Financial Projections

Making sense of the money
The Burning Questions…

• What are your capital needs?
  – Projections

• How will you get that capital?
  – Structure: Equity or debt?
    • Ownership structure
  – Up-front or staged?

• What about a return for your investors?
  – How soon?
  – How much?
  – What is the exit-strategy?
Many entrepreneurs of profitable and rapidly growing companies are puzzled by the fact that they never seem to have enough cash.
Financial Forecasting

• Build a set of assumptions
• Estimate your operating cycle
• Forecast sales
• Use the sales to create
  – Pro forma balance sheet, income statement and cash flow statements
  – Factor risk into the projections
• Sum up your cash needs to get past the burn out point
Financial Forecasting
Creating the Pro Forma Analysis

• Develop assumptions
  – Pricing assumptions
  – Sales level and growth assumptions
  – Inventory needs assumptions
  – Payables and wage cycle assumptions
  – Fixed cost and tax expectations

• Project cash needs
  – Monthly or quarterly

• Project an Income Statement
• Project an Balance Sheet
### Example OPERATING & CASH BUDGET

#### CASH BUDGET

<table>
<thead>
<tr>
<th></th>
<th>APRIL</th>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begin. Cash</td>
<td>$23,000</td>
<td>$23,000</td>
<td>$23,000</td>
<td>$23,000</td>
</tr>
<tr>
<td>Cash receipts:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer collections</td>
<td>105,800</td>
<td>156,400</td>
<td>156,400</td>
<td>124,200</td>
</tr>
<tr>
<td>Totl cash before financing</td>
<td>128,800</td>
<td>179,400</td>
<td>179,400</td>
<td>147,200</td>
</tr>
<tr>
<td>Cash disbursements:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merchandise</td>
<td>98,210</td>
<td>111,090</td>
<td>93,380</td>
<td>75,670</td>
</tr>
<tr>
<td>Wages &amp; Comm</td>
<td>21,275</td>
<td>28,175</td>
<td>29,900</td>
<td>24,725</td>
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<tr>
<td>Misc Exp</td>
<td>5,750</td>
<td>9,200</td>
<td>6,900</td>
<td>5,750</td>
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<tr>
<td>Rent</td>
<td>4,600</td>
<td>4,600</td>
<td>4,600</td>
<td>4,600</td>
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<tr>
<td>Truck Purchase</td>
<td>6,900</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Disbursements</td>
<td>136,735</td>
<td>153,065</td>
<td>134,780</td>
<td>110,745</td>
</tr>
</tbody>
</table>
### Example OPERATING & CASH BUDGET

<table>
<thead>
<tr>
<th></th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Disbursements</td>
<td>136,735</td>
<td>153,065</td>
<td>134,780</td>
<td>110,745</td>
</tr>
<tr>
<td>Min. Cash balance</td>
<td>23,000</td>
<td>23,000</td>
<td>23,000</td>
<td>23,000</td>
</tr>
<tr>
<td>Total cash needed</td>
<td>159,735</td>
<td>176,065</td>
<td>157,780</td>
<td>133,745</td>
</tr>
<tr>
<td>Excess of total cash</td>
<td>-30,935</td>
<td>3,335</td>
<td>21,620</td>
<td>13,455</td>
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<tr>
<td><strong>Financing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New borrowing</td>
<td>30,935</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Repayments</td>
<td></td>
<td>2,871</td>
<td>21,199</td>
<td>6,865</td>
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<tr>
<td>Loan balance</td>
<td>30,935</td>
<td>28,064</td>
<td>6,865</td>
<td>0</td>
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<tr>
<td>Interest</td>
<td>0</td>
<td>464</td>
<td>421</td>
<td>103</td>
</tr>
<tr>
<td>Total effects of financing</td>
<td>30,935</td>
<td>-3,335</td>
<td>-21,620</td>
<td>-6,968</td>
</tr>
<tr>
<td>Cash balance</td>
<td>23,000</td>
<td>23,000</td>
<td>23,000</td>
<td>29,487</td>
</tr>
</tbody>
</table>
Building Pro Forma Statements

- Income Statement
  - Net Income

- Cash Flow Statement

- Sales estimates and assumptions

- Balance Sheet
  - Assets needed to support sales
    - Current
    - Permanent
  - Liabilities (debt)

- Historical data or industry ratios

- Debt determines interest expense
Building Pro Forma Statements

1. **Historical data or industry ratios**
2. **Sales estimates and assumptions**
   - **Income Statement**
     - Net Income
   - **Cash Flow Statement**
     - $NI + Dep. \approx Op. Cash Flow + NWC needs + Capital investment needs$
   - **Balance Sheet**
     - Assets needed to support sales
       - Current
       - Permanent
     - Liabilities (debt)
3. **Year on year changes determine cash flow needs**
Building Pro Forma Statements

Historical data or industry ratios

Sales estimates and assumptions

Income Statement
Net Income

Cash Flow Statement

Balance Sheet
Assets needed to support sales
Current Permanent Liabilities (debt)

Debt determines interest expense
Critical Determinants of Financial Needs

- Minimum Efficient Scale
- Profitability
- Sales Growth
- Cash Flow
Critical Determinants of Financial Needs

Minimum Efficient Scale

- Estimating how much volume is needed to get to the industry MES
  - Capital intensive ➞ high MES
  - Consulting ➞ low MES

- How to know
  - Look at existing structure of the industry
  - Look at the fixed and intangible assets needed to compete
Critical Determinants of Financial Needs

Profitability

- High profit margins $\rightarrow$ lower cash needs
- Rapid profitability $\rightarrow$ lower cash needs
- However, high profitability can lead to rapid growth
  - High growth $\rightarrow$ high cash needs
Critical Determinants of Financial Needs

Sales Growth

• Key Questions
  – When will the venture begin to generate revenues?
  – Once revenues are being generated how rapidly will they grow?
  – What is the best time frame for forecasting?
    • 3 years, 5 years, 10 years….
  – What is the appropriate forecasting interval?
    • Monthly, quarterly annually
Critical Determinants of Financial Needs

Sales Growth

• Identify a yardstick company
  – Comparability?
    • Target audience
    • Distribution channels
    • Substitutes
    • Manufacturing technologies
Critical Determinants of Financial Needs

Sales Growth

- Identify a yardstick company
- Gather data
- Supply-side approach
  - Test market
  - Fundamental analysis
Critical Determinants of Financial Needs

Sales Growth

- Growth assumptions drive revenues
- Collection assumptions drive cash inflows
Start-up Growth

Growth Rate

Revenues

growth rate
Fundamental Determinants of Sales
Revenues

• What geographic market will the venture serve?
• How many potential customers are in the market?
  – What segments will be interested in this product?
• How rapidly is the market growing?
• How much, in terms of quantity, is the typical customer expected to purchase during the forecast period?
• How are purchase amounts likely to change in the future?
• What is the expected average price of the venture’s product?
  – How price elastic is the product?
• How aggressively and effectively, compared to competitors, will the venture be able to promote its product?
• How are competitors likely to react to the venture?
• Who else in considering entering the market, and how likely are they to do so?
Critical Determinants of Financial Needs

Cash Flow Projections

- Cash Flow
- You can’t pay the bills with profits
- Things that affect cash flow
  - Capitalized assets
  - Terms of trade
    - To your customers
    - From your suppliers
  - Debt servicing
The Cash Flow Cycle

Capital
(Debt and Equity)

Beginning Cash

Labor

Materials

Fixed Assets

Product

Ending cash

Equity Returns

Debt Service

Accounts Rec.

Taxes
Factors Impacting a Firm’s Cash Needs

- High MES markets
  - Need for fixed asset investment
  - High start-up costs
- Tight profit margins
- Expect high rates of growth
- Must depend on depreciable assets
- Must offer attractive terms of trade to attract customers
- Aren’t able to access favorable terms of trade from suppliers
Estimating the Cash Conversion Cycle

Inventory conversion period
plus
Receivables collection period
minus
Payables conversion period
Inventory Conversion Period
New Venture Considerations

- From raw material to customer-ready
- How long is the product in process?
  - How much variability is there in the production cycle?
- How many days of raw material inventory is needed to keep production going?
- Do you need to keep finished inventory on hand?
Pricing and Credit Constraints

New Venture Considerations

• New and small businesses are often price takers
• New products often require price incentives to attract the interest of customers
• Commercial customers may want a trial period with a new product
• If established players offer credit terms, the new venture may need to match or beat them
Credit and the AR Conversion Cycle

New Venture Considerations

• Typically not negotiable
• New players may have to pay in cash or face very tight terms of trade
How will you get the capital?

• Debt
  – Advantages:
    • You retain ownership and control
    • Potential profit is yours
  – Disadvantages
    • Expensive for start-ups
    • Limited amounts available when you are unproven
    • Creates greater financial risk for the company
      – Harder to break-even
• Equity
  – Advantages:
    • No fixed charges to meet
    • May come with good management advice
  – Disadvantages
    • Venture capitalists will want high returns for their investment
    • Based on valuation
      – Difficult to achieve
    • Diminished ownership and control
From your financials…

- How much you expect to need
- When you will need the cash
- For how long you will need cash
- When you will breakeven
  - When will you be liquid
- When your investors can expect a return