

Income Capitalization Analysis
Re: Example Property
By: Your Name of Your Company Name

To obtain a reliable indication of a property's Market Value from the Income Capitalization Approach, it is necessary to gather, verify, analyze, and reconcile all reasonably available data that may influence that property's value. Since Market Value is a short term value, the data considered in a market value -- income capitalization analysis must be pertinent (or adjusted) to the effective date of analysis.

This income capitalization analysis is based on consideration of the following data that reflect market conditions and factors that particularly pertain to the market value of the subject property. The reported market rate data are based on information from the lender and/or investor segments of the investment real estate market. The property performance data are based on past, current, and prospective future operations of the subject property and/or favorably comparable properties, plus information from various parties considered to be knowledgeable and well informed regarding current market conditions for such properties. The reported income and expense data are based on consideration and analyses of past, current, and probable future income for the subject property -- as well as favorably comparable properties. All data used in this analysis are particularly relative to Date of Analysis.

MARKET/PROPERTY PERFORMANCE DATA:

Loan-to-Value Ratio (M) is the relationship of loan amount to total property value (or a surrogate of value such as appraised value, sale price, etc.). It is usually stated as a decimal fraction or a percentage, and is calculated by dividing the loan amount by total property value. This analysis uses a probable Loan-to-Value Ratio of **80.000000%**.

Debt Coverage Ratio (DCR) is the relationship of annual net operating income to annual debt and interest payments. Sometimes referred to as annual debt service coverage ratio, annual debt service ratio, debt coverage, etc., it is usually stated as a decimal fraction and is often calculated by dividing annual net operating income by annual debt service. This analysis considers the probable Debt Coverage Ratio to be **1.200000**.

Nominal Interest Rate is that annual rate that is usually stated (named) in discussions related to typical mortgage lending transactions. Unlike the effective interest rate, the nominal rate does not reflect the effect of periodic compounding. The nominal interest rate for this analysis is **6.500000%**.

Amortization Term is that period of time over which a loan is fully repaid. It is typically stated as a given number of years during which periodic payments will be paid. The total number of payment periods in the full amortization term (together with the effective periodic interest rate, and principal loan amount) serves as the basis for calculating the required periodic payment amounts. The amortization term used for this analysis is **20 Years**.

An Investment Holding Period is that period of time from acquisition of an investment property until that same property is either sold or refinanced.

When an investment property is refinanced, its financial characteristics are changed, and the resulting (changed) property effectively represents a new investment -- with a new Investment Holding Period. The term "Investment Holding Period" does not necessarily refer to the time span of ownership of a particular property interest (such as fee interest, etc.). This analysis is based on a holding period of **5 Years**.

Payments per year: refers to the total number of mortgage payments (including principal and interest) for typical mortgage loan financing for the type of property being analyzed. This analysis considers the number of payments per year at **12**.

Initial Finance/Closing Costs (sometimes referred to as "soft costs") include all costs typically incurred by a buyer in the course of securing mortgage financing for, and closing, the purchase of an income producing property. These costs may include such things as: origination fee, points, legal fee, appraisal fee, survey costs, etc.

Typically, Initial Finance/Closing Costs are not considered as part of the initial equity investment, and do not alter the initial Loan-to-Value Ratio. They do, however, affect the total return realized by the equity investor, and may reasonably be considered as an operating expense that occurs only in the first year of an investment holding period.

In income capitalization analyses, operating income and expense amounts are typically considered as being annual ordinary annuity amounts. That is, they are regarded as being amounts realized at the end of each year of a specified holding period -- rather than at the beginning of each year of the holding period. The initial finance/closing costs, on the other hand, are typically realized at the beginning (in advance) of the 1st year of the holding period. To maintain consistency in the analyses, it is therefore necessary to convert the initial finance/closing costs to a year end amount. This analysis accomplishes this task by multiplying the actual initial finance/closing costs amount by a factor equal to one, plus the equity yield rate. This process recognizes that an investor would be entitled to earn a reasonable return on these costs - equal to the return on equity investment. The initial finance/closing costs used in this analysis are **1.000000%**.

Total Property Appreciation (or Depreciation) is the overall change in property value that occurs from the time of property acquisition to the date of sale or refinance. This is a lump sum amount expressed as a percent of initial total property value. For this analysis, projected total property appreciation is **10.408080%**.

Total Property Appreciation % per Year is the compound annual rate of change in total property value that is projected to occur from the time of property acquisition to the date of sale or refinance. This amount is also expressed as a percent of initial total property value. Consistent with the preceding Total Property Appreciation (or Depreciation) conclusion, projected total property appreciation % per year is **2.000000%**.

Change in Gross Potential Operating Income refers to the projected constant annual rate of change in Gross Potential Operating Income (GPI). It is a compound annual rate of change based on estimated GPI at the beginning of the investment holding period, and is applied to GPI for each year of the holding period. It is expressed as a percent of initial GPI. The projected annual change in gross potential income used in this analysis is **2.000000%**.

Change in Operating Expenses per Year refers to the projected constant annual rate of change in Total Operating Expenses. It is a compound annual rate of change based on estimated Total Operating Expenses at the beginning of the investment holding period, and is applied to each Operating Expense input for each year of the holding period. It is expressed as a percent of initial Total Operating Expenses. The projected annual change in operating expenses used in this analysis is **2.000000%**.

Costs of Refinance or Sale at end of Holding Period refers to the projected total costs which is likely to be incurred when the subject property is either refinanced or sold. It is a lump sum (percentage) amount

based on the projected Value at the end of the selected Holding Period. The analysis projects costs of sale or refinance at end of the holding period at 2.000000%.

1ST YEAR INCOME & EXPENSES:

Gross Potential Operating Income (GPI) is the total income that the property could be expected to produce at full (100%) occupancy, with no deduction for possible collection loss. As illustrated by the following income and expense summary, projected GPI for the first (1st) year of the projected holding period is \$120,000.00.

Vacancy & Collection (V&C) Loss refers to the periodic loss of potential gross operating income due to a projected stabilized rate of vacancy or uncollected rents (etc.) over an entire holding period. It is usually stated as a percentage of potential gross operating income.

When the purpose of analysis is to obtain an indicated Market Value, determination of the appropriate allowance for this consideration should be based on the typical rates of vacancy and/or collection loss for the type of property being analyzed. In this regard, a reasonable allowance for V & C Loss is typically warranted -- even if the property being analyzed has a history of 0% V & C Loss, or is leased (at full occupancy) for the foreseeable future. This is true, for instance, where typical operations of similar properties reflect losses of potential gross income due to these causes. The V & C Loss used in this analysis is \$6,000.00.

Effective Gross Operating Income (EGI) is the gross income amount actually realized from operation of a property. It is calculated by deducting vacancy and collection loss from potential gross operating income. As illustrated by the following income and expense summary, projected Effective Gross Operating Income for the first (1st) year of the projected holding period is \$114,000.00.

Variable Operating Expenses refers to those operating expenses which are often directly influenced by occupancy and/or collection levels for the property being analyzed.

Variable Operating Expenses typically include such expense categories as: Accounting, Administration, Advertising, Contract Services, Repair & Maintenance, Management, Utilities, Etc. In other words, Variable Operating Expenses include any legitimate operating expense (other than Fixed Operating Expenses and Reserves for Replacement) which would typically be incurred in operating an income producing property under sound management practices. As illustrated by the following income and expense summary, Variable Operating Expenses for the first (1st) year of the holding period are projected at \$22,800.00.

Fixed Operating Expenses refers to those operating expenses which are not usually influenced by occupancy and/or collection levels for the property being analyzed.

Since the Assessed Value of a property, and its resulting property tax liability, is not usually considered to be effected by variations in occupancy levels, Property Tax is generally considered to be a Fixed Operating Expense. Likewise, Real Estate Insurance expense is generally regarded as being a Fixed Expense since it is relatively unaffected by yearly variations in a property's occupancy level. As illustrated by the following income and expense summary, Fixed Operating Expenses for the first (1st) year of the holding period are projected at \$7,980.00.

The Replacement Reserves (Reserves) Operating Expense category is a projected allowance for periodic replacement of short lived component parts of real estate improvements. This expense category accounts

for those reasonably anticipated future expenses that normally occur less frequently than once a year.

In projecting the appropriate replacement reserves allowance, care has been taken to avoid duplication of normal repair & maintenance expenses. Expenses for such things as roof repairs, interior and/or exterior painting, and other normal maintenance items are typically not considered under replacement reserves. As illustrated by the following income and expense summary, projected Reserves for the first (1st) year of the holding period are projected at **\$3,420.00.**

Net Operating Income (NOI): is that annual income amount left over after all operating expenses have been deducted from effective gross operating income. As shown below, this income capitalization analysis does not consider annual debt service or income tax as operating expenses. NOI for the first (1st) year of the holding period is projected at **\$70,839.56.**

Stabilized Net Operating Income (Stabilized NOI) is a stream of level income amounts that has a present value equal to the present value of a series of uneven income amounts -- when both income streams are discounted at the same rate, over the same period of time.

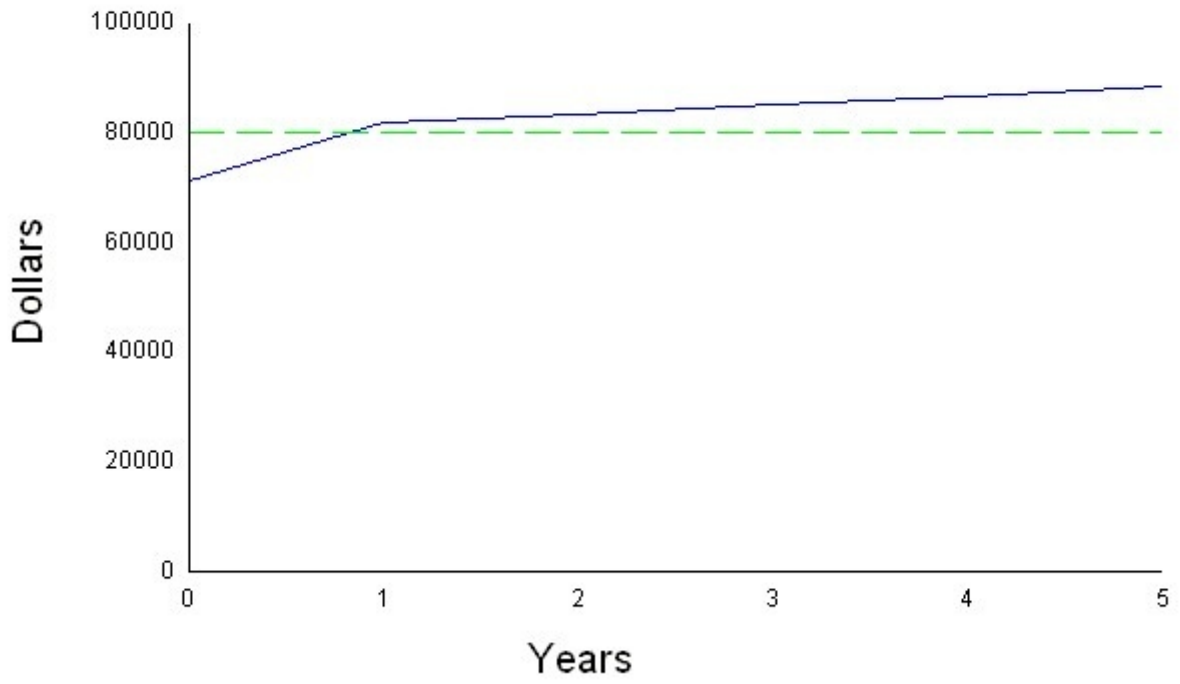
In this context, the word Stabilized specifically refers to NOI and simply signifies that the pattern of income is level (stable) -- or that it has been changed from one with variable or uneven amounts, to one with level or stable (equal) amounts. It does not imply anything about the pattern of operating performance levels for the property being analyzed.

As shown below, the calculated Stabilized NOI income used in this analysis is **\$79,949.47.**

Year 1 Income and Expense Summary

	Per Month	Per Year
Year 1 Gross Potential Income	\$10,000.00	\$120,000.00
Vacancy and Collection Loss	5.000000%	\$6,000.00
Year 1 Effective Gross Income		\$114,000.00
<u>Operating Expenses</u>	<u>% of EGI</u>	<u>Per Year</u>
Variable	20.000000%	\$22,800.00
Fixed	7.000000%	\$7,980.00
Reserves	3.000000%	\$3,420.00
Total Operating Expense	30.000000%	\$34,200.00
Initial Finance/Closing Costs		\$8,960.44
Year 1 Net Operating Income		\$70,839.56
Stabilized Net Operating Income for Holding Period		\$79,949.47

NOI vs Stabilized NOI



An Overall Capitalization Rate (OAR) is a ratio of one year's Net Operating Income to the Value of the property that produces that income.

It is used in the Income Capitalization Approach to convert anticipated future income into an indicated value. When the rate is applied directly to the forecast income (dividing the income by the rate), the procedure is called "Direct Capitalization".

An OAR can be obtained by various generally accepted methods and/or techniques. These include: the Comparative Method, Band-of-Investment Techniques, the Built-Up Rate Method, Yield Analysis Methods, and others. Regardless of how its obtained, an OAR is nothing more than a measure of the relationship between a property's Value and its NOI for one (particular) year.

In this analysis, the OAR has been calculated and verified by several different methods -- including the mortgage equity band of investment technique illustrated below:

	80.000000%	X	8.946878%
plus	20.000000%	X	7.157502%
	equals		8.589003%

An Equity Dividend Rate (Re) is a ratio of one year's Equity Dividend to the Value of initial Equity Investment.

Equity Dividend is the operating income balance, after operating expenses and mortgage payments (principal & interest) have been deducted from effective gross operating income. Equity Dividend is sometimes referred to as cash flow or cash-on-cash.

Based on the previously reported data, the stabilized equity dividend rate was calculated for this analysis at **7.157502%**.

Equity Yield Rate (Ye) is the interest rate (or internal rate of return) for the equity investor. It is also the discount rate at which the Present Value of all anticipated future Cash Flow amounts equal the Value of initial Equity Investment. It reflects consideration of annual Cash Flow amounts and equity appreciation (or depreciation).

With consideration of the calculated equity dividend rate (noted above) and the projected equity appreciation (reported below), the equity yield rate calculated for this analysis is **20.327953%**.

Overall Yield Rate (Yo) is an interest rate similar to the Equity Yield Rate, but based on annual Net Operating Income (NOI) amounts rather than annual Cash Flow amounts. It is also the discount rate at which the Present Value of all anticipated future NOI amounts, plus reversion equals the initial Total Property Value. It reflects consideration of annual NOI amounts and total property appreciation (or depreciation).

With consideration of the previously calculated overall capitalization rate and projected total property appreciation, the overall yield rate calculated for this analysis is **9.933897%**.

Mortgage Constant (R_m) is the ratio of uniform annual mortgage payments (principal and interest) to the initial loan amount. It is analogous to a mortgage capitalization rate.

Like most other Income Capitalizers, the appropriate Mortgage Constant for an Income Capitalization Analysis can be computed in (at least) several different ways. These include: Dividing the constant annual mortgage payment by the initial loan amount, Adding the sinking fund factor to the mortgage interest rate, Using conventional "installment to amortize \$1" formula, etc.

Using the projected Nominal Interest Rate and Amortization Term data, the appropriate mortgage constant for this analysis has been calculated at **8.946878%**.

Terminal Cap Rate (T-Ro) is the ratio of projected NOI for the 1st year immediately following an investment holding period, to the property's Value at the end of the holding period.

Based on the projected net operating income and property appreciation data, the calculated terminal capitalization for this analysis is **8.572945%**.

TOTAL EQUITY APPRECIATION:

Total Equity Appreciation (or depreciation) is the total change in equity value that occurs over the term of an investment holding period.

Based on consideration of projected total property appreciation, initial equity investment, and equity balance at the end of the projected holding period, total equity appreciation has been calculated for this analysis at **98.643109%**.

Total NOI Change is the total change in Net Operating Income that occurs over the full term of an investment holding period.

Based on the projected gross potential operating income and operating expense previously reported, the total NOI change for this analysis is **24.373500%**.

Annual NOI Change is the compound annual rate of change in NOI that corresponds to Total NOI Change that occurs over the full term of an investment holding period.

The calculated annual NOI change for this analysis is **4.458930%**.

DATA SUMMARY & MARKET VALUE RESULTS:

Market/Prop. Performance Data		Income Capitalizers	
Loan-To-Value Ratio	80.000000%	Overall Cap Rate (Ro)	8.589003%
Debt Coverage Ratio	1.200000	Equity Dividend Rate (Re)	7.157502%
Nominal Interest Rate	6.500000%	Equity Yield Rate (Ye)	20.327953%
Amortization Term (Years)	20	Overall Yield Rate (Yo)	9.933897%
Holding Period (Years)	5	Mortgage Constant (Rm)	8.946878%
Payments Per Year	12	Terminal Cap Rate (T-Ro)	8.572945%
Initial Finance/Closing Costs	1.000000%	Total Equity Appreciation	98.643109%
Total Property Appreciation	10.408080%	Total NOI Change	24.373500%
Total Property Appreciation Per Year	2.000000%	Annual NOI Change	4.458930%
Change in GPI Per Year	2.000000%		
Change in Operating Expense Per Year	2.000000%		
Cost of Refinance or Sale at End of Holding Period	2.000000%		

Market Value Results

Market Value by Direct Capitalization	\$930,835.28
Initial Loan Amount	\$744,668.23
Initial Equity	\$186,167.06
Annual Debt Service	\$66,624.55
Annual Equity Dividend	\$13,324.91
Market Value at end of Holding Period	\$1,027,717.36
Sale or Refinance Cost at end of Holding Period	\$20,554.35
Mortgage Balance at end of Holding Period	\$637,354.99
Equity Balance at end of Holding Period	\$369,808.03

Year 1 Income and Expense Summary

	Per Month	Per Year
Year 1 Gross Potential Income	\$10,000.00	\$120,000.00
Vacancy and Collection Loss	5.000000%	\$6,000.00
Year 1 Effective Gross Income		\$114,000.00
<u>Operating Expenses</u>	<u>% of EGI</u>	<u>Per Year</u>
Variable	20.000000%	\$22,800.00
Fixed	7.000000%	\$7,980.00
Reserves	3.000000%	\$3,420.00
Total Operating Expense	30.000000%	\$34,200.00
Initial Finance/Closing Costs		\$8,960.44
Year 1 Net Operating Income		\$70,839.56
Stabilized Net Operating Income for Holding Period		\$79,949.47

Year 2 Income and Expense Summary

	Per Month	Per Year
Year 2 Gross Potential Income	\$10,200.00	\$122,400.00
Vacancy and Collection Loss	5.000000%	\$6,120.00
Year 2 Effective Gross Income		\$116,280.00
<u>Operating Expenses</u>	<u>% of EGI</u>	<u>Per Year</u>
Variable	20.000000%	\$23,256.00
Fixed	7.000000%	\$8,139.60
Reserves	3.000000%	\$3,488.40
Total Operating Expense	30.000000%	\$34,884.00
Year 2 Net Operating Income		\$81,396.00

Year 3 Income and Expense Summary

	Per Month	Per Year
Year 3 Gross Potential Income	\$10,404.00	\$124,848.00
Vacancy and Collection Loss	5.000000%	\$6,242.40
Year 3 Effective Gross Income		\$118,605.60
<u>Operating Expenses</u>	<u>% of EGI</u>	<u>Per Year</u>
Variable	20.000000%	\$23,721.12
Fixed	7.000000%	\$8,302.39
Reserves	3.000000%	\$3,558.17
Total Operating Expense	30.000000%	\$35,581.68
Year 3 Net Operating Income		\$83,023.92

Year 4 Income and Expense Summary

	Per Month	Per Year
Year 4 Gross Potential Income	\$10,612.08	\$127,344.95
Vacancy and Collection Loss	5.000000%	\$6,367.25
Year 4 Effective Gross Income		\$120,977.71
<u>Operating Expenses</u>	<u>% of EGI</u>	<u>Per Year</u>
Variable	20.000000%	\$24,195.54
Fixed	7.000000%	\$8,468.44
Reserves	3.000000%	\$3,629.33
Total Operating Expense	30.000000%	\$36,293.31
Year 4 Net Operating Income		\$84,684.39

Year 5 Income and Expense Summary

	Per Month	Per Year
Year 5 Gross Potential Income	\$10,824.32	\$129,891.85
Vacancy and Collection Loss	5.000000%	\$6,494.59
Year 5 Effective Gross Income		\$123,397.26
<u>Operating Expenses</u>	<u>% of EGI</u>	<u>Per Year</u>
Variable	20.000000%	\$24,679.45
Fixed	7.000000%	\$8,637.81
Reserves	3.000000%	\$3,701.92
Total Operating Expense	30.000000%	\$37,019.18
Year 5 Net Operating Income		\$86,378.08

Year 6 Income and Expense Summary

	Per Month	Per Year
Year 6 Gross Potential Income	\$11,040.81	\$132,489.68
Vacancy and Collection Loss	5.000000%	\$6,624.48
Year 6 Effective Gross Income		\$125,865.20
<u>Operating Expenses</u>	<u>% of EGI</u>	<u>Per Year</u>
Variable	20.000000%	\$25,173.04
Fixed	7.000000%	\$8,810.56
Reserves	3.000000%	\$3,775.96
Total Operating Expense	30.000000%	\$37,759.56
Year 6 Net Operating Income		\$88,105.64

DISCOUNTED CASH FLOW ANALYSIS:

"Discounted Cash Flow Analysis" is the income capitalization technique of converting anticipated periodic future Cash Flow amounts to a present value that will provide a specified rate of return on investment.

The term Cash Flow, typically refers to the amount of net operating income available to an equity investor, after payment of annual debt service (mortgage principal and interest). Thus, in simplest terms, it is annual Net Operating Income minus annual Debt Service.

In the last year of an investment holding period, Cash Flow also includes the investor's net proceeds (reversion) from sale or refinance of the investment property. Cash Flow is also sometimes referred to as Cash-on-Cash, and (when it includes reversion) is appropriately called Equity Yield.

The rate of return on investment for the equity investor is analogous to the interest (or yield) rate for a mortgage lender. It is a compound annual rate of return that reflects consideration of all annual income amounts realized (or anticipated) by the equity investor. The generally accepted name for this rate of return is Equity Yield Rate.

The process of converting anticipated periodic future Cash Flow amounts to a present value, essentially involves an arithmetic process of reverse compounding. For example: At an annual compound interest (yield) rate of 10%, a \$1.00 investment will have a future value of about \$1.21 -- two years after the date of initial investment. This result can be calculated by multiplying the original investment of \$1 by 110% and then multiplying again by 110%. To reverse this compounding process, the future value amount of \$1.21 is divided by 110% -- then the result is again divided by 110%. This reverse compounding process is called Discounting.

The Discount Rate used in Discounted Cash Flow Analysis is the Equity Yield Rate for the particular investment property being analyzed.

Discounted Cash Flow Analysis at a Discount Rate of 20.327953%

	Cash Flow	Present Value Factor	Present Value
Year 1	\$4,215.00	.831062	\$3,502.93
Year 2	\$14,771.44	.690664	\$10,202.11
Year 3	\$16,399.36	.573985	\$9,412.98
Year 4	\$18,059.84	.477017	\$8,614.85
Year 5	\$389,561.50	.396431	\$154,434.17
Init. Mort.			\$744,668.23
Total			\$930,835.27

OVERALL RESULTS SUMMARY:

Overall Results Summary

Stabilized NOI for 5 Year Hold. Period	\$79,949.47	Year 1 Effective Gross Op. Income	\$114,000.00
Overall Cap Rate @ Stabilized NOI	8.589003%	Year 1 Operating Expenses	\$34,200.00
Equity Div. Rate @ Stabilized NOI	7.157502%	Initial Finance/Closing Costs	\$8,960.44
Equity Yield Rate @ Stabilized NOI	20.327953%	Year 1 Net Operating Income	\$70,839.56
Term. Cap Rate @ 6th Year NOI	8.572945%	Overall Cap Rate @ Year 1 NOI	7.610369%
Year 1 Gross Potential Op. Income	\$120,000.00	Gross Inc. Multiplier @ Year 1 NOI	7.756961
Year 1 V & C Loss	5.000000%	EGI Multiplier @ Year 1 NOI	8.165222

LENDER/INVESTOR SURVEY:

Lender/Investor Name	Loan To Val.	Debt Cov.	Nominal Int. Rate	Init. Fin. Costs	Amort. Term	Holding Period
Lender 1	80.00	1.20	6.00000	1.00	25	5
Lender 2	75.00	1.25	7.00000	1.50	20	3
Lender 3	70.00	1.30	6.50000	.50	15	5
Lender 4	80.00	1.20	6.50000	1.00	20	7
Lender 5	80.00	1.20	6.50000	1.00	20	5
Investor 1	75.00	1.30	7.00000	1.00	25	5
Investor 2	80.00	1.20	6.50000	1.00	20	5
Mean	77.14	1.24	6.57143	1.00	21	5
Median	80.00	1.20	6.50000	1.00	20	5
Mode	80.00	1.20	6.50000	1.00	20	5
Applied Value	80.00	1.20	6.50000	1.00	20	5