Handout Resources

Business Cash Flow Essentials

Lesson 5 Resources

Income Statement Worksheet

	INCOME STATEMENT	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1	**Net Sales**													
2	Cost of Goods Sold													
3	**Gross Profit**													
4	General & Administrative Expense													
5	Depreciation													
6	**Total Operating Expenses**													
7	Operating Profit (3 minus 6)													
8	Other Income (Expense) Net													
9	**Net Profit Before Tax (7 + 8)**													
10	Less Income Tax													
11	**Net Profit After Tax (9 – 10)**													

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Business Cash Flow Essentials

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Cash Forecasting Worksheet

CASH BUDGET	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
12 Cash Balance Beginning												
13 Cash Sales												
14 Accounts Receivable Collection												
15 Other Income												
16 Total Cash Available												
17 Cost of Goods Expense (A/P)												
18 General Administrative Expense												
19 Equipment												
20 Taxes												
21 Interest												
22 Leasehold Improvement												
23 Base Inventory Increase												
24 Stockholder Loan												
25 Total Disbursements												
26 Cash Surplus (Deficit) (16 minus 25)												
27 Bank Loan Required Short-Term												
28 Bank Loan Repaid Short-Term												
29 Cash Balance Ending												
30 Cumulative Bank Loan Short-Term												
31 Cumulative Bank Loan Long-Term												

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Forecasting the Balance Sheet

Many of the items on the balance sheet have a direct relationship to sales, and these relationships allow us to forecast the balance sheet once the sales forecast has been made. It is sales that cause a need for assets. Accounts receivable are a good example of this. The more sales we have, the more accounts receivable we must have. Cash and inventory are other obvious examples. These are called **variable assets** because they go up and down with sales. Sales also cause us to have liabilities. Accounts payable and accrued expenses go up as sales go up and these are called **variable liabilities**. Sales also hopefully generate **profits**.

WE THEREFORE HAVE THE FOLLOWING CAUSE AND EFFECT RELATIONSHIPS:

Examples of variable assets include cash, accounts receivable, inventory and equipment. Assets such as land, building, furniture and fixtures do not normally vary directly with sales in the short-term. Variable liabilities include accounts payable and accrued expenses. While notes payable go up and down with sales, it is not considered a variable liability. Instead, this account is used to balance the balance sheet if additional funds are needed to purchase the new variable assets. It is possible that the increase in variable assets caused by a sales increase will be paid for by a combination of the increase in variable liabilities and net profit. If this is not the case, the difference must either be supplied by the bank or by the owner in the form of additional capital.

Once we have the sales forecast, we can determine the level of assets and liabilities that will be necessary to support it. This is done by examining the **relationship** that each category of variable assets and variable liabilities has with sales.

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Forecasting Balance Sheet (cont.)

THE FOLLOWING SAMPLE BALANCE SHEET INDICATES HOW THIS IS DONE:

BALANCE SHEET 12/31/X1		% of Sales			% of Sales
Cash	$ 40,000	1.0	Notes Payable Bank	$ 320,000	
Accounts Receivable	520,000	13.0	Accounts Payable	240,000	6.0
Inventory	560,000	14.0	Accrued Expenses	160,000	4.0
Prepaid Expenses	20,000	0.5	Current Portion LTD	40,000	
Current Assets	**$ 1,140,000**		**Current Liabilities**	**$ 760,000**	
Land and Building	$ 800,000				
Equipment	220,000	5.5	**Long-Term Debt**	**$ 385,000**	
Furniture & Fixtures	80,000				
Net Fixed Assets	**$ 1,100,000**		**TOTAL LIABILITIES**	**$ 1,145,000**	
Other Assets	**$ 50,000**		**EQUITY**	**$ 1,145,000**	
TOTAL ASSETS	**$ 2,290,000**		**TOTAL LIABILITIES AND EQUITY**	**$ 2,290,000**	
		34.0			10.0

Sales for year 1 were $4,000,000. The owner forecasts sales of $6,500,000 and a net profit of $65,000 in year 2, and sales of $11,000,000 and a net profit of $110,000 in year 3.

STEP 1: Identify Assets and Liabilities That Will Vary with Sales

For the above balance sheet, cash, accounts receivable, inventory, prepaid expenses, equipment, accounts payable and accrued expenses are considered to vary with sales.

Notes payable to the bank will vary as additional debt is necessary to fund the assets, however, we will leave that to the last and use it as a balancing item.

Land and building, furniture and fixtures, other assets and long term debt are assumed to remain relatively constant, rather than varying directly with sales.

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Forecasting Balance Sheet (cont.)

STEP 2: Relate Each Item Identified In Step 1 to the Current Sales Level ($4,000,000)

Cash	=	$40,000 / $4,000,000	=	**1.0%**
Accounts Receivable	=	$520,000 / $4,000,000	=	**13.0%**
Inventory	=	$560,000 / $4,000,000	=	**14.0%**
Prepaid Expenses	=	$20,000 / $4,000,000	=	**0.5%**
Equipment	=	$220,000 / $4,000,000	=	**5.5%**
Accounts Payable	=	$240,000 / $4,000,000	=	**6.0%**
Accrued Expenses	=	$160,000 / $4,000,000	=	**4.0%**

STEP 3: Apply Percentages In Step 2 to the Sales Forecast ($6,500,000)

ITEM	XXX2 SALES FORECAST				12/31/X2 BALANCE
Cash	**0.010**	x	$ 6,500,000	=	$ 65,000
Accounts Receivable	**0.130**	x	$ 6,500,000	=	$ 845,000
Inventory	**0.140**	x	$ 6,500,000	=	$ 910,000
Prepaid Expenses	**0.005**	x	$ 6,500,000	=	$ 32,500
Equipment	**0.055**	x	$ 6,500,000	=	$ 357,500
Accounts Payable	**0.060**	x	$ 6,500,000	=	$ 390,000
Accrued Expenses	**0.040**	x	$ 6,500,000	=	$ 260,000

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Forecasting Balance Sheet (cont.)

STEP 4: Calculate the New Equity

OLD EQUITY PLUS NET PROFIT EQUALS NEW EQUITY:

$ 1,145,000 + $ 65,000 = $ 1,210,000

STEP 5: Project the New Balance Sheet

THE FOLLOWING REFLECTS THE PROJECTED BALANCE SHEET ON THE BASIS OF A SALES FORECAST OF $6,500,000:

Superior Paint Company
Sales Forecast = $6,500,000, Net Profit = $65,000

BALANCE SHEET 12/31/X2		% of Sales			% of Sales
Cash	$ 65,000	1.0	Notes Payable Bank	$ 895,000	
Accounts Receivable	845,000	13.0	Accounts Payable	390,000	6.0
Inventory	910,000	14.0	Accrued Expenses	260,000	4.0
Prepaid Expenses	32,500	0.5	Current Portion LTD	40,000	
Current Assets	**$ 1,852,500**				
Land and Building	$ 800,000				
Equipment	357,500	5.5	**Long-Term Debt**	**$ 345,000**	
Furniture and Fixtures	80,000				
Net Fixed Assets	**$ 1,237,500**		**TOTAL LIABILITIES**	**$ 1,930,000**	
Other Assets	**$ 50,000**		**EQUITY**	**$ 1,210,000**	
TOTAL ASSETS	**$ 3,140,000**		**TOTAL LIABILITIES AND EQUITY**	**$ 3,140,000**	
		34.0			10.0

The new variable asset levels are determined by applying their percentages to the sales forecast. The building, furniture, fixtures and other assets would probably have some depreciation; however, they are reflected at the same level as year 1 for ease of calculation.

Once the total asset level of $3,140,000 has been determined, that amount is moved over to the right hand side of the balance sheet and becomes the total for liabilities and equity.

The new equity is calculated by adding $65,000 to the old equity ($1,145,000 + $65,000 = $1,210,000).

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Forecasting Balance Sheet (cont.)

The total liabilities are calculated by subtracting the new equity of $1,210,000 from the total liabilities and equity of $3,140,000 ($3,140,000 - $1,210,000 = $1,930,000).

The current liabilities are determined by subtracting the long-term debt from the total liabilities ($1,930,000 - $345,000 = $1,585,000).

Notes payable are determined by subtracting current portion long-term debt, accounts payable and accrued expenses from current liabilities ($1,585,000 - $40,000 - $390,000 - $260,000 = $895,000).

THE BALANCE SHEET FOR YEAR 3 IS CALCULATED IN THE SAME FASHION:

Superior Paint Company
Sales Forecast = $11,000,000, Net Profit = $110,000

BALANCE SHEET 12/31/X3		% of Sales			% of Sales
Cash	$ 110,000	1.0	Notes Payable Bank	$ 1,905,000	
Accounts Receivable	1,430,000	13.0	Accounts Payable	660,000	6.0
Inventory	1,540,000	14.0	Accrued Expenses	440,000	4.0
Prepaid Expenses	55,000	0.5	Current Portion LTD	40,000	
Current Assets	**$ 3,135,000**		**Current Liabilities**	**$ 3,045,000**	
Land and Building	$ 800,000				
Equipment	605,000	5.5	**Long-Term Debt**	**$ 305,000**	
Furniture and Fixtures	80,000				
Net Fixed Assets	**$ 1,485,000**		**TOTAL LIABILITIES**	**$ 3,350,000**	
Other Assets	**$ 50,000**		**EQUITY**	**$ 1,320,000**	
TOTAL ASSETS	**$ 4,670,000**		**TOTAL LIABILITIES AND EQUITY**	**$ 4,670,000**	
		34.0			10.0

LET'S TAKE A LOOK NOW AT WHAT HAS HAPPENED TO THE RATIOS ON THESE PROJECTED BALANCE SHEETS:

	YEAR 1	YEAR 2	YEAR 3	R.M.A.
Solvency				
Current Ratio	1.50	1.17	1.03	1.90
Quick Ratio	0.74	0.57	0.51	1.10
Safety				
Debt to Equity Ratio	1.00	1.60	2.54	1.30

Lesson 5 Resources
Forecasting Balance Sheet (cont.)

As you can see, the solvency and safety of this company have both declined over the forecasted period, despite the fact that sales and profits have grown dramatically. This has happened for two reasons:

1. The company has borrowed on a short-term basis (notes payable—bank) for what is essentially a long-term need, and
2. The company has financed substantially all of its growth with debt instead of capital.

Alternatives at this point include:

1. **Moving some debt to long-term.** This may be difficult since banks are often reluctant to make long-term loans for expansion purposes of this fashion.
2. **Obtaining additional capital.** This may be difficult or impossible without giving up a substantial portion of ownership.
3. **Managing the balance sheet very carefully.** It is possible that inventory could be reduced and equipment could be leased instead of purchased, thus reducing liabilities.
4. **If all else fails, this company must face the fact that it cannot sustain such a high growth rate.** It must reduce the rate of growth in sales to that level which does not result in an increase in debt to equity. It is this last alternative that we want to focus on next.

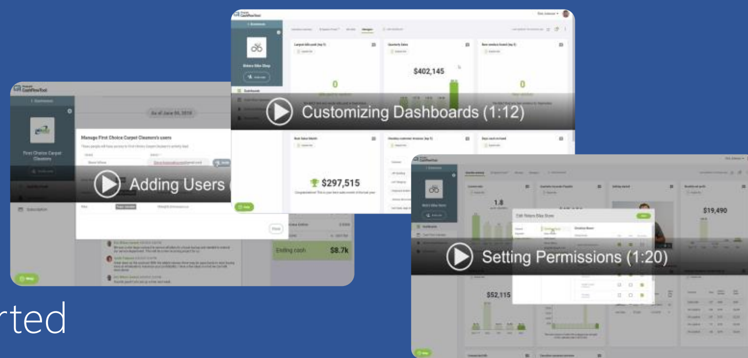
Business Cash Flow Essentials

Lesson 5 Resources

CashFlowTool Resources

We have prepared for you several resources that will help you utilize CashFlowTool including the following:

Getting Started



CashFlowTool.com/getting-started

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