THE CASH BUDGET – A SHORT-TERM FORECAST TOOL FOR THE FINANCIAL STATEMENTS OF ECONOMIC ENTITIES

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Abstract
The Cash Budget is a predictive financial statement that allows the study and analysis of the effects of other budgets prepared by an economic entity on cash, helping to ensure their consistency. In this research paper the understanding of the Cash Budget concept is the first issue to be addressed. Here are described the steps needed to prepare it, highlighting the main categories of receipts and payments that need to be outlined for its construction as well as the main ways of covering the cash deficit and investment of the available amounts. The research continues with the presentation of a case study on the preparation of a cash budget for a company and ends with the identification of some methods of achieving cash control. The research results can be used by any economic entity in order to analyze the impact of future activities on the company's cash to decide on the sources of financing and how to place the cash surplus.

Key words: *budget; receipts; liquidity; payments; cash.*

JEL Classification: *M40, G00*

I. INTRODUCTION

Each economic entity must anticipate its financial flows in order to ensure solvency and optimize results. When this anticipation covers several years, the document drawn up is the financing plan. When anticipation covers a period of up to one year, the document is the cash budget.

The budget represents a major tool of management control. It can play different roles: coordination and communication tool, predictive management tool and delegation and motivation tool (Bouquin, 2001). It facilitates the convergence of goals, improves the efficiency and effectiveness of the organization.

Budgets are by definition predictive situations (Dupuy, Rolland, 1991, p. 35). When all operational budgets are prepared we can draw up the cash budget. The cash budget includes all receipts and payments related to other budgets of the company. It helps to ensure the consistency of other budgets by answering the question: are the other budgets realistic or achievable? By preparing the cash budget it is achieved its management to avoid situations of difficulty or even the impossibility of payment as well as a possible badly managed cash surplus (Filip, Ionaşcu et al, 2002, p. 201).

The liquidity of the enterprise consists of the petty cash, cash at bank and cash equivalents: short-term placements, outstanding lodgements (cheques, bills of exchange held to maturity). The cash budget is prepared annually, quarterly and monthly. As the business progresses, these forecasts can be detailed in weeks and even days.

The research starts from the following question: is the cash budget able to determine the level of liquidity needed by the company according to its objectives so as to ensure the consistency of other budgets? We have used both theoretical research on existing concepts, theories and regulations and the empirical research by presenting a case study highlighting the issues that a cash budget preparation may entail.

II. THE CASH BUDGET PREPARATION

For the preparation of the cash budget it is necessary to be well aware of the balance sheet of the previous year as well as of the operating and non-operating budgets which must allow the knowledge of the receipts and payments data. The cash budget is a resulting budget. It translates in terms of receipts and payments the effects of the other budgets of the enterprise. It relies heavily on the operating budgets (converts accounting flows into financial flows):

- the sales budget, considering the methods of collecting customer receivables (the duration of commercial credit granted to customers);
- the production budget and production costs (various forms and levels of staff remuneration, including insurance and social security costs, various taxes and duties related to production etc.);

- the procurement budget, taking into account the payment methods for the debts to suppliers (the duration of the commercial credit received from suppliers);
- the general administrative expenses budget;
- sales and purchases of fixed assets (investment budget).

The cash budget must also take into account non-operating financial flows: financial income and expenses; taxes on results; dividends; long-term bank loans; capital increases and decreases etc.

Finally, it is necessary to consider the initial cash situation, but also of the claims and debts that appear in the opening balance sheet and generate receipts and payments during the year.

The cash budget is prepared in two stages:

⇨ forecast the receipts and payments;

⇨ determination and coverage of cash balances.

Receipts and payments can be divided into: operating and non-operating receipts and payments.

Receipts refer to cash flows that will enter the treasury of the enterprise during the period for which budgets are prepared. It is necessary to know the collection deadlines. Receipts can be: receipts of receivables held according to maturity dates established with customers; receipts from sales of goods and the provision of services or from royalties, fees, commissions and other services that can be estimated; receipts arising from the sale of tangible and intangible assets and other long-term assets; receipts of commercial effects; receipts from binding loans, bank loans, treasury bills, mortgage lending or other debt securities; interest earned on loans granted; cash inflows from interest on loans and dividends for placements; receipts from the sale of units and debt securities of other enterprises; receipts from the repayment of treasury advances and loans to third parties; receipts from subsidies; receipts from the issue of shares and other equity instruments etc.

Payments are made up of financial flows to come out during the period for which budgets are prepared: purchases of raw materials, goods and services paid in cash; payments made for the acquisition of tangible and intangible assets and other long-term assets, including capitalized development costs and payments for the company's fixed assets; payment of debts to suppliers according to maturity dates set with them; payments made for the acquisition of units and debt securities of other enterprises; payment of commercial effects; treasury advances and loans to third parties; payment of wages, taxes, fees; repayment of loans and payment of interest thereon; payment of value added tax; payment of dividends; payments made to shareholders for the purchase or redemption of the company's shares etc.

A special role is played by the value added tax budget. In view of the rules of deductibility of this tax, it is recommended to draw up such a budget which will be subsequently taken into account in the payment budget, if the value added tax is to be paid, or in the revenue budget if the value added tax is to be recovered. Many companies choose not to require VAT receivable from the state budget, but to deduct it from the VAT of the next month, i.e.:

VAT payable in N period = Output VAT in N period - Deductible VAT in N period - VAT receivable from N-1 period.

The *cash balance* is determined based on the relation:

Cash Balance = Beginning Cash Balance + Receipts - Payments

It is desirable to keep a balance of cash as close as possible to zero in order to reduce the cash management costs.

The cash balance is calculated each month, and can be:

⇨ positive or cash surplus;

⇨ negative or cash deficit.

The positive cash balance means that the enterprise has no short-term financial difficulties. The most appropriate forms of investment of the available amounts should be considered, which will give the enterprise more profitability: the creation of high interest deposits, the granting of loans, the acquisition of shares in the share capital of other companies, the purchase of bonds and other securities, the purchase of resale investment securities etc.

The negative cash balance means that the enterprise has short-term financial needs. Measures that can be taken include:

⇨ actions on receipts: shortening customer lending, customer incentives to encourage cash settlements, increasing revenue earned, contracting new loans etc.

⇨ actions on payments: increasing the lending period granted by suppliers, reducing or postponing planned spending etc.

During the intense production or sales period, substantial payments are made for supplies, wages and other operating expenses as the goods are produced and sold. Receipts from customers usually remain as a result of sales. Sometimes it takes to borrow. Borrowed money is used to pay the necessary resources for production, and receipts from sales are to be used to repay loans. This cycle illustrates the circuit: money - stocks - receivables - money (Horngren, Datar et al, 2006, p. 222).

A model of the cash budget is shown in Table no 1 (M. Toma, 2012).

Table no 1. The cash budget preparation

Stages	Symbol	Operations
(1) Forecast of receipts and payments	A	**Opening cash balance**
	B	(+) Operating receipts
	C	(-) Operating payments
	D	**Operating cash balance** (B-C)
	E	(+) Other receipts
	F	(-) Other payments
	G	**Non-operating cash balance** (E-F)
(2a) Determination of cash balance before coverage	H	**Cash balance before coverage** (H=A±D±G)
(2b) Coverage of the cash balance	I	(+) Banking contests
	J	(-) Loan costs
	K	(-) Treasury assets
	L	(+) Receipts from cash placements
(2c) Determination of the final cash balance - covering the cash deficit - placing the cash surplus	M	**Ending cash balance** M = H+I-J or M = H-K+L

III. STUDY ON THE PRETARATION OF THE CASH BUDGET

To exemplify the preparation of the cash budget, we started from the simplified balance sheet of ANTON Company at 31.12.N-1:

Table no 2. Balance sheet at 31.12.N-1 (lei)

Assets		**Liabilities**	
Fixed assets	84.000	Joint stock	125.000
Raw materials	20.000	Financial debts	1.000
Finished goods	5.000	Suppliers	11.000
Customers	40.000	Salaries payable	10.000
Petty cash	8.000	Social security	3.000
		VAT payable	2.000
		Other tax	5.000
Total assets	157.000	Total liabilities	157.000

Customers will be charged: 30.000 lei in January and 10.000 lei in February. Suppliers mature in February. From the financial debts, 500 lei shall be repaid each month, starting with January. Wages will be paid in January, as well as social security, VAT and other tax. The quantity of finished products in stock is 588 pieces.

The company wishes to prepare the cash budget for the first semester of exercise N. The forecast information for this semester is:

- *Sales, production, supplies:* customers will be charged in 30 days, outputs of finished products will be made at weighted average cost. Payment of raw materials is made within 60 days.

Table no 3. Forecasting sales, production and supplies

Indicators	January	February	March	April	May	June	Total
Quantity of finished goods to be sold (pcs)	2.000	2.000	2.100	2.300	2.400	2.500	13.300
Sale price (lei/pc)	20	20	20	20	20	20	20
Turnover (lei)	40.000	40.000	42.000	46.000	48.000	50.000	266.000
Quantity of finished goods to be obtained (pcs)	2.300	2.100	2.200	2.300	2.500	2.600	14.000
The value of the raw material to be supplied (lei)	50.000			60.000			110.000

- *Value Added Tax*: The VAT rate applied to both sales and supplies is 19%. VAT payable will be paid until the 25th of the following month. VAT receivable will be deducted from the VAT payable of the next month.

- *Expenditures:* Expenditure expected to be incurred in the first semester of the year is:

Table no 4. Expenditure budget

Indicators	January	February	March	April	May	June	Total
Expenditure on raw materials	19.700	17.800	18.700	19.700	21.500	22.100	119.500
Wages	7.628	7.628	7.628	7.628	7.628	7.628	45.768
Work insurance contribution	172	172	172	172	172	172	1.032
Amortization on fixed assets	3.000	3.000	3.000	3.000	3.000	3.000	18.000
Utilities expenditure	2.000	2.000	2.000	2.000	2.000	2.000	12.000
Other expenditure	2.000	2.200	2.600	2.800	3.000	3.000	15.600
Total expenditure	34.500	32.800	34.100	35.300	37.300	37.900	211.900

Monthly wage costs will be paid on the 10th of the following month. The insurance work contribution will be paid until the 25th of the following month. VAT on utility costs is 19%. Utilities providers will be paid in 60 days. Other expenses will be paid in the current month. Income tax is calculated quarterly and will be paid in the first month of the following quarter.

In order to prepare the Cash Budget for the first semester of year N, it is necessary to prepare supporting documents.

A. The statement of revenue collection and payments to suppliers

Table no 5. Statement of revenue collection

No	Indicators	January	February	March	April	May	June	Total
1	Turnover	40.000	40.000	42.000	46.000	48.000	50.000	266.000
2	VAT collected (1x19%)	7.600	7.600	7.980	8.740	9.120	9.500	50.540
3	Receivables value (1+2)	47.600	47.600	49.980	54.740	57.120	59.500*	316.540
4	Customers N collected		47.600	47.600	49.980	54.740	57.120	257.040
5	Customers N-1 collected	30.000	10.000					40.000
6	Total receivables collected (4+5)	30.000	57.600	47.600	49.980	54.740	57.120	297.040

* 59.500 lei - receivables to be collected in the second semester of the year N

Table no 6. Statement of payments to suppliers

No	Indicators	January	February	March	April	May	June	Total
1	Supply of raw materials	50.000			60.000			110.000
2	Utilities expenses	2.000	2.000	2.000	2.000	2.000	2.000	12.000
3	Total supplies (1+2)	52.000	2.000	2.000	62.000	2.000	2.000	122.000
4	Deductible VAT (3x19%)	9.880	380	380	11.780	380	380	23.180
5	Suppliers (3+4)	61.880	2.380	2.380	73.780	2.380	2.380	145.180
6	Suppliers N paid			61.880	2.380	2.380	73.780	140.420
7	Suppliers N-1 paid		11.000					11.000
8	Total debt to suppliers paid (6+7)		11.000	61.880	2.380	2.380	73.780	151.420

B. Value Added Tax Budget

Table no 7. VAT budget

No	Indicators	January	February	March	April	May	June	Total
1	Output VAT (account 4427)	7.600	7.600	7.980	8.740	9.120	9.500	50.540
2	Input VAT (account 4426)	9.880	380	380	11.780	380	380	23.180
3	VAT receivable (account 4424)	2.280			3.040			5.320
4	VAT payable (account 4423)		7.220	7.600		8.740	9.120	32.680
5	VAT payable balance (account 4423-account 4424 from previous month)		4.940*	7.600		5.700**	9.120	27.360
6	VAT paid during the month	2.000***	0	4.940	7.600	0	5.700	20.240

* 4.940 = 7.220 – 2.280

** 5.700 = 8.740 – 3.040

*** VAT payable from year N-1

C. Calculation of profit tax to be paid

Profit tax is calculated quarterly. We assume that revenue does not include items of non-taxable income, and expenditure does not include non-deductible items of expenditure.

Result = Income – Expenditure

In order to determine the enterprise's total revenue that will influence the result, the balance of account 711 "Variation in inventory" will be calculated each month (Table no 8). For this, it is necessary to calculate the weighted average cost (WAC) of finished products.

$$WAC = \frac{\text{Initial stock value} + \text{Input value}}{\text{Initial stock quantity} + \text{Input amounts}}$$

Table no 8. Variation in inventory

Month	Initial stock		Inputs		WAC lei/piece	Outputs		Final stock		Variation in inventory
	pcs	lei	pcs	lei		pcs	lei	pcs	lei	lei
0	1	2	3	4	5	6	7=6x5	8=1+3-6	9=8x5	10=4-7
January	588	5.000	2.300	34.500	13,67729	2.000	27.355	888	12.145	7.145
February	888	12.145	2.100	32.800	15,04198	2.000	30.084	988	14.861	2.716
March	988	14.861	2.200	34.100	15,35805	2.100	32.252	1.088	16.710	1.848
April	1.088	16.710	2.300	35.300	15,35111	2.300	35.308	1.088	16.702	-8
May	1.088	16.702	2.500	37.300	15,05073	2.400	36.122	1.188	17.880	1.178
June	1.188	17.880	2.600	37.900	14,72552	2.500	36.814	1.288	18.966	1.086
Total semester	**588**	**5.000**	**14.000**	**211.900**		**13.300**	**197.935**	**1288**	**18.965**	**13.965**

Now, the Predictive Results Account can be prepared:

Table no 9. Predictive Results Account – 1st semester

Indicators	January	February	March	1st quarter	April	May	June	2nd quarter	1st semester
0	1	2	3	4=1+2+3	5	6	7	8=5+6+7	9=4+8
Income	**47.145**	**42.716**	**43.848**	**133.709**	**45.992**	**49.178**	**51.086**	**146.256**	**279.965**
Turnover	40.000	40.000	42.000	122.000	46.000	48.000	50.000	144.000	266.000
Variation in inventory	7.145	2.716	1.848	11.709	-8	1.178	1.086	2.226	13.965
Expenditure	**34.500**	**32.800**	**34.100**	**101.400**	**35.300**	**37.300**	**37.900**	**110.500**	**211.900**
Gross result	**12.645**	**9.916**	**9.748**	**32.309**	**10.692**	**11.878**	**13.186**	**35.756**	**68.065**
Income tax 16%				5.169				5.721	10.890
Net result				**27.140**				**30.035**	**57.175**

Taxable profit 1st quarter = Income achieved in the 1st quarter – Expenditure incurred in the 1st quarter = 133.709 – 101.400 = 32.309 lei

Income tax 1st quarter = 32.309 x 16% = 5.169 lei

This amount will be transferred to the state budget in the first month of the second quarter, i.e. April, and will appear as payment in the cash budget of the first semester.

Taxable profit 2nd quarter = Income achieved in the 2nd quarter – Expenditure incurred in the 2nd quarter = 146.256 – 110.500 = 35.756 lei

Income tax 2nd quarter = 35.756 x 16% = 5.721 lei

This amount will be transferred to the state budget in the first month of the third quarter, i.e. July, and will appear as unpaid debt in the Predictive balance sheet of the first semester.

The company now has all the information needed to prepare the Cash Budget.

Final cash balance = Opening cash balance + Receipts - Payments

Table no 10. Cash Budget

No	Indicators	January	February	March	April	May	June	Total
1	**Opening balance**	**8.000**	**15.500**	**51.600**	**21.980**	**46.211**	**87.771**	**8.000**
2	**Receipts**							
3	Customers	**30.000**	**57.600**	**47.600**	**49.980**	**54.740**	**57.120**	**297.040**
4	**Payments**							
5	Financial debts	500	500					1.000
6	Suppliers		11.000	61.880	2.380	2.380	73.780	151.420
7	Salaries payable	10.000	7.628	7.628	7.628	7.628	7.628	48.140
8	Social security	3.000	172	172	172	172	172	3.860
9	VAT	2.000	0	4.940	7.600	0	5.700	20.240
10	Other fiscal debts	5.000			5.169			10.169
11	Other expenses	2.000	2.200	2.600	2.800	3.000	3.000	15.600
12	**Total payments**	**22.500**	**21.500**	**77.220**	**25.749**	**13.180**	**90.280**	**250.429**
13	**Final cash balance**	**15.500**	**51.600**	**21.980**	**46.211**	**87.771**	**54.611**	**54.611**

IV. THE CASH CONTROL

Periodically, the Cash Budget is analyzed by comparing forecasts with achievements in order to identify the causes that lead to the occurrence of unincorporated amounts, establishing responsibilities and taking appropriate action. When differences occur between achievements and forecasts, either the current period decisions change, if possible, or future projections change (Iacob, Ionescu, 1999, p.274).

Among the causes that lead to the occurrence of differences between forecasts and achievements we note: failure to collect invoices, customers who may be in financial difficulties, changes in the company's activities compared to those envisaged when budgeting, changes in salaries, prices, payment of invoices at times other than those established with suppliers etc.

In the physical treasury management, in order to prevent cash loss it is good to consider some rules (Toma, 2012, p. 107): the physical cash protection must be ensured by storing it in supervised area; full control of cash operations should not be entrusted to a single person; it is good that the accounting duties of cash operations to be separated from the receipts and payments duties; periodic review of the treasury accounts is required; rigorous evidence and periodic briefing of the competent authorities on cash situation is required; it is possible to practice and ensure possible loss by organizing a system of guarantees from the employees who manage the cash.

As almost all receipts and payments pass through the bank account, it is the centrepiece of the cash flow in most entities. At the end of the month or even daily, it is necessary to perform the banking score which involves comparing the balances of the accounts with the balances on the bank statements issued by the bank. Through this operation, it is possible to identify the differences that may arise between the evidence held by the bank and the evidence held by the enterprise. More recently, electronic methods are used to transfer money from one bank to another, to pay invoices to suppliers and to collect invoices for customers. Thus, the money is instantly transferred. As employees no longer manipulate means of payment, electronic transfers can improve internal control. However, there is a potential risk of committing money theft by inappropriate transfers, which requires the existence and use of excellent control mechanisms on electronic money transfers.

V. CONCLUSION

The Cash Budget is an important forecasting tool for short-term business management that allows the company's cash to be predicted by determining the level of liquidity required by the company in line with its objectives. Thus it is assessed the company's forecast financial situation for decision-making that counteracts any imbalances that may affect liquidity and solvency. In practice, it is used monthly, sometimes weekly and even daily, in the planning and control of cash. This tool allows the identification of potential future financial difficulties of an enterprise for the purpose of taking decisions that aim at the operation and survival of the enterprise. It avoids the accumulation of inactive liquidity or unexpected lack of liquidity.

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