

## FINANCIAL INVESTMENT ANALYSIS OF A NEW BUSINESS

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*Analysis financial data used in reaching the purchase decision may be critical to the success of the investment. For our purposes we calculate the rate of return or return on investment (RRI) which is the amount of profit, operating cash flow, or pre-tax payment received on an investment, expressed as a percentage of the original expenditure. This paper will guide you through the steps of evaluating RRI. A thorough understanding of RRI may provide a better understanding of your business' potential and financial success. Achieving success requires a disciplined approach to formulating a business plan and financial forecast upon which RRI is calculated.*

*The starting point for understanding what happens in reaching an investment decision comes from using a cost of capital calculation that reflects business risk in a changing interest rate environment, critical in taking good business decisions. Whether money is borrowed from the owners or a bank, borrowing costs need to be factored into the cost of capital. Business owners everywhere frequently make the mistake of "over borrowing" or leveraging their business with too much debt.*

*As a conclusion can be said that careful analysis of investments will insure efficient use of a company's resources.*

*Key words: analysis financial data, investment, present value analysis, cost of capital, rate of return*

Anyone who has successfully started a new business or purchased a cash-generating asset for investment purposes made their financial decision based on a forecast of cash flow from the income-producing asset. Careful compilation and analysis of the financial data used in reaching the purchase decision may be critical to the success of the investment.

A financial forecast is the result of fact-based estimates and judgements concerning the revenue and cost components of a business plan, e.g. market strategy, production process, labour, administration costs etc. A forecast serves as a summary of expected profit and cash flow from the investment.

### **What is the projected rate of return on the investment (RRI)?**

The rate of return or return on investment (RRI) is the amount of profit, operating cash flow, or pre-tax payment received on an investment, expressed as a percentage of the original expenditure.

For our purposes, RRI is calculated in terms of the pre-tax income, or cash, generated by the investment before payment of taxes. RRI is typically calculated for periods of one year. Since individual owners, or business itself, are liable for a variety of taxes at graduated rates, measures such as RRI and cost of capital (defined later) are calculated in terms of pre-tax income or operating cash flow, eliminating the distortions created by tax law changes over time. By focusing on pre-tax income, management can also evaluate the operating efficiency of the business before payment of taxes. Pre-tax calculations also take into account the payment of interest on borrowed money, a deductible expense for the business (in the USA), versus the payment of dividends which represents after-tax income distributions to the shareholders.

Since SME's operate on a cash basis versus the accrual system needed by larger companies that have more complex operating arrangements and tax law requirements, measuring RRI by pre-tax income or operating cash flow produces the same result.

Achieving success requires a disciplined approach to formulating a business plan and financial forecast upon which RRI is calculated. Assuming that the entrepreneur or future owner understands the non-financial risks and opportunities of the purchase transaction, what do they need to understand in order to evaluate the financial return on the investment?

This paper will guide you through the steps of evaluating RRI. A thorough understanding of RRI may provide a better understanding of your business' potential and financial success.

**Financial Problem:** X has sufficient equity money on his own to start a freight hauling and electronic products business with one new truck and sufficient working capital to purchase imported inventory (stocks). He intends to haul customers' export goods to Germany and return with electronic goods to sell in Vienna on a wholesale basis. The combined cost of the truck and working capital needs a business total of 1.40 million Euro. X projects, that his pre-tax operating income at the end of year one will be 2.45 million Euro. What is the return on investment (RRI) for year one?

**Answer:** By dividing the pre-tax income or operating cash flow 2.45 million Euro by the initial investment outlay 1.40 million Euro, the RRI is 175%.

### Putting investors' money to work in a business

*The starting point for understanding what happens in reaching an investment decision comes from open communication. From simple words to more formal documentation, such as a bid solicitation, prospectus, or offering circular, the potential investor is made aware of the availability of certain business assets and terms of sale. Given the limited or non-existent support of SME's by commercial banks, the new owners must often rely on their own resources (savings) for capital to purchase business assets. Whether small business owners (partners) use their own cash resources to purchase the assets, or secure loans (borrowed money) from a lender, there is a financial cost of capital. The importance of using a cost of capital calculation that reflects business risk in a changing interest rate environment is critical to taking good business decisions.*

### Cost of capital

The cost of capital is the opportunity cost or rate of return that the investors and other providers of money forgo by investing in the business.

Under normal circumstances, before an investment decision is made, the saver may choose to earn a short term, guaranteed rate of income or interest on any money that is not immediately needed for other expenses. The time period is normally between one and three months. Purchases of bank certificates of deposit and treasury bills are the most convenient and safe short-term investments. Bank deposits and treasury bills are considered *money market* investments.

The traditional European description of a national *money market* is the network consisting of banks, securities dealers or brokers and other financial intermediaries who are engaged in placement of short-term commercial paper or loans, acceptances (discounted bills of exchange guaranteed by a bank), government obligations (treasury bills) and other marketable securities. These can be readily bought and sold by the institutions for their own account or their customers' account.

When the saver and future owner of an income producing asset has cash or financial assets temporarily invested in a government-guaranteed bank deposit or treasury obligation, they can demand and should be paid, a RRI that is equal to or exceeds (in the case of bank deposits) the risk free yield on short-term government obligations. Investor holdings of treasury bills with a 1-6 month maturity are the most recognised form of risk free investment in money market.

Banks pay interest rates according to their institutional demand for money. Therefore, when the demand for money is low, they pay a rate of interest that is lower than the treasury bill yield. Though usually considered a safe investment, bank deposits are not a risk free investment unless fully government insured. The interest paid to holders of short-term Romanian investments is tax-free compared to the practice in some other countries where investment income received as shareholder dividends and interest is taxed. Note that Japan is a major industrialised country that does not tax investment income received as interest and dividend payments while the United States taxes their citizens for both.

*Dividends* are a special or periodic cash payment (quarterly, semi-annual or yearly), to shareholders of after-tax profits. The dividend represents the return to the shareholders of a portion of earned profit that was retained in a reserve or capital surplus account. Payment of dividends is a judgement decision by company directors based on the company's record, outlook for profitable operations, and necessary cash infusions for continuing operations or making new investments.

### Calculating the cost of capital in order to establish an acceptable RRI

In establishing the basis for calculating the cost of capital for a business venture where there is risk of partial or full loss of investment, the following principles have been established:

- Absent a need to use savings (excess cash or other financial assets) for purposes other than new business investments, entrepreneurs and other individuals will place their short-term financial assets in risk-free treasury bills or government insured bank deposits.
- Interest rate paid on short-term, risk-free investments must be the first criteria used in deciding what pre-tax RRI is acceptable for placing one's savings at risk in a new business investment or asset purchase.
- RRI and evaluation of competing investments are analysed on a pre-tax return basis because of the effects or distortions created by taxation on business in different industries or with different legal structures, e.g. a partnership versus a shareholder entity with limited liability.

Treasury bill rates tend to move in the same direction as the rate of inflation, though the two rates are not perfectly correlated because of timed action by the central bank and the money market participants. This change in direction for market interest rates is universally consistent because investors expect to be paid a real rate of return (actual rate of return minus inflation) on their savings during periods of upward and declining inflation and interest rates.

## **Loans from shareholders**

Absent available commercial bank financing SME's or limited amount of money loans available at unrealistic high interest rates, conduct to the fact that, management must look to cash retained in the business as a source of new funds to keep the business growing and profitable. Otherwise, the business will have to look to the shareholders or partners for additional money. Under normal circumstances, the shareholders are neither keen or nor obligated to purchase new equity for purposes of increasing working capital. Exceptions occur when investors see a suitable opportunity for major expansion and the only option is to increase equity capital by a share subscription.

Expansion opportunities such as the acquisition of another business represent such a large outlay of cash that borrowing the full sum is not feasible. Banks may lend a fractional amount of the purchase price, but prefer for the borrowing business to use some of their own equity or cash to make the purchase. Banks traditionally require the borrowing purchaser to share in the transaction risk. By requiring the buyer to use its resources to complete the acquisition, the bank reduces its exposure.

To avoid financial ruin because of insufficient capital (cash), the first main cause of business failure, the sole owner or investor group should consider using his own money in case of a need for short-term purposes. The money could be contributed as a shareholder loan to the business rather than as an equity investment.

For example, there may be a need for a shareholder loan to cover seasonal borrowing in retail or processing business. Under normal circumstances, the loan from the owners would be repaid in the normal or seasonal course of collecting cash for sold stocks (inventory) or services. Whether money is borrowed from the owners or a bank, borrowing costs need to be factored into the cost of capital. In Romania, for instance, while interest rates are at high levels, the cost of capital can actually be brought down by a conservative approach to borrowing.

## **Why not over-borrow and further reduce the cost of capital for business**

Business owners everywhere frequently make the mistake of "over borrowing" or leveraging their business with too much debt.

The effect of leverage or "gearing" is often cited as a major cause of business failure, along with under capitalization, managerial problems, and adverse economic and competitive conditions. One problem is the tendency among small and financially inexperienced owners to project the loan payback under unrealistic favourable economic conditions and with optimistic assumptions for the timing and amount of future cash flows.

When the projections for sales revenue growth do not materialize, the problem may have reached the point where the amount of free cash flow is insufficient to pay the principal balance of the debt. Bank lenders will usually try to workout a refinance plan with the borrower if the interest is paid and there are reasons to believe that the debt can be serviced on an orderly payback schedule. Failure to pay interest is an indicator of more severe financial problems and the time for taking steps to save the business may have passed.

## **Marginal cost of capital concept**

Some sophisticated financial planners suggest that the decision to expand should be based on *the interest rate for borrowing new money*, or the marginal (additional) cost of capital. Since borrowing within a reasonable limit is less expensive than an equity contribution, it is the cost incurred on newly borrowed money that is a more accurate basis for investment decisions, particularly for short-term, working capital needs (financing stocks, debtors or prepaid expenses).

The principle of acquiring new fixed assets, or funding increased working capital, that produce a greater RRI than the cost of short-term borrowed money is supported by business that rely on frequent and seasonal turnover (conversion) of stock inventories.

Companies that use high levels of debt in relationship with their capital can also justify the use of the marginal cost of capital in asset purchase decisions. Trading companies, financial institutions, retailers with the assets comprised primarily of stocks and sundry debtors (versus a concentration in fixed assets) favour the marginal cost of capital approach.

## Selecting an investment meet the RRI criteria, based on timing of future cash flows

Once a basis for calculating the pre-tax cost of funding business investments by the use of owner/shareholder equity or combination of equity and borrowed money has been established, the financial decision maker can begin evaluating the annualized returns of potential future investments. Before introducing subjective matters such as strategic issues or other criteria into the financial decision process, the decision maker should initially forecast the pre-tax cash flow from the investment through as many years as predictable.

For the purpose of business, in developing countries, the time span for forecasting pre-tax cash flows is usually quite short, no more than 1-2 years, because of the high level of inflation and uncertainty about future economic and political development. High rates of inflation and currency depreciation can, in part, be addressed by *indexing* future cash flow forecasts. In other words, future cash flows are adjusted based on realistic expectations of inflation and currency depreciation. Though any forecast of nominal cash flow for a domestic business beyond the 1-2 year time frame is uncertain, it is still possible to make a decision regarding investments. The methodology, which produces a result where a clear decision can be made based on numerical analysis, is known as *present value analysis*.

### Present value analysis

Present Value (PV) is the cash equivalent *now* of a sum of money that will be received or paid during a future date or period in time, discounted in value to the present time at a specific rate of return.

PV is a simple concept to understand because it simply means that a given amount of money received during a future period(s) or on a future fixed date, is worth something today based on a discounted rate of return which can be the cost of capital.

To discount is to calculate *today's value* of a lump sum cash payment, or series of payments, to be received in the future by dividing each payment by an annualized percentage.

Carrying present value analysis to the financial plan for the purchase of an asset or business, the discount rate can be the cost of equity capital or marginal cost of the capital. The RRI is calculated by taking the forecast of future pre-tax cash flows from the asset purchase (a business, for example) by period and calculating today's value by discounting each periodic cash flow by the selected cost of capital. The investment should be selected if the PV of the future payments is positive or more than the amount of the investment. In other words, if the RRI exceeds the cost of capital, the investment should be selected. Investment returns that exceed the cost of capital contribute to the maximization of the firm's profit.

Discounted cash flows from a project or investment, which do not produces a return above the amount invested should be rejected. While there may be other reasons to make an investment where the RRI does not meet or exceed the cost of capital, the firm may be financially penalized by lower cash flow returns from the project. However, owners and management's best sources of competitive market and technical information may sometimes lead to decisions that contradict present value analysis.

### Conclusion

"The link between the investment decision and the finance necessary to fund the investment is that the return from an investment must adequately satisfy those providing the finance." (Aidan Berry and Robin Jarvis ). Regardless of the methods used to calculate a company's cost of capital or evaluate investment decisions, the time taken to evaluate investments before money is paid produces great returns.

Careful analysis of investments will insure efficient use of a company's resources. As investments are analysed, companies must be sure that investments provide compensation for the taken risks. Although other market information may influence management decisions, positive net present value of future cash flows based on a reasonable cost of capital is what guarantees the company's financial success.

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