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Cash Flow Analysis and case studies

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PART III
CASE STUDIES

Preface

This book has been written for the students and this is why some topics are repeated. Bibliographic references are not mentioned, but only some direct quotations. Actually, at first, we had been preparing a bibliography, but we have then decided to give up this due to an excessive disproportion with the aims of the text.

The accounting standards considered for this text are the IAS/IFRSs ones, sometimes compared to Italian GAAPs and US GAAPs.

Even if all three parts of the book have been revised and written by both authors, Prof. Francesco Manni has focused mainly on PART I, whereas Dr. Alessio Faccia on PART III.

It must thank especially Eleonora Sperone who helped us to correct the text and who provided useful suggestions for its improvement. In any case, any possible mistake is to be attributed solely to the authors.

Part I
CASH FLOW ANALYSIS

Chapter I

The cash flow according to theory and practice

"Cash flow" is a phrase that usually identifies the net amount of cash and cash–equivalents moving in and out of a business, but it is "rather equivocal in its simplicity". The meaning assigned by common language is in fact different from the technical one. Furthermore, in technical language, it is possible to identify several meanings.

The cash flow is often studied for different reasons and identified by different methods.

In business administration the CF is considered either:

— an analysis of technical and financial business management control;
— a tool for the choice, selection and evaluation of the suitability of an investment.

In this book, in particular, the first alternative is considered.

Furthermore, it must consider that there are three main areas that may originate or absorb the cash flow: operating, investing and financing.

Focusing on the operating area, two notions can be defined which represent two sides of the same coin: the self–financing and CFO (operating cash flow).

Self–financing is an economic notion. It identifies the effects produced by the improvement of the relationship between investment and external funding sources for a period of time.

It is the sum of retained earnings + non–monetary expenses (expenses without a corresponding cash outflow).

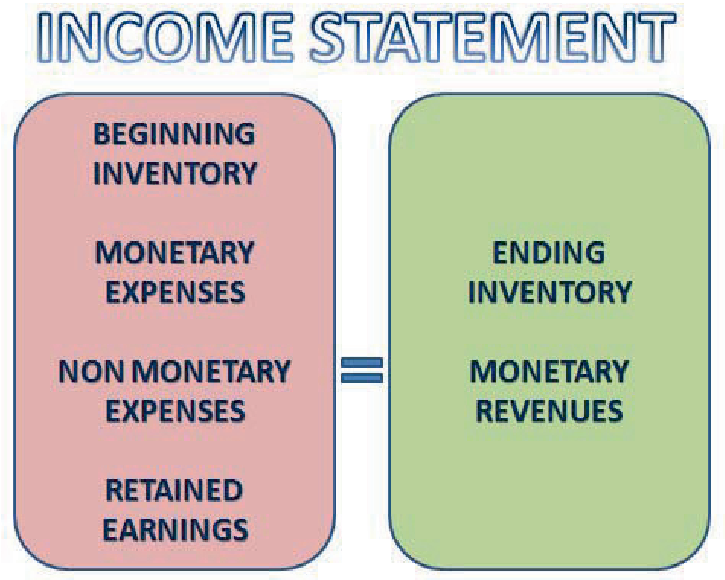
The increase in Equity is obtained by Retained Earnings (so–called "corporate saving") and Non–Monetary Expenses.

The *CFO (Cash Flow Operating)* is derived from operating activities (not all operations, only those operating).

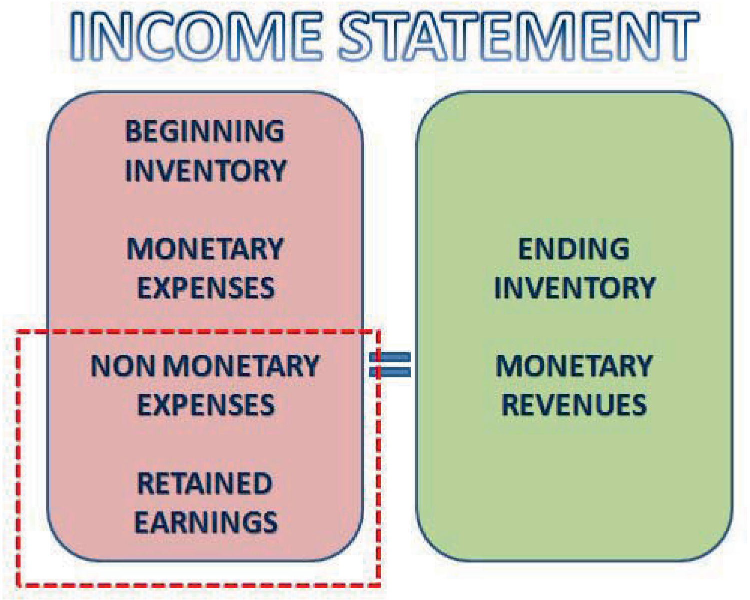
It is calculated as the difference between cash inflows and cash outflows from operating activities of the period.

- The cash inflow is given by monetary revenues + beginning receivables – ending receivables.
- The cash outflow is given by: monetary expenses + beginning payables – ending payables.

Focusing on Self–Financing, assuming the entire retention of earnings and the absence of non–monetary revenues, the Income Statement may be represented by the following equation:
BEGINNING INVENTORY + MONETARY EXPENSES + NON–MONETARY EXPENSES + RETAINED EARNINGS = ENDING INVENTORY + MONETARY REVENUES.

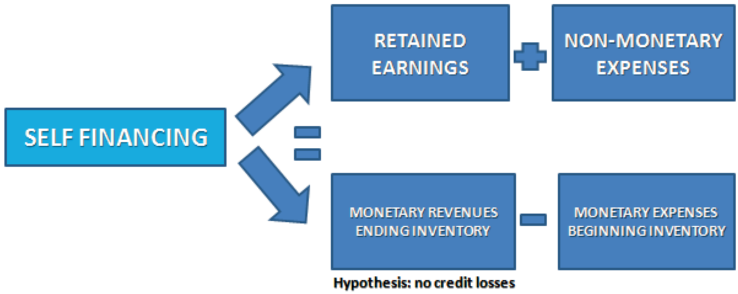


By changing the order of items it is possible to obtain: NON–MONETARY EXPENSES + RETAINED EARNINGS = ENDING INVENTORY – BEGINNING INVENTORY + MONETARY REVENUES – MONETARY EXPENSES.

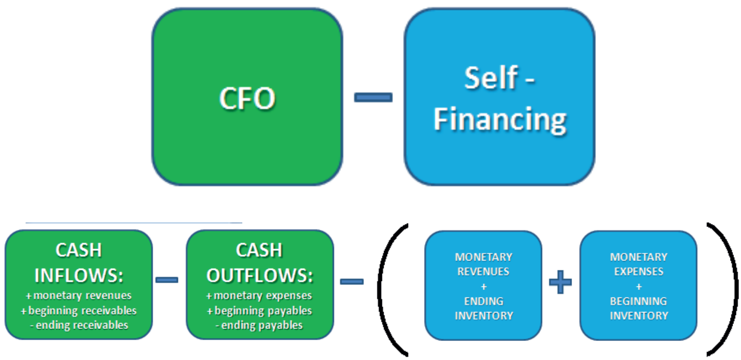


The above equation can be analyzed by isolating what does not apply to inventories and monetary aspects, in this way it is possible to analyze the self–financing.

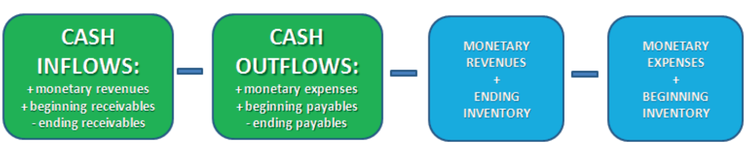
Self–financing can be alternatively and equally considered as the sum of retained earnings and non–monetary expenses or as the difference between [monetary revenues + ending inventory] and [monetary expenses + beginning inventory].



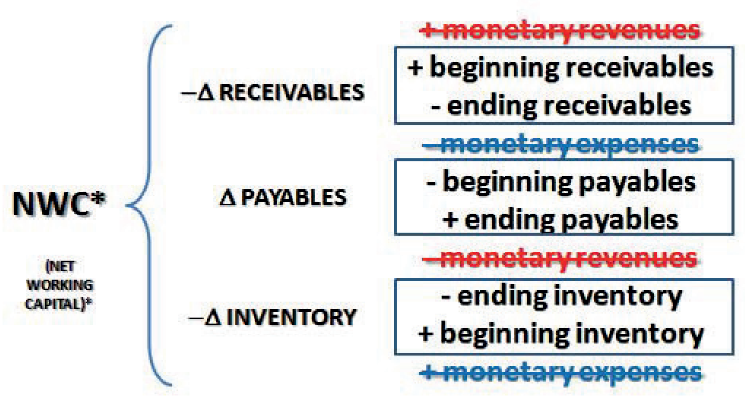
The different concepts and CFO Self Financing has already been explained. The nature of the two aggregates is different, but there is a connection which will be illustrated below with a few mathematical logical steps.



Subtracting the self financing the CFO and considering monetary definitions of both, you get the following equation.



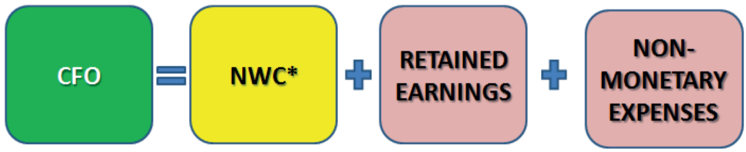
Considering all the elements of the equation it is possible to make the following simplifications of items that have the opposite sign.



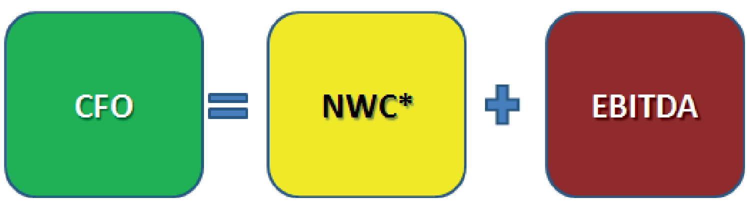
The difference between CFO and Self Financing is therefore obtained the Net Working Capital: NWC * (as the NWC is usually composed of [inventory + receivables + cash – payables], an asterisk has been added because this aggregate is devoid of a single element: the cash).

Cambiando l'ordine degli elementi ed isolando il CFO si ottiene la seguente equazione: CFO = SELF FINANCING + NWC*

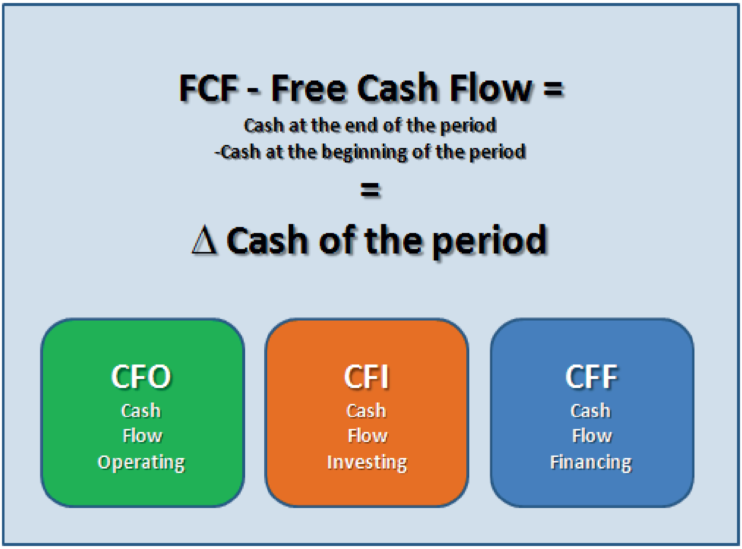
Considering the definition of self financing as [retained earnings + non–monetary expenses] and replacing it in the previous equation we obtain the following equation.



If you assume for simplification only depreciation as non–monetary costs, [retained earnings + non–monetary expenses] could correspond to the EBITDA margin.



It must remember that the CFO is only one component of the Total Cash Flow (FCF: Free Cash Flow) generated or used by the company during a period.



The calculation and the relationship between all elements (CFO + CFI + CFF) that make up the FCF will be discussed in detail in the following chapters.