**[Frequently Asked Questions]**

# Financial Analysis Using Discounting and Non-Discounting Techniques - II

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| **Subject:** | Business Economics |
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| **Paper No. & Title:** | Paper – 551<br>Elective PaperP1 – Project Management |
| **Unit No. & Title:** | Unit – 2<br>Financial Analysis Using Discounting and Non-Discounting Techniques |
| **Lecture No. & Title:** | Lecture – 2<br>Financial Analysis Using Discounting and Non-Discounting Techniques- II |

**Frequently Asked Questions**

**Q1. Explain the IRR technique of capital budgeting**

**A1.** Internal rate of return (IRR) is the discount rate at which the net present value of an investment becomes zero. In other words, IRR is the discount rate which equates the present value of the future cash flows of an investment with the initial investment. It is one of the several measures used for investment appraisal.

**Q2. Discuss the drawbacks of IRR**

**A2.** The first disadvantage of IRR method is that IRR, as an investment decision tool, should not be used to rate mutually exclusive projects, but only to decide whether a single project is worth investing in or not.

IRR overstates the annual equivalent rate of return for a project whose interim cash flows are reinvested at a rate lower than the calculated IRR.

IRR does not take into consideration cost of capital; It would not be giving good results if used to compare projects of different duration.

In the case of positive cash flows followed by negative ones and then by positive ones, the IRR may have multiple values.

**Q3. Discuss the concept of Incremental IRR**

**A3.** The incremental internal rate of return is an analysis of the financial return to an investor or entity where there are two competing investment opportunities involving different amounts of investment. The analysis is applied to the difference between the costs of the two investments.

**Q4. What do you understand by the term negative IRR**

**A4.** It is also possible for some net cash flow streams to produce a negative IRR value. This signals simply that the investment or action should be considered a "net loss." Further quantitative analysis of negative IRRs is not advised. Negative IRRs should certainly be disregarded when the analyst prepares IRR averages, or weighted average IRRs for multiple actions.

**Q5. Distinguish between divisible and indivisible projects**

**A5.** Divisible projects are the projects which can be accepted or rejected in parts. There is process to select these kinds of projects

1. The Profitability index of each project is to be calculated first.
2. On the basis of profitability index projects will be ranked and a combination is to be selected which maximize the NPV.

On the other hand indivisible projects are those projects which can be accepted and rejected wholly in its entirety.

**Q6. Write a short note on profitability index**

**A6.** It is the measure which measures the present value of returns per rupee invested whereas NPV is based on the difference between the present value of future cash inflows and the present value of cash outlays.

It is the ratio of the present value of future cash benefits, at the required rate of return to the initial cash outflow of the investment. It may be gross or net, net being simply gross minus one.

**Q7. Write a short note on MIRR**

**A7.** Modified Internal Rate of Return: Modified Internal rate of return is that rate of compounding which makes the initial cash outflow in zero year equal to the terminal value of the cash inflows. If the Project MIRR is greater than or equal to k, the project proposal should be accepted and if MIRR is less than k then reject the project. In case of mutually exclusive projects, the project with the highest MIRR should be selected.

**Q8. Distinguish between IRR and MIRR**

**A8.** MIRR is different from IRR. MIRR is based on the assumption that intermediate cash inflows are reinvested at cost of capital whereas IRR assumes that intermediate cash inflows are reinvested at IRR.

MIRR does not yield negative rates or multiple rates under any circumstances but IRR may yield negative rates or multiple rates under certain circumstances.

**Q9. Compare the IRR and NPV techniques of capital Budgeting**

**A9.** IRR assumes that the cash flows are reinvested in the project at the same discount rate. This is a major limitation for the use of IRR. NPV makes no such assumption.

NPV is measured in terms of currency whereas IRR is measured in terms of expected percentage return.

If NPV calculation uses different discount rates, then it produces different results for the same project. But, IRR always gives the same result. For the same reason, given a choice between NPV vs IRR, managers generally prefer IRR because it is easier and less confusing.

From a comparison of NPV and IRR, it can be seen that NPV is actually a better measure than IRR, especially, in long term projects, not only because NPV considers different discount rates but also takes into account the cost of capital.

**Q10. Write a short note on Equivalent annual annuity**

**A10.** The **equivalent annual** annuity (EAA) **approach** calculates the constant **annual** cash flow generated by a project over its lifespan if it was an annuity.

The equivalent annual annuity approach (EAA) is one of two methods used in capital budgeting to compare mutually exclusive projects with unequal lives.