

The “Frozen Source”: Simplified Solution, with Excellent Results, to Overcome the Problem of Financial Budgeting, in Small and Medium-Sized Companies

Maria Silvia Avi

*Full Professor in Business Administration
Management Department- Ca' Foscari Venezia
S. Giobbe – Cannaregio 873- 30121 Venezia (Italy)*
E-mail: avi@unive.it
Tel: +39 348 3018422
ORCID ID: orcid.org/0000-0003-11164-4410

Abstract

Financial planning, both in small and medium-sized companies (from now on SMEs) and large companies, is characterized by an apparently unsolvable problem and therefore without a specific quantitative solution. The determination of the financial sources necessary to activate the production process must, in fact, be determined, for the purposes of drawing up the general company budget, at the same time as the profit for the year, which depends directly on the amounts of interest expenses and taxes. Interest expenses and, consequently, also the taxes on which they depend, are, however, determined based on the amount of financial sources from which the company decides to provide itself. The issue concerns the contextual determination of the value of loans and profit for the year. Each of these data depends on the value of the other account. That is why it may seem impossible to overcome this obstacle. Extremely complex quantitative instruments are applied in large companies. This article proposes an optimal solution in terms of results that simplifies the problem. It should be noted that the result achieved is very close to the result that can be obtained by applying much more sophisticated instruments. In this work we will illustrate, therefore, a simplified technique usable in order to overcome this apparently unsolvable problem, the solution of which includes what is called "frozen sources" for which the reader is referred to the following pages

Keywords: “frozen source”, budgeting, master budget, financial budgeting, management control

In companies of any size, it is no longer possible to envisage management left to the intuition of the managers, since economic complexity requires precise information, based on which to take decisions, and data concerning the future development of markets and the company itself. Of course, all this is even truer if the company carries out international activities (Dauth, T., Pronobis, P., P., Schmid, S., (2017); Mitter, C., Hiebl, M. R. W., (2017)). In this context, the size of the company is not relevant because even the SMEs perceive the need to manage their business with the support of a valid information system that creates the basis for decisions that are able to maximize effectiveness and management efficiency (Bogsners B., (2016); Bragg, S., M., (2014); Eun C., and Resnick, B. G..

(2015); Fabozzi F. J., Neave E. H., Zhou G., (2012); Warren, C. S., C. S., Reeve, J. M., Fess P. E., (2002); Goebel, S., S., Weißenberger, B. E., (2017)).

In each company, there are two needs which can be summed up in terms of "simplification" and "exhaustiveness", elements which, if relevant in large companies, acquire strategic importance also in SMEs.

Business efficiency requires that analysis and management tools do not represent an unnecessary, costly and therefore counterproductive superstructure (Hopwood, A. G. (1990)). As it says in jargon, "making cards rotate" does not mean to inform. To create an extremely complex "information monster" to be managed and interpreted means causing direct and indirect economic damage to the company. Direct damage is measured through the quantification of costs, which necessarily have to implement and operate such a structure.

However, indirect costs are the most insidious and dangerous. Anyone who deals with information is fully aware of the basic principle that too much information causes disinformation. If only a few specific elements of knowledge are sufficient to decide, overload the information system "obscure" the real interesting information with useless or partially attractive data. Consequently, the decision is taken without the necessary information support which, on the contrary, a rigorous selection of data would have allowed. These principles apply to every situation (Hopwood, A. (1987); Mouritsen, J., K. Kreiner (2016)). In small and medium sized entrepreneurial structures, the choice of the information to be produced and provided is vital. On the one hand, the direct cost of the creation/management of an oversized system causes an economic crash. On the other hand, because often management - overburdened by various tasks linked by the fact that, frequently, operating in a small-medium enterprise also means sharing many organizational functions - considers the principle of "little information but good" an incontrovertible concept for management. In large companies, avoiding unnecessary and/or over-abundant information - compared to the real needs of individual managers - is, if possible, even more important because the increase in management complexity inevitably implies an increase of the need for knowledge and, consequently, the information set that the company management must receive. The correct management of a very structured set of information is, in itself, difficult, but it becomes almost impossible if the data useful for decision making are included in a structure of aggregates/indicators/flows/values that contains much information without any material relevance (Peel M. J., Bridge J., (1998)).

La necessità di avere informazioni mirate, specifiche e realmente utili è pertanto sentita sia dalle piccole e medie imprese (Helsen, Z. , Lybaert, N., Steijvers, T., Orens, T., Dekker, J., (2017)) che dalle aziende di grandi dimensioni (Burchell S., C. Clubb, A. Hopwood, J. Hughes, J. Nahapiet, (1980); Chua, W.T., Lowe, T., Puxty, T., (2015)).

The vital need to have only the essential information (i. e. not accompanied by a series of other communications that are essentially useless for a decision and management point of view) must be combined with the need to be able to rely on complete and exhaustive information tools. Every company, in fact, increasingly perceives the need to have at its disposal elements and information that satisfy all the cognitive needs that are indispensable for decision-making to be carried out in a rational way and in such a way as to guarantee the maximum efficiency and effectiveness of profitability and financial performance.

On the other hand, there is often a dangerous practice of reducing the complexity of management analysis by eliminating transversal and indiscriminate values, data, quotients, aggregations, etc., such as to render the analysis itself essentially useless. The excessive simplification and/or drastic reduction of the data to be analysed, carried out in order to "lean" the information system (i.e. lean accounting), results in the implementation of a system that is unsuitable to improve the decision-making process and enable it to guarantee the maximization of efficiency and management effectiveness.

The need to avoid the creation of oversized structures and the consequent need to develop information systems adapted to the specific size of the company must not lead one to believe that, especially SMEs, due to their small size, can "settle" for a few simple data on the calculation and interpretation. The idea that SMEs can nowadays afford to use rough, incomplete, imperfect and non-exhaustive management tools is wrong and dangerous (Myers, S. C., (1984)).

Avoiding the creation of unnecessary superstructures does not mean, therefore, giving up a complete and exhaustive management analysis system.

The accuracy with which a system is implemented has a considerable impact on the rationality and adequacy of the management's decision-making capacity, both in SMEs and large companies (Baolei Q., Liuchuang, Q. Z., Jinghui S., 2017).

The selection combined with the exhaustiveness of the data/indicators/values to be used in the decision-making process is the necessary condition, although not sufficient, to maximize the effectiveness and economic/financial viability of the company.

The management wants to have an information system in which the starting point of the analysis is very comprehensible and, in an equally intelligible way, the individual steps to be followed are identified so that the information can improve the decision-making process.

Understanding where you start from, correctly interpreting what you have to do on the way and having a comprehensible understanding of the end point of the information process are essential steps so that managers can take full advantage of the pool of data that the proposed system provides to resource managers (Alexander D., Britton, A., Jorissen, A., A., (2011); (Alexander, D., Nobes C. (2016)).

This work will focus exclusively on the programming phase, i.e. on the step in which the company's objectives are defined. In particular, the focus will be on the so-called financial programming, i.e. the phase of identifying the most suitable financial sources to cover the company's liquidity needs.

In order for the programming phase to be implemented effectively and efficiently, it is fundamental to understand what has happened during recent years. It is, therefore, essential to make a comparison between the latest series of actual data held by the company. In order to understand the company's reality, it is in fact "mandatory" to identify the variations created between the values of the last financial year closed and the data concerning the financial statements of past administrative periods. Establishing the temporal trend of the last data relating to these periods is indispensable in order to impress the desired trend on the company's management. Only after having understood past trends and the reasons behind the changes that have occurred in past periods, the company can plan its future in an appropriate manner.

As it is well known, programming and accounting are intertwined in a constant and continuous way until becoming a unitary system impossible to divide. This does not mean that the forecast figures are confused with the current values. The unceasing interweaving of planned and current data, on the other hand, takes place in a constant comparison between what has been in the past, what should have been the future of the company according to the planning plans and what has actually been accomplished. This set of values must necessarily have characteristics of homogeneity and constitute a systemic structure in which each value is connected with any other information data.

For this reason, we propose the implementation of a system, which we have defined as an "integrated information system" in which the predominant part is the economic-financial one, while the element concerning sustainability is smaller. In this system, sustainability is addressed in the last part of the documentation. In the above-mentioned system, sustainability issues are, however, dealt with in depth in a managerial and external communication manner, since this issue, today, is an essential element not only for the environment but also for achieving good economic and financial results in the company. In this article, however, since the focus is on the problem of financial planning, there will be no reference to the part of the integrated information system related to sustainability. This is not because we consider this issue to be of little relevance, but in order to focus attention in the problem of financial programming and, in particular, on the definable methodology of "frozen source" (De Villiers, C., Rouse, P., Kerr, J., (2016); Maas, K., Schaltegger, S., Crutzen, N., (2016), Eizenberg E.,

Jabareen Y., (2017), Tukker A., Tischer U., (2017), Laszlo C., Zhexembayeva N., (2017), Dangelico, R.M., Pujari,D., Pontrandolfo P., (2017).¹

The analysis of accounting data should be managed as a business product. The maximization of the gap between direct and indirect costs incurred to implement/use the information system and the resulting benefits/results must represent a pivotal objective of those who are preparing to implement an analysis/programming system.

In order to maximize the communication and disclosure effectiveness of the in-depth analysis of financial statement data, it is necessary for companies to adopt an integrated analysis system.

It should be specified that an analysis scheme can be defined as "integrated" only when it forms a real system based on the interrelation between all the elements constituting the system itself. Only in the presence of this interconnection is it possible to speak of an analysis system. The system will have the further connotation of "integration" if among the various elements, as well as a correlation that can be expressed in substantial terms, there is also an interconnection of a "terminological" nature. In order to provide a complete, exhaustive and, above all, comprehensible picture about the company situation, it is, therefore, necessary that, within the scope of the analyses carried out, there should be a really conceptual integration to the level of substance and form.

Substantial integration means that the conceptual framework of analysis can cover every area in need of deepening. Formal integration ensures that analysis results are effectively understood and communicated. For example, the use of the same terms for similar concepts is essential if analysis is to be comprehensible to all the subjects for whom it is intended. To note distinct concepts with different words is equally important for a correct understanding of the results obtained from the deepening of the accounting data.

Integration, therefore, means the construction of a uniform scheme that permeates every step to the analysis.

As it is well known, for the analysis of past and planned operating data, a set of specific instruments is used: financial, capital and profit indicators, balance sheet and budget (general and/or operating) reclassifications, financial flows, intermediate income values such as margins, and so on. The adoption of an integrated analysis system implies a necessary substantive and formal correlation between all these instruments. Each operational phase of the information system must be interconnected with the previous and the next phase. The output documents of the budgeting and planning must be able to "talk" with the balance sheet and profit and loss, the re-aggregations and reclassifications must be interrelated to each other in both a formal and a substantial sense, and finally, the micro-aggregates determined during the business analysis must necessarily be correlated with both the output of the programming and the result of the final statement of values. The use of an integrated analysis system makes it possible to develop a management tool for study, data evaluation and budgeting/planning, characterized by a substantially uniform vocabulary and substance; this prevents two conceptually distinct data from being given the same name or, conversely, two substantially equal aggregates having different terminological qualifications.

The analysis of past quantitative data must form a continuum with the budgeting/planning phase, as well as the results of the programming must have a close correlation of the output of the past financial reporting. Only by acting in this way is it possible to create a system of analysis that is really useful for companies, that is to say a system whose income impact in terms of (direct and indirect) costs has a *raison d'être* in the light of the "informative and managerial" results achieved.

Before illustrating the problems that financial budgeting rises in each company, it is important to remember the steps that lead to the definition of the objectives to be achieved. It is only by having these steps clear that the implementation of an efficient and effective information system is guaranteed. Failure to understand the various logical steps that must be properly carried out during the economic/financial budgeting/planning phase may, in fact, lead to the definition of fallacious and

¹ Since the article focuses on the financial programming methodology defined as "frozen source", the reader is referred to specific works on this theme for the study of sustainability issues.

incongruous economic-financial purposes. In many companies, the need for final and preventive analysis is perceived, but the logical path to follow is not clear. Budgeting is a puzzle that must be built according to a precise logic. Failure to follow a correct route may invalidate the programming itself. For this reason, it is necessary briefly to identify a simple but exhaustive way, the sequence of operations that the implementation of a programming system requires.

The analysis of the past financial reporting, the deepening of the global budgeted data of the overall company budget and the correct determination/interpretation of the values concerning individual products/parts/partitions//businesses are, therefore, elements that, necessarily, must coexist in the company through a reciprocal integration.

Since financial budgeting is the main focus on this work, it is necessary to specify the position on the information process in which this forecasting step is placed.

It can be said that financial budgeting is the last step in the company's business budgeting because, once this forecasting phase has been completed, the general corporate budget is drawn up.

The drawing up of the company's budget, i.e. the overall forecast balance sheet/ profit and loss/financial budget, requires that, after having structured all the operating budgets (budget of commercial costs, production costs, overheads, investments, interest expenses, administrative costs, etc.), we proceed to determine the sources of financing and the related charges.

The study and determination of the type of sources of financing and the amount of interest payable constitute the so-called financial budgeting, through which, in substantial terms, the financial feasibility of the economic and capital plans prepared for the following year is assessed.

As already stated above, in the area of management control, the economic and financial budgeting is the predominant part within the system (Hopwood, A. G., Chapman C. S. S., Shields M. D.). (2007) Vol. I; Hopwood, A. G., Chapman C. S., Shields M. D.,(2007) Vol. II). Nevertheless, the financial planning phase is an extremely delicate point during the process of setting the company's general and analytical objectives. If, in fact, all the income and capital objectives could not be achieved due to financial shortfalls, the whole process would have to be restructured from the outset. The financial verification of the feasibility of the corporate programs summarized in the operating budgets and summarized in the general company budget is, therefore, a phase of the decision-making process to which it is necessary to pay particular attention.

As it can be seen operationally in the following pages, the final output of financial budgeting is, in reality, the composite document made up of the profit and loss budget (with budgeted costs, expenses and revenues), Budgeted Balance Sheet (with budgeted assets, liabilities and equity) and financial budget (with cash flow statement), i. e. the general company budget. Financial budgeting is, therefore, the last technical step in global budgeting and, for this reason, leads directly to the drafting of the three documents constituting the general budget.

The financial budgeting must make it possible to assess the financial feasibility of any management action planned for the successive year. To implement this phase, it is necessary to carry out the next operations in advance:

1. Identification of profit objectives with the sole exclusion of interest expenses;
2. Determination of capital investment objectives;
3. Identification of new sources needed to ensure that the above plans can be developed in a profitable and financial way;
4. Balancing the profit and loss budget and capital budget;
5. Calculation of cash flows;
6. Drawing up of the financial budget with a final cash flow statement based upon the values previously identified.

In implementing financial budgeting, we need to overcome a problem which, apparently, may seem unanswered.

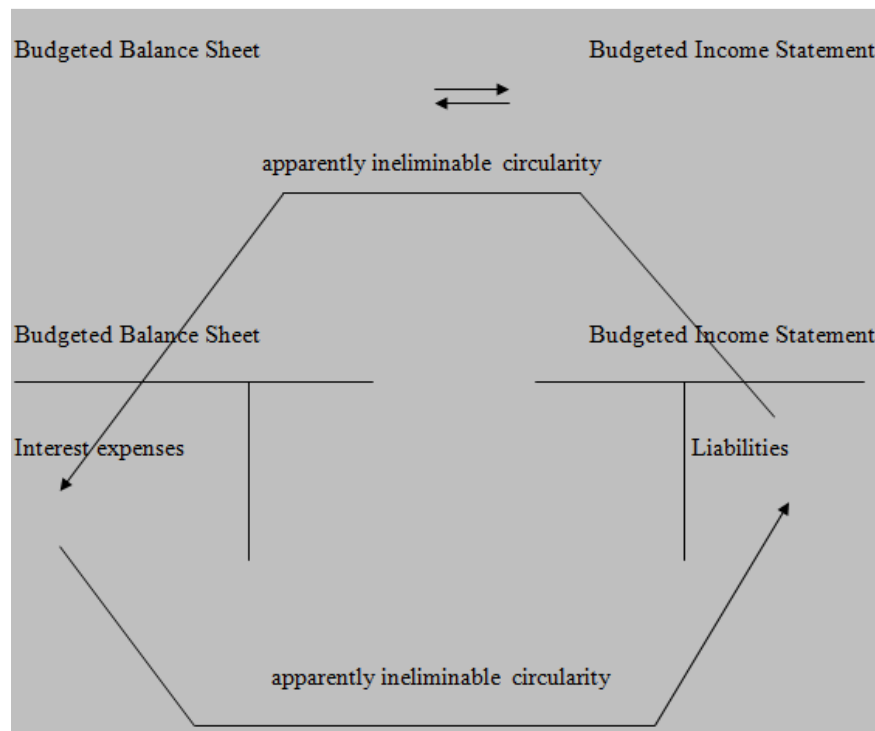
Consider the Budgeted Income Statement and capital budget: when preparing the general company budget (understood as a set of the company's economic, capital and financial budgets) it is obviously necessary to achieve the reconciliation of the three above-mentioned documents.

The Budgeted Income Statement must show the budgeted profit, while the Budgeted Balance Sheet must be balanced between needs and sources. Balancing of assets and liabilities/net equity must be considered a *sine qua non* for financial budgeting to be concluded. In order to balance the budgets, it is necessary to overcome a theoretical and practical obstacle, deriving from what we could call the "circularity" of accounting items.

The Budgeted Income Statement includes interest expenses, which determine taxes and profits. Financial charges depend on the amount and type of debt contracted by the company. The latter values, however, can be quantified only after the determination of shareholders' equity, which, in turn, depends on the amount of the budgeted profit.

It is easy to understand that the items marked by "circularity" are interest expense and debts. Interest expenses cannot be determined because the amount of the payables is not known and the liabilities cannot be identified without a precise quantification of the financial charges.

Figure 1: "Circularity" of interest expenses and liabilities



Expressed in these terms, the problem appears to be unresolved as there are two unknowns that are interconnected. The implementation of financial budgeting, therefore, requires the use of solutions to overcome this obstacle.

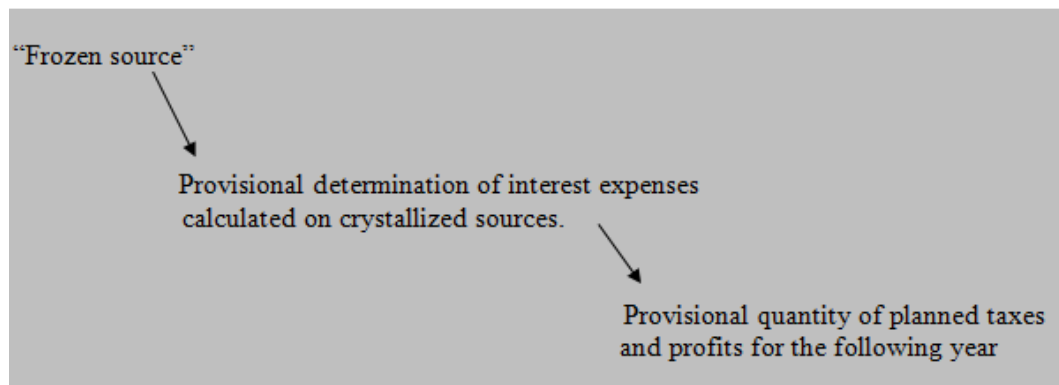
The reconciliation of the two accounting documents (Budgeted Income Statement and Budgeted Balance Sheet) and financial budgeting can be carried out using highly sophisticated mathematical and accounting techniques. From the doctrine, however, a solution has been found in the problem of the so-called "circularity of the accounting items" which, while presenting clear simplifications, leads to an acceptable result as approximated to the data obtainable with more articulated methodologies. What follows, despite the simplification that we will illustrate and that characterizes the frozen source methodology, can be improved through the application of more refined quantitative tools (for everybody see: Charnes, W. W. Cooper and M. H. Miller (1959) and Ijiri, Y., Levy, F. K., Lyon R. C. (1963)). However, therefore, it permits the achievement of results substantially

similar to those realizable through the application of more complex structuring, and which, in any case, require skills that are often lacking in small and medium-sized companies.

The contrivance used to overcome the seemingly insurmountable obstacle of the interconnection between interest charges and liabilities is the "frozen of sources " which consists of the following: temporarily financial sources are "frozen". This means that, initially, all liabilities and equity are "crystallized" based on the closing figures of the last balance sheet. In other words, in the first phase of financial budgeting, it is assumed that the company's liabilities and shareholders' equity will not change, either in decrease or in increase.

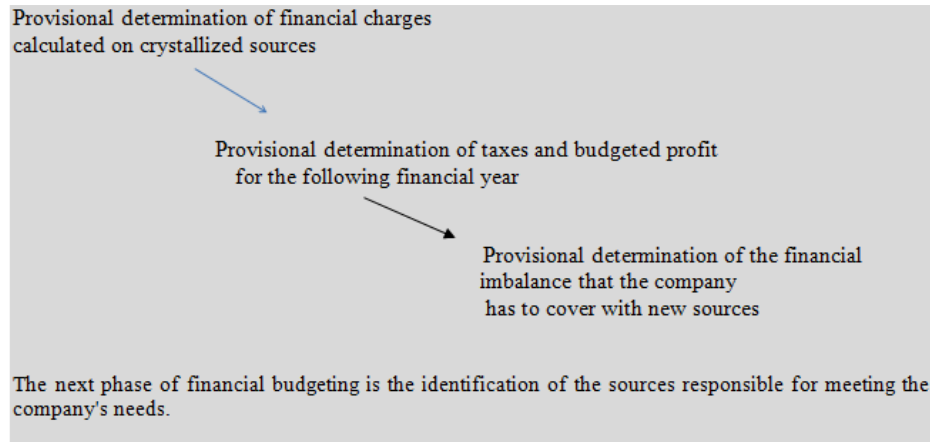
It should be noted that "frozen source" does not in any way mean "blocking" the values shown in the previous year's financial statements. The crystallization of values is, in fact, an operation that, although it does not assume changes in the liabilities of the balance sheet, obviously foresees that the company will meet all the commitments already undertaken. For example, loans are written provisionally for an amount identical to that of the past year, unless, there is a tranche to be reimbursed, in which case clearly the payment of the annual tranche will be properly implemented. The frozen loan will, therefore, not be same in the amount entered in the balance sheet at the end of the foregoing year, but will identify the final value reduced by the repayable tranche in the financial year to be programmed. With the same reasoning, we understand how, for example, the "frozen" tax liability will not be equal to the value recorded in the balance sheet at the end of the year, but will identify the amount to be paid to the Treasury following the calculation of taxes for the year considered by the budget. The "frozen" of sources. Therefore, allows, even if only provisionally, the determination of financial charges and, consequently, of taxes and profit on the year.

Figure 2: Frozen Source



Based on these values, it is possible to draw up a provisional capital budget, in which all assets are the items that the company intends to implement, and all the liabilities and equity are "frozen".

If, after this operation, the liabilities and the equity are perfectly equal to the sum of the assets, the budgeting could be considered completed. The balancing of the Budgeted Balance Sheet would mean that, with the sources already present in the company, it is possible to meet financially all the profit and capital plans identified by the company for the following year. However, this hypothesis is difficult to achieve. In fact, much more frequently it occurs that the two values have a quantitative dyscrasia. If the total assets exceed the sum of liabilities and net assets, the enterprise must finance new investments from new sources. The figure that identifies the difference between the two totals represents the amount of sources that the company must find in order for the economic and financial budgeting to be completed.

Figure 3: Provisional determination of interest expenses due to "frozen source"

Since the sources, hypothetically speaking, can be of different kinds, it is necessary to assign a priority to the various types of debt and/or forms of equity capital when budgeting. In this phase, we identify the type of source that, as a matter of priority, we wish to use; then, descending priority. Based on this classification, the holding must choose the most appropriate sources to be used to cover its requirements.

The choice of the sources to be used to cover this need must be made not only in the light of the scale of priority adopted in the above procedure, but also taking into account the requirements of static financial equilibrium of the company.

For example, if a company wishes to give priority to current account financing for internal reasons. If there are significant needs to be covered, the exclusive use in the source in the short term may lead to a financial imbalance, evidenced by an absolutely unacceptable current ratio.

In order to avoid that, at the end of the budgeting period, each operation has to be reworked from scratch due to the imbalance resulting from the calculation of financial indices based on provisionally programmed values, it is necessary to identify the sources also taking into account static financial constraints. It is therefore, appropriate to set, ex-ante, a number of indicators in budgeting which must necessarily be observed when proactively forecasting objectives. The concurrent use of financial indices, understood as impassable limits, and the priority scale of sources established by the top management, allows the development of a financial planning without elements which, at a later stage, could oblige the managers of the company's overall budget to re-elaborate the company's profit, capital or financial goals.

As indicated above, the financial budgeting is almost complete. In fact, the identification of the type of debt or of the forms of company net equity to which to draw to meet the residual requirement allows the calculation of final interest expenses.

The determination of interest expense allows the calculation of taxes and profit on the year, which indirectly makes it possible to balance the Budgeted Balance Sheet (assets = liabilities + equity). It should be noted that this last phase of budget "squaring" may require some successive approximations which, if carried out in a manner consistent with the assumptions, always lead to the balancing of the capital and profit and loss budget.

The last phase of financial budgeting is the assessment of the dynamic equilibrium of the "predicted" values (obviously, the result of a proactive forecast implemented with the surrounding environment), identified through the management control system. The calculation of financial flows is, in fact, an indispensable element for programming to be completed. This is because, if the drafting of the cash flows and the subsequent preparation of the cash flow statements reveals a situation of substantial dynamic imbalance, it would be necessary to rework all the data to be budgeted from scratch. In the presence of a strong imbalance between recurring sources and not occasional needs, it is possible that the programming, even if it has led to a balanced of budget values, must be revised because, on the one hand, the presence of unbalanced static values is not acceptable, and, on the other

hand, the absence of a dynamic equilibrium is dangerous. The presentation of the cash flow statements is therefore, the closing phase of the financial budgeting only if the data show a balanced situation. Otherwise, budgeting must be called into question from the outset, so the data to be reviewed will not only include financial data, but will also include all proactively projected company values.

In summary, therefore, the phases of financial budgeting, implemented using the simplified methodology of "frozen sources", are as follows:

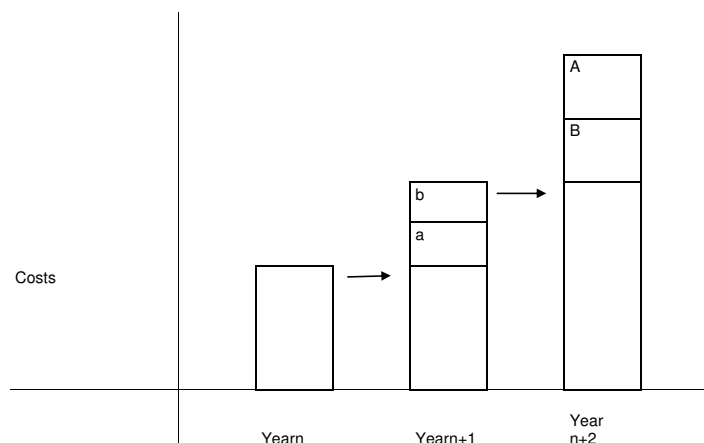
1. Definition of the scale of priorities to be used when selecting new financial sources;
2. Provisional "frozen sources";
3. Provisional calculation of the interest expenses determined on "frozen sources";
4. Provisional determination of taxes;
5. Provisional determination of the planned profit for the year;
6. Provisional preparation of Budgeted Balance Sheet in which all planned investments and "frozen sources" are included;
7. Determining the financial requirements to be covered by new sources;
8. Identification of sources to be used to cover the temporary financial imbalance;
9. Definitive calculation of interest expenses (subject to subsequent approximations);
10. Definitive calculation (subject to successive approximations) of taxes and planned profit;
11. Finalization (unless later forecasts are made) of the Budgeted Income Statement ;
12. Finalization of the Budgeted Balance Sheet (or budget with assets, liabilities and equity) (subject to subsequent approximations);
13. Final preparation of the cash flow statement calculated based on cash flows.

In this respect, it should be noted that programming future values by simply adding a certain percentage to a value of the past year is a theoretically incorrect technique and should therefore, not be applied. This logic can be defined as incremental because the budget values for a financial year are the direct derivation of the data for the prior year, which are automatically increased by an amount that takes into account:

- a) inflation;
- b) changes related to external markets (e. g. planned increase in wages and salaries, increase in the purchase price of materials and/or services, etc.);
- c) the expected increase in the item.

In graphical terms, imagining that an increase in activity is assumed over time, the incremental approach can be represented as follows:

Figure 4: Incremental method for determining business costs



Legend.

a = % increase compared with the past year, due to inflation + expected increases in wages and salaries and purchases of services/materials

b = % increase over the previous year, due to planned increase in the activity of the company

Following the application of this approach, total cost is, by definition, determined as the basis of the total amount of resources allocated during the previous year. This means admitting, on the one hand, that in the past, the item was perfect and managed in the most effective and efficient way, and, on the other hand, that all the activities carried out during the past financial year are indispensable in order to achieve the company's objectives. Each activity carried out is therefore interpreted as an element that cannot be modified over time. What was carried out in the previous period will have to continue to be implemented precisely because the incremental logic is based on the idea that the future cost is only the result of a certain increase in the amount of resources used in the past time. According to this logic, the activities carried out in the company are never called into question, and therefore the future appears as a direct and "mathematical" derivation of the past. The application of such an approach takes little time and effort from an organizational point of view, as the budgeted cost can easily be determined based on the amount of the previous year's negative component.

The negative aspect of the approach in question is the total absence of a really proactive planning between external environment and internal company structure (Fourie, D., Reutener, M., (2012)). This approach does not call into question the levels of effectiveness and efficiency achieved in previous years, but repeats them in the future without a constructive interpretation of the past (Hopwood, A. G. (1973)). This can lead to waste, inefficiencies, unnecessary or even diseconomies activities and miscellaneous dysfunctions being perpetuated over the years without anyone perceiving the need to remedy them (Ikenna, E., Etim, O., (2017); Hopwood, A. G. (1976); Ross S. A., [et al.], (2008), Scott, W., (2014).

The incremental approach, therefore, has many negative consequences, which are increasingly critical for companies. These consequences can be summarized as follows:

- a) following the application of the incremental methodology for calculating total budget costs, there is no control over costs and the resulting continuous increase in costs;
- b) because of the automatic determination of budgeting costs, there is no form of interaction between the different business sectors, since the evaluation and planning of the expenses not involved in any consideration for the diverse areas of responsibility within the company (Jensen, M. C., (2003);
- c) in the event of an obligation to reduce the company's costs, indiscriminate cuts shall be made without prior analysis of the really economic needs of the various units involved in the reduction of negative income components.

It is necessary to examine the characteristics of the incremental approach and to do a meditated analysis of the consequences deriving from its application and efficient integrated information system, and correct budgeting must be carefully analyzed.

Budgeting means to implement a proactive approach with the surrounding environment, an element that, by definition, even considering the past values of previous periods, sees such data only as a starting point (Penman, S. H., (2013)).

The determination of the planned data through the calculation of contribution margins, full tradition costs, costs implemented through the ABC technique, product, line, department, etc. yields, is the correct conceptual structure so that the budgeted data represent valid objectives which, at least in theory, should ensure the maximization of efficiency and management effectiveness and, consequently, income and financial results.

Despite these considerations, in SMEs, incremental programming is often applied because it is simpler and does not require quantitative data that small and medium-sized enterprises frequently do not have. This could, in theory, be acceptable in a first phase of structuring the integrated information system, whose complexity does not allow the application in full of each correct theoretical passage. The use of the incremental method as a "normal" programming tool is, on the contrary, rejected for the reasons described above (Collier P. M., Berry A. J., (2002); Haller, A. Financial accounting developments in the European Union: past events and future prospects, (2002); Hopwood, A. G. (2000)).

The only objective of this work is to illustrate the various stages of financial budgeting. As you can see from the following pages, this budgeting is characterized by a complexity that, even if explained in a simplified way, is extremely structured and complexed. However, it must be said, as mentioned in the previous pages, that the illustrated methodology, although simplified, is used not only by SMEs but also by large companies (Norreklit H., 2017).

In order to prevent the reader from being diverted from the privileged purpose of this work, we opted for a case in which the purely objective was the analytical illustration of the steps that must necessarily be taken in order for financial budgeting to be completed. The merely objective of this article is to explain the methodology of "frozen source". In order to avoid that the reader's attention is diverted from the focus on the problem under analysis, only the financial budgeting will be analytically illustrated.

Since, however, this phase must necessarily follow the determination of profit and capital objectives to insert in Budgeted Income Statement and Budgeted Balance Sheet it was impossible to disregard completely the economic and financial accounting operations and quantitative data. For this motive, the development of a complete case illustrated in a theoretically flawless way would inevitably have made the reader lose the concentration on the specific problem being examined (i.e. methodology so called "frozen source"). No reference was made, as it should be, to analytical data, such as contribution margins, product cost, etc., but, by way of example, we have limited ourselves to apply the incremental method of determining costs and future revenues. With this simplification, which, however, in reality, although not theoretically and doctrinally correct, reflects the behavior of many SMEs, the profitability objectives set by the company Lucky S. p. A. has been identified.

It is relevant underline how it would have been possible to illustrate the procedure defined as "frozen source" even in theoretical terms. However, we preferred to illustrate this problem with an operational example because it is hoped that this article will represent, in addition to a valuable scientific and academic product, also a pragmatic tool that can be used by company managers who, without help, are not able to overcome the problem of the circularity of passive sources of interest illustrated above. The theoretical explanation accompanied by a quantitative exemplification of the "frozen source" methodology, therefore, serves as an operational and managerial level, as well as academic study.

In order to understand, at an operational level, the problems connected with financial planning, it is assumed that "Lucky" & Co.as on 31/12/N has the following balance sheet. It is to be emphasized that, in this article, the version with opposite sections is proposed, i.e. the balance sheet before the implementation of any reclassification, since the legislation of each state proposes its own reclassification and, for internal use, the authors have identified multiple reclassification structures that are also very different from each other (Benston, G. J., M. Bromwich, R. E.). Litan, and A. Wagenhofer, (2006); Burchell S., C. Clubb A. G. Hopwood (1985); Delvaille, P., Ebbers, G. and Saccon, C. (2005) International financial reporting convergence: evidence from three continental European countries, *Accounting in Europe*, 2 (1), pp. 137-164); Di Pietra R, McLeay S., Riccaboni A., (2001); Godfrey J. M., Chalmers K., (2007); Hopwood, A. G., (1999); Oderlheide, D. (2001); Robinson T. R., [et al.], (2015), Nobes, C. W., (2013); Nobes C. (2016); Karthik, R., (2013).

Therefore, only to help the reader, we opted for the budget drawn up in opposing sections:

Balance sheet: *Dare*: Assets; *Avere*: Equity and liabilities and accumulated depreciation.

Profit and loss: *Dare*: costs and expenses; *Avere*: revenues

As you will notice, the solution proposed to overcome the problem, described above, posed by financial budgeting, represents a novelty in the doctrinal panorama but management accounting is constantly evolving (Curtis, E., Sweeney, B., (2017)) and, not always, the best solution identifies the most complex one. Sometimes, an acceptable simplification can be the solution to the problem you want to overcome (Aouni, B., McGillis, S., S., Abdulkarim, M. E., (2017)). And the "frozen source" method is part of these simplified solutions that lead to absolutely excellent results, especially if the companies are small and medium sized (Azudin, A., Mansor, N., (2017); Cohen, J., Krishnamoorthy, G., Wright, A., (2017)).

Table 1: Balance Sheet 31 December Dicembre Year N

Assets	Amount	Liabilities and Equity	Amount
Cash and cash equivalents	50	Currentbankliability	300
Inventories	400	Trade and otherliabilities*	4.600
Trade and otherreceivables	500	Short-term provisions for post-employment benefits	50
Property, plant and equipment	10.000	Accumulateddepreciation Plant and Equipment	4.500
Financial assets	9.500	Accumulated Depreciation Property	5.000
	2.000	Short-term borrowings	300
		taxpayables	700
		Long-term provisions for post-employment benefits	400
		Non currentloan	400
		Share capital	1.885
		Reserves (Retained earnings)	500
		Revaluationreserves	100
		Profit for the year	715
		Current.miscellaneousliabilities	3.000
Total Assets	22.450	Total equity and liabilities	22.450

* Of which: 1.000 payables to suppliers of raw materials, 2.000 plant liabilities, 1.000 payables to industrial service providers, 600 payables to plant suppliers.

Table 2: Profit and Loss Year N

Expenses and Costs	Amount	Revenues	Amount
Depreciation	100*	Sales	11.500
Inventories 1/1/N	500	Closing Inventories 31/12/n	400
Contigent/extraordinary expenses.	30	Interest income	100
Capital losses on plants	20	Capital gains on plants	5
Wages and salaries	1.000	Contingent/extraordinaryincome	10
Post-employment benefits	100		
Commercial costs	200		
Miscellaneousexpenses**	1.400		
Administration expenses	1.000		
Production costs	3.000		
Interestexpenses	250		
Tax	700		
Raw materials purchases	3.000		
Total Expenses	11.300		
Profit for the year	715		
Total balancing	12.015	Total revenues	12.015

*Depreciation 100 : Plant and equipment depreciation : 80 , Property depreciation: 20

** The costs are part of core business.

The budgeting of the year N+1 provides for the following management actions:

purchase of equipment 5,000;

purchase of buildings 1,000;

purchase of shareholdings 1,000;

purchase of securities 12,000.

Each investment was expected to be made within the first week of January of the year n+1.

It is assumed that all these investments will be settled in cash by year n+1.

In the n+1 financial year, it was planned to eliminate a fully depreciated plant (historical value 1,500). The depreciation of the plant sold was completed three years earlier.

No capital losses or capital gains in this sale were expected to be realized. All other long-term assets were not divested.

Profit of the year N would have been allocated for 215 to reserves, 500 to dividends.

According to the planning carried out, it was known that the medium duration of debts should be raised to 80 days, while the average duration of receivables would be 60 days

In the year N+1, the turnover of the inventories was to be increased to 3.

In the year N+1, the projected earning's figures would have been characterized by the following increases:

sales + 60%

commercial costs + 40% (payment within the year N+1)

administrative costs + 30% (payment within the year N+1)

production costs + 50% (payment within the year N+1)

miscellaneous costs + 7,14% (payment within the year N+1)

The securities held and purchased were and would continue to be speculative in nature.

The shareholdings would not have been held for sale.

According to the plan, the securities would have guaranteed interest of 1.43%, while the holdings would have allowed about 100 dividends to be obtained.

It was believed that, in the year N+1, the cost of labour should not change.

As regards depreciation, the applicable rates would be as follows:

depreciation of new plants 8,4 %

depreciation of new buildings 1%.

As far as assets held by the company on 31 December year N, the rates would not have changed.

Due to the expected intensive use, the rate applied was 100% of the above rate (all depreciation was considered deductible for tax purposes).

There was no change in the efficiency of raw material use. However, it was considered that consumption would decrease by 0.302% due to a reduction in the purchase price of raw materials.

It was believed that the new mortgage ignited object in the. n + 1 could be contracted so as not to burden the n + 2 year of repayment installments

The post-employment benefit was directly proportional to the amount of wages and contributions.

In the year N+2, was expected a loan repayment of 100 and a payment of 100 post-employment benefit.

No advance payments of tax were assumed.

The interest rate on the new loan would have been 6% (this rate was also applied on the loan repaid in year N+1) while the percentage on the bank current account would have been 8%.

The tax rate would have been 50% of income. For the sake of simplicity, it would have been assumed that pre-tax income corresponded to taxable income.

It would also have been assumed that, if sources had been frozen, the interest expenses for the year N+1 would have been perfectly equal to the charges shown on the budget for year N (it is therefore assumed that interest rates would remain the same, and the flows would be similar for both years).

The financial plan shall be drawn up bearing in mind that:

1. The current ratio (Current Assets/Current liabilities) should not have been less than 1.5 %;
2. The indebtedness ratio (Net Assets/Equity) should not have been higher than 3.6;
3. The order of priority in the selection of new sources would have been as follows:
 - a) privileged debt over equity capital
 - b) privileged short-term over long-term debt
 - c) preference given to suppliers over bank loan

Solution

Temporary Budgeted Income Statement Year N+1

The determination of these values is based on the hypothesis of frozen sources. In view of this assumption, the expenses, costs and revenues are determined as follows:

$$\text{Consumption year N} = 3.000 + 500 - 400 = 3.100$$

Consumption year N+ 1:

= $3.100 + 60\% = 3.100 + 1.860 = 4.960$ $4.960 - 0,302\% \text{ DI } 4.960 = 4.945$ (consumption year N+1)

Turnover of inventories (raw materials) = $4.945 / \text{Closing Inventories } 31/12 = 3$

Closing Inventories 31/12/N+1 = 1.648

Consumption = Inventories 1/1+ raw materials purchases – Closing Inventories 31/12

Raw materials purchases = 6.193

Depreciation= $100+420+10 = 530$

Wages and salaries = $1.000 + 60\% = 1.600$

Commercial costs = $200 + 40\% = 280$

Post-employment benefits = $100 + 60\% = 160$

Administration expenses = $1.000 + 30\% = 1.300$

Miscellaneous expenses = $1.400 + 7.14\% \text{ DI } 1.400 = 1.500$

Sales = $11.500 + 60\% = 18.400$

Interest expenses = $250 - \text{interest expenses } 6\% \text{ on the debt installment} = 250 - 18 = 232$

Interest income = $1,43\% \text{ SU } 14.000 = 200$

Dividends from shareholding investments= 100

According to the information, no capital gains and/or losses shall be recorded.

In the absence of precise information, no contingent/extraordinary income and contingent/extraordinary expenses will be indicated.

In the absence of precise information, no current miscellaneous liabilities (3,000) and , plant liabilities (2,000 ,payables to industrial service providers(1,000) and payables to plant suppliers (600) will be indicated.

Table 3: Temporary Budgeted Income Statement n. 1

Expenses and Costs	Amount	Revenues	Amount
Depreciation	530	Sales	18.400
Inventories 1/1/N+1	400	Closing Inventories 31/12/N+1	1.648
Interest expenses	232	Interest income	200
Wages and salaries	1.600	Dividends from equity investments	100
Post-employment benefits	160		
Commercial costs	280		
Administration expenses	1.300		
Miscellaneous expenses	1.500		
Production costs	4.500		
Raw materials purchases	6.193		
TOTAL COSTS	16.695		
PRE-TAX INCOME	3.653		
Tax	1.826		
Profit for the year	1.827	TOTAL REVENUES	20.348

Temporary Budgeted Balance Sheet n. 1

Cash: it remains equal.

Inventories: it corresponds to the closing inventories of the provisional budgeted income statement n. 1

Plant: initial value less historical value of plant sold plus planned purchases = 13,000

Properties: initial value plus planned purchases = 11,000

Securities: initial value plus planned purchases = 14,000

Shareholdings: planned purchases: 1,000

Trade and other receivables :

average duration of receivables = $\text{Trade and other receivables} / [\text{sales (+value added tax } 20\% \text{)} / 360]$

$60 = X / (18.400 + \text{value added tax}) / 360$

Trade and other receivables = 3.680

Current bank liability : frozen
 Trade and other liabilities (only raw materials)
 average duration of debts = Trade liabilities (only raw materials)/ [raw material purchases (+value added tax 20%)/360]
 $80 = X / (6.193 + \text{value added tax}) / 360$
 Trade liabilities (only raw materials)= 1.651
 Short-term provisions for post-employment benefits: the information is given to the text.: 100
 Accumulated depreciation Plant and Equipment= accumulated initial depreciation – accumulated depreciation sold plan + Depreciation year N+1 = 3.500
 Accumulated depreciation property: accumulated initial depreciation property + depreciation year N+1= 5.030
 Short-term borrowings: the information is given to the text. : 100
 Not current loan: frozen (it should be noted, however, that the short-term liabilities (mortgage repayments) already include an amount of 100)
 Long-term provisions for post-employment benefits: long-term provisions for post-employment benefits year N + Post-employment benefits year N+1 – short- term liabilities = 460
 Share capital: frozen
 Reserves: initial reserves + profit allocated to reserves = 715
 Profit: profit in temporary budgeted income statement = 1.827

Table 4: Temporary Budgeted Balance Sheet n. 1

Assets	Amount	Liabilities and equity	Amount
Cash and cash equivalents	50	Current bank liability	300
Inventories	1.648	Trade liabilities	1.651
Trade and other receivables	3.680	Short-term provisions for post-employment benefits	100
Property,	11.000	Accumulated depreciation Plant and Equipment	3.500
Plant and equipment	13.000	Accumulated Depreciation Property	5.030
Financial assets	14.000	Short-term borrowings	100
Shareholding investment	1.000	tax payables	1.826
		Long-term provisions for post-employment benefits	460
		Non current loan	300
		Share capital	1.885
		Reserves (Retained earnings)	715
		Revaluation reserves	100
		Profit for the year	1.827
TOTAL ASSETS	44.378	TOTAL LIABILITIES AND EQUITY	17.794

TOTAL "UNBALANCE" = 44.378 – 17.794 = 26.584

As you can see, needs are not covered by frozen sources. If the two totals were equal, financial budgeting would have been substantially completed as all new investments would be financed from the new sources.

In this case, however, there is a difference of 26,584. This means that in order to complete the financial forecasting, it is necessary to identify new sources for 26,584. If this is impossible, budgeting must be rectified from the outset. Data from economic forecasting they are linked to planned investments and cannot be implemented due to financial constraints, should also be reprocessed and reconstructed. The whole budgeting should therefore, be restructured in its entirety, since the financial feasibility of a program inevitably leads to a total rethinking of the program itself.

At this point, new sources need to be identified in order to proceed with financial forecasting. If this is done in a "random" way, it could occur when the analyst concludes the budgeting "mathematically" but realizes, ex-post, that the financial situation thus created is completely unbalanced.

In order to avoid this, sources are identified during forecasting by considering financially balanced assumptions from the outset.

For this reason, for example, financial ratios are identified, which cannot be disregarded.

In the case before us, there are two indices:

current ratio not less than 1.5

debt ratio not exceeding 3.6.

To decide which sources to use, it is therefore, necessary to consider the limits set in terms of financial ratios.

The choice of sources, however, stems from a "priority scale" hypothesis which must be decided before programming begins. In other words, it is a question of identifying which sources will take precedence in the choice, always considering the limits of the financial ratios that the controller sets himself.

Each company must prioritize the use of sources, and this order varies from company to company.

Lucky & Co. assumes that this order of priority has been established:

- 1) as far as possible, the company requires loans from financial institutions and just as a last resort increase share capital
- 2) as regards debts, the company seeks to make full use of short period debt and only in residual terms will it turn to sources for a long time to come
- 3) in the area of current debt, the company will make maximum use of financing from suppliers. Only for the remainder will it use bank debt.

It must be pointed out that this is only a hypothesis of priority and as such, can undergo changes in the entrepreneurial landscape.

Defining the priorities of sources to be used, the first question to be asked is as follows: can the imbalance of 26,584 be fully financed by debts?

In order to answer this question, it is useful to reclassify the provisional budgeted balance sheet in a concise manner, since it is necessary to assess whether the coverage of the imbalance is compatible with the maximum debt ratio of 3.6 (Subramanyam, K.). R., (2014); Megginson W. L., Smart S. B. Graham, J. R. R., (2010))

To do this it is necessary to reclassify the budget

Table 5: Temporary Budgeted Balance Sheet n. 1reclassified

Assets		Liabilities and Equity	
CASSA	50	Currentbankliability	300
Cash and cash equivalents	1,648	Tradeliabilities	1,651
Inventories	3,680	Short-term provisions for post-employment benefits	100
Trade and otherreceivables	14.,000	Short-term borrowings	100
TOTAL CURRENT ASSETS	19,378	tax payables	1,826
Plant and equipment	13,000	TOTAL CURRENT LIABILITIES	3,977
(Accumulated depreciation Plant and Equipment)	3,500		
Property,	11,000	Long-term provisions for post-employment benefits	460
(Accumulated Depreciation Property)	5,030	Non currentloan	300
		TOTAL NON CURRENT LIABILITIES	760
Share holding investment	1,000		
TOTAL NON CURRENT ASSETS	16,470	Share capital	1,885
		Reserves (Retained earnings)	715
		Revaluationreserves	100
		Profit for the year	1,827
		TOTAL EQUITY	4,527
NET ASSETS	35,848	TOTAL "FROZEN SOURCE"	9,264

The unbalance is obviously equal to that determined based on the non-reclassified balance sheet (26,584)

Debt ratio in case of coverage of the imbalance with capital of third parties:

$$\text{Debt ratio} = \frac{\text{Net assets}}{\text{Equity}} = \frac{35,848}{4.527} = 7,91$$

If all the unbalances were covered by debts, the debt ratio would not be compatible with the initial obligation (debt ratio not exceeding 3.6). The needs must therefore, also be covered by equity capital (share capital).

These results, consequently, require shareholders to be asked for another contribution.

In order to determine the new share capital increase, it is needed to identify the shareholders' equity that is compatible with the debt ratio of 3.6 and then verify how much is indispensable to increase the share capital.

If the ratio were to be equal to 3.6, the compatible net assets would amount to 3.6:

$$\text{Debt ratio} = \frac{35,848}{X} = 3,6$$

$$X = 9.957$$

WARNING: if this figure were to be considered, and the increase in share capital determined as the difference between 9,957 and the existing share capital, a problem would arise, which would only be highlighted at the end of the financial programming. However, this problem would mean that all financial budgeting needs to be redoubled from scratch.

In order to understand the problem, we are going through the next stages of programming:

- a) after having identified the increase in share capital, it is possible to determine the amount of third party capital used to finance the unbalance;
- b) third party capital (excluding suppliers) is characterized by the presence of financial charges;
- c) these interest expenses will inevitably increase the costs of the budgeted income statement;
- d) against higher costs, there will also be an equally inevitable reduction in profit;
- e) the reduction in profit will cause final closing shareholders' equity to have a value lower than the temporary shareholders' equity, on which the debt ratio has been calculated;
- f) If, therefore, the debt ratio is determined on the final values, there is a necessary worsening of the ratio compared with the calculation made on the temporary values.

These considerations make it clear that the total equity identified above, although apparently it might be useful for calculating the increase in share capital needed to deal with the unbalance, is, in fact, not the correct figure to be taken into account.

Since we have explained that the ratio calculated on the final data deteriorates compared to the one identified on the temporary, it is needed to calculate the equity congruous with the debt ratio constraint of 3.6, considering a moderately inferior ratio as, subsequently, this ratio will inevitably worsen. In order to avoid overruns of the ratio, it is therefore, needed to identify the compatible net equity by setting as a target a debt ratio slightly lower than 3.6. Only in this way will it be indispensable to avoid having to do everything again at the end of the budgeting period, since the ratio calculated on final data is not congruous with the limit set at the time of budgeting.

For this reason, we determine the equity compatible with a debt ratio of, for example, 3.3 (NB! The identification of the value to be taken as a reference is left to the sensitivity of the person making the financial budgeting)

$$\text{Debt ratio} = \frac{35,848}{X} = 3,3$$

$$X = 10.863$$

To determine the increase in share capital necessary to finance the unbalance, we compare 10,863 with the temporary "frozen" equity. The difference will be the increase in share capital.

10,863 - 4527 = 6336. This figure represents the increase in share capital to be implemented.

Once the increase in share capital has been identified, it must be calculated how much I still have to finance through third-party capital:

Initial unbalanced 26,584-(increase in share capital 6,336) = 20,248

20. 248 represents the third party capital that the undertaking must find in order to cover the initial unbalance

At this point, the following question must be asked: is it possible to cover the unbalance of 20,248 entirely with short-term debts?

The response requires an assessment of the current ratio. The constraint is that this ratio must not be less than 1,5.

It is therefore necessary to see whether, if the 20.248 euros were to be financed by short-term debt, the current ratio would remain adequate:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{19,378}{3.977 + 20,248} = 0,80$$

As it can be seen, if we were to finance all the remaining unbalance with current liabilities, the current ratio would be 0.80, which is completely unacceptable.

For this reason, clearly the remaining unbalanced of 20,248 must be covered by short period debt, as far as possible, and by long-term sources for the remainder.

In order to determine the maximum short period usable debt, current liabilities must be identified that are compatible with the current ratio of 1.5:

$$\text{Current ratio} = \frac{19,378}{X} = 1,5$$

X = 12,918. This figure represents the maximum short-period liability compatible with the current index of 1.5.

We now analytically identify the liabilities items on which it is possible to act:

Table 6: Current Liabilities with Current Bank Liabilities Frozen

Trade liabilities ALREADY DETERMINED BASED ON THE INITIAL ASSUMPTIONS	1,651
Short-term provisions for post-employment benefits OBVIOUSLY NOT MODIFIABLE	100
Short-term borrowings OBVIOUSLY NOT MODIFIABLE	100
tax payables OBVIOUSLY NOT MODIFIABLE	1,826
Current bank liability MODIFIABLE	300
TOTAL CURRENT LIABILITIES	3,977

Table 7: Current Liabilities with Current Bank Liabilities Modified

Trade liabilities ALREADY DETERMINED BASED ON THE INITIAL ASSUMPTIONS	1,651
Short-term provisions for post-employment benefits OBVIOUSLY NOT MODIFIABLE	100
Short-term borrowings OBVIOUSLY NOT MODIFIABLE	100
tax payables OBVIOUSLY NOT MODIFIABLE	1,826
Current bank liability MODIFIABLE	
COMPATIBLE TOTAL CURRENT LIABILITIES	12,918

At this point, clearly the increase in current liabilities can be achieved by expanding passive banks. The current account payable will therefore, the amount to the initial debt + the increase compatible with the maximum liability identified above. The new short-term liabilities will consequently, amount to:

Table 8: New Total Current Liabilities

Trade liabilities ALREADY DETERMINED BASED ON THE INITIAL ASSUMPTIONS	1,651
Short-term provisions for post-employment benefits OBVIOUSLY NOT MODIFIABLE	100
Short-term borrowings OBVIOUSLY NOT MODIFIABLE	100
tax payables OBVIOUSLY NOT MODIFIABLE	1,826
Current bank liability MODIFIABLE	8,941 + 300
COMPATIBLE TOTAL CURRENT LIABILITIES	12,918

With these new calculations, we have increased (in comparison to the figures for year n) the banks by 8,941. We have therefore, identified fresh sources compatible with the financial constraints for an amount of 8,941.

Initial unbalanced	26,584
(Increase share capital)	6,336
Third-party financing	20,248
Third-party financing	20,248
New short-term sources	8,941
New requirements.????	11,307

As the reader can see, demand points have been placed close to the determination of really requirements. This is because the figure identified does not, in reality, represent the needs to be covered since the financing received by the bank for 8,941, in turn creates a new requirement equal to the amount of interest net of the effect of the application of taxes, with consequent reduction of the financial needs.

This leads to the determination of the residual needs to be financed, taking into account the impact of interest expenses on 8,941.

The requirements to be met by long-term sources are therefore, the following:

$20.248 - 8.941 + 357$ (interest expenses create a lower requirement than their amount, since the tax-effect must be taken into account. For this reason, since the tax rate is 50%, the requirement created by the increase in bank borrowings amounts to 357) = 11,664

The requirements of 11,664 must be met by a long-term source. This source must be determined taking into account how interest of 6 % will be calculated on the amount charged from the bank.

Since the tax rate is 50%, the amount to be requested from the bank must be determined considering that there will tax savings (the higher are the interest, the lower are the taxes, provided that the interest is tax deductible. In this case, we assume the full deductibility of interest expenses)

The amount of the new loan must therefore be calculated as follow:

$$11.664:x = 97:100$$

$$x = 12.024 \text{ (new loan)}$$

The fresh source creates new interests for 721 (6% on 12.024)

At the end of these determinations, the total financial charges amount to:

$721+715$ (interest expenses on the increase of current bank liability)+232=1.668 (total interest expenses)

If the total interest expenses amount to 1,668, the budgeted income statement will be determined as follows:

Table 9: Temporary Budgeted Income Statement N. 2

EXPENSES AND COSTS	AMOUNT	REVENUES	AMOUNT
Depreciation	530	Sales	18,400
Inventories 1/1/N+1	400	Closing Inventories 31/12/N+1	1,648
Interest expenses	1,668	Interest income	200
Wages and salaries	1,600	Dividends from equity investments	100
Post-employment benefits	160		
Commercial costs	280		
Administration expenses	1,300		
Miscellaneous expenses	1,500		
Production costs	4,500		
Raw materials purchases	6,193		
TOTAL COSTS	18,131		
PRE-TAX INCOME	2,217		
Tax	1,108		
Profit for the year	1,109	TOTAL REVENUES	20,348

At this point, however, there is a problem: all the calculations made so far have been adjusted based on a tax liability of 1,826. In fact, the tax debt, on a temporary basis, now stands at 1,108. This makes it necessary to reconsider the amount of current liabilities.

With the new tax liability, short-term liabilities amount to:

Table 10: Current liabilities

Trade liabilities	1,651
Short-term provisions for post-employment benefits	100
Short-term borrowings	100
tax payables	1,826
Current bank liability	8,941 + 300
TOTAL CURRENT LIABILITIES	12,918

As the current bank liability is the only potential item subject to change, the amount of the current account owed is represented by the difference between the maximum short-term liabilities allowed (12,918) and the total of the items already defined. The current account payable in this case amounts to $300 + 9,659$

Whether the bank amounts to 9,659, the interest expenses created by this increase to be charged in the profit and loss account amount to 772, while the requirement created by this new source (net of the tax effect) amounts to 386. For this reason, the unbalance to be covered by long-term sources amounts to

$$20,248 - 9,659 + 386 \text{ (interest expenses net of the tax effect)} = 10,975$$

The requirement of 10,975 must be met by a long-term source. This source must be determined taking into account how interest of 6 % will be calculated on the amount of the bank loan.

Since the tax rate is 50%, the amount to be claimed from the bank must be determined considering that there will be tax savings.

The amount of the new loan must therefore be calculated as follows: $10,975 : x = 97:100$

$$x = 11,314 \text{ (new loan)}$$

The new source creates interests for 678 (6% on 11,314)

At the end of these determinations, the total interest expenses amount to :

$$232 + 678 + 772 = 1,682 \text{ (total interest expenses)}$$

If the total financial charges amount to 1.682, the budgeted income statement will be determined as follows:

Table 11: Temporary Budgeted Income Statement N. 3

EXPENSES AND COSTS	AMOUNT	REVENUES	AMOUNT
Depreciation	530	Sales	18,400
Inventories 1/1/N+1	400	Closing Inventories 31/12/N+1	1,648
Interest expenses	1,682	Interest income	200
Wages and salaries	1,600	Dividends from equity investments	100
Post-employment benefits	160		
Commercial costs	280		
Administration expenses	1,300		
Miscellaneous expenses	1,500		
Production costs	4,500		
Raw materials purchases	6,193		
TOTAL COSTS	18,145		
PRE-TAX INCOME	2,203		
Tax	1,102		
Profit for the year	1,101	TOTAL REVENUES	20,348

This change leads to a change in the determination of the total unbalance. Considering this change in profit, the unbalance that necessarily has to be covered by a new loan amounts to:

$20,248 - 9,659 + 386 + 726$ (delta utile: $1,827 - 1,101 = 726$) = 11,701 (It needs to be covered by new loan).

The new loan must amount to

$11,701: x = 97: 100$

$x = 12,063$ (new loan)

interest expenses on the new loan = 723

total interest expenses = $232 + 772 + 723 = 1,727$

The temporary budgeted income statement n. 4 can be drawn up based on these new figures.

Table 12: Temporary Budgeted Income Statement N. 4

EXPENSES AND COSTS	AMOUNT	REVENUES	AMOUNT
Depreciation	530	Sales	18,400
Inventories 1/1/N+1	400	Closing Inventories 31/12/N+1	1,648
Interest expenses	1,727	Interest income	200
Wages and salaries	1,600	Dividends from equity investments	100
Post-employment benefits	160		
Commercial costs	280		
Administration expenses	1,300		
Miscellaneous expenses	1,500		
Production costs	4,500		
Raw materials purchases	6,193		
TOTAL COSTS	18,190		
PRE-TAX INCOME	2,158		
Tax	1,079		
Profit for the year	1,079	TOTAL REVENUES	20,348

The temporary budget balance sheet statement n. 2 can be drawn up based on the above figures

Table 13: Temporary Budgeted Balance Sheet n. 2

Assets	Amount	Liabilities and Equity	Amount
Cash and cash equivalents	50	Current bank liability	9,959
Inventories	1,648	Trade liabilities	1,651
Trade and other receivables	3,680	Short-term provisions for post-employment benefits	100
Property,	11,000	Accumulated depreciation Plant and Equipment	3,500
Plant and equipment	13,000	Accumulated Depreciation Property	5,030
Financial assets	14,000	Short-term borrowings	100
Shareholding investment	1,000	tax payables	1,079
		Long-term provisions for post-employment benefits	460
		Non current loan	12,363
		Share capital	8,221
		Reserves (Retained earnings)	715
		Revaluation reserves	100
		Profit for the year	1,079
TOTAL ASSETS	44,378	TOTAL LIABILITIES AND EQUITY	44,357

As it can be seen, the total assets do not coincide perfectly with the total liabilities and equity.

There are now two alternatives:

- 1) I consider the difference to be "satisfactory" and I impute the difference to the cash. In this case, the amount of the cash is reduced by 21.
- 2) I do not consider the difference to be adequate. In this case, the difference found must be covered by new sources in order to bring the net liability to 44,378.

If you want to go down this road, there are three alternatives:

- a) further increase in equity capital
- b) increase in short-term liabilities
- c) increase long-term liabilities

It should be noted that any increase in share capital would not entail any additional interest expenses. Therefore, if such an increase were chosen, the share capital would have to be incremented by 21 in the budgeted balance sheet statement, and the temporary budgeted income statement would consequently, become definitive.

If, on the other hand, there was to be an increase in short-term or long-term liabilities, the interest expenses would have to be modified (it is of course considered that the suppliers could not be further expanded as this value was determined taking into account the average duration of debt identified in the planning stage). In such a scenario, the provisional budgeted income statement should be amended following the increase in interest expenses.

As far as the decision to change the liabilities for the short or long-term is concerned, it should be noted that, in the reality of the company being planned, there is only one possibility. In fact, short-term liabilities cannot be further increased due to the current ratio constraint.

It is therefore, clear that, if the increase in share capital is not chosen, the decision must be taken to increase liabilities for a long time.

The choice between the two options (share capital increase or mortgage increase) depends on the priority assumptions made since the beginning. Since it has been established that indebtedness towards third parties was preferable to the increase in share capital, the only way forward is to consider the increase in the loan payable.

In this case, the need for a loan of 21 would correspond with the need for a new loan of:

$$21:x=97:100$$

$$x= 22$$

On the new loan, interest expense of 1 will have to be calculated.

Assuming these new data, the company mater budget is composed as follows:

Table 14: Final Budgeted Income Statement

Expenses and Costs	Amount	Revenues	Amount
Depreciation	530	Sales	18,400
Inventories 1/1/N+1	400	ClosingInventories 31/12/N+1	1,648
Interestexpenses	1,728	Interestincome	200
Wages and salaries	1,600	Dividends from equityinvestments	100
Post-employment benefits	160		
Commercial costs	280		
Administration expenses	1,300		
Miscellaneousexpenses	1,500		
Production costs	4,500		
Raw materials purchases	6,193		
TOTAL COSTS	18,191		
PRE-TAX INCOME	2,157		
Tax	1,079		
Profit for the year	1,078	TOTAL REVENUES	20,348

Table 15: Final Budgeted Balance Sheet Statement

Assets	Amount	Liabilities and Equity	Amount
Cash and cash equivalents	50	Currentbankliability	9,959
Inventories	1,648	Tradeliabilities	1,651
Trade and otherreceivables	3,680	Short-term provisions for post-employment benefits	100
Property,	11,000	Accumulated depreciation Plant and Equipment	3,500
Plant and equipment	13,000	Accumulated Depreciation Property	5,030
Financial assets	14,000	Short-term borrowings	100
Shareholdinginvestment	1,000	taxpayables	1,079

Assets	Amount	Liabilities and Equity	Amount
		Long-term provisions for post-employment benefits	460
		Non currentloan	12,385
		Share capital	8,221
		Reserves (Retained earnings)	715
		Revaluationreserves	100
		Profit for the year	1.078
TOTAL ASSETES	44,378	TOTAL LIABILITIES AND EQUITY	44,378

It is now necessary to check if the financial indices determined during the budgeting phases are still within the parameters:

debt ratio = $35.847/10.114 = 3,54$ debt ratio within the parameter

current ratio = $19.377/12.889 = 1,5$ current ratio within the parameter

In order to consider the programming completed, it is now necessary to draw up the cash flow statement (Cory, S. N.; Envick, B. R.; Patton, E. B., "(2011); Megginson W. L., Smart S. B.). Graham, J. R., (2010)).

In the writer's opinion, apart from judgements about the appropriateness of using the illustrative scheme proposed by IAS 7 Statement of Cash Flow or the structure imposed by the Italian accounting principle OIC 10 Statement of Cash Flow or one of the reports illustrated by the doctrine for internal business management purposes, it is significant to underline that the interpretation of the values included in the report depends on two fundamental elements:

- first of all, it is essential to understand how cash flows are to be interpreted, so it is required to understand the logic of a positive or negative assessment of the dynamic financial situation of the company;
- it is also significant to understand the information needs of the user for whom financial reporting is intended. Only knowing the real needs of those who analyze the summary document of the flows, it is possible to draw up a clear, intelligible and useful informative report for evaluating the company's dynamic financial situation.

The interpretation of financial requirements and sources is based on a qualitative comparison of cash inflows and outflows. These items must be conceptually separated between needs/sources that occur periodically in the company and requirements/sources of a not occasional nature. The analysis, therefore, requires a comparison between recurring requirements versus recurrent source and non-recurring needs versus infrequent expenditure, naturally focusing on the substance and not on the form of the underlying contracts (Hopwood, A. G., (1990)). Financial equilibrium can only be said to have been achieved if recurring source exceeds periodic requirements. Clearly the greater the difference between the two aggregates, the more solid the firm's financial equilibrium can be considered. If, in fact, resorting to an infrequent source to meet an equally sporadic need is a sign of an excellent financial equilibrium. Clearly, this situation represents the perfect financial equilibrium because, if this was the case, the recurring source would not only be able to cover the periodic needs, but would even contribute to the coverage of purely occasional requirements.

The objective of the flows is therefore, to identify all financial requirements and source so that they can subsequently be subject to qualitative monitoring.

Therefore, only by contrasting recurring sources (i.e. sales, active rents, active rents, active rents, interest active, etc....) and recurring requirements (tax (Zareh Asatryan, Z., C. Castellon, T. Stratmann (2016)) leases payable, wages and salaries, etc....) is it, in fact, able to analyze the dynamic equilibrium of the enterprise.

The correctness of the flow calculations seems to be a *sine qua non* condition for the reporting to be correct. This statement, apparently obviously, conceals a reality that can sometimes hide problems in determining requirements and sources. There are, in fact, a number of highly problematic items which, if not dealt with properly, lead to the calculation of incorrect flows. This issue will be specifically addressed in a subsequent article. Here we will simply explain how important it is that the cash flows recorded in the statement are quantitatively correct in their individuality.

As mentioned above, the interpretation of cash flows requires a comparison between recurring needs/sources and occasional requirements/sources. In this respect, however, it must be considered that a balance between homogeneous flows is not sufficient to express a positive opinion on the dynamic financial situation within a company. Let us assume, for example, that Alfa is characterized by the following situation:

- 1) total recurring needs: 100
- 2) total recurring sources: 120.

If attention was concentrated to the total value of the cash flows, this could erroneously lead to a positive assessment of the company's financial situation. However, dynamic equilibrium is only guaranteed when there is an additional condition, which is essential for the company to be financially stable.

In order to understand the relevance of this condition, it is required to clarify a fundamental element of entrepreneurial management. Each company is characterized by a management focus that identifies itself in its core business. Typical activity must represent the origin, *par excellence*, of corporate income, costs, assets, liabilities and financial-monetary flow. The core business, therefore, even though it must be managed together with other factors that generate costs and revenues, even of a high magnitude - for example, financial and tax management (payable interest expenses, taxes on income and assets) - must represent the core of the company's core business. If in this activity income and financial benefits are drained from non-typical activities, the overall situation of the company would be negative, but much more serious would be the possibility that the company's business activity would be characterized by a negative trend due to an unfavorable typical management. In this case, in fact, the possibility of the company's income and financial recovery would certainly be more difficult than if this activity had, on the contrary, a positive trend.

Just as the quantification of the income generated by ordinary operations requires a regrouping of costs and revenues according to the logic of belonging to or not belonging to typical activities, the evaluation of a company's dynamic financial situation also requires an analysis of the cash flow from that management.

The sum of the sources and monetary requirements generated by the performance of typical activities is commonly defined as "monetary characteristic cash flow". This aggregate represents what, in a healthy business, should identify the source of liquidity *par excellence*.

Comparison between recurring requirements vs. recurring sources is necessary in order to arrive at an overall assessment of the company's financial situation (in terms of income statement, balance sheet and cash flow), but it is not sufficient to express an opinion on the financial situation. In addition to the above comparison, it is essential to obtain information about the amount of the "monetary characteristic cash flow", some therefore represent a founding element without whose knowledge it is not possible to understand whether the company is financially balanced. For example, if the typical activity, rather than constituting the preferred source of recurring sources, drains cash resources, it would be difficult to state that the company's financial situation is characterized by equilibrium and stability.

The characteristic cash flow must of course be interpreted at the same time as all other cash flows produced by the company. This analysis consists of a qualitative assessment of the flows indicated in the report. This document, if drawn up for internal business analysis purposes, does not have a mandatory structure. In my opinion, the scheme characterized by greater clarity and intelligibility is the one proposed within the "integrated information system", since each element of the report is implicitly interrelated to each item of the set of values provided to the company management. As an example, after the individual flows have been calculated in the worksheet², Lucky's report is shown, structured according to the scheme of the integrated information system:

² In order to facilitate the reader and to increase the clarity of the determination of the data contained within the cash flow statement, it was decided to use the worksheet for the determination of cash flows, even if this identifies a mere accounting passage for drawing up the cash flow statement.

Table 16: Worksheet for Determining Cash Flows

Valori Contabili	1/1	31/12	Cash Requirements	Cash Sources
Cash and cash equivalents	50	50		
Inventories	400	1,648		
Trade and other receivables	500	3,680		
Property	10.000	11,000	3,000	
Plant and equipment	9.500	13,000	5,600	
Financial assets	2.000	14,000	12,000	
Shareholding investment	----	1,000	1,000	
Current bank liability	300	9,959		9,659
Trade liabilities	1.000	1,		
Property liabilities	2.000			
Production service liabilities	1.000			
Plant liabilities	600			
provisions for post-employment benefits	450	560	50	
Accumulated depreciation Plant and Equipment	4.500	3,500		
Accumulated Depreciation Property	5.000	5.030		
Loan/borrowings	700	12,485	300	12,085
tax payables	700	1,079	700	
Share capital	1.885	8,221		6,336
Reserves (Retained earnings)	500	715		
Revaluation reserves	100	100		
Profit for the year	715		500	
current .miscellaneous liabilities	3.000		3.000	
Depreciation	530			
Inventories 1/1/N+1	400			
Interest expenses	1,728		1,728	
Wages and salaries	1,600		1,600*	
Post-employment benefits	160			
Commercial costs	280		280*	
Administration expenses	1,300		1,300*	
Miscellaneous expenses	1,500		1,500*	
Production costs	4,500		5,500*	
Raw materials purchases	6,193		5,542*	
Tax	1,079			
Sales	15,220			15,220*
Closing Inventories 31/12/N+1	1,648			
Interest income	200			200
Dividends from Shareholding investments	100			100
TOTAL			43,600	43,600

*The asterisked items represent the items constituting the characteristic cash flow expressed in monetary terms (cash flow = 502) i.e. the cash flow coming from the performance of typical company operations.

As it has already been pointed out, the structure of the financial statements can be drawn up in such a way as to the best suit the company. In this article we report, first of all, the structure proposed in the integrated information system (Avi, M. S, (2012)). This format contains all the information required by IAS/IFRS (IAS No. 7 Statement of Cash Flow) (Wagenhofer A., Ewert, R. (2016); Nobes C., Parker R., (2016); Nobes C., (2017); Haller A, Walton P., Raffournier B. (2003); Nobes C., (2017) and by Italian national accounting but it is structured in such a way as to maximize useful information on the dynamic financial performance within the company. The value of this cash flow statement is twofold: on the one hand, it highlights all the information required by the international accounting standards IAS/IFRS IAS 7 Cash Flow) and by the Italian national accounting principles (Principle OIC n. 10 Cash Flow Statement) but, in addition, it also highlights the cash flow, i. e. the cash flow from the performance of the company's core business activities. The latter information is missing in both international and Italian accounting standards (at least in the structure prepared to use the direct method).

The following page will show the scheme proposed by the Italian Accounting Organization (OIC), whose task is to issue the Italian accounting standards, which should gradually introduce

international standards in Italy. The structure proposed by document n. 10 OIC Cash flow statement is very similar to that illustrated by IAS no. 7 Statement of Cash Flow. Everybody will be able to choose the structure he considers best suited to his company.

As many authors have already pointed out, the diffusion of a managerial culture aimed at managing companies based on the data indicated above and reported below, leads to an overall improvement of the business activity execute by economic entities (Cooper, D. J., Ezzamel, M., Qu S., Q., (2017)).

Table 17: Cash Flow Statement in the Integrated System of Analysis

	REQUIREMENT	SOURCES
CASH FLOW FROM CORE BUSINESS ACTIVITIES	502	
LONG-TERM TANGIBLE AND INTANGIBLE ASSET MANAGEMENT		
*purchaseplant	5,600	
* purchaseproperty	3,000	
FINANCIAL MANAGEMENT		
* obtainment current bank loan		
* obtainment financial loan/borrowings	300*	9,659
* reimbursementShort-term borrowings	3,000*	12,085
reimbursement financial miscellaneous liabilities.	1,728	
* payment interest expenses		
CAPITAL MANAGEMENT	12,000	200*
* purchase financial assets	1,000	100*
* purchase Shareholding investment		
* taking interest income		
* taking Dividends from Shareholding investments		
MANAGEMENT OF PROVISIONS FOR NON-TAX EXPENSES AND PROVISIONS FOR RISKS AND CHARGES *		
TAX MANAGEMENT * paymenttax	700*	
NON-CHARACTERISTIC MANAGEMENT *		
MANAGEMENT TFR	50*	
* payment post-employment benefits		
GESTIONE PATRIMONIO NETTO E DIVIDENDI	500*	6,336
*increase share capital		
*distributiondividends		
CHANGE IN CASH AND CASH EQUIVALENTS		
TOTAL	28,380	28,380

Table 18: Cash flows from operating activities, determined using the direct method provided for by the Italian accounting standard OIC 10 Cash flow statement

	N+1*
A. Flow of operational management expressed in monetary terms (direct method)	
B. mmethod)metododiretto)	
C. mmethod)metododiretto)	
Receipts from customers	15.220
Other receipts	-----
(Payment to raw material suppliers)	(5.542)
(Payment to suppliers of services)	----
(Payment for wages and salaries)	(1.600)
(Payment Administration expenses)	(1.300)
(Payment miscellaneous expenses)	(1.500)
(Payment Commercial costs)	(280)
(Payment production expenses)	(5.500)
(Payment tax)	(700)
(Payment interest expenses)	(1.728)
Taking interest income	200
Taking dividends from equity investments	100
(Payment post-employment benefits)	(50)
flow of operational management expressed in monetary terms (A)	2.680
B. Investment management flow expressed in monetary terms	
<i>Tangible fixed assets</i>	
(Investments plant and property) i)	8600
Disinvestments	
<i>Intangible assets</i>	
(Investments intangible assets)	
Disinvestments	
<i>Financial fixed assets</i>	
(Shareholding Investments)	1.000
Disinvestments	
<i>Non current financial assets</i>	
(Investments financial assets)	12.000
Disinvestments	
<i>Acquisition or sale of business units net of cash and cash equivalents</i>	
Investment management flow expressed in monetary terms (B)	21.600
C. Financial activity flow expressed in monetary terms	
<i>Capital of third party</i>	
Increase current bank loan	9.659
New funding	12.085
Reimbursement loan	(300)
Reimbursement financial miscellaneous liabilities	(3.000)
<i>Own funds</i>	
Increase share capital	6336
(Reimbursement share capital)	
Sale (purchase) own shares	
Distribution dividends	(500)
Financial activity flow expressed in monetary terms (C)	
Increase (reduction) cash and cash equivalent (A ± B ± C)	
Cash and cash equivalent 1° January year N+1	50
Of which:	
bank and postal deposits	
check	
cash	50
Cash and cash equivalent 31° December year N+1	50
Of which:	
bank and postal deposits	
check	
cash	50

*The Italian accounting standard OIC 10 Cash flow statement provides for the indication of the values for two financial years. In this case, since the focus was on year n+1 only, it was not deemed appropriate to include the data for the previous year.

As it can be seen, the company produces a negative cash flow. In fact, the cash flow of the company's characteristic management, rather than producing liquidity, drains the company's cash flows to a large extent. Clearly, in the absence of the main recurring source, the recurring sources are inferior to the non-recurring needs.

If the financial analysis is of a final nature, the assessment of the company's financial situation can only be extremely negative; however, if the determination of needs and sources has been carried out as part of the financial budgeting, the subsequent action may have various operational implications. Certainly, the above case reveals a dynamic financial unbalanced. The lack of typical incoming cash flow and the exceeding of recurring requirements with respect to the amount of sources of a similar nature suggest that the values deriving from such programming should be accepted merely if the proactively forecast situation is considered absolutely exceptional. If, on the other hand, the figures reflect a consolidated trend that cannot be modified, it would probably be desirable to amend the business plans drawn up for the following year, which, of course, cannot only involve financial values, but must be carried out by changing the company's overall budgeting from the outset.

From the above example, we can understand the informative relevance of the characteristic monetary cash flow. The absence of any communication about its size and ability to create or drain liquidity prevents a complete assessment of the company's dynamic financial situation.

In fact, it is possible that recurring sources are higher than not occasional requirements and that at the same time the characteristic cash flow drains abundant financial resources. Such a situation, even in the presence of sources that do not occasionally exceed recurring needs, is certainly not a balanced and harmonious financial situation.

From the above it can be seen that the past phase of financial budgeting in which all sources of financing and corresponding interest expense are determined, ends with the drawing up of the company's master budget, consisting of a budgeted income statement, budgeted balance sheet statement and financial budget.

As explained above, the acceptance and therefore, closure declaration of the entire programming process requires that the overall data show a global consistency, failing which any value needs to be re-discussed.

If the output of the programming gives a set of values accepted by the management, we proceed with the final drawing up of the company's master budget and, from that moment, the values contained therein become, to all intents and purposes, the objectives that each manager must achieve.

The analysis of the data of the Lucky & Co. reveals that the cash flow derives, in part, from the needs due to the payment of miscellaneous debts of the year N connected with service providers, which are not in year N+1. This could lead to the conclusion that the situation is not thus dramatic, since this payment could be occasional as a result of a non-recurring past situation. If so, the judgment may be less severe. However, no doubt that the statement of cash flows cannot lead to a positive opinion on the financial equilibrium of the company's liquidity. Of course, this is all the truer if the situation described above cannot be considered merely exceptional and occasional, but rather indicates a management condition that may arise again in the future. It is obvious that, in this case, the judgement on the dynamic financial situation of the company can only be decidedly negative(Emmanuel, C., Otley, D., D., Merchant, K, (2013)).

At the conclusion of the deepening of financial budgeting - the latest step in the entire business budgeting and planning - it is important to underline a principle that, although obvious, is often misrepresented by entrepreneurs, especially if the companies are of small and medium size.

In the previous pages, it has been pointed out that, in order to maximize effectiveness and management efficiency, it is essential to implement an integrated system of analysis and proceeds, at the end of income and capital budgeting, to financial programming, which is the last step of the company's "predictive" decision-making process (Kaka, A P., Price, A. D, (1994)).

The deepening of the company's global situation, understood in its entirety, through the comparison with multiple aggregates of balance sheet and income statement items that can be inferred from the financial statements, is a sine qua non condition for management to be defined upon the basis

of the company's actual situation and not on the wave of emotions that are more or less unrelated to the entrepreneurial reality.

While, on the one hand, the analysis of balance sheet values represents a fundamental step to ensure consistency between choices/decisions and the company's balance sheet, income statement and financial position, on the other hand, this type of in-depth analysis is not sufficient to ensure proper management. The objective of the financial statements is, in fact, to analyze the economic-financial and financial results of the business entity as a whole.

As it is clear, this analysis, while, on the one hand, it is essential to manage the company, on the other hand, it is not sufficient to ensure that entrepreneurial management can be carried out in full awareness of what is happening within the company (Wagenhofer A., Ewert, R., (2016)).

In order to manage companies in a conscious way, it is required to understand that the financial statements, although important and absolutely necessary, are characterized by two characteristics that represent, at the same time, its main strengths and its most important "limits":

- 1) Firstly, the financial statements (balance sheet and profit and loss statement) aggregate values on the company level; this means that the enterprise is interpreted as a single entity and, consequently, the accounting data cover the entire business structure;
- 2) secondly, the financial statements contain only present values; by definition, no forecast and/or programmed values can be included in this document, even if part of the balance sheet and income statement data are influenced by considerations relating to the company's future (for example, depreciation, closing stocks, provisions for future risks and charges, etc.).

In order to maximize effectiveness and management efficiency, it is therefore, essential, on the one hand, that choices are based on analytical data concerning individual objects of interest (e. g. products, departments, etc.), and, on the other hand, that management can rely not only on current or past data, but also on budgeted values, without which the decision-making process takes, dangerously, decisions that are not in line with the real needs of the company.

As already stated in the previous pages, to ensure effective and efficient management it is therefore, necessary to interpret the company not only as a unitary entity, but also as a sum of "molecular" elements, whose correlations and interdependencies are a fundamental element of the company's success.

As far as the deepening of these "business units" is concerned, the financial statements demonstrate the "intrinsic" limits of an information tool whose primary objective is to highlight the financial position and income statement of the company interpreted as a single entity. Management control overcomes these theoretical/operational limitations and allows the deepening of the "fractional" management within the enterprise.

The study of the peculiar products placed on the company's market, the singular departments making up the company and the different activities developed in the entrepreneurial sphere is only one of the primary objectives of management control. This system, with its programming logic, coupled with an assessment of values, enables entrepreneurial energy to be channeled along the path of a constant increase in the company's global profitability. Management control is therefore, not an academic or educational tool, but an indispensable element for all companies, even small and medium-sized ones, to improve their performance.

The need to be able to count on analytical data concerning individual objects (e. g. products, departments, lines, activities, etc.) is accompanied by the need for managers to make their decisions on the basis not only of actual data, but also of programmed values.

In recent years, considering the complexity of the economic environment in which companies operate and the greater frenzy of the markets, the budget and the very concept of planning have been the subject of questions, both on the part of researchers and of the operational operators, about their real usefulness in a historical moment characterized by the impossibility of a certain and precise "forecast" (always if it can be said that, in other historical epochs, this has been possible). Precisely in times of uncertainty, on the contrary, the management within a company must be based not on

improvisation, but on a set of cognitive elements that allow managers to develop the decision-making process in full awareness of the income, financial and patrimonial consequences associated with such decisions. Undoubtedly, the information that can be retrieved from the financial statements cannot be considered exhaustive, since the conciseness, the precision obtained at the expense of timeliness and the inclusion of only actual values make this document insufficient so that the information needs of the heads of companies can be said to be satisfied.

This information - in relation to which timeliness must be guaranteed, even at the expense of a certain (limited!) degree of precision - must also make it possible to evaluate managerial performance. This information is a key element in ensuring that promotions, bonuses in the broad sense and penalties are allocated to managers in a fair and transparent manner. In this respect, it must be stressed that the responsibility assigned to the various managers must always be accompanied by decisional levers on which the subjects must be able to act freely. The assignment of responsibilities and the associated attribution of management levers implicitly requires, first, that the accounting elements on which individual managers can act are fully known, and second, that these values are correctly attributed to the directly responsible parties. Clearly, these objectives can only be achieved if the information support can provide, in a timely manner, analytical information regarding the peculiar areas of competence.

The achievement of effectiveness and management efficiency requires that the system orients its structure towards objectives in line with the medium-long-term strategy. Short-term budgeting must therefore be constantly, and in all its parts interlinked in a two-way fashion with medium-term planning.

Generally speaking, it is pointed out that management control represents a system to support decisions and not a set of procedures whose primary objective is to inspect and/or verify the performance of managers. This statement is, in reality, only partly true. A "complete" control system (and subsequently the reason for using this term will be understood) is, as a matter of fact, always characterized by the phase of comparison between expected results and achieved results. This comparison unavoidably leads to an assessment of management performance. If, therefore, on the one hand, it is really that the control system should not be seen as a means of inspection, on the other hand, it is equally true that the phase of identifying variations between set objectives and achieved results certainly involves a moment of verification.

With regard to the problem of the correlation between the concept of control and the support and/or inspection activity, it is important to underline that the implementation of the integrated system of analysis/programming/planning/budgeting can be successful and, consequently, succeeds in ensuring that objectives of efficiency and management effectiveness can be achieved, only if the whole management shares the aims of the project and perceives the complete information system not as a punitive tool, but rather as an aid to business management. In this sense, it can certainly be said that the integrated system of analysis/programming/control does not represent a set of inspection and verification procedures. However, this does not mean that, inevitably, within an information structure such as the system proposed here, a phase must be envisaged in which expected results and achieved objectives are compared, without, of course, that all this is implemented in a spirit of "criminalization" towards the action carried out by individual managers.

As it will have been noted from the above, it has been deemed appropriate to overcome the theoretical doctrinal position characterized by the interpretation of management control as a system "partially detached" from the set of information, accounting and not, related to the analysis of the company considered in its entirety and unity. Many authors, addressing the problem of control, raise a virtual "wall" between balance sheet analysis and information structure related to individual analytical objects, such as products, departments, etc. (Hopwood, A. G., (2008)). This position is not reflected in the company's reality as the management of a company/business perceives the need to be able to rely upon a series of information that, overall, can provide useful tools for improving the decision-making process. In this sense, interpreting management control as "something separate" from all the other means of information at company level and as such, difficult to integrate with the latter means laying the foundations for this:

- 1) the creation of duplication of information;
- 2) the lack of information on specific sectors not explicitly covered by the individual parts of the wider information system, even in organizational terms;
- 3) the creation of an information superstructure that is self-supporting in terms of data production, accounting and not, often unnecessary and, for this reason, misleading;
- 4) the training of organizational figures who, potentially, may come into conflict as a result of the different role played within the company organization. Da ciò consegue che il sistema a supporto delle decisioni manageriali non può essere limitato al c.d. controllo di gestione, ma è opportuno o, meglio, indispensabile che sia interpretato come un sistema integrato di analisi e programmazione.

This vision, of course, does not prevent us from interpreting management control as part of the company's wider information system, but avoids the danger of considering management control as a priority over any other form of intra-company communication. It is for this reason that, when dealing with the issue of the information structures necessary for management to prepare the decision-making process more in line with the company's reality, one should not limit oneself to discussing management control, but, by dropping unnecessary and misleading labels; it would be opportune or better said, indispensable to refer to a broader "integrated system of analysis/programming/control".

The above considerations do not, of course, prevent us from highlighting how corporate managers need additional and differentiated information compared to what can be offered by a system exclusively focused on the financial statements (Hopwood, A. G. (1983)). This has already been stressed several times and is therefore considered to be acclaimed.

The perception of the unitary nature of the information system, on the part of both users of information and system operators, guarantees the maximization of the company's performance, since purely a complete vision of the company's situation (understood both as a unit and as a sum of micro-sections) allows decisions to be made that are more consistent with the real company situation. While, on the one hand, it is detrimental to have only a global view of the company without being able to rely on information about individual products, activities, departments, etc., on the other hand, it is equally dangerous to base management actions solely on fragmented information. This means that a successful information system can just be guaranteed if, on the part of all managers, it is interpreted as a single entity within which it is possible to identify various areas of focus of interest, without this entailing any separation between "sections" of the system. Unity does not refer therefore, only to the company, but it is an element that must necessarily also distinguish the information system on which the entire management decision-making process is based.

In conclusion, it is appropriate to recall a principle often underestimated by scholars as taken for granted, in the face of an erroneous conviction, frequent in some companies, especially small and medium-sized enterprises. This principle can be summed up as follows: "to plan, financially and profitably, does not mean to foresee or be certain of producing income".

Many readers will have a smile reading these words. In reality, however, they are dictated by extensive experience in the companies, which has shown that in many enterprises, there is a misconception of the concept of planning and management control.

First of all, it is important to underline that financial and income planning does not simply mean forecasting future data. As everyone knows, prediction involves a passive relationship with the external environment, while budgeting pro activity to what surrounds the program.

Being proactive means wanting to affect the environment, refusing to be passively about happens outside the company.

Those who aim to implement an integrated system of analysis/programming/control cannot accept to suffer what is imposed by the exterior market/environment and, consequently, must identify actions through which to intervene directly on the surrounding reality. Forecasting prevents scheduling because it is limited to imagining what external agents want to impose upon the company. Such behavior does not fit in with the logic of control, as it runs counter to the very concept of control. Programming therefore, means identifying objectives from the perspective of those who are aware that

they can influence what happens in the market. Obviously, this does not imply "a delirium of omnipotence", but, much more simply, hypothesizes the willingness to act in an perspective that refuses the logic of mere adaptation to actions dictated by others and permeates every act with a will to modify the existing. Planning and budgeting therefore, means not supremely accepting what others have decided, but, on the contrary, acting in such a way as to impose what others want to "suffer" or, at the very least, to express a willingness to interact with third parties and markets, which rejects the preconceived idea that management's action is irrelevant to what happens outside the company.

The last point concerns the second part of the above principle, which is that, in itself, an information system, especially if complex and complicated (think of the financial planning phase), produces excellent management results. Clearly, this is a distorted idea of the concept of information. Taking decisions assuming complete, correct and fully exhaustive data does not, of course, guarantee the achievement of satisfactory income/capital/financial results. The field research (Wagenhofer A. (2016); Hopwood, A. G. and Peter Miller (1994)) shows, however, that the implementation of an integrated analysis/programming/control system, even though the risks of error and/or evaluation are ineligible, (Ittner, C. D....), Keush, T., (2017), especially in SMEs, help to attain significant income/capital/financial objectives. It does not take a long time to understand how such an opinion is rooted in a misconception that improperly links the concept of information to the idea of "solving business problems". To decide based on correct and exhaustive data does not guarantee the company's success. Furthermore, the opposite is true because it is decidedly hard to assume that satisfactory economic results will be achieved through the absence of an integrated analysis/programming/control system.

Being able to count on such an information structure does not give the security of generating income and/or financial balance, but as already explained, the lack of information also makes it undoubtedly difficult or even impossible to achieve such results.

References

- [1] Alexander D., Britton, A., Jorissen, A., (2011) International Financial Reporting and Analysis, Cengage Learning EMEA
- [2] Alexander, D., Nobes C. (2016). Financial accounting: an international introduction, Pearson.
- [3] Aouni, B., McGillis, S., Abdulkarim, M. E, (2017), "Goal programming model for management accounting and auditing: a new typology", *Annals of Operations Research*, Vol. 251, Issue 1–2, pages 41–54.
- [4] Avi, M.S, (2012), *Managerial Accounting*, Vol. I, Financial Analysis, Eif e-book.
- [5] Azudin, A., Mansor, N., (2017), "Management accounting practices of SMEs: The impact of organizational DNA, business potential and operational technology", *Asia Pacific Management Review*, on line August 2017.
- [6] Baolei Q., Liuchuang L., Qingz Z., Jinghui S., (2017), "Does Internal Control Over Financial Reporting Really Alleviate Agency Conflicts?" , *Accounting & Finance*, Vol. 57, Issue 4, pages. 1101-1125, 2017
- [7] Benston, G. J., M. Bromwich, R.E. Litan, and A. Wagenhofer, (2006). *Worldwide financial reporting: The development and future of accounting standards*. Oxford University Press.
- [8] Bogsners B., (2016) *Implementing Beyond Budgeting*, Wiley.
- [9] Bragg, S., M., (2014), *Financial analysis: a business decision guide*, Kindle Edition.
- [10] Burchell S., C. Clubb, A. Hopwood, J. Hughes, J. Nahapiet, (1980). The roles of accounting in organizations and society, *Accounting, Organizations and Society*, Vol. 5, issue 1, Pages 5-27.
- [11] Burchell S., C. Clubb A.G. Hopwood (1985). "Accounting in its social context: Towards a history of value added in the United Kingdom", *Accounting, Organizations and Society*, Vol. 10, issue 4, pages 381-413
- [12] Charnes, W. W. Cooper and M. H. Miller (1959), *Application of Linear Programming to Financial Budgeting and the Costing of Funds*, *The Journal of Business* Vol. 32, No. 1, pages 20-46

- [13] Collier P.M., Berry A.J., (2002) "Risk in the process of budgeting", *Management accounting research*, Vol 13, issue 3, pages 273-297
- [14] Cohen, J., Krishnamoorthy, G., Wright, A., (2017) "Enterprise Risk Management and the Financial Reporting Process: The Experiences of Audit Committee Members, CFOs, and External Auditors", *Contemporary Accounting Research*, Vol. 34, Issue 2, pages 1178–1209.
- [15] Cory, S. N; Envick, B. R; Patton, E. B., (2011) Sound financial decision making for entrepreneurs: can the gaapcah flow statement mislead", *Entrepreneurial Executive*, issue 16, pages 63-69.
- [16] Chua, W.T., Lowe, T., Puxty, T., (2015) ,Critical perspective in management control, MacMillan.
- [17] Cooper, D. J., Ezzamel, M., Qu S., Q., (2017)" Popularizing a Management Accounting Idea: The Case of the Balanced Scorecard", *Contemporary Accounting Research*, Vol. 34, Issue 2, pages 991–1025.
- [18] Curtis, E., Sweeney, B., (2017) "Managing different types of innovation: mutually reinforcing management control systems and the generation of dynamic tension", *Accounting and Business Research*, Vol. 47, Issue 3 pages 313-343.
- [19] Dangelico, R.M., Pujari,D., Pontrandolfo P., (2017)," Green Product Innovation in Manufacturing Firms: A Sustainability-Oriented Dynamic Capability Perspective", *Business Strategy and the Environment*, Vol. 26, Issue 4, Pages 490–506.
- [20] Dauth, T., Pronobis, P., Schmid, S., (2017),"Exploring the link between internationalization of top management and accounting quality: The CFO's international experience matters",*International Business Review*, Volume 26, Issue 1, pages 71-88.
- [21] De Villiers, C., Rouse, P., Kerr, J., (2016) "A new conceptual model of influences driving sustainability based on case evidence of the integration of corporate sustainability management control and reporting", *Journal of Cleaner Production*, Volume 136, Part A, pages 78-85
- [22] Delville, P., Ebberts, G. and Saccon, C. (2005) International financial reporting convergence: evidence from three continental European countries, *Accounting in Europe*, 2(1), pp. 137–164.
- [23] Di Pietra R, McLeay S., Riccaboni A.,(2001) "Regulating Accounting Within the Political and Legal System",*Contemporary Issues in Accounting Regulation*, Chapter 3, Pages 59-78, Springer.
- [24] Emmanuel, C., Otley, D., Merchant, K, (2013), *Reading in Accounting for management control*, Springer.
- [25] Eun C., and Resnick, B.G. , (2015), *International Financial Management*, McGraw-Hill
- [26] Eizenberg E., Jabareen Y., (2017),"Social Sustainability: A New Conceptual Framework", *Sustainability*, Vol. 9, issue 1, pages 1-16
- [27] Fourie, D., Reutener, M., (2012)"Revisiting participatory budgeting as a potential service delivery catalyst", *African Journal of Public Affairs*, Vol. 5, issue 2, pages 80-91.
- [28] Godfrey J.M., , Chalmers K., (2007) *Globalisation of Accounting Standards*, Edgar Elgar
- [29] Goebel, S., Weißenberger, B.E., (2017), "Effects of management control mechanisms: towards a more comprehensive analysis", *Journal of Business Economics*, Vol. 87, Issue 2, pages 185–219.
- [30] Fabozzi F. J., Neave E.H., Zhou G.,(2012) *Financial economics*, Hoboken Wiley
- [31] Haller, A. Financial accounting developments in the European Union: past events and future prospects, (2002). *European Accounting Review* vol 11 issue 1, pages 153-190.
- [32] Haller A, Walton P., Raffournier B. (2003). *International accounting*. Cengage Learning EMEA.
- [33] Helsen, Z. , Lybaert, N., Steijvers, T., Orens,T., Dekker, J., (2017) "Management control system in family firms: a review of the literature and directions for the future", *Journal Economic Surveys*, Volume 31, Issue 2, pages 410–435.
- [34] Hopwood, A. G. (1973). *An accounting system and managerial behaviour*. Lexington Books.
- [35] Hopwood, A. G. (1976). *Accounting and human behavior*. Prentice Hall.
- [36] Hopwood, A.(1987). "The archeology of accounting systems", *Accounting, organizations and society*, vol. 12, issue 3, pages 207-234.

- [37] Hopwood, A. G. and Peter Miller (1994). Accounting as social and institutional practice. Vol. 24. Cambridge University Press.
- [38] Hopwood, A.G., (1999). "Situating the practice of management accounting in its cultural context: an introduction". Accounting Organizations and Society, Vol. 24, Issue 5-6, pages 377-378.
- [39] Hopwood, A.G. (1983). "On trying to study accounting in the context in which operates", Accounting, Organizations and Society, Vol. 8, No. 213, pages. 287-305.
- [40] Hopwood, A. G., (1990). "Ambiguity, Knowledge and Territorial Claims: Some Observations on the Doctrine of Substance Over Form", British Accounting Review, Vol. I. pages 79-87.
- [41] Hopwood, A.G. (1990). "Accounting and the pursuit of efficiency", Accounting, Auditing & Accountability Journal, Vol I, pages 238-249.
- [42] Hopwood, A. G. (2000). "Understanding financial accounting practice", Accounting, Organizations and Society Volume 25, Issue 8, pages 763–766.
- [43] Hopwood, A. G., Chapman C. S., Shields M. D. (2007). Handbook of management accounting research. Volume 1, Elsevier.
- [44] Hopwood ,A. G., Chapman C. S., Shields M. D. (2007). Handbook of management accounting research. Volume 2, Elsevier.
- [45] Hopwood ,A.G., (2008). "Changing Pressures on the Research Process: On Trying to Research in an Age when Curiosity is not Enough", European Accounting Review, Vol. 17, Issue 1, pages 87-96
- [46] Laszlo C., Zhexembayeva N., (2017), Embedded sustainability. The next big competitive advantage, Greenleaf Publishing.
- [47] Maas, K, Schaltegger, S., Crutzen ,N., (2016) " Integrating corporate sustainability assessment, management accounting, control, and reporting", Journal of Cleaner Production, Volume 136, Part A, Pages 237-248
- [48] Megginson W.L, Smart S.B. Graham, J.R., (2010), Financial management – Mason
- [49] Mitter, C., Hiebl, M.R.W., (2017), "The role of management accounting in international entrepreneurship", Journal of Accounting & Organizational Change, Vol. 13 Issue: 3, pages 381-409.
- [50] Myers, S. C, (1984) "Finance Theory and Financial Strategy ", Interfaces, issue n. 1, pages 126-137.
- [51] Mouritsen, J., K. Kreiner (2016). Accounting, decisions and promises", Accounting, Organizations and Society, Vol 49, pages 21-31.
- [52] Nobes, C.W., (2013). "The continued survival of international differences under IFRS", Accounting and Business Research, Vol.43, No.2, pages 83-111.
- [53] Nobes C. (2016). Towards an Assessment of Country Effects on IFRS Recognition Decisions and Measurement Estimations, Paper, Venezia.
- [54] Nobes C. , Parker R., (2016), Comparative International Accounting, Pearson.
- [55] Nobes C., (2017)"Lessons from misclassification in international accounting", The British Accounting Review, on line August 2017.
- [56] Norreklit H., (2017)A Philosophy of Management Accounting: A Pragmatic Constructivist Approach, Routledge.
- [57] Price, A.D, (1994)"A survey of contractors' corporate planning and financial budgeting", , Vol. 22, Issue 3, pages 174-182.
- [58] Karthik, R. , (2013) A Framework for Research on Corporate Accountability Reporting, Accounting Horizons 26, No. 2 , pages 1-48
- [59] Ikenna, E. , Etim, O., (2017),Traditional Budgeting in Today Business Environment", Journal of Applied Finance & Banking, Vol.7, Issue 3, pages 1-7
- [60] Ijiri, Y., Levy, F.K., Lyon R.C., (1963) "A Linear Programming Model for Budgeting and Financial Planning", Journal of Accounting Research, Vol. 1, No. 2, pp. 198-212

- [61] Ittner, C.D., Keush, T., (2017), “Incorporating risk considerations into planning and control system”, *The Routledge Companion to Accounting and Risk*, Routledge.
- [62] Jensen, M.C., (2003), *Paying People to Lie: The Truth About the Budgeting Process*, *European Financial Management*, Vol. 9, pages 379-406,
- [63] Oderlheide, D. (2001). *Transnational Accounting*, Macmillan, London.
- [64] Peel M.J., Bridge J., (1998) “How planning and capital budgeting improve SME performance”, *Long Range Planning*, Vol. 31, Issue 6, Pages 848-856.
- [65] Penman, S. H., (2013), *Financial statement analysis and security valuation*, McGraw-Hill education.
- [66] Robinson T.R., [et al.], (2015), *International financial statement analysis workbook*, Wiley.
- [67] Ross S.A., [et al.], (2008), *Modern financial management ... [etc.]*, Mc Graw Hill Irwin.
- [68] Scott, W.,(2014) *Financial Accounting Theory*, Pearson Education.
- [69] Subramanyam, K. R., (2014), *Financial statement analysis*, McGraw-Hill Education.
- [70] Tukker A., Tischer U., (2017, *New business for old Europe. Product-service development, competitiveness and sustainability*, Greenleaf Publishing.
- [71] Wagenhofer A.(2016),” Exploiting regulatory changes for research in management accounting”, *Management Accounting Research*, Vol. 31, Pages 112-117.
- [72] Wagenhofer A., Ewert, R., (2016), “Why More Forward-Looking Accounting Standards Can Reduce Financing Effects of Increasing Enforcement on Firm Value and Financial Reporting Quality, *European Accounting Review* , Vol. 3, issue 25, , pages 487-513
- [73] Wagenhofer A., Ewert, R., (2016), “Accounting Characteristics and Internal Controls”, Working Paper, University of Graz, 2016, pages. 51.
- [74] Warren,C.S., Reeve, J.M., Fess P.E, (2002), *Financial accounting*, Dryden Press.
- [75] ZarehAsatryan, Z., C. Castellon, T. Stratmann (2016). *Balanced Budget Rules and Fiscal Outcomes: Evidence from Historical Constitutions*, Centre for European Economic Research, Discussion Paper N. 16-34.