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TEACHING ABOUT THE REINVESTMENT RATE ASSUMPTION AND CONFLICTS IN CAPITAL BUDGETING

Abstract:

Much has been written in finance textbooks and scholarly publications about the capital budgeting methods derived from Discount Cash Flow (DCF) models: Net Present Value (NPV), Internal Rate of Return (IRR), Modified Internal Rate of Return (MIRR) and Profitability Index (PI). However, there is a divergent understanding about the role of the reinvestment rate assumption in some of these models. In this paper I will discuss a number of issues regarding the assumption of the reinvestment rate and clarify its correct usage. This discussion will naturally lead to the Modified Internal Rate of Return as the only method where a reinvestment rate assumption makes sense. In addition, for the first time in the literature I will propose a method of determining if the NPV and MIRR will produce conflicting decisions in advance of the MIRR computation. The literature has a clear method to determine if the there is a conflict between NPV and IRR but no method for the NPV-MIRR conflict is described. Interestingly the Profitability Index will have a role in determining if the NPV and MIRR are in conflict. The paper is useful to all those who teach the topic of capital budgeting in corporate finance courses of any level.

Keywords:

Capital Budgeting, NPV, IRR, MIRR, PI, reinvestment rate assumption, ranking conflicts

JEL Classification: G30, G31