

Cash Flow Forecasting & Break-Even Analysis

1. Cash Flow

Cash Flow Projections

What is cash flow? Cash flow is an estimate of the timing of when the cash associated with sales will be received and when the cash involved in paying for operating expenses will be sent out. It provides a means for planning the most effective use of your cash. It cannot be overstated that *Cash Flow Is King!* Knowing your cash position at any given time is critical to increasing the survival chances of your business.

A cash flow projection reflects factors such as terms extended to customers – while sales may be made one month, the resulting money may not show up for 30 to 60 days or more. It reflects supplier terms – while they might require you purchase from them COD your sales won't materialize until the product is received, priced, displayed, sold, and the money received for them. And it reflects seasonal variations and other factors that impact when cash is actually going to come in and go out of the business. It is an important management tool.

Cash coming in is called a *cash receipt*. Cash going out is called a *cash disbursement*. If cash receipts are greater than cash disbursements, the business has a positive cash flow for the month. When more money is spent than received, the business has a negative cash flow. Negative cash flows are generally shown in brackets (e.g., \$2,000). Cash flow projections total the value of all cash receipts and all cash disbursements, at the time of receipt or payment, for each month in a 12-month period.

Cash flow is the most volatile part of the entrepreneur's financial juggling act. Any small, growing company runs into cash flow problems. A common cause of small business failure is that owners don't take the time to anticipate when cash will be short even though sales and revenues of small businesses are rarely constant. You can be doing very well sales-wise and still run into cash flow problems.

Cash flow planning requires sound business judgment about expected sales levels, rate of collections, purchasing of inventory, and budgeting of expenses. It calls for interpretation to detect deficit and surplus patterns. While no one can expect to have a crystal ball in terms of perfect projections, you should provide your best estimates based on thorough research and analysis.

To arrive at a sound estimate of your cash flow projections, consider the following:

- What are the sales (or % of sales increase) you expect in the coming year?
- What is the ratio of cash sales to credit sales?
- What payment terms are you providing your customers?
- How promptly must you pay your own suppliers?
- How will you pay your employees (weekly, bi-weekly, monthly)?
- What are the interest and principal payments on any loans you have and how often must they be paid?
- How much inventory do you need to meet projected sales?

- What are your plans for purchasing fixed assets needed for the business?

Sales Forecasting

Start your financial projections by listing all the products/services you plan to sell. Estimate the number of units of each product or service category you will sell each month to each market segment. (This is the tough part and where your market research is critical. You need to know the size of your market; how much, how often, and when customers are likely to purchase from you; and at what price they are likely to purchase at, so that you can make informed estimates.)

Multiply this figure by the sale price per unit to get your total sales in dollars for that category for each month. (See also the Break-Even Analysis) You will have to do this separately for each different product category you have. Then add them together for your total monthly sales figure. Add all the months together for your total annual sales figure.

Keep a record of your calculations so that you can use it for substantiating your projections or making alterations should that become necessary. Be realistic about the time it takes for a new business to become known in the market and to build momentum. Your sales forecast should reflect this common factor through slower initial sales (extending to six months or more in some cases).

Expense Forecasting

Do your research on the costs you can expect for the various expense categories you will have and then estimate your monthly disbursements based on what you have learned. Projections should be your best estimate, however, generally you should be conservative in estimating receipts and generous in estimating disbursements. When you are considering whether a venture is viable, it pays to be prudent in how you examine the situation. If you are seeking outside financing, remember to also include your loan principal and interest payments in your monthly disbursements.

Start-Up Costs For New Businesses

Include your projected start-up costs in your first month's cash flow. These are the costs that you will incur before your business is actually open and experiencing ongoing operating costs. These include legal fees to set up your business structure; licensing, registration and membership fees; facilities costs (e.g. signage, fixtures, deposits, etc.); equipment purchases (e.g. computers, cash registers, display equipment, furniture, etc.); and supplies. Again be realistic. New business owners often underestimate the amount of capital needed to begin.

Worksheets

Refer to the worksheets in this Appendix for help in projecting your annual receipts and disbursements in a monthly cash flow forecast. Not all the categories in the worksheet may apply. Use only the categories you require for your particular operation. Include any additional categories that you need that may be missing as other cash received (line 6), other direct costs (line 12), or other operating expenses (line 30). Include notes itemizing these additional elements and their related costs.

A Strong Management Tool

Once your cash flow forecast is done, don't put it away and forget it. (The Women's Enterprise Centre's lending program requires that you provide a statement and actual to budget deviation analysis at the end of each month of operation.) If you didn't meet your sales objective or you have an unexpected payment to make, take the cash flow forecast out and work through it again to see what effect the change had (or will have) on your cash position. Seriously consider that you may have to adjust your spending plans.

A cash flow forecast is an important management tool. You can use it to monitor actual expenses against planned expenses, to anticipate and budget for coming expenses, and to formulate credit and collection policies. It also serves as an early indicator for expenditures that are getting out of hand. Refer to it often and use it to your advantage.

Cash Flow Worksheet Instructions

To start, complete the *Projected Cash Sales and Accounts Receivable* and *Projected Accounts Payable* worksheets. Transfer these numbers to Lines 1, 2 and 27 as indicated below.

- Line 1: Cash receipts as per *Projected Cash Sales*.
- Line 2: Accounts Receivable as per *Projected Accounts Receivable*.
- Lines 3-4: Loans funds that you receive during the month.
- Line 5: Equity you and/or your partners personally contribute (or plan to contribute) during the month.
- Line 6: Other funds received such as sale of assets, rent received, etc.
- Line 7: Sum of lines 1-6.
- Lines 8-13: Direct operating expenses (variable costs) – This is the actual cash you spend for monthly expenses incurred in the process of selling your service or product.
- Line 14: Sum of lines 8-13.
- Lines 15-28: Fixed operating expenses – This is the actual cash you spend for your monthly operating disbursements. For example, if you write a cheque in January for the full year's insurance, then the amount of the cheque would be put in the January column and nothing would be entered for the rest of the year. (Note: You can drop and add categories of cash receipts and disbursements for the cash flow statement so the format fits your business.)
- Line 29: Loan payments – show the monthly payment for the principal and interest.
- Line 30: Payments on Accounts Payable – as per *Projected Accounts Payable*.
- Line 31: Payments on other operating expenses not already captured. Include an allotment for contingency planning calculated as a percentage of your monthly expenses.
- Line 32: Purchase of Fixed Assets – This is the cash you spend for fixed assets such as furniture, equipment, etc.
- Line 33: Leasehold Improvements – Payments made to update or renovate your leasehold space.
- Line 34: Contingency Allotment – Include an allotment for contingency planning calculated as a percentage of your monthly expenses.
- Line 35: Sum of line 14 plus lines 15-34.
- Line 36: Sum of line 14 and line 35.
- Line 37: Net Cash Flow = line 7 minus line 36
- Line 38: Cash balance at the start of the month. For example, Month 1 is as per calculation of cash on hand at the time plus any loan proceeds minus any Accounts Payable paid
- Line 39: Cash balance at month end is the amount of money you started out with that month plus (or minus) the amount of net cash flow at month's end. That month's closing cash balance then becomes next month's opening cash balance.

(Company name)
FORECASTED CASH FLOW STATEMENT

Monthly, (year)

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Total
Cash Inflows (Receipts)													\$0.00
1. Cash Receipts													\$0.00
2. Accounts Receivable Collections													\$0.00
3. Loan Advances (WEC)													\$0.00
4. Loan Advances (other)													\$0.00
5. Owner Investment													\$0.00
6. Other Cash Received													\$0.00
7. Total Cash Inflows (sum of lines 1-6)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
													\$0.00
Cash Outflows (Disbursements)													\$0.00
8. Cost of Materials/Inventories													\$0.00
9. Advertising & Promotion													\$0.00
10. Variable Labour (commissions)													\$0.00
11. Packaging													\$0.00
12. Other Direct Costs													\$0.00
13. Subtotal Cost of Goods Sold (sum lines 8-12)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14. Salaries & Benefits -Manager													\$0.00
15. Salaries & Benefits -Other													\$0.00
16. Maintenance & Cleaning													\$0.00
17. Licenses & Dues													\$0.00
18. Rental (premises)													\$0.00
19. Rental (other)													\$0.00
20. Utilities (heat, light, water, etc.)													\$0.00
21. Insurance													\$0.00
22. Telephone													\$0.00
23. Vehicle													\$0.00
24. Travel													\$0.00
25. Shipping													\$0.00
26. Office Supplies & Misc.													\$0.00
27. Accounting & Legal													\$0.00
28. Loan Repayment													\$0.00
29. Payments on Accounts Payable													\$0.00
30. Other Operating Expenses													\$0.00
31. Contingency Allotment													\$0.00
32. Total Cash Outflows (sum of line 13 plus lines 14-31)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
													\$0.00
33. Net Cash Flow (line 7 minus line 32)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
													\$0.00
34. Cash Balance at month start*	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
35. Cash Balance at month end**	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

* Cash balance at the beginning of month 1 was \$_____ made up of cash on hand of \$_____ plus cash proceeds of loan \$_____ less payment of accounts payable of \$_____.

** Cash balance at the start of the month plus (or minus) Net Cash Flow for the same month.

(Company Name)
PROJECTED CASH RECEIPTS, ACCOUNTS RECEIVABLE & ACCOUNTS PAYABLE
 Monthly, _____ (year)

PROJECTED CASH RECEIPTS

Month	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Total
Projected total sales (units)													
Projected total sales (\$\$)													
Cash Sales (Receipts) (units x \$\$)													

PROJECTED ACCOUNTS RECEIVABLE

Month													
Monies collected from previous month's sales													
Monies collected from two months previous													
Monies collected from three month previous													
Total Accounts Receivables collected (sum of all collections)													

PROJECTED ACCOUNTS PAYABLE

Month													
Planned purchases													
Payments on current month's purchases													
Payments on all previous month's purchases													
Total Payments on Accounts Payables (sum of all payments)													

Date: _____
 Page _____ of _____

2. Break-Even Analysis

What is Break-Even?

Break-even analysis another essential decision making tool. A break-even analysis tells you how many units of a product (or service) must be sold, or how much revenue must be generated, in order to break even. *Only after you cross the breakeven point will your business start to make a profit.*

The break-even point is defined as Total Sales minus Variable Costs minus Fixed Costs equals Zero; the point where a company's total sales equal total costs.

Breaking even depends on a variety of factors:

- **Fixed Costs:** those that remain the same regardless of how much of your product or service you sell such as rent, mortgage, utilities, insurance, and so on.
- **Variable Costs:** those that vary in relation to the amount you sell or produce such as servicing supplies, raw materials, sales commissions, labor that is dependent on the amount manufactured, and so on.
- **Per unit selling price:** the price you determine you must sell a product or unit of service at.

A break-even analysis examines the interaction of fixed costs, variable costs, price, and unit volume to help you determine what combination of elements is necessary to break even. The analysis is also useful for showing a prospective financing source that you are aware of how much money you need to get your company going, or to keep it going. It can also be used to chart positive cash flow for a planned new product or service.

Break-Even Calculation

Definitions:

- **Variable costs:** those that change based on the amount produced/sold. These include items such as raw materials, packaging, certain labor costs, transportation and freight. In many instances all costs associated with the production of a product or service are lumped together under the heading 'cost of goods' or 'cost of sales' or 'cost of goods sold' (COGS). For example, suppose that it costs \$4.00 to make one unit of a particular product or to create one unit of a particular service offering. If you produce 200 units of that product or service, it will cost you \$800 in 'cost of goods'; if you produce 500, it will cost you \$2,000 worth of 'cost of goods'. The costs vary with the amount of product produced and are therefore termed variable.
- **Fixed costs:** those that do not change regardless of how many units are produced/sold. These include items such as rent, utilities, loan payments, insurance and other overhead costs such as advertising, market research costs, etc.
- **Unit price:** per unit selling price. Your unit selling price must cover all costs of goods (or services) sold in order for you to break even.

To calculate break-even then, first determine the price at which all variable costs to produce the product or service are covered. Next, determine what your total fixed costs are. (Use total annual fixed costs for calculating your annual break-even, or total monthly fixed costs for calculating a monthly break-even.)

The formulas for calculating break-even in both units and dollars are shown below:

$$\text{Break-even units} = \frac{\text{Total Fixed Cost}}{\text{Unit Price} - \text{Unit Variable Costs}}$$

This figure is the number of units that you have to sell in order to break even. If you are selling more than this, then you should be making a profit and if you sell less than this, you will not even be covering your fixed expenses.

$$\text{Break-even dollar sales} = \frac{\text{Total Fixed Costs}}{(\text{Unit Price} - \text{Unit Variable Costs}) \div \text{Unit Price}}$$

This figure is the level of sales that you must reach in order to break even. Again, if you are reaching more than this, then you should be making a profit and if you are not, you will not be selling enough to cover your fixed expenses.

A Break-even analysis lets you examine the impacts of price and unit volume adjustments. For example, let's assume it costs you \$8,000 each month to run the business. As well, you had determined that the per-unit variable costs of your product would be \$10 within a volume range of 1,000 to 2,500 units. The break-even dollar sales each month is then \$8,000 divided by (\$20 - \$10) divided by \$20, or \$16,000. Break-even units would be \$8,000 divided by (\$20-\$10) or 800 units.

Let's assume you estimated that at a per-unit selling price of \$20 you could sell 1,200 units per month. Results of this combination would be that at that volume and price, this business would generate monthly sales of \$24,000 and operating profit of \$4,000. (\$24,000 in sales minus \$12,000 of variable costs minus \$8,000 of fixed costs.) If, however, you were to lower your price to \$17 and could then sell 2,300 units per month, the business would generate monthly sales of \$39,100 and operating profit of \$8,100.

By using this analysis, it is possible to determine the impacts of sales volumes early on so that you can make adjustments. For example if you had a monthly breakeven of \$16,000 dollars or 800 units and you were open 22 days each month on average, you know that you need to make an average sales of 36 units each day to break even. Track your sales daily, compare the total often to your break-even calculation, and you will know where you stand in relation to covering your monthly costs.

If you are not reaching break-even, make adjustments!

Three ways you can still break even when revenue activity falls:

- Reduce fixed costs
- Reduce the variable cost per unit
- Increase revenue per unit

Your Business Name
Balance Sheet
Month Day, 200X

Assets

Current Assets:

Cash		\$0	
Accounts Receivable	\$0		
Less: Reserve for Bad Debts	0	0	
Merchandise Inventory		0	
Prepaid Expenses		0	
Total Current Assets			\$0

Fixed Assets:

Vehicles		0	
Less: Accumulated Depreciation	0	0	
Furniture and Fixtures	0		
Less: Accumulated Depreciation	0	0	
Equipment	0		
Less: Accumulated Depreciation	0	0	
Buildings	0		
Less: Accumulated Depreciation	0	0	
Land		0	
Total Fixed Assets			0

Goodwill		0	
Total Other Assets			0
Total Assets			\$0

Liabilities and Capital

Current Liabilities:

Accounts Payable		\$0	
Sales Taxes Payable		0	
Payroll Taxes Payable		0	
Accrued Wages Payable		0	
Short-Term Bank Loan Payable		0	
Total Current Liabilities			\$0

Long-Term Liabilities:

Long-Term Loan Payable		0	
Mortgage Payable		0	
Total Long-Term Liabilities			0

Total Liabilities		0	
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Capital:

Owner's Equity		0	
Net Profit		0	
Total Capital			0

Total Liabilities and Capital		\$0	
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Your Company Name
Income Statement
For the Year Ended [Month Day, 200X]

Revenue:

Gross Sales		\$0	
Less: Sales Returns and Allowances		0	
Net Sales		0	

Cost of Goods Sold:

Beginning Inventory		\$0	
Add: Purchases		0	
Freight-in		0	
Direct Labour		0	
Less: Ending Inventory		0	
Cost of Goods Sold		0	

Gross Profit (Loss) 0

Expenses:

Advertising		0	
Bad Debts		0	
Bank Charges		0	
Commissions		0	
Delivery Expenses		0	
Depreciation		0	
Insurance		0	
Interest		0	
Miscellaneous		0	
Office Expenses		0	
Payroll Taxes		0	
Permits and Licenses		0	
Postage		0	
Professional Fees		0	
Rent		0	
Repairs		0	
Telephone		0	
Travel		0	
Utilities		0	
Vehicle Expenses		0	
Wages		0	
Total Expenses		0	

Net Operating Income 0

Other Income:

Gain (Loss) on Sale of Assets		0	
Interest Income		0	
Total Other Income		0	

Net Income (Loss) \$0

