

School of Engineering

Engineering Contracts

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TYPES OF CONTRACT

The two principal types of contract are:-

- ❖ Cost plus
- ❖ Fixed price

Payment of all types of contract is usually by stages, to allow the contractor to claim partial payment at defined milestones prior to completion.

Milestones are generally defined in terms of deliverables, which are clearly defined and unambiguous.

COST PLUS

This type of contract is used where cost estimating is extremely difficult.

The contract price is based on the actual work done, charged at an agreed rate, to which an agreed profit margin is added.

The customer is thus charged at each stage for the work done at the agreed rate.

COST PLUS OPTIONS

Cost plus contracts can be subdivided into:

Cost-plus-profit

Costs incurred are paid, plus a percentage profit

Cost-plus-fixed fee

Costs incurred are paid, plus a fixed fee

Cost plus with maximum price

As for cost-plus-profit. Any saving within the maximum price is kept by the customer

Any over-run is borne by the contractor

Cost/incentive / maximum price

As for cost-plus with maximum price, but with an incentive scheme to share savings or over-run costs.

COST PLUS ADVANTAGES

Advantages

- ❖ A fair way of charging for open ended contracts, such as research

Disadvantages

- ❖ The customer needs to control and audit the supplier
 - ❖ There is little incentive for the supplier to be efficient or quick
 - ❖ Can be very expensive to the customer in cost and time
 - ❖ The customer takes the risks
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FIXED PRICE

In a fixed price contract, a price is agreed to complete the contract, regardless of the time and cost actually taken for completion.

The supplier is legally required to complete the contract at the offer price.

FIXED PRICE OPTIONS

Fixed price contracts sub-divide into:

Non-competitive price fixing

These are unique to the MOD, and occur after being selected as supplier and after negotiations with the mod on price

Competitive fixed price – with variation

Fully competitive, but they permit prices to change over a period of time to account for inflation, changing material costs, etc.

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Competitive fixed and firm price

These are the most stringent conditions, and no price variation is permitted.

Fixed price with incentives

Incentives to improve performance will be paid, but penalties can be levied for poor performance.

Incentives can relate to:

- Delivery
- Performance/Reliability
- Life

FIXED PRICE ADVANTAGES

Advantages

- ❖ The customer knows his expenditure accurately
- ❖ Competitive tendering can produce low prices

Disadvantages

- ❖ The supplier takes the risk
 - ❖ The price quoted will include contingency for this risk, and this may result in a higher price.
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PROFIT INCENTIVE

This type of contract aims to combine the good features of 'cost plus' and 'fixed price' contracts.

The objective is to relate high profit to good performance, and low profit to poor performance by the supplier.

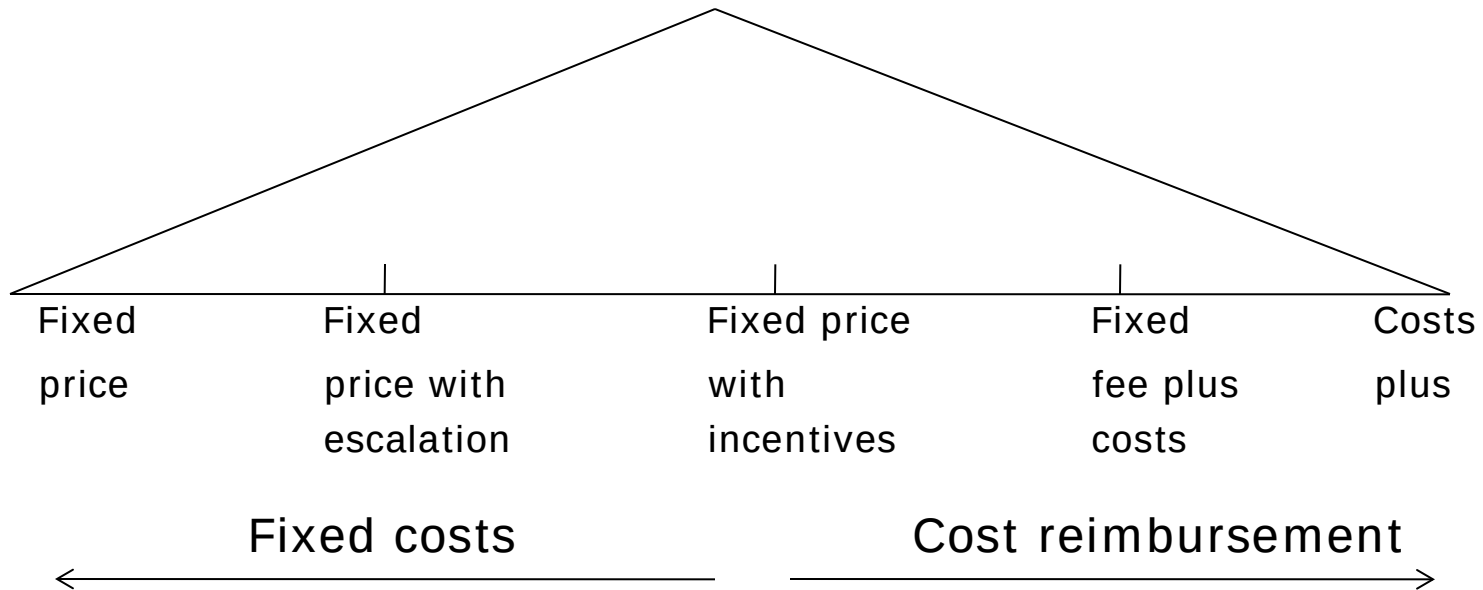
The main difficulty relate to defining and measuring suitable performance indicators.

The converse of this is the inclusion of penalty clauses in the contract.

CONTRACT TYPE

INFORMATION

CONTROL/RISK



Characteristics of the different contract types

COMPETITIVE TENDERING

The sequence of events is:

- ❖ Selection or qualification of suitable suppliers
- ❖ Invitation to tender
- ❖ Bid
- ❖ Selection

Unsuitable suppliers will normally be disqualified at the first stage

COMPETITIVE TENDERING

The sequence of events is:

- ❖ Selection or qualification of suitable suppliers
 - ❖ As the purchaser you need to know what you want
-

COMPETITIVE TENDERING

The sequence of events is:

- ❖ Selection or qualification of suitable suppliers
 - ❖ Invitation to tender
 - ❖ As a purchaser you will need to define what you want and on what terms
-

COMPETITIVE TENDERING

The sequence of events is:

- ❖ Selection or qualification of suitable suppliers
 - ❖ Invitation to tender
 - ❖ Bid
 - ❖ After a suitable length of time the potential suppliers will submit a bid, you will need to choose between them.
-

COMPETITIVE TENDERING

- ❖ Selection

Selection can be on the basis of price only, but will normally include factors such as:-

- ❖ Confidence

- ❖ Track record

- ❖ Quality

- ❖ Resource

- ❖ What other factors ?

Competitive tendering

- ❑ You wish to commission the design and production of a race chassis.
(motorcycle or car)
 - ❑ Outline a specification for the chassis and it's supply, to allow potential suppliers to quote
 - ❑ This document is called a RFQ
(Request for Quotation)
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Competitive tendering

☐ OK how did you do ?

Competitive tendering

- ☐ OK how did you do ?
 - ☐ Now swop your RFQ (request for quotation) with another team.
 - ☐ Now put yourself in the position of the potential supplier.
 - ☐ How does it feel?
 - Could you quote ?
 - Would you quote ?
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Competitive tendering

- ☐ So what happens when you cannot quote ?
 - ☐ Clarification
 - ☐ Negotiation
 - ☐ Making a pitch - case study.
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Competitive Tendering

- Now generate a strategy from receiving the RFQ through to landing the job ? (for your original RFQ)
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