor's liability to the employer for indirect or consequential loss
- delay damages – proportioning down clause included for parts of the works taken over before completion

Significant changes

- cost schedules – increased use of shorter schedule of cost components to simplify assessment of compensation events
- rates and lump sums – by agreement rates and lump sums can be used to assess compensation events
- fee percentages – separate fee percentages for subcontracted work and direct work
- conditions precedent – revised and clarified provisions on notices and timing restrictions for the submission of compensation events
- interest – revised and clarified provisions on entitlements to interest
- dispute resolution – choice to be made between alternative sets of provisions

1.6 Points of interest in NEC 3

Entire agreement

New NEC 3 clause 12.4 states that the contract is the entire agreement between the parties. Precisely what this means is open to debate but there are various possibilities – all of which give rise to potentially important consequences. Lawyers will probably seek to clarify this clause for particular contracts.

Exclusion of common law rights

The question of whether the compensation event system acts to exclude the contractor's common law rights to damages for breach is not entirely settled

in NEC 3. New clause 12.4 may have a bearing on the matter as may the new clause 63.4 which refers to rights of the parties. However, there remain aspects of the compensation event system which are difficult to reconcile with the concept of loss of common law rights.

Conditions precedent to entitlement

ECC 2 was far from clear as to what was legally intended by its requirement for compensation events to be notified within two weeks. New provisions in NEC 3 aim to rectify the situation by limiting entitlement to cost and time changes to notifications given within eight weeks of an event. However, this does not apply to compensation events which the project manager should have notified. There are various other aspects of the clause itself which add doubts as to the likely efficacy of its application. Perhaps a bigger problem is that there does not appear to be anything in NEC 3 empowering the project manager to concern himself with conditions precedent and time-bars.

Powers of the project manager

The intention of ECC 2 was probably that the project manager would act more as the employer's agent than as an independent contract administrator and supervisor. This view of his role took something of a knock in the 2005 case of *Corber v. Bechtel*. But by entirely separate development NEC 3 seems to have moved towards a more restricted role for the project manager. New clause 12.3 requires changes to the contract to be agreed and signed by the parties – a provision which would fit naturally into most contracts but less so in NEC 3 where many contractual restrictions and obligations are found in the works information.

Changes to works information

The extent of the project manager's power to change the works information under ECC 2 was not expressly restricted in the conventional manner to changes necessary or desirable for the completion and functioning of the works. However, common sense dictated that there should be some restriction. Under NEC 3 the proper approach to considering what changes to the works information are permissible may be to examine where the project manager derives his power from and how the contractor's obligations are defined rather than examining possible restrictions.

Prevention

The inclusion in NEC 3 of provisions putting the risk of what are called 'prevention' matters on the employer will concern many employers and their

lawyers. The matters covered by the provisions include what might normally be called '*force majeure*' or 'beyond control of the parties' matters, and the usual rule would be that loss lies where it falls. For that reason alone some employers will wish to see the provisions deleted. Another likely reason is that the provisions as drafted are capable of very wide interpretation and their scope could be argued to extend to all manner of problems encountered by the contractor.

Quotations for compensation events

Strengthening of the quotation system for compensation events by the inclusion in NEC 3 of provisions whereby default by the project manager in operating the contractual rules leads to quotations being treated as accepted will be welcomed by contractors. However, it is something of a surprise that such quotations can be disputed by the employer and altered by an adjudicator. In this respect they are either not being treated as accepted or it is the case, which seems unlikely, that all quotations accepted by the project manager can be challenged by the employer and reviewed by an adjudicator.

Assessment of compensation events

The changes for simplification of assessments of compensation events by greater use of the shorter schedule of cost components and possible use of rates and lump sums will be generally welcomed. There will, however, be disappointment that the changes do not address the fundamental problem that the assessment rules are not suited to low value events or for contracts with frequent and multiple events. There may also be concern as to how the new provision in NEC 3 that assessments should divide actual and forecast costs according to when instructions for quotations were given or should have been given is intended to operate. Retrospective forecasting may be envisaged but it is difficult to see it applying in adjudication.

Dispute resolution

The inclusion in NEC 3 of alternative dispute resolution procedures for contracts which are subject to the Housing Grants, Construction and Regeneration Act 1996, and contracts which are not, will not necessarily lead to the choice which might be expected. The statutory right to adjudication under the Act still applies to qualifying contracts even if the non-compliant alternative is chosen. The big difference between the two alternatives can be simply expressed – one imposes time limits and restrictions on the disputes which can be referred to adjudication, the other allows any dispute to be referred at any time. Subject to retention of any statutory rights it is a matter for the parties as to which of these they prefer.

One surprising and disappointing aspect of the dispute resolution procedures of NEC 3 is that they fail to include the range of procedures now becoming commonplace in construction contracts. Most notably, they fail to include conciliation or mediation which, given the complexities of the contract and its requirement for the parties to act in a spirit of mutual trust and co-operation, might well be the best choice the parties could make for resolving their disputes.

Chapter 2

Main options

2.1 Introduction

NEC 3 retains the six main options, A to F, included in ECC 2 with one major change. Whereas ECC 2 grouped dispute resolution clauses with termination clauses in section 9 of Options A to F, NEC 3 separates the clauses leaving section 9 solely for termination and putting dispute resolution into two new alternative main options W1 and W2. Option W1 matches the procedures in the main body of ECC 2, Option W2 matches the procedures in ECC 2's secondary option Y(UK)2. Broadly, the intention in NEC 3 is that Option W2 will be used for contracts subject to the Housing Grants, Construction and Regeneration Act 1996 and Option W1 will be used for all other contracts. However, as discussed later in this chapter, that will not always be the case.

The main options

The main options of NEC 3 are:

- Option A – priced contract with activity schedule
- Option B – priced contract with bill of quantities
- Option C – target contract with activity schedule
- Option D – target contract with bill of quantities
- Option E – cost reimbursable contract
- Option F – management contract
- dispute resolution Option W1
- dispute resolution Option W2

The main options provide, in descending order, a broad scale of distribution of price risk with Option A providing maximum certainty of price for the employer and Option F providing the least.

The employer is required to state in part one of the contract data which main option is to be used and which dispute resolution option is selected. In most cases the choice will be entirely that of the employer. However, sometimes potential tenderers are invited to propose which main option should apply as part of pre-qualification procedures. When partnering is intended prospective contractors may be allowed to have a say in which main option should be used.

Users of NEC 3 should be alert to the fact that each main option has its own particular clauses which are additional to the core clauses in the main

nine sections of the contract. In particular a point to note is that although the definitions in the core clauses stop at number 19 in clause 11 of the base contract, there are other definitions particular to Options A to F which take the numbering through to 33.

Construction management

There is no named main option in NEC 3 for construction management – the system in which the contractor provides only management services to the employer with the works packages let as contracts directly between the works contractors and the employer. However, this need not be a barrier to the use of NEC 3 for construction management.

For construction management the employer should appoint a construction management contractor as project manager under the NEC professional services contract. The duties of the construction manager would be to advise the employer on the placing of the works contracts under whichever main options of NEC 3 are most appropriate and then to project manage the works contracts. For an interesting case on the duties of construction managers see *Great Eastern Hotel Ltd v. John Laing Ltd* (2005).

2.2 Contract strategy

Contract strategy is not an exact science. There are some guiding principles but every employer is unique in his aspirations, his circumstances and his preferences.

For some employers certainty of price is the dominant aspiration and then, given few restrictive circumstances and few particular preferences, the obvious strategic choice will be a lump sum contract with contractor's design. For other employers certainty of price may be secondary to considerations of quality, operations/restrictions, or the need for a quick start and a fast finish. Which method of procurement, which type of contract, and which form of contract then become more complex questions. Some employers, on the strength of past experiences or hopes for the future, develop preferences for certain methods of procurement and certain forms of contract. Rational analysis of selection criteria to determine contract strategy may then become secondary to selection of the most suitable contractor.

One of the main strengths of NEC 3 is its flexibility. If an employer does develop a preference for its use he is nothing like as limited in his choice of procurement route as with other standard forms. He has six main options to choose from and construction management available as a further option. It is not appropriate in this book to provide a detailed review of the theories of contract strategy but for those who do need to study the subject useful starting points are CIRIA Report R85 *Target and Cost-reimbursable Construction Contracts* or the RIBA publication *Which Contract*. As a checklist for matters to consider, however, the following may be helpful:

- which party is to be responsible for design
- how important to the employer is certainty of price
- what views prevail on the allocation of risk
- how firmly known are the employer's requirements and what likelihood is there of change
- what operating restrictions apply on the employer's premises or in the construction of the works
- what emphasis is to be placed on early commencement and/or rapid completion
- what flexibility does the employer need in the contractual arrangements – e.g. to terminate at will
- how anxious is the employer to avoid or to minimise formal disputes and legal proceedings
- how important to the employer is the concept of single point responsibility

Responsibility for design

The general principle which should influence which party is responsible for design is that of competence – which party can most competently undertake the design?

If professional design firms are to be employed, whether it be by the employer or by the contractor, the question of competence in this general sense does not arise. But with contractor's design an obvious advantage for the employer is that a choice of designs may be put forward by the tenderers. A further potential advantage is that the contractor's expertise is more likely to be used to the full when the freedom to develop that expertise in the design is permitted.

If the employer already has his own in-house design resources it may be neither efficient nor economic to place design responsibility with the contractor. Or it may be that in-house design teams are more closely in tune with the employer's requirements than any contractor could be. Moreover, in some situations there are matters of confidentiality as to the purpose or operation of the works which are wholly decisive as to whether design briefs can be issued to tenderers and as to which party is responsible for design. In other situations there may be a reliance on specialist know how or patented designs which is itself decisive as to design responsibility.

But as a general rule if the employer is able to specify his requirements in terms of a performance specification or quality standards there is much to be said for contractor's design. Not only may the standard of liability of a contractor for his design (fitness for purpose) be higher than that of a professional designer (skill and care) but the scope for claims for extra payment from the contractor arising out of the designer's defaults and deficiencies is eliminated.

As to how the allocation of responsibility for design influences choice between the main options of NEC 3 the main points to note are:

- Option A – lump sum contract
Ideally suited to contractor's design but can be used for employer's design or divided design responsibility providing the employer's design element is complete at the time of tender.
- Option B – remeasurement contract
Not suited to contractor's design because of the reliance on bills of quantities and the difficulties posed by the contractor producing his own bills of quantities.
- Option C – target contract (lump sum base)
As Option A but allows the employer more flexibility in developing his own design.
- Option D – target contract (bill of quantities base)
Suffers from similar problems to Option B.
- Option E – cost reimbursable contract
Permits maximum flexibility in allocation of design responsibility and allows development of the design as the works proceed.
- Option F – management contract
Not suitable for allocation of the whole of design responsibility to the contractor unless placed as a 'design and manage' contract but particularly suitable for contracts with a high reliance on specialist subcontractors who undertake their own design.

Certainty of price

For many employers certainty of price is the decisive factor in contract strategy. Commercial pressures may dictate that either a project can be completed within a set budget or it is not worth commencing.

Option A (the lump sum contract) offers the best prospects for certainty of price – particularly when used with contractor's design.

Option C (the target contract based on lump sum) fixes with some degree of certainty the maximum price but at tender it is less precise than Option A in fixing the likely contract price.

Options B and D (both bill of quantities based) put the risk of accuracy of billed quantities and the consequences of re-measure on the employer and consequently both suffer from lack of price certainty.

Option E (the cost reimbursable contract) relieves the contractor of any risk on price (other than in his fee). Consequently not only is the employer at risk on the price, with the contract itself providing no certainty of price, but the contractor has little incentive by way of any target to minimise costs. Clearly Option E is not suitable if the employer is looking for certainty of price.

Option F (the management contract) is a cost reimbursable contract in so far that the employer and not the contractor takes the risk on the costs of the works contracts. However, management contracts are frequently arranged on the basis of lump sum works contracts and this can introduce a good measure of cost control into the system. If the quotations for the works contracts can all be obtained before the letting of the management contract there can also be a good measure of price certainty.