



## SUMMARY OF TDS AND ADVANCE TAX

### 1. SUMMARY OF TDS PROVISIONS – RESIDENTS

Sec.	Nature of Payment	Person Responsible for TDS	Type of Payee	Rate of TDS	Exemption Limit
192	Salary	All Persons who are Employers	Employee	As applicable to Individuals.	Basic Exemption applicable to Individuals (₹2,00,000 / ₹2,50,000 / ₹5,00,000)
193	Interest on Securities	All Persons	Any Resident in India	10%	Exempted for certain listed securities u/s 193. (Debentures ₹2,500)
194	Dividend	Principal Officer of - (a) an Indian Co., or (b) Co. made declaration of dividend u/s 2(22) with in India	Any Resident in India	10%	TDS not required for- (a) Dividends u/s 115-0, (b) Dividends paid by cheque not exceeding ₹2,500 p.a, and (c) Dividends paid to LIC / GIC / Other Insurer.
194A	Interest other than Interest on Securities	All Assessee except Indls and HUF who are not subject to audit u/s 44AB(a)/(b) during prior previous year	Any Resident in India	10%	₹10,000 if payment made by Banking Co, Co-Operative Society, Post Office ₹5,000 if payment made by any other person No TDS on Interest received or receivable by Business Trust
194B	Winning from Lottery/ Crossword Puzzle	Any Person	All Persons	30%	₹ 10,000
194BB	Winning from Horse Races	Licensed Book Maker	Any Person	30%	₹ 5,000
194C	Payment to contractor / sub contractor	Specified Persons except Indls and HUF who are not subject to audit u/s 44AB(a)/(b) during previous year	Any Resident Contractor / Sub-Contractor for any work incl. supply of labour	Individual & HUF - 1% Others - 2%	No TDS for - (a) Value < ₹ 30,000 per Contract, or Aggregate less than ₹ 75,000 p.a. (b) Small Transporters (c) Personal use of Indl / HUF.
194D	Insurance Commission	Insurance Companies	Any Resident in India (e.g. Insurance Agents)	10%	₹ 20,000 p.a.



## CMA Students Newsletter (For Intermediate Students)

Vol.17B: October 15, 2015

<b>194DA</b>	Any Sum under Life Insurance Policy	Insurance Companies	Any Resident	2%	(a) Upto ₹1,00,000. (b) No TDS, if such payment is exempted u/s 10(10D).
<b>194EE</b>	Payments under National Savings Scheme	Post Office	Individuals	20%	₹2,500 p.a (or) Amount paid to Legal Heirs of Assessee.
<b>194F</b>	Repurchase of 80CCB units	Mutual Fund or UTI	Any Person	20%	-
<b>194G</b>	Commission on Sale of Lottery Tickets	Stockist, Distributor, etc. of Lottery Ticket	Person stocking, purchasing or selling Lottery Tickets	10%	₹ 1,000 p.a.
<b>194H</b>	Commission or Brokerage	Same as for Sec.194A	Any resident in India	10%	₹5,000 p.a. (or) Commission or Brokerage payable by BSNL/MTNL to their Public Call Office Franchisees.
<b>194 I</b>	Rent	Same as for Sec.194A	Any person (Exempt for Govt./ Local Authorities)	P & M, Equipment - 2% Land & Bldg , Furn. / Ftngs- 10%	₹1,80,000 p.a.
<b>194 IA</b>	Transfer of Immovable Property other than Agri. Land	Any person being transferee	Resident transferor	1%	₹50,00,000 P.a.
<b>194J</b>	Professional or Technical Fees	Same as for Sec.194A	Any resident in India	10%	₹30,000 p.a. for each item separately, and personal use of Individual/HUF
<b>194LA</b>	Compensation / Enhanced Compensation on compulsory acquisition	Any person	Resident	10%	₹2,00,000 p.a.
<b>194LBA</b>	Distributed Income referred u/s 115UA	Business Trust	Unit Holder of Business Trust	10% for resident. 5% for nonresident or a Foreign Company	Nil

**Note: No TDS on Service Tax for Payments made to Residents:** Where in terms of the agreement between the Payer and the Payee, the Service Tax Component comprised in the amount payable to a Resident is indicated



separately, Tax shall be deducted at source under Chapter XVII-B on the amount paid / payable without including such Service Tax Component.

**2. SUMMARY OF TDS PROVIIONS – NON- RESIDENTS**

Some highlights/points are given below - (Note : 196B, 196C, 196D also apply to Non- residents.)

Sec.	Nature of Payment	Person Responsible for TDS	Type of Payee	TDS Rate
194E	Income u/s 115BB, Guarantee Amount, etc.	Any Person	Foreign Citizen, being NR Sportsman / Athlete (or) a NR Entertainer / Sports Association / Institution	20%
194LB	Interest	Infrastructure Debt Fund	Non-Resident	5%
194LBA	Interest	Business Trust	Unit Holder of a Business Trust	5%
194LC	Interest on Foreign Currency Loan	Indian Company, or a Business Trust	Non-Resident (other than Company), Foreign Company	5%
194LD	Interest on Rupee denominated Bond or Government Security	Any Person	Foreign Institutional Investor or Qualified Foreign Investor.	5%
195	Any Interest (excluding 194LB/ 194LC / 194LD) and any sum chargeable to tax (excluding Salaries)	Any Person	Non-Resident (other than Company), Foreign Company	See below

**3. TIME OF DEDUCTION**

192,194,194B, 194EF,194BB, 194LA,194F	<b>TDS shall be deducted at the time of payment.</b>
193,194A,194C,194D, 194G, 194H, 194I, 194IA, 194J, 195, 196B, 196D, 194LB, 194LC, 194LD	<b>TDS shall be deducted either at the time of payment or at time of credit whichever falls earlier.</b>

**4. TIME OF REMITTANCE TO THE GOVERNMENT – SEC.200/Rule 30**

**Tax deducted by or on behalf of the Government:**

Situation	Time of deposit of TDS
Payment of tax without production of Income Tax Challan	On the same day when tax is deducted.
Payment of tax accompanied by an Income Tax Challan Tax deducted by other persons:	On or before 7 days from the end of the month in which the deduction is made or income tax is due u/s 192(1A)
Income or amount is credited or paid in the month of march	On or before the 30 <sup>th</sup> of April
In any other case	On or before 7 days from the end of the month, in which – <ul style="list-style-type: none"> <li>Deduction is made, or</li> <li>Income tax is due u/s 192(1A)</li> </ul>



The AO may in special cases, with the approval of JCIT, permit the payment of TDS on quarterly basis as under –

<b>Applicable Sections</b>	192, 194A, 194D, 194H
<b>Payment Date</b>	July 7 <sup>th</sup> , Oct. 7 <sup>th</sup> , January 7 <sup>th</sup> , April 30 <sup>th</sup>

**5. FORMS OF TDS CERTIFICATES - Sec.203**

- Form 16 for Salary S.192 & Form 16A for all other Sections.
- To be issued from TRACES Website, by using Manual / Digital Signatures.
- **Time for Issue of TDS Certificates**

Form No.	Periodicity	Time Limit
16	Annual	By 31 <sup>st</sup> May of the Financial Year immediately following the financial year in which the income was paid and tax deducted.
16A	Quarterly	Within 15 days from the due date for furnishing the Statement of TDS u/r 31A, i.e.30 <sup>th</sup> July, 30 <sup>th</sup> October, 30 <sup>th</sup> January and 30 <sup>th</sup> May.
16B		Within 15 days from the due date for furnishing Challan cum Statement in Form 26QB u/s 31A, i.e. within 7 days from date of deduction of Tax. [Notification No. 39/2013, dated 31.05.2013]

**6. SELF DECLARATION BY PAYEE FOR NON- DEDUCTION – Sec.197A**

Self Declaration for non-deduction of tax by a person other than companies / firms - the Deductor shall forward a copy of the declaration to the CCIT / CIT within 7 days from the end of the month in which such declarations are furnished	<ul style="list-style-type: none"> <li>• For All Assesseees u/s 193, 194, 194A, 194EF, 194K – from 15G (in duplicate)</li> <li>• For senior Citizens (resident in India) – Form 15H (in duplicate) only</li> </ul>
--	--

**7. LOWER RATE OF DEDUCTION/NO DEDUCTION CERTIFICATE – Sec. 197**

For lower rate of deduction of tax or no deduction of tax, the Payee shall file an application and get a Certificate from the Assessing Officer and submit to the Payer. Certificate is valid only for the Assessment Years specified therein.	<ul style="list-style-type: none"> <li>• Sec.192, 193, 194, 194A, 194C, 194D, 194G, 194H, 194I, 194J, 194K, 194LA: Application in Form 13, certificate in plain paper</li> <li>• Sec.195 – Application in form 15C or 15D, certificate in Plain paper</li> </ul>
--	--

**8. QUARTERLY STATEMENT/RETURN AND DUE DATE**

Sec.	192	193 to 196D		194-IA
<b>Form No</b>	<b>24Q</b>	<b>27Q</b>	<b>26Q</b>	<b>26QB</b>
		<b>For Non-Resident, not being a Company, or Foreign Company, or RNOR</b>	<b>For all other Deductees</b>	<b>For Resident Transferor</b> (other than the person referred inSec.194LA)



## CMA Students Newsletter (For Intermediate Students)

Vol.17B: October 15, 2015

Sec.	192	193 to 196D	194 - IA
<b>Due date, if the Deductor is an office of Govt.</b>	31st July, 31st October, 31st January in respect of first three quarters of the financial year and on or before 15th May for the last quarter of the financial year.		<b>Challan cum Statement</b> in Form 26QB shall be furnished within 7 days from the date of deduction of TDS. [Notification 39/2013, dtd. 31.05.2013]
<b>Due date, for other persons</b>	15th July, 15th October, 15th January in respect of first three quarters of the financial year and on or before 15th May for the last quarter of the financial year.		
<b>Form 27A</b>	The above forms shall be accompanied by declaration in Form 27A		

### 9. DUTIES OF DEDUCTEEES w. r. † DECLARATION OF HIS PAN

(a) Non- Furnish in of PAN by Deductee	TDS shall be highest of- (a) Rate in Act, (b) Rate in force (Finance Act), (c) 20%.
(b) Non- Furnishing of Self Declaration	If PAN not given in Form 15G/15H, TDS shall be made at rates in (a), and not at lower rates.
(c) Quoting of PAN	To be made in all correspondences and other documents between Deductor and Deductee
(d) Invalid PAN	TDS shall be as specified Point (a) above.

### 10. ASSESSEE DEEMED TO BE IN DEFAULT - DEDUCTOR

Non- - Deduction of TDS (or)	Non – payment of tax payable u/s 192(1A) (or)	Non- payment of TDS in whole or in part
No Order shall be passed deeming an Assessee as an Assessee in default for non-deduction of tax from a Resident after the expiry of -		
(a) <b>2 years from end of the Financial Year</b> in which the Statement u/s 200 is filed [statements in Form 24Q / 26Q]		
(b) <b>6 years from end of the Financial Year</b> in which the payment is made.		
<b>Exception:</b> Above is not applicable for orders passed to give effect to any finding/direction in any Appeal/Revision.		
<b>Interest:</b> Simple Interest at 1% p.m. or part thereof from the date on which tax is to be deducted to the date it is paid.		
<b>Penalty:</b> Failure to deduct whole or part of the tax, shall be liable for penalty of ₹100 per day of default, upto 100% of tax not deducted.		
<b>Prosecution:</b> Rigorous Imprisonment for minimum of 3 months and maximum of 7 years.		
Person shall not be an Assessee in Default, if the Deductee has furnished his Return of Income u/s 139 after taking into account such sum for computing income and has paid tax on that income. The Person shall furnish a prescribed Certificate from an Accountant. Interest at 1% p.m. or part thereof from the date on which tax was deductible to the date of furnishing Return of Income by Deductee.		



### 11. TAX COLLECTED AT SOURCE

If purchase/Licencee/Lessee is resident (rate includes SC. Cess not Applicable)

Nature of Goods/ Nature of Contract or Licence or Lease	All Assessee	Non- Corp. Assessee	Corporate Assessee	
	AC ≤ ₹1 Crore	AC > ₹1 Crore	AC > ₹1 Crore ≤ ₹10 Crores	AC > ₹10 Crores
Alcoholic Liquor for Human consumption	1.0	1.10	10.5	1.10
Tendu Leaves	5.0	5.50	5.25	5.50
Timber obtained under a Forest Lease	2.5	2.75	2.625	2.75
Timber obtained by any mode other than a forest Lease	2.5	2.75	2.625	2.75
Any other forest Produce (not being Timber or Tendu Leaves)	2.5	2.75	2.625	2.75
Scrap	1.0	1.10	1.05	1.10
Minerals, being Coal or Lignite or Iron ore (applicable from 01.07.2012)	1.0	1.10	1.05	1.10
Parking Lot, Toll Plaza, Mining and Quarrying (applicable from 01.10.2004)	2.0	2.20	2.10	2.20
<b>Sale of Bullion / Jewellery (W.e.f 01.06.2013 any coin or any other article weighing 10 gm or less) if sale consideration exceeds - (a) ₹2,00,000 for Bullion, and (b) ₹5,00,000 for Jewellery (w.e.f from 1.7.2012)</b>	1.0	1.10	1.05	1.10

**Note:** If Purchase/Licence/Leassee is Non – resident, then rate includes EC & SHEC to be added at 3% to above.

Time of Collection	Earlier of debit in the books or Receipt from the Buyer.
Lower or No Collection of Tax at source	Self Declaration by the Buyer in Form 27C.
Other Compliances and Penal Consequences	Similar to TDS.

### ADVANCE TAX, COLLECTION AND RECOVERY OF TAX

Sec.	Description	Provisions
207	<b>Advance tax Not Applicable</b>	Resident Senior Citizen who does not have any income chargeable under the head PGBP.
208	<b>Advance tax</b>	Advance tax to be paid if it exceeds ₹10,000.
220	<b>Time limit for tax</b>	Dues to be paid in 30 days of service of Demand Notice. Time limit may be



## CMA Students Newsletter (For Intermediate Students)

Vol.17B: October 15, 2015

	<b>payment</b>	increased/ decreased.
<b>220</b>	<b>Assessee deemed to be default</b>	<b>Assessee</b> deemed to be in default, if tax not paid within due date. <b>Exceptions:</b> (a) Appeal made to CTT(Appeals)/ (b) Restrictions on remittance from foreign country, (c) Demand in dispute - Conflicting HC decisions, (d) Earlier decided in Assessee's favour.
<b>220</b>	<b>Validity of Demand Notice</b>	When Notice of Demand has been served upon an Assessee and any appeal or other proceeding, is filed or initiated, such demand shall be deemed to be valid till the disposal of the appeal by the Last Appellate Authority or disposal of the proceedings.
<b>220</b>	<b>Period of Interest</b>	The Assessee shall be liable to pay interest u/s 220(2) from the day immediately following the end of the period mentioned in the first Notice of Demand, referred to in Sec.220(1) and ending with the day on which the amount is paid.
<b>220</b>	<b>Waiver of Interest</b>	Waiver of Interest by CIT/CCIT if reasons are genuine & assessee has co-operated
<b>222</b>	<b>Tax recovery certificate</b>	Certificate of Recovery of Tax - drawn by Tax Recovery Officer mentioning the dues.
<b>222</b>	<b>Special Mode of Recovery by TRO</b>	Attachment of movable/immovable property/ detention in prison/Appointment of receiver for Assessee's Assets
<b>226</b>	<b>Other Modes of recovery</b>	Attachment of Salary, Garnishee Order, Recovery from Court's money, or Recovery by Distraint and Sale.
<b>281</b>	<b>Alienation of Assets</b>	<b>Assets</b> shall be transferred during pendency of proceedings. <b>Exception:</b> tax payable < ₹5,000 and value of Asset ≤ ₹10,000.
<b>281B</b>	<b>Provisional Attachment</b>	During pendency of proceedings, Assets can be attached by the AO with permission of CCr/PCCIT/CIT/PCrr/ DGrT/PDGIT/DIT /PDIT for an aggregate period not exceeding 2 years or 60 days after the date of order of assessment or reassessment, whichever is later. Time period to exclude the period during which assessment proceedings are stayed by Court's injunction. <b>[Not Applicable w.e.f 01.10.2014]</b>



## REPLACEMENT DECISIONS



**Replacement theory** is concerned with situations where efficiency diminishes with the passage of time and it is desired to restore it by taking some remedial action.

For example, a machine employed for the production of a commodity tends to wear out and needs maintenance over time.

The cost of maintenance becomes higher and higher as time passes and a stage comes when it becomes uneconomical to maintain the machine and the machine is better replaced with a new one.

**The theory of replacement** is broad in scope and is generally applied in the **following three situations**:

- (i) When the existing assets have lost their utility because they have outlived their effective life. Though they might be good technically yet no economic considerations, due to increasing maintenance costs, it is not worthwhile to continue with them. Examples are: machinery, equipment, buildings etc.
- (ii) When the existing units suddenly completely fail. Light bulbs, tubes and T.V. parts are the examples. Bulbs give adequate service before they fail all of a sudden.
- (iii) The existing working staff in an organization gradually diminishes due to death, retirement, retrenchment and other reasons. The replacements are thus needed.

**Types of Failure Mechanisms:** The term 'failure' has a far wider meaning in business than what it has in everyday life. There are two types of failure:

- (a) Gradual failure,



(b) Sudden failure.



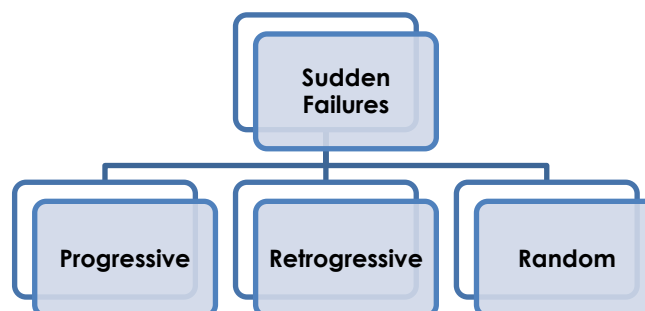
(a) **Gradual failure**: The failure mechanism under gradual failure is progressive i.e., as the life of an item increases, its efficiency deteriorates resulting in:

- (i) increased expenditure for operating costs,
- (ii) decreased productivity of the equipment,
- (iii) decrease in the value of the equipment i.e., the resale or salvage value decreases.

Examples : 1. Mechanical items like pistons, bearings, rings, etc.

2. Automobile tyres.

(b) **Sudden failure**: This class of failure is applicable to those items that do not deteriorate markedly with service but which ultimately fail after a period of use. The period between installation and failure is not constant for any particular type of equipment but will follow some frequency distribution which may be progressive, retrogressive or random in nature as shown in the diagram:





- (i) **Progressive failure:** Under this mechanism, the probability of failure increases with increase in the life of an item, e.g., for electric light bulbs, automobile tubes, etc.
- (ii) **Retrogressive failure:** Certain items have more probability of failure in the beginning of their life and as time passes, the chances of failure become less. In other words, the ability of the unit to survive the initial period of life increases its expected life. Industrial equipment with this type of distribution of life span is exemplified by aircraft engines.
- (iii) **Random failure:** Under this mechanism, constant probability of failure is associated with items that fail from random causes such as physical shocks, not related to age. In such a case, virtually all items fail before aging has any effect. For example, vacuum tubes in air-borne equipment have been found to fail at a rate independent of the age of the tube.

**Types of Replacement Decisions:** Following are the important replacement policies:



- (i) **Individual replacement policy**, where an item is replaced immediately after its failure.
- (ii) **Group replacement policy**, where all items are to be replaced irrespective of the fact that items have failed or not with a provision that if any item fails before the time of general replacement it may be replaced individually.



1. A truck owner from Ms past experience estimates that the maintenance cost per year, of a truck whose purchase price is ₹ 1,50,000 and the resale value of truck will be as follows:

Year	Maintenance cost (in ₹) $M(t)$	Resale value (in ₹) $S(t)$
1	10,000	1,30,000
2	50,000	1,20,000



<b>3</b>	<b>20,000</b>	<b>1,15,000</b>
<b>4</b>	<b>25,000</b>	<b>1,05,000</b>
<b>5</b>	<b>30,000</b>	<b>90,000</b>
<b>6</b>	<b>40,000</b>	<b>75,000</b>
<b>7</b>	<b>45,000</b>	<b>60,000</b>
<b>8</b>	<b>50,000</b>	<b>50,000</b>

**Determine at which time it is profitable to replace the truck.**

**Solution:**

Taking  $M(t)$  as the maintenance cost,  $S(t)$  as the resale value for years  $t = 1, 2, 3, \dots, 8$ ,  $C = ₹ 1,50,000$ ; we construct the following table for finding the replacement time.

TABLE : Determination of Optimal Replacement Period

Age of replacement	Cumulative maintenance cost (₹)	Depreciation (₹)	Total costs	Average cost per year (₹) $T_A$
(n)	$\sum M(t)$	$C - S(t)$	$T = C - S(t) + \sum M(t)$	
(1)	(2)	(3)	(4) = (2)+(3)	(5)
1	10,000	$1,50,000 - 1,30,000 = 20,000$	30,000	30,000
2	60,000	30,000	90,000	45,000
3	80,000	35,000	1,15,000	38,333
4	1,05,000	45,000	1,50,000	37,500*
5	1,35,000	60,000	1,95,000	39,000
6	1,75,000	75,000	2,50,000	41,666
7	2,20,000	90,000	3,10,000	44,286
8	2,70,000	1,00,000	3,70,000	46,250

Though the minimum value of the average cost in the last column occurs at the end of first year we consider the trend of this cost and find that it becomes minimum at the end of 4th year. So, we conclude that it is profitable to replace the truck at the end of every 4 years (as it will be impracticable to replace the truck at the end of every year).



2. XYZ manufacturing company is using a machine whose purchase price is ₹ 65,000. The installation charges amount to ₹ 18,000 and the machine has a scrap value of only ₹ 8,000 because, the firm has a monopoly of this type of work. The maintenance cost in various years is given in the following table:

Year	1	2	3	4	5	6	7	8	9
Cost (₹)	1250	3750	5000	7500	10,500	14,500	20,000	24,000	30,000

Determine after how many years should the machine be replaced on economic considerations, assuming that the machine replacement can be done only at the year ends.

**Solution:**

Here, we are given:

Cost of machine,  $C = ₹ 65,000 + ₹ 18,000 = ₹ 83,000$

Scrap value,  $S = ₹ 8,000$ .

TABLE : Determination of Optimal Replacement Period

Year	Maintenance cost $M(t)$	Cum. Main. cost $\Sigma M(t)$	Depreciation $C - S$	Total cost $TC_n$	Average cost per year $ATC_n$
(1)	(2)	(3)	(4)	(5)=(3)+(4)	(6)
1	1,250	1,250	75,000	76,250	76,250.0
2	3,750	5,000	75,000	80,000	40,000.0
3	5,000	10,000	75,000	85,000	28,333.3
4	7,500	17,500	75,000	92,500	23,125.0
5	10,500	28,000	75,000	1,03,000	20,600.0
6	14,500	42,500	75,000	1,17,500	19,583.3*
7	20,000	62,500	75,000	1,37,500	19,642.9
8	24,000	86,500	75,000	1,61,500	20,187.5
9	30,000	1,16,500	75,000	1,91,500	21,277.8

From the above table, we find that the lowest average cost is ₹ 19,583.3 which corresponds to the sixth year. Hence, the machine may be replaced after every 6 years.



**Thank You!!!**



## THROUGHPUT ACCOUNTING (TA)

### THROUGHPUT ACCOUNTING

Throughput Accounting (TA) is a principle-based and simplified management accounting approach that provides managers with decision support information for enterprise profitability improvement. TA is relatively new in management accounting.

- TA was proposed by Eliyahu M. Goldratt as an alternative to traditional cost accounting
- It is an approach that identifies factors that limit an organization from reaching its goal, and then focuses on simple measures that drive behavior in key areas towards reaching organizational goals.
- Throughput accounting is neither cost accounting nor costing.
- It is cash focused and does not allocate all costs (Variable and fixed expenses, including overheads) to products and services sold or provided by an enterprise.
- Throughput Accounting is a management accounting technique used as the performance measure in the Theory of Constraints.
- It is the business intelligence used for maximizing profits, however, unlike cost accounting that primarily focused on 'cutting costs' and reducing expenses to make profit
- Throughput Accounting primarily focuses on generating more throughput conceptually, Throughput Accounting seeks to increase the speed or rate at which throughput is generated by products and services with respect to an organization's constraint.
- Throughput Accounting is the only management accounting methodology that considers constraints as factors limiting the performance of organizations.



## Measures of Throughput

1. Return per Factory Hour

=  $\frac{\text{Throughput per unit}}{\text{Product time on bottleneck resources}}$

2. Cost per factory Hour

=  $\frac{\text{Total Factory Cost}}{\text{Product time on bottleneck resources}}$

3. Throughput accounting ratio

=  $\frac{\text{Return per factory Hour}}{\text{cost per factory hour}}$

### Throughput Accounting uses three measures of income and expenses

- Throughput
- Investment
- Operating expenses

Throughput (T): is the rate at which the system produces "goal units:

When the goal units are money (in for-profit business), throughput is the net sales (S) less totally variable cost (TVC), generally the cost of the raw materials ( $T = S - TVC$ )

Note: T is only exist when there is a sale of product or service

Producing materials that sit in a warehouse does not form part of throughput but rather investment. ("Throughput" is sometimes referred to as "throughput contribution and has similarities to the concept of "contribution" in marginal costing which is sales revenues less "variable" cost – "Variable" being defined according to the marginal costing philosophy)

## Throughput

□ Throughput: The rate at which the system generates money through sales.

□ Throughput

= Sales revenue - Direct material cost

□ Objective of this accounting is to increase the throughput and reduce the inventory and operational expenses.





## Throughput accounting ratios

- Performance can be measured using three ratios:
  - Return per factory hour =  $\frac{\text{Throughput (sales - direct material cost)}}{\text{usage of bottleneck resource in hours (factory hours)}}$
  - Total conversion cost (operating expenses) per factory hour
  - TA ratio =  $\frac{\text{Return per factory hour}}{\text{total conversion cost per factory hour}}$

## Throughput Accounting

Inventory, Operating Expense & Throughput



### Steps to be followed to increase the throughput:

- Identify the bottle neck in the system i.e., identification of the limiting factor of the production (or) process such as installing capacity or hours etc.
- Decide how to exploit the systems bottleneck that means bottleneck resource should be actively and effectively used as much as possible to produce as many goods as possible.
- Subordinate everything else to the decision made in step (b). The production capacity of the bottleneck resource should determine production schedule.
- Augment the capacity of the bottleneck resource with the minimum capital input.
- Identify the new bottlenecks in the process and repeat the same above steps to address the bottlenecks.





**Problems with throughput accounting:**

- When throughput accounting is the driving force behind all production scheduling, a customer that has already placed an order for a product, which will result in a sub-optimal profit level for the manufacturing, may find that its order is never filled.
- The company's ability to create the highest level of profitability is now dependent on the production scheduling staff, who decides, what products are to be manufactured and in what order.
- Another issue is that all costs are totally variable in the long-run since the management then, has the time to adjust them to long-range production volumes.

**example**

A factory has a key resource (bottleneck) of Facility X which is available for 31,300 minutes per week. Budgeted factory costs and data on two products, A and B, are shown below:

Product	Selling price/Units	Material cost/Unit	Time in Facility X
A	₹40	₹20.00	5 minutes
B	₹40	₹17.50	10 minutes

**Budgeted factory cost per week:**

	₹
Direct labour	25,000
Indirect labour	12,500
Power	1,750
Depreciation	22,500
Space Costs	8,000
Engineering	3,500
Administration	5,000

Actual production during the last week is 4,750 units of product A and 650 units of product B. Actual factory cost was ₹78,250.

Calculate:

- (i) Total factory costs (TFC)
- (ii) Cost per factory minute
- (iii) Return per factory minute for both products
- (iv) TA ratios for both product
- (v) Throughput cost per the week
- (vi) Efficiency ratio

**Answer:**

(i) Total factory cost= Total of all costs except materials.  
 $= ₹25,000+₹12,500+₹1,750+₹22,500+₹8,000+₹3,500+₹5,000$   
 $=₹78,250$

(ii) Cost per Factory Minute=Total Factory Cost÷ Minutes available  
 $= ₹78,250÷ 31,300$   
 $=₹2.50$



(iii)

$$\begin{aligned} \text{(a) Return per bottleneck minute for the product A} &= \frac{\text{Selling Price} - \text{Material Cost}}{\text{Minutes in bottleneck}} \\ &= (40-20)/5 \\ &= ₹4 \end{aligned}$$

$$\begin{aligned} \text{(b) Return per bottleneck minute for the product B} &= \frac{\text{Selling price} - \text{Material Cost}}{\text{Minutes in bottleneck}} \\ &= (40-17.5)/10 \\ &= ₹2.25 \end{aligned}$$

$$\begin{aligned} \text{(iv) Throughput Accounting (TA) Ratio for the product A} &= \frac{\text{Return per Minute}}{\text{Cost per Minute}} \\ &= (4/2.5) \\ &= ₹1.6 \end{aligned}$$

$$\begin{aligned} \text{Throughput Accounting (TA) Ratio for the product B} &= \frac{\text{Return per Minute}}{\text{Cost per Minute}} \\ &= (2.25/2.5) \\ &= ₹0.9 \end{aligned}$$

Based on the review of the TA ratios relating to two products, it is apparent that if we only made product B, the enterprise would suffer a loss, as its TA ratio is less than 1. Advantage will be achieved, when product A is made.

(v) Standard minutes of throughput for the week:

$$\begin{aligned} &= [4,750 \times 5] + [650 \times 10] \\ &= 23,750 + 6,500 \\ &= 30,250 \text{ minutes} \end{aligned}$$

Throughput Cost per week:

$$\begin{aligned} &= 30,250 \times ₹2.5 \text{ per minutes} \\ &= ₹75,625 \end{aligned}$$

$$\begin{aligned} \text{(vi) Efficiency \%} &= (\text{Throughput Cost} / \text{Actual TFC}) \% \\ &= (₹75,625 / ₹78,250) \times 100 \\ &= 96.6\% \end{aligned}$$

The bottleneck resource of facility A is advisable for 31,300 minutes per week but produced only 30,250 standard minutes. This could be due to:

- The process of a 'wandering' bottleneck causing facility A to be underutilized.
- Inefficiency in facility A.



## **SAFEGUARD DUTY (SGD) — A CLASSIFICATION OF CUSTOMS DUTIES**

Safeguard duty (u/s 8B of the Customs Act) can be imposed if the Central Government on enquiry finds that the imports in increased quantity -

- (a) have caused serious injury (an injury causing significant overall impairment in the position of a domestic industry) to domestic industry or,
  - (b) is threatening to cause serious injury (a clear and imminent danger of serious injury) to domestic industry.
- It can be imposed irrespective of origin of imported goods.

### **Power to levy SGD —**

- (a) Central Government can impose Safeguard Duty (SGD) on that article, by Notification in Official Gazette,
- (b) Every Notification shall be laid before each House of Parliament.
- (c) SGD shall be in addition to any other duty imposed under this Act, or under any other law for the time being in force.

**Period of imposition:** The safeguard duty shall, unless it is revoked earlier, be in force till the expiry of 4 years from the date of its imposition. However, the Central Government can extend the period of imposition but total period of imposition (including extension) cannot be beyond 10 years from the date of its imposition, if Central Government is of the opinion that-

- domestic industry has taken measures to adjust to such injury or threat thereof, &
- it is necessary that SGD should continue to be imposed.

**Safeguard duty cannot be imposed on articles originating from developing countries:** In case of articles originating from a developing country (i.e. a country notified by the Government of India for purpose of levy of such duty), this duty cannot be imposed under following circumstances,-

- (a) If the imports of such article from developing country does not exceed 3% of the total imports of that article into India.
- (b) Where the article is originating from more than one developing countries (each with less than three percent import share), then the aggregate of imports from all such countries taken together does not exceed nine percent of the total imports of that article into India.

**Imposition of Provisional Safeguard Duty:** Section 8B(2) enables the Central Government to impose a provisional safeguard duty in appropriate cases, pending the determination of the issues as to whether the import of the concerned article to India would cause or threaten to cause serious injury to the domestic industry. The duty so



collected, shall be refunded if, on a final determination, the Central Government is of the opinion that neither any injury has been caused to the domestic industry, nor there is any such threat to cause serious injury.

The Provisional safeguard duty cannot remain in force for more than 200 days from the date when it was first imposed.

**Non Imposition of Safeguard Duty:** The safeguard duty shall not apply to articles imported by a 100% export-oriented undertaking or a unit in a special economic zone unless,—

- (a) specifically made applicable in such notifications or such impositions, as the case may be; or
- (b) the article imported is either cleared as such into the domestic tariff area or used in the manufacture of any goods that are cleared into the domestic tariff area and in such cases safeguard duty shall be levied on that portion of the article so cleared or so used as was livable when it was imported into India. [Amended by Finance (No. 2) Act, 2014 w. e. f. 06-08-2014].

**Specific Safeguard Duty (SSGD) (u/s 8C) —** If Central Government conducting such enquiry as it deems fit, is satisfied that any article is imported in to India from People's Republic of China -

- (a) in such increased quantities, and
- (b) so as to cause or threatening to cause, market disruption to domestic industry.

**Exemptions from levy of SSGD —**

- (a) Based on Notification:** Central Government may, by Notification, exempt such quantity of any article, when imported from any country or territory to India, from payment of whole or part of SSGD.
- (b) Based on location:** SSGD shall not apply to articles imported by 100% EOU or a unit in FTZ or SEZ, unless specifically made applicable in the Notification.



## CALCULATION OF EARNINGS PER SHARE AT THE TIME OF AND AFTER RIGHT ISSUE ( AS – 20)

# Rights Issues

### Right Issue

- Right issues are made at a price lower than fair value of share.
- A right issue usually includes a bonus element.
- Since, right issue includes a bonus element, the number of equity shares to be used in calculating basic Earning per Shares for all periods prior to right issue is the number of equity shares outstanding prior to the issue multiplied by right factor which is calculated as under :

$$\text{Right Factor} = \frac{\text{Fair value per share immediately prior to right issue}}{\text{Theoretical ex-right fair value per share}}$$

Theoretical Ex-right fair value:

$$= \frac{\text{Aggregate fair value of share immediately prior to the exercise of the rights} + \text{Proceeds from exercise of the rights}}{\text{Number of shares outstanding immediately after the right issue}}$$

### Example:

On 01.01.2014 Vichitra Ltd. had 5,00,000 shares outstanding. On 01.03.2014, it issued one new share for each five shares outstanding at ₹15. Fair value of one equity share immediately before the right issue was ₹21. Net profit for the year 2013 was ₹22,00,000 and for 2014 ₹30,00,000. Calculate the basic Earnings per Share (EPS) for 2014 restated EPS for 2013.



**Answer:**

Computation of theoretical ex-rights fair value per share

$$\begin{aligned} & \frac{\text{Fair value of all outstanding shares immediately prior to exercise of rights}}{\text{Number of shares outstanding prior to exercise}} + \frac{\text{Total amount received from exercise of right}}{\text{Number of shares issued in the exercise}} \\ & = \frac{(\text{₹}21 \times 500000 \text{ shares}) + (\text{₹}15 \times 100000 \text{ shares})}{(500000 + 100000 \text{ shares})} = \text{₹} 20.00 \end{aligned}$$

Theoretical ex-right value per share = ₹ 20.00

Computation of adjustment factor

$$\frac{\text{Fair value per share prior to exercise of rights ₹}21.00}{\text{Theoretical ex-rights value per share ₹}20.00} = 1.06$$

Computation of earnings per share

EPS for the year 2013 as originally reported: ₹22,00,000/5,00,000 shares	₹ 4.40
EPS for the year 2013 restated for rights Issue: ₹22,00,000/(5,00,000 shares × 1.05)	₹ 4.20
Basic EPS for the year 2014 including effects of Rights issue	
$\frac{\text{₹} 30,00,000}{(5,00,000 \times 1.05 \times 2 / 12) + (6,00,000 \times 10 / 12)}$	₹ 5.11

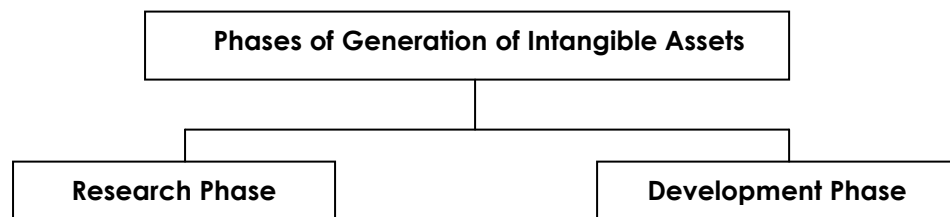
## TREATMENT OF RESEARCH AND DEVELOPMENT EXPENDITURE (AS – 26)





**Research and Development Expenditure:**

- Before, the issue of this Standard AS-26, there was separate accounting standard AS-8 on Research & Development Expense, which has been deleted.
- The main issue in accounting is whether to capitalize or expense the research and development (R&D) cost as they are incurred.
- During the process of research and development, intangible assets are generated, whether to recognize these assets or not, if yes, at what cost/amount? the cost of intangible assets generated due to research and development.



Research Phase - Research is the activity which is aimed at inventing or creating a new product, method or system.

Development Phase - Development is the activity which converts the result of the research into a marketable product.

**Accounting treatment —**

- **Research Cost:**
  - As per AS – 26 Research Cost be expensed as and when it is incurred;
  - It research cannot be capitalized;
  - The intangible asset arising from research should not be recorded as an asset;
  - the research cost of internal project shall be **treated as an expense** in financial statement.
- **Development Expenses:**
  - The development expenses, cost of internal project also to be expensed as incurred unless they meet asset recognition criteria,
  - before recognizing these costs as an asset the following points should be checked:
    - Technical feasibility of the product
    - Availability of product for use or sale
    - Identification of cost incurred
    - Probability of external market or
    - The realistic expectation that there will be sufficient future revenues to cover cost.
  - If development expenses to generate intangible, meets asset recognition criteria and other criteria as listed above, the intangible assets generated from development expenses are capitalized
  - What will be the amount at which these intangible assets are recognized? As per this Standard intangible asset shall be recognized at **cost**.