Financial Modelling Templates

Financial Forecasting (Pro Forma Financial Statements)

Table of Contents

ConnectCode's Financial Modelling Templates

Have you thought about how many times you use or reuse your financial models? Everyday, day after day, model after model and project after project. We definitely have. That is why we build all our financial templates to be reusable, customizable and easy to understand. We also test our templates with different scenarios vigorously, so that you know you can be assured of their accuracy and quality and that you can save significant amount of time by reusing them. We have also provided comprehensive documentation on the templates so that you do not need to guess or figure out how we implemented the models.

All our template models are only in black and white color. We believe this is how a professional financial template should look like and also that this is the easiest way for you to understand and use the templates. All the input fields are marked with the '*' symbol for you to identify them easily.

Whether you are a financial analyst, investment banker or accounting personnel. Or whether you are a student aspiring to join the finance world or an entrepreneur needing to understand finance, we hope that you will find this package useful as we have spent our best effort and a lot of time in developing them.

ConnectCode

1.   Financial Planning and Forecasting

1.1   Pro Forma Financial Statements

Financial statements projections and forecasting are very common in corporate financial analysis. The reason is that it is very useful and important to forecast how much financing a company will require in future years. The projections are achieved by using historical sales, accounting data and assumptions on future sales and costs. These financial statements projections are known financial modelling as Pro Forma financial statements.

1.2   Financial Statements Modelling

This spreadsheet provides a template for financial statements forecasting. It requires simple financial statements inputs from the past 5 years and will automatically generate all the necessary Pro Forma Financial Statements projections outputs.

The following diagram illustrates the process of using this template for financial statements forecasting. Most inputs are required in the first step. The rest of the four steps involve reviewing the outputs generated and entering values like short term interest rates to be assumed in the model.

2.   Financial Planning and Forecasting Spreadsheet

2.1   Financial Statements Inputs

The template requires inputs from the Income Statement and Balance Sheet from the past 5 years.

2.1.1   <u>Income Statement</u>

All inputs are marked with the "*" symbol.

								Year				
								1999	2000	2001	2002	2003
Income Statement												
Revenues:												
	Sales*							$73.84	$93.28	$115.93	$138.84	$160.00
Cost and expenses:												
	Cost of sales*							$41.83	$58.39	$75.49	$89.83	$88.00
	Selling, general and administrative expense (SG&A)*							$6.58	$7.28	$8.56	$10.21	$12.00
	Research and Development*							$0.00	$0.00	$0.00	$0.00	$0.00
	Depreciation*							$5.91	$6.37	$7.31	$9.86	$8.00
Operating income								$19.52	$21.24	$24.57	$28.94	$52.00
Interest												
	Interest expense*							$4.76	$5.23	$6.69	$8.88	$6.00
	Interest income*							$0.00	$0.00	$0.00	$0.00	$0.00
	Net Interest							($4.76)	($5.23)	($6.69)	($8.88)	($6.00)
Income before taxes								$14.76	$16.01	$17.88	$20.06	$46.00
Income taxes*								$7.00	$7.00	$7.00	$8.00	$18.00
Net income								$7.76	$9.01	$10.88	$12.06	$28.00
Common Shares*								39.60	40.36	44.93	53.91	52.00
Earnings per Share								$0.20	$0.22	$0.24	$0.22	$0.54
Dividends paid*								$2.90	$3.17	$3.63	$4.36	$10.00
Retained Earnings								$4.86	$5.84	$7.25	$7.70	$18.00

The fields that are automatically calculated as shown in bold below.

Revenues
        Sales*
Cost and expenses:
        Cost of sales*
        Selling, general and administrative expense (SG&A)*
        Research and Development*
        Depreciation*
Operating income = Sales - Cost and expenses

Interest
        Interest expense*
        Interest income*
        Net Interest = Interest income - Interest expense
Income before taxes = Operating income + Net Interest
Income taxes*
Net income = Income before taxes - Income taxes
Common Shares*
Earnings per Share = Net income / Common Shares
Dividends paid*
Retained Earnings = Net income - Dividends paid

2.1.2   Balance Sheet

All inputs are marked with the "*" symbol.

	A	B	C	D	E	G	H	I	J	K	L	M	N
32	**Balance Sheet**										Year		
33									1999	2000	2001	2002	2003
34	Assets												
35		Cash and cash equivalents*							$4.27	$6.38	$7.62	$8.83	$7.00
36		Accounts receivable*							$20.58	$24.39	$28.77	$34.11	$32.00
37		Inventories*							$26.73	$30.45	$36.75	$43.27	$38.00
38		Deferred income taxes*							$0.00	$0.00	$0.00	$0.00	$0.00
39		Total current assets							$51.58	$61.22	$73.14	$86.21	$77.00
40		Fixed assets											
41			Cost*						$331.64	$423.92	$503.87	$613.28	$650.00
42			Accumulated Depreciation*						$98.72	$105.09	$112.40	$122.26	$115.00
43			Net fixed assets						$232.92	$318.83	$391.47	$491.02	$535.00
44		Goodwill*							$0.00	$0.00	$0.00	$0.00	$0.00
45		Intangible assets*							$0.00	$0.00	$0.00	$0.00	$0.00
46		Other assets*							$0.00	$0.00	$0.00	$0.00	$0.00
47		**Total assets**							**$284.50**	**$380.05**	**$464.61**	**$577.23**	**$612.00**
48	Liabilities												
49		Accounts payable*							$31.83	$63.43	$83.84	$94.41	$80.00
50		Current debt*							$30.86	$43.03	$64.85	$79.49	$0.00
51		Total current liabilities							$62.69	$106.46	$148.69	$173.90	$80.00
52		Long-term debt*							$40.00	$46.92	$53.41	$73.57	$214.54
53		Other long-term liabilities*							$0.00	$0.00	$0.00	$0.00	$0.00
54		Total liabilities							$102.69	$153.38	$202.10	$247.47	$294.54
55	Shareholders' equity												
56		Common Stock and Additional Paid in Capital*							$90.00	$130.00	$160.00	$220.00	$200.00
57		Retained Earnings*							$91.81	$96.67	$102.51	$109.76	$117.46
58		Total Shareholders' Equity							$181.81	$226.67	$262.51	$329.76	$317.46
59		**Total liabilites and shareholders' Equity**							**$284.50**	**$380.05**	**$464.61**	**$577.23**	**$612.00**

The fields that are automatically calculated as shown in bold below.

Assets
   Cash and cash equivalents*
   Accounts receivable*
   Inventories*
   Deferred income taxes*
   Total current assets = Cash and cash equivalents + Accounts receivable + Inventories + Defered income taxes
   Fixed assets
       Cost*
       Accumulated Depreciation*
       Net fixed assets = Fixed Assets Cost - Accumulated Depreciation
   Goodwill*
   Intangible assets*
   Other assets*
   Total assets = Total current assets + Net fixed assets + Goodwill + Intangible assets + Other assets
Liabilities
   Accounts payable*
   Current debt = Total liabilities – Accounts payable – Long-term debt - Other long-term liabilities
   Total current liabilities = Accounts payable + Current debt
   Long-term debt*
   Other long-term liabilities*
   Total liabilities = Total liabilities and shareholder's Equity - Total Shareholders' Equity
Shareholders' equity
   Common Stock and Additional Paid in Capital*
   Retained Earnings*
   Total Shareholders' Equity = Common Stock and Additional Paid in Capital +

> **Retained Earnings**
> **Total liabilities and shareholders' Equity = Total assets**

The Total liabilities and shareholders' Equity field is worth noting. It is set to be equal to the Total assets in the spreadsheet.

Total liabilities and shareholders' Equity = Total assets

Total liabilities field is calculated as follows:
Total liabilities = Total liabilities and shareholder's Equity - Total Shareholders' Equity

The Current debt field is the Plug. It is defined as follows:

Current debt = Total liabilities – Accounts payable – Long-term debt - Other long-term liabilities

2.2 Common Size Financial Statements

The Common Size Financial Statements express all the fields in the Income Statement and Balance Sheet as a ratio over Sales. By expressing the fields in ratio, a standardized financial statement can be created to reveal insights and trends of companies. It will be easy to compare financial statements of different size companies or the same company at different times. For example, a company may have grown to be very large over the years.

10	Income Statement						Year				
11							1999	2000	2001	2002	2003	Average
12	Revenues:											
13	Sales						100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
14	Cost and expenses:											
15	Cost of sales						56.65%	62.60%	65.12%	64.70%	55.00%	60.81%
16	Selling, general and administrative expense (SG&A)						8.91%	7.80%	7.38%	7.35%	7.50%	7.79%
17	Research and Development						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
18	Depreciation						8.00%	6.83%	6.31%	7.10%	5.00%	6.65%
19	Operating income						26.44%	22.77%	21.19%	20.84%	32.50%	24.75%
20	Interest											
21	Interest expense						6.45%	5.61%	5.77%	6.40%	3.75%	5.59%
22	Interest income						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
23	Net Interest						-6.45%	-5.61%	-5.77%	-6.40%	-3.75%	-5.59%
24	Income before taxes						19.99%	17.16%	15.42%	14.45%	28.75%	19.15%
25	Income taxes						9.48%	7.50%	6.04%	5.76%	11.25%	8.01%
26	Net income						10.51%	9.66%	9.38%	8.69%	17.50%	11.15%
27	Common Shares						53.63%	43.27%	38.76%	38.83%	32.50%	41.40%
28	Earnings per Share						0.27%	0.24%	0.21%	0.16%	0.34%	0.24%
29	Dividends paid						3.93%	3.40%	3.13%	3.14%	6.25%	3.97%
30	Retained Earnings						6.58%	6.26%	6.25%	5.55%	11.25%	7.18%

2.2.1 Fields from the Income Statement

- Cost of Sales in 1999 = Cost of Sales in 1999 / Sales in 1999
- Cost of Sales in 2000 = Cost of Sales in 2000 / Sales in 2000
- Depreciation in 1999 = Depreciation in 1999 / Sales in 1999
- Interest expense in 2003 = Interest expense in 2003 / Sales in 2003

2.2.2 Fields from the Balance Sheet

- Cash and cash equivalents in 2001 = Cash and cash equivalents in 2001 / Sales in 2001
- Accounts receivable in 2002 = Accounts receivable in 2002 / Sales in 2002

2.2.3 Average

An average of the past 5 years percentage is also calculated. This average will be useful for projections and forecasting of future financial positions.

2.3 Analysis Findings

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Analysis Findings														
2															
3												Year			
4										1999	2000	2001	2002	2003	Average
5	Sales Growth Rate										26.33%	24.28%	19.76%	15.24%	21.40%
6	Tax Rate									47.43%	43.72%	39.15%	39.88%	39.13%	40.47%
7	Dividends payout ratio									37.37%	35.18%	33.36%	36.15%	35.71%	35.10%

- Sales Growth Rate = (Sales in Current Year - Sales in Previous Year) / Sales in Previous Year
- Tax Rate = Income taxes / Income before taxes
- Dividends payout ratio = Dividends paid / Net income

2.4 Financial Statements Forecast

The main inputs in the Financial Statements Forecast worksheet are the Short term and Long term debt interest rate. By default, The Sales Growth Rate, Tax Rate and Dividends payout ratio make use of the average value for the past 5 years. Adjustments can be further made to these figures for better accuracy in forecasting.

2.4.1 Assumptions

	A	B	C	D	E	G
1	Financial Statements Forecast					
2						
3	Assumptions					
4		Sales Growth Rate				21.40%
5		Tax Rate				40.47%
6		Short term debt interest rate*				7.00%
7		Long term debt interest rate*				9.00%
8		Dividends payout ratio				35.10%

- Sales Growth Rate = Average Sales Growth Rate in Analysis Findings Worksheet
- Tax Rate = Average Tax Rate in Analysis Findings Worksheet
- Short term debt interest rate*
- Long term debt interest rate*
- Dividends payout ratio = Average Dividends payout ratio in Analysis Findings Worksheet

2.5 Financial Ratio Analysis

This worksheet outputs the different financial ratios calculated from the Income Statement and Balance Sheet from the other worksheets.

								1999	2000	2001	2002	2003	2004	2005	2006
1	Financial Ratio Analysis														
2															
3	Inputs														
4											Year				
5								1999	2000	2001	2002	2003	2004	2005	2006
6		Share Price							$8.00	$7.90	$8.20	$8.30	$8.60	$9.00	$9.20

2.5.1　Inputs

The Share Price for the different years is the only input in this worksheet. Using the Share Price and information from other worksheet like assets, liabilities, cash and costs, the different ratios are calculated.

2.5.2　Liquidity Ratios

The liquidity ratios provide information about a company's ability to repay its short-term debt.

- Current Ratio = (Current Assets/Current Liabilities)
- Acid Test Ratio = ((Current Assets-Inventories)/Current Liabilities)
- Current Cash Debt Coverage Ratio = (Operating Cash/Average Current Liabilities)

2.5.3　Leverage Ratios

The leverage ratios provide information about a company's long term solvency. The leverage ratios focus on the long term as compared to liquidity ratios which focus on the short term.

- Debt to Total Assets = (Total Debt/Total Assets)
- Times Interest Earned = (EBIT/Interest)
- Cash Debt Ratio = (Operating Cash/Average Total Liabilities)

2.5.4　Profitability Ratios

The profitability ratios provide information about the success of the company at making profits.

- Gross Profit Margin = ((Sales-COGS)/Sales)
- Earnings per Share = (Net Income/Number of Shares Outstanding)
- Profit Margin on Sales = (Net Income/Net Sales)
- Return on Assets = (Net Income/Average Total Assets)
- Return on Equity = (Net Income/Average Equity)
- Price Earnings Ratio = (Share Price/EPS)
- Dividends Payout Ratio = (Dividends/Net Income)

2.5.5　Turnover Ratios

Receivables turnover provides information on how quickly a company collect its accounts receivables. Inventory turnover provides information about the number-of-days worth of inventory on hand. A low turnover may point to a situation where overstocking has occurred. Asset turnover ratios provide information on how efficiently a company utilizes its assets.

- Receivables Turnover = (Net Sales/Average Receivables)
- Inventory Turnover = (COGS/Average Inventory)
- Asset Turnover = (Net Sales/Average Total Assets)
- Days' sales in inventory = (365/Inventory Turnover)
- Days' sales in receivables = (365/Receivable Turnover)