

Chapter 9: Cash flows

Real investments are cash outflows that create money in the future and are not financial instruments that trade in the financial markets, for example bonds. The present value is the market value of a portfolio that tracks the free cash that a project creates.

The cash flows of an asset are symbolized as numbers which belong to dates in time, with date 0 usually standing for the current date. The minus (-) or the plus (+) tells us if it is a cash inflow or a cash outflow.

Unlevered cash flows are cash flows that comes straight from the real assets of the project or organization.

EBIT stands for Earnings before interest and taxes. The raise or decrease in cash which is stated at the end of the cash flow statement, stands for the difference in the cash position of the organization for two following balance sheets. This is an accounting cash flow and it divides the cash flow into the sum of operating cash flows, investing cash flows, and financing cash flows.

Unlevered cash flow = operating cash inflow
 + investing cash inflow (which is usually negative)
 + debt interest
 - debt interest tax subsidy

This is the case under the rules of GAAP, when following the rules of IFRS, the unlevered cash flow is computed by taking the net cash flow from operation activities and adding up the net cash flow from investing activities and finally reduce it with the debt interest subsidy.

Unlevered cash flow = EBIT
+ depreciation and amortization
- change in working capital
- capital expenditures
+ sales of capital assets
- realized capital gains
+ realized capital losses
- EBIT X tax rate

Incremental cash flows are the cash flows that a organization gets when implementing the project. So, it is the difference between the cash flows with the project and the cash flows without the project in an organization. Projects should be appreciated by examining their incremental cash flows to a organization.

A forecasting model consist out of 4 important issues:

- Assumptions
- Income statement
- Cash flow statement
- Balance sheet

Assumptions

A very important assumption is the forecasting of sales. A lot of other features in the balance sheet and the income statement will depend on this. It is important, when you look for a trend in sales, that you examine the past performance, plans for products, the position of the organization in relation to its competitors and the trends of the industry, where the organization is in.

A method to forecast the sales, is to base them on the expenses. The percentages are derived from past experiences.

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Income Statement:

The cost of sales can be computed by relating the assumption of percentage of costs to the sales forecast. EBIT is now computed by taking the sales forecast and subtracting the cost of sales.

EBIT stands for the earnings before interest and taxes.

Subtract interest from EBIT. This is then the earnings before taxes. Interest expense is a function of the expected future average interest rate and the expected future debt outstanding. Subtract taxes from earnings before taxes by applying the tax rate that you are forecasting for the year in question times the earnings before taxes.

The Cash flow statement has three features: operating cash flows, investment cash flows, and financing cash flows.

In operating cash flows: net income, comes directly from the income statement, and then add back depreciation to the cash flow. The company's investment in working capital is then subtracted because it costs the organization money to raise its working capital. Subtracted are also: raises in inventory, accounts receivable, and other current assets. Money spent on plant and equipment, or buying other companies, is an investment cash outflow.

PPE = property, plant, equipment:

New PPE (net) = Old PPE + capital investments – depreciation – sales of assets

The capital investments are computed by the New PPE minus the Old PPE plus the depreciation.

Balance sheet assets:

To predict PPE, there are several choices:

1. direct method: if you can anticipate on capital expenditures and asset sales directly, then you can forecast PPE using the accounting relationships. Add the forecast expenditures to the old PPE and subtract your estimate of the depreciation expense and equipment sales.
2. more of the same method: if the organization has substantial excess capacity and is not planning on adding capacity, then (1) simplifies: new PPE = old PPE less depreciation
3. percentage of sales.

Balance sheet liabilities:

Long- and short-term debt = the old debt numbers plus the new debt that the organization will issue.

Current liabilities are directly related to sales, using a percentage. Deferred taxes are forecasted as a function of the forecast of PPE.

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