ANALYSIS OF PROJECTED FINANCIAL STATEMENTS

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Projected Financial Statements

Business bankers typically require commercial term loan applicants to submit forecasted financial statements that show the projected financial results and repayment capacity of the business covering the period of currency of the loan or a specified period whichever is shorter.

- **Projected or pro forma or forecasted income statements and balance sheets represent management's best estimates about how a business will perform in the future. It also considers the expected economic, competitive, and regulatory environments in which the business will operate.**
- **The borrower or the business banker may prepare the forecast. It is preferable, however, that the borrower prepare the forecasts and provide the banker with the assumptions used to create this forecast. The banker can then review these forecasts and make changes to them as appropriate.**

Use of projections

- To establish the company's financing need and repayment capacity
- Structuring of credit facilities and controlling covenants.

Where to begin?

- Pro forma financial statements are similar to historical financial statements in appearance and use, except that they focus on the future instead of the past, and are based upon assumptions rather than hard facts.
- Ways of making/analyzing Projected Financial Statements:
  - Based on past data and activities
    - For borrowers with past track records and history, assumptions and projections can be drawn from or weighed against their past performance.
  - Based on Industry/Competitors data and activities.

Where to begin?

- When both of these sources are lacking, creating a meaningful forecast is exceedingly difficult. For such proposals, review or making of projections must be done by
  - Studying about the product and market thoroughly to determine what level of sales may be expected. Borrower's business strategies and plan, Internet, Government publications, resources from trade assotiations may be helpful.
  - Discussing with the Borrower's key personnel about the assumptions behind each line item of the pro forma financial statements and critically examining (what, why, how, when, where) assumptions and figures based on the knowledge gathered.

Where to begin?

With detailed questioning and counter questioning, create/review first year's projected financials.

1. Size and population of target market, targeted no. of customers, no. units, and unit price, per unit cost to be determined based on critical examination of customer business strategy.
2. Make the projections for the first year on a monthly basis.

- Get references and information from outside sources, such as suppliers, customers or common acquaintances.
- Compare the financials with the structure of financials of related Business Sector

Considerations for reviewing projections

- Pro forma Framework:
  - The past performance of the business, its continued reliability, and the consistency of past projections
  - The external factors that affect the operations of the business, such as the economy, industry trends, the market, competition, and government regulations
  - The internal factors that affect the operations of the business, such as management, physical plant, financial controls, marketing strategy, and managerial reports

Considerations for reviewing projections

- Logical Assumptions
  - should not rely totally on the assumptions made by the business, but should introduce other assumptions that might be more realistic, or fit within the three scenarios of best case, most likely case or worst case.
    - Hastily reviewing an optimistic plan from a business could draw the business banker into a problem loan.
- Business banker must visit the business in person to meet key personnel and see the operations.
- Getting references and information from outside sources, such as suppliers, customers, and trade associations will help in reviewing the assumptions.

Considerations for reviewing projections

- **External Factors**

Although management cannot control most of the external factors that make up the operating environment, it must anticipate and plan for such factors in order to achieve financial objectives. In making or analyzing projections, the company or business banker takes into consideration the following such major external factors as:

  - **The economy—predictions for general business conditions, interest rates, and economic fluctuations**
  - **The industry—its growth or stagnancy, the ease of entry into it, its degree of competitiveness and number of competitors, and the position of the business in the industry (whether it is a leader or a marginal producer)**

Considerations for reviewing projections

- External Factors contd.
  - The market—its degree of diversification (number of buyers), the cost of entry into it, the basis of competition (price, quality, technology), the competition from complementary products, and sociological trends (consumer preferences, environmental concerns, and so on)
  - Government regulations—prospects for regulatory changes (deregulation), particular environmental issues, and future vulnerability to imports or protection by import restrictions
  - Labor—the future availability and cost of labor; if non-unionized, prospects for unionization; if unionized, likelihood of strikes, and anticipated costs of new contract negotiations

Considerations for reviewing projections

- **Internal Factors**

  Internal factors include the human, financial, and physical resources available to the business. Management can control most of these factors and use them to enhance operational performance. The following are major internal factors to consider:

  - **Management—experience, past performance, ability to project performance and to perform according to projections, ability to achieve objectives, and ability to grow with the business**
  - **Physical plant and equipment—capacity, condition, and efficiency compared to that of competitors; technological sophistication**

Considerations for reviewing projections

- Internal Factors contd.
  - Financial controls—accounts receivable systems (approval and collection), inventory and purchasing systems, accounts payable systems, expense controls, and budgetary provisions
  - Marketing strategy—the company's niche or broad marketing plan and market territory, adequacy of financial and human resources to support the plan distribution system
  - Managerial reports—quality and adequacy of financial and other managerial reports, which are the basis for decision making

Reviewing of projections of Income Statement

- The income statement is the first statement forecasted because the income statement largely drives the balance sheet.
  - Net profit and dividends are used to calculate retained earnings
  - Accounts receivable are calculated from projected credit sales
  - Inventory is calculated using cost of goods sold
  - Fixed assets are lowered by the amount of depreciation expense
- The sales projection is the cornerstone of the entire forecasted financial statement. An unrealistic sales figure causes the rest of the projection to be of questionable value because the forecasted income statement accounts are usually calculated as a percentage of sales.

Reviewing of projections of Income Statement- Case Study

- Sales
  - Full year sales projected by management is 700 lakhs citing full year of operations and completing some larger projects, whereas sales of past eight months was 384 lakhs.
  - In the past sales averaged Rs.50 lakhs per month and considering the general tendency of borrowers to show more profits, the business banker has projected sales of Rs.650 lakhs. This allows an approximated increase of 8 percent, which the business banker feels is more realistic for a new entrant based on projected industry growth of 15%.
- Cost of goods sold
  - Management's projected cost of goods sold should be consistent with the previous year's figures. The company is projecting a 10 percent improvement. Its cost of goods sold ranged from 82 to 90 percent per project last year.
  - Management projects cost of goods sold at 75 percent of projected sales for the following year. Management hopes to achieve this by keeping its labor busy on a more consistent basis.

Reviewing of projections of Income Statement- Case Study

- Cost of goods sold contd.
  - company's projected cost of goods sold as a percentage of its sales is not realistic and reasonable because it is not consistent with past performance.
  - the company has stated it does not make as much on larger projects yet is targeting larger projects to achieve the sales growth.
  - Therefore, the business banker applies, after looking at the reasonableness of increased labor usage and the resultant savings, 78.5 percent to the cost of goods sold projected by the bank.
- The bank's conservative forecast of lower sales and higher cost of goods sold produces a gross profit of Rs.35 lakhs less than the customer's projection.

Reviewing of projections of Income Statement- Case Study

- Operating Expenses
  - A company normally projects its operating expenses as a percentage of projected sales or as a percentage change from the previous year's operating expenses.
  - the operating expenses are usually more difficult to control when sales change rapidly.
  - the company's past SG&A expenses 5.7% and forecast is 6.6%. The bank projects these expenses at 8.9 percent of sales because of its lower sales forecast and a possible need to rent space next year(borrower did not provision this in his projections).
  - The owner has forecasted a personal salary of Rs.60 lakhs per year. This is close to the annualized amount taken last year. The bank agrees with this amount. The depreciation expense was Rs.12 lakhs (rounded up) last year. Depreciation expense is expected to be Rs.12 lakhs on the existing trucks and Rs.2 lakhs for the new computer for a total of Rs.14 lakhs.

Reviewing of projections of Income Statement- Case Study

- Operating Profit
  - After the operating expenses have been subtracted from the gross revenues, the difference is the company's operating profit. The company projection of sales and expense figures results in an operating profit of Rs.55 lakhs or 7.9 percent of sales. The bank's projections result in an operating profit of 1.2 percent of sales or Rs.8 lakhs. The increased cost of goods sold percentage and increased S, G & A expenses have caused a difference of Rs.47 lakhs between the two forecasts.
- Other Income and Expenses
  - Although these accounts normally are quite small, the business banker must determine what specific items are included and whether they are recurring or nonrecurring. These accounts are not usually predictable as a percentage of a company's sales. Designs by Dezine has not had other income in the past and does not anticipate any in the coming year. Its only non-operating expense is interest.

Reviewing of projections of Income Statement- Case Study

- Interest Expense
  - This is a relatively predictable expense, because a range of interest rates can be assumed for term debt and short-term borrowings. It is estimated by the projected average amount of term and short term debt outstanding during the year.
  - The forecast includes interest expense on the existing vehicles debt of about Rs.3 lakhs, shareholder debt of Rs.4 lakhs, and the new computer loan of Rs.50,000.
  - Although it appears the company might need more money to fund its growth, the amount is unknown until the balance sheet is constructed. Therefore, both the company and the business banker have added another Rs.2.5 lakhs of interest expense for a total of Rs.10 lakhs for interest expense forecasted.
- Income Tax
  - Income taxes often are projected using current business income tax tables. The company has forecasted Rs.15 lakhs to pay the tax liability on the company's projected Rs.45 lakhs of taxable income. Because the business banker is forecasting a net loss, there will not be a tax liability.

Reviewing of projections of Balance Sheet- Case Study

- The assumptions made and conclusions reached in projecting the various income statement accounts affect several entries on the forecasted balance sheet. Therefore, the assumptions used in composing and analyzing the forecasted balance sheet must be consistent with those used for the income statement.
- The cash account or the overdraft account will be the plug figure used to balance the forecasted balance sheet.
  - if assets exceed total liabilities and net worth—any differences are “plugged” by increasing the overdraft account
  - if total liabilities and net worth exceed assets, the difference is added to the cash account to balance the statement or subtracted from outstanding short term loan/overdraft, if any.

Reviewing of projections of Balance Sheet- Case Study

- **The changes on the balance sheet will include planned changes in the levels of capital expenditures, long-term debt and other long-term assets and liabilities.**
- **In addition, the business banker will be able to identify certain liquidity, leverage, efficiency, and profit ratios and test the relationship of those ratios to past figures and those within the industry.**

Reviewing of projections of Balance Sheet- Case Study

- Cash and marketable securities
  - Every business needs a minimum cash balance. For forecasting purposes, cash and marketable securities accounts are combined.
  - The company forecasts its minimum cash needs at Rs.5 lakhs. Management attributes its ability to live within the projected cash rate to its improved management of inventory and receivables. The business banker agrees with this assessment of its minimum cash needs.
  - Because the company is projecting greater profits, the company forecast has plugged cash at Rs.22 lakhs. The bank is forecasting an operating loss so the minimum cash of Rs.5 lakhs is used.

Reviewing of projections of Balance Sheet- Case Study

- Account Receivable
  - The company's past performance with respect to receivables turnover (in days), when available is used to assess a company's projected accounts receivable.
  - The business banker should thoroughly understand management's sales, credit and collection policies. Credit terms should be compared with actual collection periods to determine the effectiveness of a company's collection policies.
  - The sales goals of a business can have an effect on accounts receivable. For example, management could try to increase sales by offering longer credit terms, by offering credit terms for products formerly sold for cash only, or by lowering prices.

Reviewing of projections of Balance Sheet- Case Study

- Account Receivable contd.
- For new companies, or the companies who plan to change the credit terms, the calculation for accounts receivable uses the following formula:

  Projected acct. rec. = Projected days debtors* Proj. sales

  365 days

- For example, if Designs by Dezine decided to not obtain down payments and allow credit terms of 45 days after completion, the following calculation would be for accounts receivable:

  (45d x Rs.700 lakhs) ¸ 365d = Rs.86.3 lakh

- Designs by Dezine, Inc., requires payment when the project is completed. Accounts receivable represent the50 percent of the sales not collected at the time of the signing of the contract. For example, last month of the year sales are projected to be Rs.35 lakhs. The company will collect Rs.17.5 lakhs at the signing of the contract. The balance of last month sales will be listed as accounts receivable of Rs.1750000 (Rs.18 lakhs rounded) on the forecasted statement.

Reviewing of projections of Balance Sheet- Case Study

- Inventory
- If past data available, it should be used to project days stock.
- For new companies, *Inventory* on a forecasted basis usually is calculated using forecasted inventory turnover in days.

$$\text{Projected Inventory} = \frac{\text{proj. Days Stock} * \text{Proj. cost of goods sold}}{365 \text{ days}}$$

- For example, if a retail lumber yard carried 90 days of inventory and had projected cost of goods sold of Rs.1,200 lakhs, the following would be the projected inventory calculation:

  (90d x Rs.1,200 lakhs) /365d = Rs.295.9 lakhs

- Inventory projection should take into account anticipated changes in the sales and purchasing policies of the business. For example, if a supplier changes the minimum purchase requirement from one case to ten cases per order, the amount of inventory forecasted on the balance sheet should likely be increased.
- Designs by Dezine carries a nominal inventory consisting of nails, screws, and other small items. Both the company and bank forecast inventory of Rs.2 lakhs.

Reviewing of projections of Balance Sheet- Case Study

- **Fixed Assets**
  - **For new company**
    - **Obtain the details of fixed assets with their price, make, estimated life, capacity etc. verify using vendor/supplier web sites and other sources.**
    - **If construction is involved, find out the going rate and compare. Land to be taken at registered value.**
    - **Discuss depreciation policy. Check for legal requirement**
  - **If past data available, *find out Asset Usage and Remaining useful life.***
- **For Designs by Dezine for 2017 the asset usage is 20 percent (Rs.12 lakhs / Rs.61 lakhs = 20%). So, 20 percent of the fixed assets have been depreciated. The company should not have to provide funds to replace the company vehicles (primary component of fixed assets) to maintain productivity. The remaining useful life is 4.1 years (Rs.49 lakhs ¸ Rs.12 lakhs per year = 4.1 years). This tells the business banker the remaining useful life of the company vehicles is still very close to the original expectation of about five to six years.**
- ***Total Assets***
  - **The business banker forecasts total assets of Rs.70 lakhs, compared to the company's forecast of Rs.87 lakhs. The key driver is the difference in the amount of current assets, which also affects the total assets.**

Reviewing of projections of Balance Sheet- Case Study

- *Short-Term Loan/Overdraft*
  - As mentioned earlier, short-term notes payable serves as a plug figure in balancing forecasted balance sheets. Therefore, other projected liability accounts are completed before calculating this figure.
  - The business banker is forecasting a net operating loss and therefore notes payable short term are plugged at Rs.10 lakhs. The company is forecasting excess cash and therefore indicates that no short-term debt is needed, and even applies Rs.5 lakhs of excess cash to paying down accounts payable.

Reviewing of projections of Balance Sheet- Case Study

- *Accounts Payable and Accruals*
  - The amount of accounts payable is a function of the rupees limits and other terms of trade credit that is extended by suppliers as well as the actual payment practices of the business. The forecasted payables turnover (in days) is compared to the past turnover ratios. Accruals are estimated based on past trends.
  - As an alternative, a business banker can relate accounts payable to cost of goods sold as follows:

$$\text{Projected payables} = \frac{\text{Proj. payable days* Proj. cost of goods sold}}{\text{365 days}}$$

Designs by Dezine is expecting to pay its suppliers upon completion of each job. Materials costs are estimated to be 40 percent of each sale. The projected accounts payable of Rs.7 lakhs at year-end is less than the Rs.12 lakhs expected based on 40 percent of the forecasted last month sales of Rs.35 lakhs. The company expects to be able to use some of its excess cash balance (over the minimum desired level of cash) to reduce amounts owed to suppliers. Since the business banker is not projecting any excess cash balances at year-end, the accounts payable level will remain at Rs.12 lakhs, which is higher than the company forecast.

Reviewing of projections of Balance Sheet- Case Study

- *Current Maturities of Long-term Debt (CMLTD)* represents the principal amounts of long-term debt due in the next 12 months. This figure can be calculated with the schedule of debt in the footnotes of a company's financial statement or using the previous year's current maturities. Any current maturities resulting from the proposed loan also should be included.
- The company forecast does not use this account. This is misleading for cash flow purposes because some portion of the existing term debt and the new computer loan will be due in the coming year. The company has projected long-term debt principal payments of Rs.18 lakhs on the company vehicles and shareholder loan, plus another Rs.1 lakhs on the new computer loan. For projection purposes, both the company and the bank will use Rs.19 lakhs for CMLTD for next year.

Reviewing of projections of Balance Sheet- Case Study

- *Long-Term Debt* represents the portion of the debt scheduled to be repaid at time periods more than a year away from the financial statement date. Designs by Dezine and the bank use the same amounts for forecasted long-term debt at year end, without an adjustment for estimated CMLTD.
- *Net worth or total owner's equity*—
  - Generally, the equity section of the balance sheet is easily projected. Common stock figures (for preferred and common stock) can be picked up from previous balance sheets unless additions or deletions to the stock were made in the current year. The retained earnings account is increased by the amount of projected after-tax profits from the forecast income statement, less projected dividends. If a loss is projected, the retained earnings account is decreased by the amount of the loss.

For new company, initial investment shall be taken as base and any projected loss/profit is adjusted.

Summary of Differences

The following are some of the more significant changes made by the business banker to the company's forecasted statements:

- The bank projects less in sales revenues than the company does
- The bank projects more cost of goods sold expense than the company does
- The bank projects more in S, G & A expenses than the company does
- The bank projects significantly less cash flow compared with the company's projection because the
- Bank projects lower net profits

Designs by Dezine and the business banker have constructed two different sets of forecast financial statements, as shown earlier. The bank's projections show that the company needs more debt than it has requested.

Because cash and only cash repays loans, a projected cash flow statement should be prepared.

Summary of Items to be focused

From the above study, reliable estimation of following variables are crucial for reliable projections:

- **Sales**
- **Cost of Goods Sold**
- **Days Inventory**
- **Days Receivables**
- **Days Payables**
- **Operating Expenses**

Projection of Range of Possibilities

- **Weather the projections are made based on historical data or on customer's business plan or on a combination of both, they are, after all, projections only. Therefore, projections must be made for a range of probabilities.**
- The best projections are those that create a range of possibilities for future performance by sensitizing pertinent variables.
- Lenders should think of future cash flows and financial performance as a range, not a set of financial statement.
- Examples:
- If sales increase by 5% then DSCR would change to…
- If cost of goods sold rise by 5%, then new repayment capacity would be…
- If capital expenditure is increased by NPR 50m, additional loan of NPR … would be required and repayment schedule would be changed to…
- If project is delayed by 6 months, then operating expenses would increased by NPR…, sales in first year would be decreased by…. Effecting DSCR by….
- If days inventory is increased/decreased by 10%, financing need would change to NPR ….. And DSCR would change to……

Projection of Range of Possibilities

The answer to each question gives you a different set of financials that create a range of possibilities. The range will remain between the projections with all positive variations and projections with all negative variations.

Your presentation of projections would look like:

- Current ratio is projected to be in the range of 1.3x to 1.5x.
- Gross margin will be between 30%-32%
- DSCR is expected to be in the range of 1.1x to 1.4x

Projection of Range of Possibilities

While creating the range, percentage deviation to be determined by the ability of the borrower to control the respective variables.

Examples:

1. If the borrower is not likely to be able to control the price of the goods then wider range may be required. But if selling of the targeted quantity does not seem to be a problem and if borrower can maintain the gross margin, then a narrower range may be okay for sales and cost of goods sold.
2. Look at the ability of the borrower to control operating costs like salaries, SG&A etc.
3. If projected days debtors are within industry norms, or if the borrower has a strict credit policy and collection mechanism, a narrow range will work.
4. Look at the ability of production and marketing team to determine the range of days stock on hand.
5. Check credit terms of the trade creditors to create the range for days payable.

Sensitizing the projections

Sensitivity

- A small change in one of the hypotheses used to construct a projection can cause a large change in a company's projected cash flow and its ability to repay a loan.
- In sensitivity analysis, you try to determine exactly how sensitive your borrower's cash flow is to changes in critical variables beyond the given range.
- Sensitivity is the amount of change (in the projected repayment capacity) that results from a deviation in assumption.
- For example, you can test your borrower's sensitivity to changes in DDOH. What will cash flow be if DDOH is 60 days i/o 30 days? What will be the repayment capacity if the sales are down by 15%?

Sensitizing the projections

Sensitivity

- The decision about how much sensitivity analysis to perform will depend on the complexity of the borrower's business and the perceived risks.
- If you are dealing with a risky, complex business such as a start up processing manufacturer, your sensitivity would be more detailed and painstaking than one for a loan to a blue chip company that has long and consistent cash flow and earning records or for a small local business.

Sensitivity analysis is useful when it describes reasonable foreseeable circumstances the company could face, not extreme disastrous conditions.

Thank you.