

INCOME APPROACH TO VALUE

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Income Approach and relation between Income and value

The income approach considers the income that the asset will generate over its remaining useful life and estimates value through a capitalization process. This process applies an appropriate yield, or discount rate, to the projected income stream to arrive at a capital value.

$$\text{value} = \text{net income} \times \text{yp}$$

Types of Leases

There are basically four types of leases.

- (a) Building Lease.
- (b) Occupational Lease.
- (c) Sub Lease.
- (d) Lease for Life.

Types of Rent

1. Ground Rent
2. Rack Rent
3. Virtual Rent
4. Head Rent
5. *Profit Rent*
6. *Contractual Rent*
7. *Standard Rent*
8. *Market Rent*
9. *Concessional Rent*
10. *Monopoly Rent*

- **Ground Rent:** It is the rent charged by the land owner (Lessor) to the tenant (Lessee) for use of land under specified and mutually agreed lease terms and conditions.
- **Rack Rent:** It is the actual full rental value (Gross Rent) receivable from the property in a year. It may be rent for land or for land and buildings.
- **Virtual Rent:** It is the virtual gross rental value to the lessor receivable from the lessee for leased out property. In some cases lessor receives some fixed lump sum amount called premium from the lessee in advance, in the beginning of the lease. This premium amount is nothing but an advance rental for the property. Thus returns to the lessor is divided in two or more parts. Gross Rent actually received from lessee during the lease period plus notional rental value that is receivable on the lump sum amount (premium) received from the lessee, constitutes total rental or the virtual rent.

- **Head Rent:** Many a times the main Lessee called Head Lessee sub-leases the property to another person called sub-lessee. To distinguish between lease rent paid by sub-lessee to head lessee and rent paid by head Lessee to freeholder Lessor, the term Head Rent is used for lease rent paid by the Head Lessee to Head Lessor, the freeholder.
- **Profit Rent:** *When Head Lessee subleases the property ,he normally charges higher rent than “head rent”.* This increased rental is called **Improved Rent:** The difference between head rent and improved rent is called Profit Rent.
- **Contractual Rent:** *It is the rent mutually agreed between the landlord and the tenant under the tenancy contract, which may be written or verbal.*

- **Standard Rent** : Under Rent Control Acts, the norms for rent payable by the tenant to the landlord were fixed. This was called as Standard Rent. Hence “Standard Rent” can be defined as the rent fixed by the Court for land or land with building (premises) in accordance with the provisions of Rent Control Act.
- **Market Rent**: *It is the highest rent that is receivable for the property, by the landlord, in the open market, after considering all advantages and dis-advantages of the property as well as market conditions, in the prudent manner.*
- **Concessional Rent**: *When landlord gives premises on rent to some relatives or friend at token or nominal rent which is much below ruling rent in the locality it is called concessional rent.*
- **Monopoly Rent**: *Some property has unique location in the locality. This locational advantage can be exploited by charging monopoly rent to the occupant. This rent is normally higher than ruling market rent in the locality.*

YIELD

- **Yield** refers to the earnings generated and realized on an investment over a particular period of time, and is expressed in terms of percentage based on the invested amount.

DERIVATION OF YIELD RATES

- 1-1/2% more return than the average yield rate on long term Govt. security as fair return on land investment
- 2-1/2% return more than the average yield on long term Govt. security as fair return on investment in buildings
- 1% extra yield on both types of investment to account for extra risk of investing capital, in leasehold properties
- In year 1983, in Smt. Shantidevi's case³, Supreme Court held for the first time that other forms of investment available in the market should also be considered for comparison. Similar view was expressed by the Supreme Court in case of SLAO Devangere⁴. In this case it was stated – "It would be unrealistic to adhere to traditional view of capitalised value being linked with G.E. Security, when investment on F.D. in Bank, National Saving Certificates and Blue Chip equities/Shares command much greater returns".

REMUNERATIVE RATE OF INTEREST

- Rate of capitalisation is decided by the investor after considering yield rates on other forms of sound investment at relevant period of time. This rate of capitalisation is also known as “Remunerative rate of Interest”.
- When the income is of perpetual in nature or income is for long term period like rental income from house property, (60 to 80 years total life) the yield rate on such investment is called remunerative interest rate.
- **Remunerative Rate of interest ... 8% – 9%**

ACCUMULATIVE RATE OF INTEREST

- To recoup (Get back) the capital invested in property (Income would cease after some years), this rate of interest is adopted. This rate is called rate of recoupment or rate of redemption of capital. It is also called “Accumulative rate of interest”.
- This is the rate of return expected by the investor for recoupment of capital invested in the property having terminable income. Such property are short term leases or buildings having short life span say less than 50 years. As income is terminable, capital invested in building or premium paid to acquire lease rights must be accumulated back within income termination period.
- **Accumulative rate of interest ... 3% - 4%**

VALUATION OF LEASEHOLD PROPERTIES

Valuation of interest of Lessor and Lessee in a property, is a very complex and difficult task. The main reason for this complexity is various types of leases and lease periods, as well as unusual type of terms and conditions of lease. Applicability of Transfer of Property Act in some cases and applicability of Rent Control Acts in some other cases complicates this situation further due to different and divergent opinions amongst expert valuers. Valuation of interest of Lessor and Lessee in a given property depends on several facts and circumstances of the case, including lease conditions and rights of each one under the lease contract. Depending upon the rights of each one and lease provisions, value of rights of the Lessor or the Lessee can be worked out. It is a common belief that value of right of Lessor and value of right of Lessee when added together would be equal to value of property as if to the freeholder. This proposition is not always correct. Sum of the total of values of Lessors interest and Lessees interest may be more than value to the freeholder, it could be less than the value as if freehold or it may be perhaps equal to the freehold value of the property.

Value of Lessor's interest in the property as well as value of Lessee's interest in the property, can be very well worked out independently, without referring to total value of the property as whole. Value of Lessor's interest in land would comprise of following three parts based on rights held by Lessor as per lease terms.

- i. Capitalised value of lease rent payable by Lessee under lease contract for the unexpired period of lease.
- ii. Present value of the right of reversion of land/land with building to self (i.e. Lessor), on maturity of lease period.
- iii. Market value of the rights of the Lessor, to waive any of the restrictions imposed under lease contract.

Value of Lessee's interest in land would comprise of following two parts based on rights held by Lessee as per lease terms.

- i. Capitalised value of profit rental (Net rent income receivable from building) for unexpired period of lease. As Lessee would lose building on maturity of lease period, provision for recoupment of capital invested in building (Rate of recoupment) should also be made along with appropriate remunerative rate of interest (Duel rate table).
- ii. If plot is not fully developed but it is under utilised, profit rental or utility value of such unutilised land, till unexpired period of lease, has to be considered.

OUTGOINGS

- Property Taxes
- Land Revenue
- Ground Rent
- General Repairs
- House Insurance
- Upkeep and Services
- Collection and Management Charges
- Vacancies & Bad debts
- Sinking Fund

STANDARD RENT

In Maharashtra Rent Act no mention is made about rate of return on investment to be permitted to the landlord while fixing standard rent. Courts therefore decides the fair rate of return on investment by landlord ,by considering returns on other forms of sound investments.

However under Tamilnadu Buildings (Lease & Rent) Control Act 1960 (Amended by Act I of 1980) , it is clearly provided that Standard rent should be worked out by allowing 9% gross return on total cost of the building and cost of land , if rented premises are for residential use. Standard Rent for non residential building has to be worked out by allowing 12 % return on total cost (Investment) of the building and land cost. West Bengal Premises Tenancy Act 1997 permits 6.75 % return on Land and building cost where as Rent Act of Karnataka permits 10 %return on Investment to the landlord .

<p>a) Land is fully developed and building on plot is fully tenanted.</p>	<p>Only Rental Method is applicable.</p>
<p>b) Land is fully developed but building is partly let out and partly owner occupied.</p>	<p>Rented portion to be valued by rental method and owner occupied portion by market approach.</p>
<p>c) Land is partially developed with surplus available F.S.I. Rented building is in one side of the plot.</p>	<p>Rented portion by Rental Method. Surplus F.S.I. to be valued by comparing with rate of open plot prevalent in the locality. Separate building in plot is possible to consume F.S.I.</p>
<p>d) Land is partially developed with surplus available F.S.I. But only vertical development is possible over rented building.</p>	<p>Rented portion by rental method. Surplus F.S.I. to be valued after deducting cost of strengthening building or extra cost of structural frame provided from outside.</p>
<p>e) Land is only partially developed but rented ground floor structures in the plot occupy entire plot.</p>	<p>Rental Method may or may not be used depending upon market trend. Balance potential to be valued by Development Method. This is the case where total demolition of rented building existing in the plot is necessary for optimum use of land.</p>

VALUATION OF LESSOR'S INTEREST AND LESSEE'S INTEREST

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INVESTMENT DECISIONS

NET PRESENT VALUE

In the evaluation of investment projects the discounted cash flow method can provide a useful means of testing financial feasibility. The discount rate will generally be the minimum rate of return required by the investor over the period of the cash flow. If the total of the discounted cash flow over the period is zero or a positive figure, then the proposal will be acceptable. If a negative discount flow value results, the proposal will be unacceptable.

Using the net present value approach all cash flows are discounted to present value using the required rate of return which is the minimum investors require on their investment.

To calculate the present value of a cash flow the following information is necessary:

- 1) Net cash flow during each period, i.e., estimated cash inflow or outflow.
- 2) Discount factors for each period - this can be calculated by using the expression

$$1/(1+R)^n$$

where, R = Rate of return per period
(expressed as a decimal)

n = *Number of periods.*

Multiplication of the anticipated future cash flow by the appropriate discount factor gives the present value.

3) Rate of return required.

4) Number of periods

EXAMPLE

Mr. A agrees to sell a property to Mr. B for Rs. 5,00,000. Mr. B however, asked for some concessions in payment by allowing him to pay in installments. The first installment of 20% was made immediately. The other installments were to be made in equal amounts every two months. Discuss the benefits that Mr. B. obtained from his friend Mr. A by requesting him to accept this scheme of payment assuming that interest rate in the market is 13.5 per cent per annum.

Solution

The easiest way to do this problem is to bring all payments to present value.

INSTALLMENT NO.	AMOUNT (RS)	R PER MONTH	n	$1/(1+R)^n$	PRESENT VALUE (RS)
1	100000	0.01125	0	1	100000
2	100000	0.01125	2	0.977874	97787
3	100000	0.01125	4	0.9562377	95624
4	100000	0.01125	6	0.93508	93508
5	100000	0.01125	8	0.9143905	91439
					478358

- Instead of paying an amount of Rs. 5,00,000 at a time, Mr. B gets the opportunity of paying in installments, the present value of which is Rs. 4,78,358. He therefore, benefits to the tune of Rs. 5,00,000- Rs. 4,78,358 =Rs. 21,642.

Two characteristics of the NPV method are:

- 1) The NPV method is based on the assumption that the intermediate cash inflows of the project are at the same rate of return as the project's cost of capital.
- 2) The NPV of a project generally decreases as the discount rate increases. The decrease in the NPV, however, is at a decreasing rate.

The net present value criterion has considerable merits

- 1) It takes into consideration the time value of money.
- 2) The cash flow stream is taken into account in its entirety.
- 3) The net present value represents the wealth of investors (in present day money terms) after adjusting for the return on the project.
- 4) The net present value of different projects, evaluated in terms of today's rupees, can be added. For example, the net present value of a group of three projects, A, B and C will simply be the sum of the net present value of these projects taken individually.

$$\text{NPV} \cdot (A+B+C) = \text{NPV} (A) + \text{NPV} (B) + \text{NPV} (C)$$

INTERNAL RATE OF RETURN (IRR)

The internal rate of return is the actual return obtained from an investment. Here the internal rate of return i.e. R , is to be calculated so that all future discounted receipts and discounted payments are equal. At this point the net present value will be zero.

PROFIT METHOD

There is one more method of valuation under Income approach. It is called as Profit method. It is similar to yeild method. Instead of rental income **future flow of profits is forecasted and capitalized** to arrive at the present value of the asset.

The past 3 years balance sheet are used normally to find out the average profit and future profits are forecasted on this basis. Future profits are forecasted assuming as if business is conducted with best management and optimum use of assets.

Certain businesses such as i.e., the **hotel business, the cinema business** etc. are expected to continue in operation and have a 'going concern value'. This going concern value includes a value apportioned to both tangible and intangible assets. As such, there is also an element of goodwill value built into the overall valuation for such valuations where the profit method of valuation is adopted.

CINEMA VALUATION

A cinema house in a small town is centrally placed and it has total capacity of 800 seats (200 lower stall, 300 upper stall and 300 balcony seats). Ticket rates are Rs 30, Rs 40 and Rs 50 for lower, upper and balcony. Four shows per day were exhibited in cinema theatre.

Total entertainment tax	= 30%
Assume vacancies	= 30%
Assume Owner's Profit	= 15%
Distributor charges	= 50% of net show income

Income from adv.	= 5000 per month
Showcase rent	= 1000 per month
Wall display	= 500 per month
Snack counter rent	= 6000 per month
Other misc income	= 2000 per month

Salary	= 20000 per month
Consumables	= 1000 per month
Electricity charges	= 15000 per month
Stationary	= 5000 per month
misc expenses	= 10000 per month
Property tax and insurance	= 80000 per year

SOLUTION :

(A) Income from cinema

Lower stall	= 200 x 30 = Rs 6000
Upper stall	= 300 x 40 = Rs 12000
Balcony	= 300 x 50 = <u>Rs 15000</u>
Total income per show	= Rs 33000

With 4 shows / day and 30% vacancy,

$$\begin{aligned}\text{Gross annual income} &= 33000 \times 4 \times 365 \times 70/100 \\ &= \text{Rs } 3,37,26,000\end{aligned}$$

Entertainment tax = 30%
Net show income = $0.7 \times 3,37,26,000$
= Rs 2,36,08,200 (a1)

Other Incomes

Income from adv. = $5000 \times 12 = 60000$
Showcase rent = $1000 \times 12 = 12000$
Wall display = $500 \times 12 = 6000$
Snack counter rent = $6000 \times 12 = 72000$
Other misc income = $2000 \times 12 = \underline{24000}$
Rs 1,74,000 (a2)

Total Annual Income = Rs 2,36,08,200 + Rs 1,74,000
= Rs 2,37,82,200 (a3)

(B) Expenses

Distributor charges = 1,18,04,100

(50% of net show income)

Salary = 20000 x 12 = 240000

Consumables = 1000 x 12 = 12000

Electricity charges = 15000 x 12 = 180000

Stationary = 5000 x 12 = 60000

misc expenses = 10000 x 12 = 120000

P.T. and insurance = 80000 = 80000

Total Annual Expenses Rs 1,24,96,100

(C) Depreciation

Machinery @ 20% = Rs 75000

Building @ 2.5 % = Rs 25000

Furniture @ 15% = Rs 10000

Repair expenses = Rs 40000

= Rs 150000

(E) Owner's Profit = 15% of 2,37,82,200

= Rs 35,67,330

Total Income = Rs 2,37,82,200
Less Expenses
Expenses = Rs 1,24,96,100
Depreciation = Rs 1,50,000
Owner's Profit = Rs 35,67,330
Net Profit = Rs 75,68,770

Assumed

80% tangible assets @ 12% capitalisation rate

20% Intangible assets @ 15% capitalisation rate

$$\begin{aligned}\text{Value of Tangible asset} &= 0.8 \times 75,68,770 \times 100/12 \\ &= \text{Rs } 5,04,58,467\end{aligned}$$

$$\begin{aligned}\text{Value of Intangible asset} &= 0.2 \times 75,68,770 \times 100/15 \\ &= \text{Rs } 1,00,91,693\end{aligned}$$

$$\begin{aligned}\text{Total value} &= 50458467 + 10091693 \\ &= \text{Rs } 6,05,50,160\end{aligned}$$

PETROL PUMP VALUATION

A client desires to purchase a petrol pump site out-let (Running Business), on a major road in a well developed area in town. The Main road has peak traffic of 250 PCU. Land belongs to the dealer for which the company pays lease rent. Other details are as under

- Sale of petrol Rs 176 lacs / year
- Sale of Diesel Rs 162 lacs / year
- Lease rent Rs 3 lacs per year
- P.T. Rs 30000 per 6 months
- Staff Salary Rs 40000 per month
- 1400 cars serviced per year, Service charge 600 per car
- Sale of car parts, oil etc Rs 5 lacs per year with 10% profit

Advice on Fair Purchase Price

Income

Petrol 235000lit @ 75/lit	=Rs 17625000
Diesel 360000lit @ 45/lit	= Rs 16200000
lease rent	= Rs 300000
Profit on oil and parts etc	
500000 x 10/100	= Rs 50000
Car servicing income	
1400 x 600	<u>= Rs 840000</u>
Gross Income	= Rs 35015000

Expenses

cost of petrol	235000@72.75	=	17096250
cost of diesel	36000@43	=	15480000
staff salary	40000 x 12	=	480000
P.T.	30000 x 2	=	60000
elec. & Water charges		=	36000
Misc (tel, stationary Etc)		=	39000
insurance premium		=	7000
car service	1400 x30	=	<u>42000</u>
Gross Expenses		=	Rs 33240250

$$\begin{aligned}\text{Net Profit} &= \text{Rs } 35015000 - \text{Rs } 33240250 \\ &= \text{Rs } 1774750 \text{ per year}\end{aligned}$$

Assume 12% yeild

$$\begin{aligned}\text{Value of business} &= 1774750 \times 100/12 \\ &= \text{Rs } 1,47,89,583 \\ &\text{Say Rs } 1,48,00,000\end{aligned}$$

