

Some Frequent Mistakes and Solutions when Forecasting Financial Statements

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Abstract

When forecasting financial statements care has to be taken to construct a consistent and correct model. This is not an easy task. Even the most experienced expert in modeling makes mistakes. This is especially relevant when we construct a financial model without plugs and without circularity.

In this work we list some common mistakes made while constructing financial models. This list comes from our experience teaching and coaching students in the process of constructing the model and from the professional practice and consulting in finance, especially in firm valuation.

The purpose of this work is to help future students and practitioners when doing the job of forecasting financial statements. After the mistakes have been detected and corrected, they might look like silly mistakes, however, everybody knows that it is easy to be very smart after things have happened. When the mismatching appeared they were real huge problems. After many headaches and lots of work they were found and corrected. Today even after we have worked hard in finding out where the mistakes were, we might consider them as ridiculous or even silly mistakes.

An additional thought is to consider that the exercise to forecast the financial statements of a firm from the outside is a futile one. A fruitful forecasting work is done when the analyst is an insider or is a consultant with full access to the relevant information.

We expect that these thoughts be useful to our students and colleagues and that they avoid mistakes in their academic and professional work.

Key Words.

Accounting, Forecasting Financial Statements, Decision Making, plugs, Planning and control, double entry principle, unbalancing problem.

JEL Classification

D6, E47, G31,H43

Some Common Mistakes when Forecasting Financial Statements

Introduction

When forecasting financial statements care has to be taken to construct a consistent and correct model. This is not an easy task. Even the most experienced experts in modeling make mistakes. This is especially relevant when we construct a financial model without plugs and without circularity in order to arrive to consistent and matched financial statements.

In this work we list some common mistakes made while constructing financial models. This list comes from our experience teaching and coaching students in the process of constructing the model and from the professional practice and consulting in finance, especially in firm valuation.

The purpose of this work is to help future students and practitioners when doing the job of forecasting financial statements. After the mistakes have been detected and corrected, they might look like silly mistakes, however, everybody knows that it is easy to be very smart after things have happened. When the mismatching appeared they were real huge problems. After many headaches and lots of work they were found and corrected. Today even after we have worked hard in finding out where the mistakes were we might consider them as ridiculous or even silly mistakes.

We deal with a model for forecasting financial statements that uses no plugs and no circularity to match the financial statements described elsewhere; there are lots of authors and most teachers and practitioners instead, use plugs and circularity (see Vélez-Pareja, 2008 a, 2008b and Vélez-Pareja and Tham, 2007 for model description and references on the use of plugs and circularity). A “Plug is usually a financing item such as Cash, Debt or Common stock. [...] The Plug is not a number. It is an equation” (Benninga, 2007). “In financial modeling, it is common to use plugs in the construction of the balance sheet. With plugs, we specify that the balance sheet will match, even if there are mistakes in the derivation of the non-plug items. In other words, there is no external protocol to check the consistency of the balance sheet.

As Vélez-Pareja 2008b says,

“In our model, we follow the double entry principle in forecasting financial statements and derive the balance sheet. The double entry principle provides a consistency check for the balance sheet.

If the balance sheet does not match, then we know that there are errors in the model. If the balance sheet matches, the model might still have errors but the probability of errors is lower than with the plug approach.”

In constructing the forecast we start from input data (numbers) and elaborate some intermediate tables before we build the proposed financial statements: The Balance Sheet, the Income Statement and the Cash Budget. Next we show a concise definition of the three financial statements with a detailed explanation of the CB. We assume an end of year convention in order to construct the FS and in particular to calculate interest payments and returns.

To avoid circularity we suggest that when forecasting FS we should match the unit period of forecasting with the period of calculation of interest and principal payments. This should reduce the approximation when calculating interest payments and eliminates (if the period is short enough) the need to calculate those interest payments involving the current period ending balance (this is what makes circularity to appear). (See Vélez-Pareja, 2007).

Next we present a short definition of each financial statement included in the financial model: The Income Statement, IS, the Balance Sheet, BS, and the Cash Budget, CB, with a detailed explanation of the later.

The Balance Sheet

The Balance Sheet, BS, measures the wealth of a firm in a given instant. It is like a snapshot of the firm. It works following the rules of double entry accounting. We express this rule with a simple equation:

$$\text{Total Assets} - \text{Total Liabilities} = \text{Equity} \quad (1)$$

This equation is known as the double entry or accounting equation.

The model and procedure we propose in this work follow strictly the Double Entry Principle.

The Income Statement (IS)

This financial statement estimates the Net Income available to be distributed to the owners. The Income Statement is constructed on the basis of accrual and cost apportionment. This means that not all the lines recorded in the IS may be considered as inflow or outflow of cash. In other words, it lists what is earned and not what is received in cash.

As the Income Statement is a dynamical financial statement, the generation of rights and obligations is found there. For instance, when the firm dispatches and invoices the product sold, it has the right to receive the amount invoiced. When the firm uses resources (raw material, labor, etc.) it has the obligation to pay for those resources. These rights and obligations are listed in the BS.

The Cash Budget

“The Cash Budget (CB) or cash forecast or even cash flow, as many name it, shows the liquidity of the firm. In other words, shows the amount of cash available or in hand in each instant of time. In the CB we record all the inflows and outflows of the firm. We can think of the CB as the financial statements that records all the checkbook transactions in the firm.

Perhaps the CB is the most important financial statement in the firm. With it we can estimate the financing needs and the cash surplus in every period. In contrast with the IS, the CB shows the expected occurrence of the cash movements. It shows in addition, the cumulated balance of cash in the firm. This cumulated balance should be identical to the line for cash in the Balance Sheet”. Vélez-Pareja, 2008b.

Some typical items in the Cash Budget Statement can be found in Vélez-Pareja, 2008b.

For convenience, we can organize the CB in modules according to the type of transactions we list.

Detailed description of the CB

It is convenient to organize the CB in five modules as follows:

1. Module 1: Operating activities.
 - 1.1. Operating inflows (basically sales revenues)
 - 1.2. Operating outflows (raw material, labor costs, taxes, overhead expenses, sales expenses, etc.)
 - 1.3. Net Cash Balance before investment in fixed assets.

2. Module 2: Investment in assets:
 - 2.1. Initial investment in assets.
 - 2.2. Investment in assets in other periods.
 - 2.3. Net cash balance of investment in assets.
 - 2.4. Net cash balance after investing in assets¹.
3. Module 3: External financing.
 - 3.1. Inflow of loans
 - 3.2. Principal payment of loans
 - 3.3. Interest paid.
 - 3.4. Net cash balance of financing activities.
4. Module 4: Transactions with owners.
 - 4.1. Equity investment
 - 4.2. Dividends payment
 - 4.3. Repurchase of equity.
 - 4.4. Net cash balance of transactions with owners.
 - 4.5. Net cash balance for the year after previous transactions
5. Module 5: Discretionary transactions.
 - 5.1. Inflows from redemption of short term securities
 - 5.2. Interest from short term securities.
 - 5.3. Investment in short term securities.
 - 5.4. Net Cash Balance of discretionary transactions.
 - 5.5. Net Cash Balance for the period
 - 5.6. Cumulated cash balance.

There are three critical issues in forecasting consistent financial statements:

1. Calculation of the short term deficit and definition of the ST loan to cover the operating deficit.
2. Calculation of the long term deficit and definition of the LT loan and/or equity investment to cover the deficit created by investing in capital assets.
3. Calculation of cash excess that might be invested in market securities.

In general, we can say the following:

1. In order to cover the operating deficit and the short term loan we examine the operating net cash balance (Net Cash Balance before investment in fixed assets) minus the payments of interest and capital of previous short term loans. If it is negative we need to contract a loan.
2. The long term deficit is defined analyzing the net cash balance after investing in fixed assets plus any new short term debt minus all the payments for previous short and long term loans minus the payment of dividends and repurchase of shares plus the interests of short term investments and their redemption minus the desired minimum cash plus the cumulated net cash balance from previous period. This deficit is distributed in the stipulated proportions to finance by debt and new equity investment.

¹ With this NCB we could estimate the debt capacity of the firm. If we discount this NCB with the expected cost of debt, we will have the maximum amount the firm can pay during the forecasting horizon.

3. The net cash balance after transactions with the owners plus the redemption of previous short term investments and their yields plus the cumulated net cash balance from previous period minus the desired minimum cash defines if there is cash excess to invest in short term investments.

Common mistakes in forecasting financial statements

In this section we list the most common mistakes found during the process of coaching students when working in a course project to forecast financial statements from real life firms using the no plug, no circularity model. We add comments and context when needed. The mistakes are classified in several categories:

- Inflows and outflows, expenses
- Debt
- Depreciation and fixed assets
- Balance Sheet accumulation
- Others

Expenses in the IS and inflows and outflows in the CB are a source of mistakes.

There must be complete correspondence between what is listed in the IS and the CB. Those items that are not inflows or outflows of cash in one period might be converted in cash flows in a later period. In a similar way, those transactions that affect the BS, for instance, purchase of assets, debt payments or changes in equity should be compensated or affect the CB and the BS.

1. To assume overhead expenses as homogeneous. This introduces some bias. If possible, disaggregate those expenses and apply specific increases for instance, to labor costs.
2. To double count some items. The return of short term investment should not be included in module 1 (Operating Flows Module). The financial expenses for debt loans should not be included in the total outflows found in the Operating Flows Module. To add the financial expenses as operating expenses and again in the financing module in the CB is not only a double counting that distorts the figures, but introduces a distortion in the operating expenses and NCB of operating activities.
3. Not to include a logical statement for calculating income tax. If not, the taxes will become an income instead of an outflow when there are losses before taxes. This formula defines the tax to be paid as zero if there is a loss before taxes and as the tax rate times the Income before taxes if positive. If the tax law defines a presumptive income (usually calculated as a percent of book value of equity) when the firm shows losses, we should write that amount (presumptive income) times the corresponding tax rate instead of zero. All this is relevant when the model is used to make sensitivity analysis or simulation procedures such as Monte Carlo Simulation.
4. To add the investment in fixed assets instead of subtracting it in the CB. The solution is trivial.
5. Estimate nominal rates without linking them to the expected inflation rate. The model is designed to be inflation consistent and sensitive. This means that when doing sensitivity analysis a change in inflation rate will change nominal interest rates and nominal increases in prices.

6. To list some items (for instance, unpaid taxes) as a liability and at the same time to list it in the CB or the contrary. A payment in the CB usually reduces a liability or if it is a payment on a cash basis that does not affect liabilities.
7. To list as inflows accounts receivables AR, and payable, AP, in the same period as accrued. If we have listed an AR or AP it is because either we have not received the cash or we have not paid the invoice. Hence, it cannot be an inflow or outflow in the same period they are accrued. In this case, we have to affect an account either in the assets or liabilities sides of the BS. Something similar can occur with dividends paid. If they are paid and we list the outflow in the CB, they cannot be listed at the same time as a liability and vice versa.
8. When analyzing historical financial statements we have to identify and explain strange behaviors in some items in the IS. For instance, increases of 40%, 50% or 100% or more, with an inflation rate of 5%-10% are telling us that something is wrong. Those increases are not normal and might be caused by an increase in the volume of operations of that given item. For instance, the firm opened an additional outlet for sales increasing the fixed costs of administrative a sales expenses. One way to identify what is caused by an increase in the level of operations is to express some expenses in proper units. For instance, labor costs can be expressed in terms of minimum wages. When we examine the behavior of those expenses in term of minimum wages we have a rough idea of how the labor force increased and how the expense increased by an increase in salaries. This same idea can be applied to other expenses such as overhead expenses and sales and administrative expenses.
9. To forget that in module 1 (operating activities) in the CB, in addition to the income, costs and expenses, there are other inflows and outflows of money, such as amounts lent to third parties are paid by them. The solution is trivial: We have to include those inflows and outflows.
10. No specification in the model the long term LT investments, if any. In other words, when the firm has funds invested in special funds that cannot be counted on (for some type of restrictions), it should be specified in the model specifically in the cash excess investment module of the Cash Budget. They have to remain there “untouched” no matter if the firm has or not cash excesses. They should be considered as long term investments.
11. To list an inflow or an outflow as a payment in advance without recording it in the BS. In the case of payments in advance to suppliers it should be listed as an asset. In the case of and advance payment from a customer, it should be listed as a liability.
12. Trying to forecast the final results of the financial statements as a variable, such as total assets, or fixed assets, Net Income and the like. In the model we have referred to (See Vélez-Pareja, 2008a, 2008b, Vélez-Pareja and Tham, 2007) we do not forecast some items such as the above mentioned because they are the result of a combination of previous items. The results we obtain when we properly combine some forecasted items are the results we are looking for; for instance, Net Income, Operating Income or Total assets. A typical situation is when historically the company has shown losses. If we forecast with this basis (say, using net margin and similar) we always would have losses. Net income

should not be forecasted. That appears later in the model, from the forecasted sales revenues and expenses. Be careful in using margins to apply to forecasted sales revenues. Some of them (such as net or operating margin) include fixed costs that would not be properly represented when the calculation is done based on margins. Using margins implies that all the expenses and costs are variable. Net Income is the result of the forecasted transactions: sales revenues, purchases, payments, investments, debts, etc.

13. It is possible to find that in spite of having losses the company historically has distributed dividends. There are many reasons for which a company distributes dividends or net income even if there are losses. Moreover, it might happen that even when not having cash availability it is possible to find that the firm contracts a loan in order to distribute dividends. The question that arises is how to consider a policy of dividends if there have been no earnings and even so they are distributed. The policy could be established relating those payments of dividends to retained earnings.

Mistakes Related to Debt

This is a very critical issue. When modeling the amount to loan to cover any deficit we have to look for maintaining what might be known as financial conformity. This is, that short term deficits should be financed with short term debt and long term or structural deficit related to investments should be financed with long term debt. It is necessary to be careful in being exhaustive and to include all the inflows and outflows in order to have the deficit correctly defined as we mentioned above.

1. To pay a loan for a longer period than stipulated. This means to pay MORE than the ending balance of the loan in the last historical BS. This is clearly a mistake that will prevent the BS to match.
2. Calculate an interest expense and not list it in the CB or the IS or not to list it in both. If the expense is listed in the IS, it should be included in the CB in the same period or in a next one. In this last case, it should be listed in the BS as a liability.
3. Not paying interest or principal payments on a loan when there is not a holiday for interest or principal payments. Loans can be contracted with holidays either for interest or for principal payments or for both. This has to be included in the model and we have to be consistent with it.
4. To calculate interest payments as the cost of debt times the ending balance of the current year. If we assume the end of year convention, interest is calculated as the cost of debt times the beginning balance. The beginning balance of a year is the ending balance of the previous year.
5. Not to include interest payments when the loan is still due. To list some item (for instance, taxes) as a liability and list the payment in the CB or the contrary. A payment in the CB usually reduces a liability or is a non credit payment. In the case of payments in advance (to suppliers, for instance) they are an asset. In the case of payments in advance received, there are listed as a liability. The ending balances from a debt schedule should be included in the BS. We can suggest a test for identifying matching mistakes: compare the change in the debt balances in the BS (the difference in debt between two consecutive periods) with the change in debt according the CB (add all the loan inflows and subtract the sum of all loan principal

- payments). If that matches, it is probable that the mistake is not related with debt items.
6. To list a debt in the BS but not in the Debt Schedule or vice versa. The new loans are determined in the CB and they are linked to a debt schedule to calculate interest payments and debt balances.
 7. To list an ending balance as zero without paying the total amount of debt.
 8. Not to model the definition of debt to cover a deficit or the excess cash because historically the firm has not had any. The model should include all the possible events. Not to model the definition of deficits (and required loans) because historically the firm has not had debt. Modeling is a task that intends to allow at least most of the possible scenarios. The fact that in the past the firm never needed a loan is not a reason to construct the financial model without a way to cover the contingency of a future deficit and hence, the contracting of a debt. As said above, this is relevant when we perform sensitivity analysis or simulations.
 9. Not to include all the inflows and outflows in order to calculate the ST and LT deficit (or the cash excess). If we do not include all the inflows and outflows we will have an ill defined deficit.
 10. To pick items such as principal and interest payments from the debt schedule as adding and not as subtracting. The solution is trivial.
 11. The end balance of the debt Schedule does not coincide with the corresponding line in the BS. In order to have the BS matched there should be total consistency between the different financial statements: the BS, the CB and the IS and the debt schedules.

Another category of mistakes has to do with depreciation and fixed assets

Perhaps the difficulty with these lines comes from the fact that depreciation is something that is not “seen” by the analyst or even management. Depreciation is the result of spreading the cost of an asset over the span of several years. In practice you never see that a firm writes a check for depreciation. The firm paid the asset several periods before and now it is apportioning that value over several future periods.

1. To depreciate for longer period than stipulated. This means that the sum of depreciation charges is larger than the amount of the assets.
2. To include the depreciation charge in the cash budget. By definition depreciation charges are not a flow of cash. It is an apportionment of past investment in depreciable assets.
3. To calculate the depreciation of any year as Net Fixed Assets, NFA, divided by the depreciation life. However, if we lack information, as an approximation, we could depreciate the NFA using the last depreciation charge taking into account not to depreciate more than the starting NFA.
4. How can we estimate when and how much should the firm spend in new assets? One possible solution is to invest in fixed assets the same amount of the depreciation charge. This just keeps the level of assets constant. We could add an extra investment in fixed assets as the expected real growth for next year times the net fixed assets of previous year.
5. Considering that the increase in price for fixed assets is the change in the fixed assets or net fixed assets in the BS is a common mistake. The fixed assets line in the

BS does not change by increase in prices. It changes by investments in fixed assets or decreases with depreciation charges.

6. To forecast expenses including depreciation and yet in addition forecast depreciation of fixed assets. This would be a double counting of the depreciation expense. The solution is to disaggregate the expenses into depreciation and the remaining expenses. Forecast the remaining expenses and the depreciation separately. Depreciation does not change according to an increase in prices; it depends on the investment of new assets.
7. Depreciate land. The solution is trivial.

Accumulation in the Balance Sheet is another issue to care for.

One of the critical concepts in understanding the financial statements is the idea that BS lines are accumulators. Imagine that the accounts listed in the BS are like tanks or reservoirs. There are transactions that increase the level or deplete the reservoir and the BS list the cumulated net value of the level of the reservoir. In other words, the BS cumulates and measures the final level after transactions are made.

1. Not to accumulate accounts such as retained earnings, depreciation, etc. The solution is trivial.
2. The cumulated NCB in the CB is not the cash in the BS. Not to list the cumulated Net Cash Balance as Cash on hand in the BS. Not to accumulate the NCB for the year to the accumulated NCB for the previous year. This might be one of the most relevant lines in the CB because this line should be carried to the BS.
3. To list payment of dividends as the amount of accumulated retained earnings. Retained earnings are a cumulative account and are listed in the BS. Payment of dividends is a flow that is listed in the CB. Cumulated retained earnings (the level of the reservoir) increase with Net Income and decreases with dividends paid.
4. To forget that the last historical financial statements are fixed. They shouldn't be changed. Moreover, if we only have IS and BS we shouldn't try to construct the CB. We just use some items from the last historical financial statements, such as AP, AR and ST investments. Some accounts are for cumulating results, other are intended to deplete them and other for both. For instance, retained earnings, net fixed assets are for accumulating.
5. Legal reserve fund - it is required in many legislations and it must be paid as a percentage of share capital. Share premium - amount paid by shareholders for shares in excess of their nominal value. The legal reserve fund is a cumulative account in the Balance Sheet.
6. One of the reasons why a Balance Sheet does not match is because the model does not comply with some conditions known as CSR or Clean Surplus Relation (see Tham, 2001). We have to grant that our model complies with that relationship. This relation says:

$$\text{Net book equity value}_t = \text{Net book equity value}_{t-1} + \text{Net Income}_t - \text{Dividends}_t \quad (2)$$

7. To include in the CB cumulated values for some items that belong to the BS. When there is more equity investment in the firm or any other item from the equity side of the BS that imply a cash flow, these transactions should be included in the CB. However, these amounts should be only the incremental amount and not the cumulated one. The cumulated amount belongs to the BS.
8. To list changes in non cash items having pure accounting effects as an item in the CB. Examples of these items are capital appreciation or revaluations of assets that increase an asset or an equity item but do not imply a cash movement. Inflation adjustments and depreciation charges are other examples of transactions that do not involve a cash movement. For that reason they are not listed in the CB. The main difference between the accrual and cash accounting relates to the timing of cash payments and receipts and their recognition in accrual terms and the inclusion of non-cash expenses and revenues.
9. When defining a line in the BS as a percent of another item (say sales revenues) and not realizing that in the BS cannot be listed something without a correspondent change in the same BS or in the IS or CB. For instance, assume we have some prepaid expenses (an asset) for a given period and it is calculated as a percent of Overhead expenses. If we have a “prepaid” expense it means that either we paid it in cash (and should affect the CB) or we have not paid them and should appear in the BS as a liability. In this way we can keep the accounting equation in equilibrium. Something similar should be done with an account in the liabilities side of the BS. For instance, if we have payments in advance from customers (a liability) it means that we should have received it and should be listed in the CB. Again, with this “double entry” we keep the accounting equation in equilibrium.

Other issues related to the modeling process

Modeling financial statements is a job that requires too much care and a meticulous dedication. The relevance to construct a good model is that it allows the firm to analyze with anticipation the consequences of a decision *before* we make it. Foreseeing the consequences of a decision helps management to care about its most important job: to create value. Modeling financial statements is not for predicting the future but for modeling and designing the future of the firm.

A financial model like the one we have described is the basis for value management and allows the manager to construct the cash flows to value a firm or a project. Any effort in that line will be rewarded with a powerful tool for the management.

1. Some could say, why shall we devote so much time to forecasting? A very well known author in the area of project appraisal said to a colleague: why do you devote too much time in forecasting cash flows, income statements and balance sheets? I can do it very easily using plugs or even, just forecasting directly cash flows? His idea is to avoid the construction of a very useful managerial tool: the Cash Budget and even more, perhaps not even to construct the Income Statement and/or the Balance Sheet. Another colleague said: “I don’t like the use of plugs but I use plugs when I am in a hurry” and “The simple models (we call them Fisher Price or Mickey Mouse models) are only for teaching or to show academically something. But when it is in the real life [...] you

cannot use plugs”. In Corporate Finance and Cash Flow Valuation we try to estimate the firm value using cash flows. To make a sloppy work when forecasting financial statements and cash flows is to increase the probability of errors to an exercise that inherently might have many approximations that might end up in wrong estimates. “I use Fisher Price models just for lectures and classroom work. [...] But in real life, I agree with you... you cannot use plugs”. We think it is not a good practice to teach our students issues that we know they are wrong. What will happen is that when the moment to work in real life arrives, they will replicate what we taught them at the school. We should try to keep identified the sources of mistakes and reduce them to a minimum. We should accept that the valuing exercise is an approximation (a proxy and we should arrive to the best approximation) to what the stock market does with the future cash flows of dividends for the shares it trades. The construction of a model like the one we discuss in this opportunity certainly requires an additional work in its construction. However, once you have constructed it correctly and consistently, it is relatively easy to adapt it to any case. Moreover, the analyst could in the long run include more and more real life complexities and use them according to the requirements from the firm or person that is paying for the consulting service.

2. To dismay during the construction of the model because we do not obtain correct numbers in the cells (in the spreadsheet). During the construction of the model you can experience some degree of anxiety. Seat back and relax because you will see the final figures only when you have finished the model. Remember that the financial model is an intertwined entity that relates three financial statements: the Cash Budget, the Income Statement and the Balance Sheet. We recommend that the analyst finish a year (a column) completely before starting the new period. In other words, try to match the first year first.
3. To include too many operations (sums, subtractions, logical statements, etc.) in a single cell of the spreadsheet. It is preferable to construct intermediate tables or to include additional lines than to increase the probability of mistakes, when we include too many cells in the formula in a single cell.
4. Including numbers inside the model, particularly, inside a formula. Numbers are devoted to be input variables cells. Those numbers should be exclusively included in the data input area (usually at the top left). We recommend that all the input variables (that, as said, are numbers introduced in the spreadsheet) should be placed in the upper left corner of the spreadsheet. These cells should be clearly defined using shadows or colors for an easy identification. This is convenient not only for the one that models, but for the end user.
5. Circularity appears in the model. Circularity arises when a result depends on an element that defines the result and the element depends on the result. For instance, assume you have a commercial operation and you decide to pay some sales commissions to the sales force. The sales commissions are 50% of the Net Income. As Net Income depends on sales commissions and commissions depend on Net Income, then we have circularity. In this case Net Income depends on sales commissions and they depend on Net Income. Unless the analyst has constructed the circularity, almost in all cases it is the result of a mistake. However, it is possible that when constructing the model it is necessary to construct those kinds of circular relationships. When it is an error it might not be possible to work efficiently in the spreadsheet. It is possible to construct forecasted

financial statements without circularity. In this context, when circularity appears, the most probable event is the consequence of one mistake.

6. To include as policies (input data) arbitrary values. They should not be arbitrary because some of them are taken as an average of what the firm has done in the recent past. For instance, some policies such as accounts receivables, final inventory, minimum cash level, etc. result from the calculation of them in the historical financial statements. For this reason it is convenient to have a relatively high number of historical financial statements, say, from 5 to 10 years. Policies might be something not based on historical averages when we deliberately target a given policy that is the result of a decision to change what we have been doing historically.

Conclusions and Summary

In this work we have made a summary and commented the most common and frequent mistakes found in course projects developed by undergraduate and graduate students and in the financial consulting practice. In both cases we utilized an integral model to forecast financial statements without circularity and with no plugs. The model is based strictly and rigorously on the double entry principle.

In this work we have presented the mistakes with a taxonomy that indicates that the most common mistakes have to do with the expenses in the Income Statement and with the inflows and outflows in the Cash Budget. The second more frequent group of mistakes has to do with the structure and definition of deficits and hence, with the amounts to be borrowed.

We ratify that when we analyze and think on these mistakes, they are perceived as obvious mistakes and even we could think that they are impossible to make. It is very easy to say that someone (or we) “should have “connected the dots,” but in reality it is only after the fact that one can know which dots, out of a vast universe of them, to connect” (Hutchings, 2007). In other words, it is very easy to be intelligent after the errors and mistakes have occurred, and more over, when they have been corrected. The interesting thing of this exercise is that it warns to those that construct financial models on these possible errors and mistakes that could be made and we aspire to reduce the probability to make them after reading this work.

As a testimony that it is possible to construct a correct model without plugs and circularity in real cases, the reader can download a case (in Spanish, we apologize) worked out by one of the authors from http://cashflow88.com/decisiones/PROYECCIONES_2008-2017.xls.

We insist on the importance of using a correct and consistent model that allows the management to examine different possible scenarios for the firm that belongs to a globalized world. World economic and financial events affect most of the firms all over the planet even those that are not considered as globalized firms. Just see the recent and ongoing financial crisis in the United States (2008). If firms do not globalize, the globalization effects will reach them no matter where they are. This phenomenon is intrusive and will affect the sooner or the later to all economies and their firms.

An additional thought is to consider that the exercise to forecast the financial statements of a firm from the outside is a futile one. A fruitful forecasting work is done when the analyst is an insider or is a consultant with full access to the relevant information.

We expect that these thoughts be useful to our students and colleagues and that they avoid mistakes in their academic and professional work.

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