Understanding a Firm’s Financial Statements

PART 3
Developing the New Venture Business Plan
Understanding Financial Statements

Start by answering this question:

Accounting for Cookies

Video (3 min)

• Financial Statements (Accounting Statements)
  ➢ Reports of a firm’s financial performance and resources
    ❖ Helps determine a startup’s financial requirements
    ❖ Assesses the financial implications of a business plan

• Basic Financial Statements
  ➢ Income statement
  ➢ Balance sheet
  ➢ Cash flow statement
Understanding the Income Statement

- **Income Statement**
  - A report showing the profit or loss from a firm’s operations over a given period of time.
  - “How profitable is the business?”
  - **Sales (revenue) – Expenses = Profits (income)**
    - Revenue from product or service sales
    - Costs of producing product/service (cost of goods sold)
    - Operating expenses (marketing, selling, general and administrative expenses, and depreciation)
    - Financing costs (interest paid)
    - Tax payments
The Income Statement: An Overview

Operating Activities

Sales Revenue

- Cost of producing or acquiring product or service (cost of goods sold)

= Gross profit

- Marketing and selling expenses, general and administrative expenses and depreciation (operating expenses)

= Operating Income

Financing Activities

Operating Income

- Interest expense on debt (financing costs)

= Earnings Before Taxes

Taxes

Earnings Before Taxes

- Income taxes

= Net Income Available to Owners
A high Gross Profit (GP) is especially important for a new business. GP is your profit after covering direct costs.

You have to pay all of your overhead out of your GP.

If your GP is 10% then you need to generate $10 in sales for every $1 in overhead.
If your GP is 40%, then you only need to generate $2.50 in sales for every $1 in overhead.

The higher the GP the better!
Looking at the income statement:
Which part is often referred to as "paper profit"?

Deceptive nature of
(1) “depreciation”, and
(2) “interest-only” accounting on debt repayment.
How much are you worth?

Notice the percentage of depreciating assets
## Statement of Personal Net Worth

<table>
<thead>
<tr>
<th>Assets</th>
<th>Current Value</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank Accounts &amp; Cash</td>
<td>$26,000.00</td>
<td>1.30%</td>
</tr>
<tr>
<td>Money Market &amp; CDs</td>
<td>$10,000.00</td>
<td>0.60%</td>
</tr>
<tr>
<td><strong>Investments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonds</td>
<td>$89,000.00</td>
<td>4.46%</td>
</tr>
<tr>
<td>Stocks</td>
<td>$2,300.00</td>
<td>0.12%</td>
</tr>
<tr>
<td>Mutual Funds</td>
<td>$23,000.00</td>
<td>1.15%</td>
</tr>
<tr>
<td>Annuities</td>
<td>$47,000.00</td>
<td>2.36%</td>
</tr>
<tr>
<td>IRA's (Reg &amp; Roth)</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Retirement Plans</td>
<td>$58,000.00</td>
<td>2.91%</td>
</tr>
<tr>
<td>Businesses Owned</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Rental Real Estate</td>
<td>$300,000.00</td>
<td>45.13%</td>
</tr>
<tr>
<td><strong>Personal Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Possessions</td>
<td>$40,000.00</td>
<td>2.01%</td>
</tr>
<tr>
<td>Primary Home</td>
<td>$780,000.00</td>
<td>39.11%</td>
</tr>
<tr>
<td>Automobiles</td>
<td>$15,000.00</td>
<td>0.75%</td>
</tr>
<tr>
<td>Equipment and Other</td>
<td>$4,000.00</td>
<td>0.20%</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>$1,994,300.00</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>Liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortgages</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Business or Personal Loans</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Rental Real Estate Loans</td>
<td>$306,000.00</td>
<td>100.00%</td>
</tr>
<tr>
<td>Automobile Loans</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Credit Cards (Balance Only)</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Other</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>$306,000.00</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>Net Worth</strong></td>
<td>$1,688,300.00</td>
<td></td>
</tr>
</tbody>
</table>

Over time . . .

Notice the percentage of appreciating assets.
The Balance Sheet

- **Balance Sheet**
  - A report showing a firm’s assets, liabilities, and owners’ equity at a specific point in time
  - **Total Assets = Debt + Owner’s equity**
Exhibit 10.3
The Balance Sheet: An Overview

### Assets
- **Current Assets**
  - Cash
  - Accounts receivable
  - Inventories

### Debt (Liabilities and Equity (Net Worth))
- **Debt**
  - Current (Short-Term) Debt
  - Accounts payable
  - Accrued expenses
  - Short-term notes
  - Long-Term Debt
  - Long-term notes
  - Mortgages

- **Ownership Equity**
  - Owner’s net worth
  - Partnership equity
  - Common stock equity

### Fixed Assets
- Machinery and equipment
- Buildings
- Land

### Other Assets
- Long-term investments
- Patents

### Total Assets
= Total Debt and Equity
Profits Versus Cash Flows

• Accrual-Basis Accounting
  ➢ Matches revenues \textit{when they are earned} against the expenses \textit{associated with those revenues}.
    ▶ Sales reflect both cash and credit (noncash) sales.
    ▶ Inventory purchased on credit is a noncash expense.
    ▶ Depreciation is a noncash expense.
    ▶ Income tax is accrued and not entirely expensed.

• Cash-Basis Accounting
  ➢ Reports transactions \textit{only when cash is received or a payment is made}.
## Create Your Personal Cash Budget

### Personal Cash Flow Budget

<table>
<thead>
<tr>
<th>Income:</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary/wages</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
</tr>
<tr>
<td>Commissions</td>
<td>150</td>
<td>100</td>
<td>75</td>
<td>125</td>
<td>135</td>
<td>175</td>
<td>80</td>
<td>115</td>
<td>80</td>
<td>75</td>
<td>90</td>
<td>125</td>
</tr>
<tr>
<td>Interest Earned</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>34</td>
<td>34</td>
<td>35</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Investment Income</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>400</td>
</tr>
<tr>
<td>Loans Repaid to us</td>
<td>500</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td>2278</td>
<td>2228</td>
<td>2203</td>
<td>2253</td>
<td>2265</td>
<td>2705</td>
<td>2210</td>
<td>2249</td>
<td>2214</td>
<td>2210</td>
<td>2228</td>
<td>2663</td>
</tr>
</tbody>
</table>

| Cash Expenses: | | | | | | | | | | | | |
|-----------------| | | | | | | | | | | | |
| Rent/Mortgage   | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 |
| Utilities       | 100 | 100 | 100 | 100 | 100 | 100 | 150 | 150 | 100 | 100 | 100 | 100 |
| Telephone       | 150 | 75  | 70  | 125 | 65  | 115 | 125 | 40  | 80  | 70  | 80  | 170 |
| Groceries       | 100 | 100 | 100 | 100 | 100 | 125 | 100 | 100 | 100 | 100 | 100 | 100 |
| Clothing        | 200 | 0   | 0   | 175 | 50  | 0   | 60  | 0   | 115 | 0   | 225 | 70  |
| Entertainment   | 240 | 60  | 50  | 175 | 80  | 155 | 200 | 800 | 60  | 55  | 70  | 125 |
| Credit Card     | 50  | 40  | 60  | 35  | 55  | 45  | 60  | 600 | 70  | 40  | 60  | 800 |
| Insurance       | 0   | 450 | 0   | 0   | 0   | 0   | 0   | 450 | 0   | 0   | 0   | 0   |
| Property tax    | 0   | 0   | 1500| 0   | 0   | 0   | 0   | 1500| 0   | 0   | 0   | 0   |
| Vehicle Expenses| 100 | 100 | 600 | 100 | 100 | 100 | 100 | 100 | 350 | 100 | 100 | 100 |
| Car Loan        | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| **Total Expenses** | 1990 | 1975 | 3530 | 1860 | 1600 | 1690 | 1870 | 3290 | 3425 | 1515 | 1785 | 2515 |

"+" or (-) | 288 | 253 | (1327) | 393 | 665 | 1015 | 340 | (1041) | (1211) | 695 | 443 | 148 |

| Beginning Cash | 0   | 288 | 541 | (786) | (393) | 272 | 1287 | 1627 | 586 | (625) | 70  | 513 |
| Cash on Hand   | 288 | 541 | (786) | (393) | 272 | 1287 | 1627 | 586 | (625) | 70  | 513 | 661 |
The Cash Flow Statement

Cash Flow Statement

• A financial report showing a firm’s income (cash) when it is received and expenses when they are paid.
  
  ➢ Cash flows from normal operations (operating activities)
  
  ➢ Cash flows related to the investment in or sale of assets (investment activities)
  
  ➢ Cash flows related to financing the firm (financing activities)

• Short Video
### Cash Flow Patterns

<table>
<thead>
<tr>
<th>Cash Flow Pattern</th>
<th>Operation</th>
<th>Investments</th>
<th>Financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>2</td>
<td>+</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>3</td>
<td>–</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>4</td>
<td>–</td>
<td>–</td>
<td>+</td>
</tr>
</tbody>
</table>

**Pattern 1.** This firm has positive cash flows from operations, negative investment cash flows, and positive cash flows from financing. It is using its cash flows from operations and new financing to expand the firm’s operations.

**Pattern 2.** This firm is using cash flows from operations to expand the business, pay down debt, and/or pay its owners.

**Pattern 3.** This firm is encountering negative cash flows from operations, which are being covered by selling assets and by borrowing or acquiring more equity financing.

**Pattern 4.** This firm has negative cash flows from operations and is growing the company’s fixed assets through increased financing. This firm is a startup business that has yet to break even, is investing in assets to produce future cash flows, and is having to raise capital to make that happen.
chapter 11

Forecasting Financial Requirements

PART 3
Developing the New Venture Business Plan

Small Business Management

PowerPoint Presentation by Charlie Cook, The University of West Alabama
Pro Forma Financial Statements

- Statements that project a firm’s financial performance and condition

- Purposes of pro forma statements:
  - How **profitable** can the firm be expected to be, given the projected sales levels and the expected sales expense relationships?
  - What will determine the amount and type of financing (**debt vs. equity**) to be used?
  - Will the firm have **adequate cash flows**? If so, how will they be used; if not, where will the additional cash come from?
Forecasting Profitability

Net Income Depends On:

- Amount of sales
- Cost of goods sold and operating expenses
- Interest expense
- Taxes

“If we’re doing so well, then why am I always so broke?”
Risk Management Association (RMA)

http://www.rmahq.org/tools-publications/publications/annual-statement-studies

Balance sheet, income statement, and ratio analysis data for companies, based on their 6-digit NAICS.

- Get NAICS and SIC from my web page
  http://instruction2.mtsac.edu/rjagodka/NAICS/naics_2007_keyword.asp

RMA:
- Has current data based on small, small-med, med-large, and large firms (sales volume)
- Has historic data based on all firms for the most recent 5 years

Annual Statement Studies is available in three convenient formats:

- "The Books" – National data is available in traditional print format for both Financial Ratio Benchmarks (FRB) and Industry Default Probabilities and Cash Flow Measures (IDP).
- Via the Web, eStatement Studies – This valuable service combines both Statement Studies books—Financial Ratio Benchmarks (FRB) and Industry Default Probabilities and Cash Flow Measures (IDP)—plus regional breakouts, all via the Web.
- Individual NAICS downloads – Single industry data is available online 24/7 by individual NAICS (North American Industry Classification System) codes. You'll get the same timely, high-quality information displayed exactly as it appears in the printed format.
The above calculations may not be clear – so let’s look at some details . . .
DuPont Analysis

DuPont System - Can Play “What if . . .”

The DuPont System summarizes key relationships which determine the overall performance of the firm.

Return On Equity

- Return On Assets (%)
- Return On Net Worth (%)

Financial Leverage

Net Profit Margin

- Net Profit
- Sales

Asset Turnover

- Total Assets
- Net Worth

Sales

Cost of Goods Sold

Gross Margin

- Total Expenses

Inventory

Current Assets

- Accounts Receivable

Other Assets

Fixed Assets

Net Worth

TotalAssets

Return On Equity