CONTRACT COSTING

CHAPTER OVERVIEW

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8.1 Basics

8.1.1 Meaning of Contract Costing

1. **Contract:** Contract refers to a large job / assignment / work order, where the execution of work is spread over two or more financial years. Generally, a Contract commences in one financial year, but ends in a different year.

2. **Contract Costing:** Contract or Terminal Costing involves ascertainment of costs of contract. It is an extension of principles of job costing for long-term projects like Civil Construction, Ship Building, Interior Decoration, etc.

8.1.2 Features of Contract Costing

The following are the major features of Contract Costing -

1. **Parties Involved:** The parties to a contract are - (a) **Contractor** - One who undertakes and executes work under a contract, and (b) **Contractee** - One for whom the work is undertaken.

2. **Site Work:** Major part of the work in each contract is generally carried out at the site of the contract.

3. **Direct Expenses:** Most of the expenses incurred by the Contractor are directly relatable to the site.

4. **Indirect Expenses:** Indirect Expenses, e.g. Administrative Office Expenses and common expenses are apportioned to various contracts on appropriate basis. For example, depreciation of common equipment used on various contracts is apportioned on the basis of the number of days the equipment has been used on various contracts.

5. **Separate Accounts:** A separate account is maintained for each contract, to ascertain Profit or Loss.

6. **Cost Centre and Cost Unit:** The Cost Centre (place) and Cost Unit (output) in Contract Costing is the Contract itself, e.g. Building Construction.

7. **Recognition of Profit:** A contract usually takes long time periods for completion. In certain years, no contract might be completed, while in others, many contracts may be completed. Recognition of Profits after full completion of contract might lead to wide fluctuations in profit every year. To avoid these fluctuations, profits are generally recognised every year on the basis of percentage of completion and the amount of Notional Profit.

8.1.3 Job Costing vs Contract Costing

	Job Costing	Contract Costing
1.	Job refers to any specific assignment, contract or work order wherein work is executed as per customer's requirements.	Contract refers to a large job / assignment / work order. The execution of work is spread over two or more financial years.
2.	Job Costing is applied in Printing Press, Furniture works, Interior Decoration and other similar work.	Contract Costing is applied in activities like Civil Construction, Ship Building, etc.

8.1.4 Cost Plus Contract

1. Meaning: A Cost plus Contract is one where the Contract Price is ascertained by adding a percentage of profit to the total cost of the work. Such type of contracts is entered into when contract costs cannot be estimated with reasonable accuracy due to unstable conditions, e.g. material prices, labour, etc.

2. **Advantages and Disadvantages:**

Advantages	Disadvantages
(a) The Contractor is assured of a fixed percentage of profit. There is no risk of incurring any loss on the contract.	(a) There is no incentive to the Contractor to avoid wastages and achieve economy in production.
(b) It is useful particularly when the work to be done is not definitely fixed at the time of making the estimate.	(b) The Contractee may not know the actual cost of contract till its completion, unlike a Fixed Price Contract, where his outflow / cost is pre-determined.
(c) Contractee can ensure himself about the cost of the contract, as he is empowered to examine the books and documents of the Contractor, to ascertain the accuracy of the costs.	

Illustration:

M/s Builders & Co. is proposing to take a contract to build a Housing Project for a big client. The Firm is less confident about e price to be quoted for the contract. Suggest the appropriate pricing method to them. RTP

1. Since M/s Builders & Co. is not fully confident in quoting the price, Cost plus Contact Method is a better option to safeguard it from unexpected losses.

2. Cost-Plus-Contract provides for the payment by the Contractee, of the actual cost of construction, plus a stipulated profit, mutually decided between the two parties.

8.1.5 Fixed Price Contract

1. Meaning: A Fixed Price Contract is one where the Contract Price is fixed and determined in advance at the time of entering into the agreement. Such type of contracts is entered into when contract costs can be reasonably estimated with a degree of certainty.

2. **Advantages and Disadvantages:**

Advantages	Disadvantages
(a) The Contractee's outflow on the contract is known and determined in advance.	(a) Contractor may resort to the use of materials of lesser quality / price to increase his profit margin.
(b) It is useful specially when the costs of work to be done can be determined with certainty.	(b) Contractor may incur losses if he had not estimated the contract costs properly or if price levels increase due to abnormal reasons, after entering into the agreement.
	(c) Contractee cannot have any idea about the real costs since he cannot examine the books of the Contractor.

8.1.6 Escalation Clause

1. In Fixed Price Contracts, the Contract Price is fixed and pre-determined. If there is an increase in prices of materials, rates of labour, etc. during the period of execution of a contract, the Total Contract Costs may rise and the Contractor's profit may be reduced.

2. This increase in prices may induce the Contractor to use materials of lower quality and price in order to maintain his profit margin on the contract.

3. To overcome such a situation, the agreement generally contains a stipulation that the Contract Price will be increased by an agreed amount or percentage, if the prices of Materials, Wages, etc. rise beyond a particular limit. Such a stipulation / condition is called Escalation Clause.

4. **Accounting Treatment:** The amount of reimbursement due should be determined by reference to the Escalation Clause.

The amount due from the Contractee should be recorded by the following Journal Entry in the Contractor's Books, at the end of every each year-

Contractee's Account Dr.
  To Contract Account

Note: Alternatively, the amount due under Escalation Clause can be added to the value of Work-in-Progress at the end of every year.

8.2 Income and Expenditure Items on a Contract

8.2.1 Meaning of Work Certified and Work Uncertified

Income on a Contract = **Value of Work Certified + Cost of Work Uncertified**

These two terms are explained below -

Value of Work Certified	Cost of Work Uncertified
(a) As per the prevailing business practices in contract activity, the Contractor raises periodical bills on the Contractee. Such bills are raised on the basis of Architect's or Surveyor's Certificates stating the extent and value of work completed.	(a) It represents the cost of work, which has been carried out by the Contractor but is not certified by the Architect / Surveyor.
(b) Hence, that portion of the work which has been completed by the Contractor and certified by the Architect / Surveyor is called as **Work Certified.**	(b) It constitutes the work completed from the date of the earlier certification till the end of the accounting year. The Cost of Work Uncertified is also credited
Value of Work Certified constitutes Income onto the Contract, and is credited to the Contract A/c	Contract A/c under the head "Work in Progress".

and debited to Work-in-Progress A/c (if the contract is in progress) or to Contractee's A/c (if the contract is completed).	(c) Cost of Work Uncertified = Total Cost to date **Less** Cost of Work Certified **Less** Material in Hand **Less** Plant at Site (at WDV).

Total Work done during the period

Date of commencement of contract work e.g. 12^{th} May	**Work Certified**	Date of last certificate by Architect/ e.g. 10^{th} Dec.	**Work Uncertified**	End of financial year e.g. 31^{st} Dec

8.2.2 Work Certified vs Work Uncertified

	Work Certified	**Work Uncertified**
1.	It represents work done during the period, but and **also** certified by the Architect / Surveyor.	it represents work done during the period **not yet certified** by the Architect / Surveyor.
2.	The amount of Work Certified is based on **Architect's** Certificates.	Cost of Work Certified is based on the **Contractors** own estimate.
3.	It includes **profit element,** since it Is Based on Contract Price.	It is a conservative **cost estimate** and does not include any profit element.
4.	It is **considered** for calculating Percentage of completion.	It is **not considered** in calculation of Percentage of completion.
5.	It provides the basis for claiming periodical Progress Payments) from the Contractee.	It arises due to **time gap** between the date of previous certificate to the close of the financial year.

Note: Value of Work Certified and Cost of Work Uncertified constitutes **Income** on a Contract, and is credited to the Contract Account in the books of the Contractor.

8.2.3 Progress Payments and Retention Money

1. Progress Payments / Cash Received:

(a) Payments received by the Contractors when the contract is "in-progress" are called Progress Payments or Running Payments.

(b) Such payments are released by the Contractee on the basis of Architect's Certificates and as per the terms of the Contract.

(c) Generally, the entire amount of work certified is not fully paid. A percentage of the amount due (called Retention Money) is retained and only the balance is paid to the Contractor.

2. **Retention Money:**

(a) The amount withheld by the Contractee while making progress payments, is called Retention Money.

(b) Retention Money = Value of Work Certified **Less** Progress Payments.

(c) Retention Money is withheld for the following purposes -

• To ensure completion of entire contract and compliance with the terms of the Contract.

• To act as security for any defective work, which may be discovered later within guarantee period.

• To meet repair costs arising due to defective work in case contractor does not rectify it at his cost.

• To provide a safeguard against the risk of loss due to faulty workmanship.

Note:

Work Certified = Progress Payments + Retention Money.

8.2.4 Cost Items under Contracts

The broad heads under which contract costs are ascertained and debited to the Contract Account are -

1. Direct Materials,	5. Sub-Contract Costs,
2. Direct Labour,	6. Costs of Extra work,
3. Direct Expenses (if any),	7. Indirect Expenses and Common Contract Expenses, and
4. Depreciation,	8. Head Office Expenses.

8.2.5 Material Cost - Recognition Principles _

1. **Supply from Stores:** Cost of all materials supplied from Stores is debited to the Contract Account, based on the Material Requisition Slip.

2. **Direct Purchases:** Cost of materials purchased and directly received at site, i.e. without being routed through stores, is debited to Contract Account, based on the Purchase Invoice accompanied by Delivery Challan & Goods Received Note.

3. **Tool Making Materials:** If any Stores Items are used for manufacturing tools, the cost of such stores items are charged to the Works Expenses account.

4. **Supply by Contractee:** If the Contractee has supplied materials without affecting the Contract Price, no accounting entries will be made in the Contract Account, only a note may be given about it.

5. **Transfer of material:** When excess material is transferred from one contract to another, their costs would be adjusted on the basis of Material Transfer Note. The receiving Contract Account will be debited while the transferring Contract Account will be credited.

6. **Return of Excess Materials to Stores:** These are credited to Contract Account using appropriate documentary / procedural control.

7. **Sale of Surplus Materials:** When return of surplus material appears uneconomical on account of high cost of transportation, the same is sold as such. The concerned Contract Account is credited with the sale price. Any loss or profit arising therefrom is transferred to Profit and Loss Account.

8. **Abnormal Loss of Materials:** Any theft or destruction of material by fire or other abnormal causes represents a **loss.** Such amount is transferred to the Profit and Loss A/c, by crediting the Contract Account.

8.2.6 Labour Costs - Recognition Principles

1. **Nature of Costs:** Labour actually employed at the contract site is regarded as **direct,** irrespective of the nature of task performed.

2. **Debit to Contract Account:** Wages paid to workers exclusively engaged on a contract are charged to the concerned contract directly. If a number of contracts are carried on simultaneously, and labourers are required to devote their time on one or more contracts, the wages are apportioned to different contracts on the basis of a Wage Analysis Sheet.

8.2.7 Other Costs - Recognition Principles

1. **Direct Expenses:** Direct Expenses, if any, are identified and **charged in full** directly to the Contract A/c.

2. **Indirect Expenses:** Indirect and Common expenses (such as payment made to Engineers, Surveyors, Supervisors, etc.) may be distributed over several contracts on an appropriate basis. The commonly adopted bases of apportionment are -

(a) Percentage of Materials Cost, or	(f) Number of Employees (for Supervision Charges), or
(b) Percentage of Wages Paid, or	(g) Value of Project, (i.e. Contract Price) or
(c) Percentage of Prime Cost, or	(h) Value of work done during the period, (i.e. Work Certified) or
(d) Labour Hour Rate, or	(i) Number of Contracts, or
(e) Time / Period (of asset usage, etc.)	(j) Any other technical estimate.

3. **Depreciation:** Depreciation on contracts may be treated in any of the following ways -

(a) **Method 1:** The value of Plant in a contract may be either debited to Contract Account and the Written Down Value thereof at the end of the year posted on the credit side.

(b) **Method 2:** Only a charge (depreciation) for use of the Plant may be debited to the Contract Account.

Note: Method 1 is recommended if the equipments are used on a single contract throughout the year. But, Method 2 may be used if equipments are used on various contracts for different time periods during the year.

4. **Sub-Contract Costs:** When a portion of the contract is given to another sub-ordinate Contractor for completion, that portion is said to have been sub-contracted. Sub-Contract Costs are debited to the Contract Account as such.

5. **Cost of Extra Work:** The amount payable by the Contractee for extra work done by the Contractor should be added to the contract price. Where extra work is substantial, it is better to treat such extra work as a separate contract. When it is not substantial, expenses incurred should be debited to the Contract Account as "Cost of Extra work".

8.3 Profit Recognition and Accounting

8.3.1 Notional Profit

1. Actual Profit on a Contract can be ascertained only after it is entirely completed. However for recognition of profits during the course of contract, the concept of Notional Profit is used.

2. Notional Profit is the excess of Income till date over Expenditure till date on a contract. Notional Profit can be ascertained as under -

Notional Profit =	**Income till date** (i.e. Value of Work Certified + Cost of Work Uncertified)	**Less**	**Expenditure till date** (Total Costs on Contract, after adjusting Materials at Site, WDV of Plant at Site, Prepaid / Accrued Expenses, etc.)

8.3.2 Profit Recognition on Incomplete Contracts

[Note: Some general conventions in Profit Recognition for Management decision-making purposes are given below.]

Profit on Incomplete Contracts is recognised based on the Notional Profit and Percentage of Completion. The rules of recognition are -

Description	Percentage of Completion	Profit to be transferred to P & L A/c
1. Initial Staqes	≥ 25%	NIL
2. Work Performed but not substantial	26% to 50%	$\frac{1}{3} \times$ Notional Profit $\times \frac{\text{Cash Received}}{\text{Work Certified}}$
3. Substantially completed	51% to 90% **(See Note c)**	$\frac{2}{3} \times$ Notional Profit $\times \frac{\text{Cash Received}}{\text{Work Certified}}$
4. Almost complete	91% - 99% **(See Note c)**	Profit is recognised on the basis of Estimated Total Profit **(See Para 8.3.3)**
5. Fully complete	100%	Notional Profit $\times \frac{\text{Cash Received}}{\text{Work Certified}}$ (See Note d)

Notes:

(a) Percentage of Completion = $\frac{\text{Work Certified}}{\text{Contract Price}}$

(b) If there is a loss at any stage, i.e. irrespective of percentage of completion, such Loss should be **fully** transferred to the Profit and Loss Account.

(c) Substantially completed can also be considered as **51% to 95%** completed. In such case, the next slab of Almost Complete Contracts will be taken as **95% to 99%** completed.

(d) For fully complete contracts, the balance portion of profit is recognised only upon receipt of Retention Money. If entire amount is fully received, the whole of profit can be recognised.

(e) The principle of prudence / conservatism is generally followed for recognizing profit. Hence, for exact 50% completion, I/3rd of Notional Profit will be recognised (and not 2/3rd).

8.3.3 Profits Recognition using Estimated Total Profits

[Note: Some general conventions in Profit Recognition for Management decision-making purposes are given below.]

Profits on almost complete contracts are recognized on the basis of Estimated Total Profits (ETP).

Suppose a contract (Value = Rs. 100 Lakhs) is 95% complete by the close of a financial year and gets completed on 18th May. The accounts for the period ending 31st March are finalized only in the month of May. By the time the accounts are finalized, the contract is fully complete and the costs thereof can be obtained. Thus, the following profits are calculated -

Close of Financial Year e.g. 31st March	Additional Costs incurred on the contract	Date of Completion of Contract e.g. 18th May	Date of finalisation of accounts for last financial year e.g. 31st May
Cost till date Rs. 82 Lakhs	Rs. 9 Lakhs	Estimated Total Costs 82 + 9 = Rs. 91 Lakhs	

- Notional Profit = Work Certified **Less** Cost incurred till date = (100 × 95%) - 82 = **Rs. 13 Lakhs.**
- Estimated Total Profit = Contract Price **Less** Estimated Total Contract Costs = 100 - 91 = **Rs. 9 Lakhs.**

Any of the following alternative formula may be used for recognition of profit -

(a) Estimated Total Profit × $\frac{\text{Work Certified}}{\text{Contract Price}}$ i.e. ETP × Percentage of Completion

(b) Estimated Total Profit × $\frac{\text{Work Certified}}{\text{Contract Price}} \times \frac{\text{Cash Received}}{\text{Work Certified}}$ i.e. ETP × Percentage of Completion × %age of Payment

(c) Estimated Total Profit × $\frac{\text{Cost till date}}{\text{Estimated Total Costs}}$ i.e. ETP × Percentage of Costs incurred

(d) Estimated Total Profit× $\frac{\text{Cost till date}}{\text{Estimated Total Costs}} \times \frac{\text{Cash Received}}{\text{Work Certified}}$ i.e. ETP × %age of Cost incurred × %age of Payment

(e) Notional Profit × $\frac{\text{Work Certified}}{\text{Contract Price}}$ i.e. Notional Profit × Percentage of Completion

(f) $\frac{2}{3}$ × Notional Profit × $\frac{\text{Cash Received}}{\text{Work Certified}}$ (See Note 4) i.e. Formula relating to Substantially Complete contracts.

Note:

1. ETP based formula can be applied -

(a) for almost complete contracts **(91% - 99%),** or

(b) for any other contract **above 25% complete,** if future costs can be reasonably estimated.

2. In the absence of any specific reguirement or other information, **Formula (b)** may be applied.

3. Even where the ETP related information is available, Notional Profit may also be used to recognize profit. Hence, Formula **(e)** & **(f)** may be applied for profit recognition.

4. Formula (f) shall be modified as $\frac{1}{3} \times \text{Notional Profit} \times \frac{\text{Cash Received}}{\text{Work Certified}}$, in case of 26% to 50% Complete contracts.

5. The Profit recognised / transferred to the P & L Account should be determined on **prudence / conservatism basis,** i.e. if all the formulae are applied, the **least** of the resulting profits should be considered.

6. If the amount of Notional Profit is less than the amount to be recognised by applying the above formula, then profit transferred to P & **L** A/c shall be the **least** of the two. (e.g. If Profit to be recognised based on ETP is Rs. 48,000, but Notional Profit is only Rs. 36,000, then the amount transferred to P&L A/c shall be Rs. 36,000 only).

8.3.4 Rules for Provisioning for Losses on Contracts

The rules in respect of Profits and Losses to be recognized on Contracts is summarized below -

Combination		Treatment
Current Year	**Estimated**	
Notional Profit	Estimated Total Profit	Profit should be recognized only if percentage of completion is > 25%. Any of the above 6 formula given may be applied, on prudence basis.
Notional Profit	Estimated Total Loss	**Estimated Total Loss** is **fully provided for** in the current year. Profit should not be recognized.
Loss	Estimated Total Profit	**Current Loss** is **fully provided** for. Profit is not recognised even though there may be a profit when the contract is finally completed.
Loss	Estimated Total Loss	Current Loss or Estimated Total Loss, **whichever is worse,** is fully provided for in the current year.

8.3.5 Format of Contract Account

CONTRACT ACCOUNT

Contract No for the year ended

Date of Commencement: Contract Value:

Particulars	Rs.	Particulars	Rs.
To Materials (Issued)		By Work in Progress:	
To Wages (Paid + Payable)		- Work Certified	
To Direct Expenses		- Work Uncertified	
To Indirect Expenses		By balances c/d:	
To Sub-Contract Costs		- Materials at Site	
To Cost of Extra Work		- Plant (WDV) at site	
To Plant (at Cost)			
To Notional Profit - balancing figure			
Total		**Total**	
To Profits recognised during the period		By Notional Profit b/d	
(as per decision making conventions given above)			
To Reserve Profit - balancing figure			
Total		**Total**	
To Work in Progress b/d		By Reserve Profit b/d	
To balances b/d			
- Materials at Site			*
, - Plant at Site			

The Contract Account is generally prepared in three segments. They are -

1. **First Segment:** Initial Comparison of Incomes & Expenditures for the period, leading to Notional Profit.

2. **Second Segment:** Recognition and Transfer of a portion of Notional Profit to P & L Account and the balance carried forward as Reserve Profit. **[Note:** Such transfer is as per conventions given above, for decision-making purposes.]

3. **Third Segment:** Carry forward of balances from one financial period to another. Hence Third Segment of the previous period becomes the First Segment of the next financial period. **[Note:** The Third Segment is not totaled, it is only the carry forward of account balances from one period to the other.

8.3.6 Presentation of WIP in B/ Sheet till a Contract is completed

In the Balance Sheet prepared for Management, WIP is generally displayed as under - (only abstract is given here)

Liabilities	Rs.	Assets	Rs.
		CURRENT ASSETS: Contract Work-In-Progress	
		Value of Work Certified	
		Add: Cost of Work Uncertified	
		Add: WDV of Plant at Site	
		Add: Cost of Materials at Site	
		Sub-Total	
		Less: Reserve Profit, if any, as per conventions above	
		Net Balance	
		Less: Balance in Contractee's Personal a/c	
		Net Value of Contract WIP	