Appendix B

UNDERSTANDING ABEL'S FINANCIAL PROFILE RESULTS

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INTRODUCTION

The financial profile section of the ABEL results is likely to present familiar, but perhaps confusing, information. With a little effort, however, ABEL users can use the information to better assess the financial condition of the firm being analyzed. The information presented in this section is similar in substance and format to financial data appearing in a business's own financial statements; in fact, all of the information is taken from the firm's income tax returns, which are simply a standardized form of financial statements. The information is broken into three parts: balance sheet, income statement, and summary of cash flows. This primer on understanding financial information will not make you an expert in financial analysis; however, after reading this section, you should be able to penetrate the information and better understand the results of the ABEL model. We suggest you contact a financial analyst if you have questions or if you wish to conduct a complete review of this information.

The balance sheet presents a snapshot of a firm's financial position at a moment in time, showing its assets, liabilities, and shareholders' equity. Liabilities and shareholders' equity represent sources of funds to the firm. Liabilities represent loans from banks, owners, or customers, and shareholders' equity represents funds (or capital) provided by owners or the firm itself through retained profits. Assets represent the items that the firm has purchased with these funds. In other words, the balance sheet is a static presentation of what the firm has purchased and the amount of debt or equity used to finance those purchases. Since the firm cannot purchase more items than it has resources to fund them, assets must always equal the sum of liabilities and shareholders' equity; hence, we refer to this financial statement as the "balance" sheet.

While the balance sheet presents a snapshot of a firm's financial condition, the income statement summarizes the operating activities of a firm over a period of time; it represents a link between a firm's balance sheet at the beginning of a period and the end of a period. The income statement shows the income earned by a firm in a particular period and the expenses incurred to generate that income.

The summary of cash flows reconciles the flow of cash in and out of the firm with the flow of income and expenses in and out of the firm. The flow of cash is not necessarily the same as the flow of income and expenses, as discussed in more detail below. ABEL uses these past cash flows to predict future cash flows and derive its ability to pay conclusion. As a result, this information is critical to an ability to pay analysis.

The following sections discuss these issues in greater detail. Using the ABEL financial profile for the case example, Town Tool Company, we discuss each item and describe its relevance to the ability to pay assessment.

Financial Profile

In Dollars

Town Tool Company
C Corporation, Tax Form 1120
Run Description: $250,000 Penalty

	1996	1995	1994	1993
Balance Sheet				
Assets				
Cash	$ 61,247	$ 76,316	$ 39,378	$ 56,838
Accounts Receivable	$ 197,831	$ 175,573	$ 187,016	$ 194,861
Inventories	$ 10,631	$ 11,653	$ 33,810	$ 23,659
U.S. Government Obligations	$ 0	$ 0	$ 0	$ 0
Tax-Exempt Securities	$ 0	$ 0	$ 0	$ 0
Other Current Assets	$ 3,447	$ 3,655	$ 4,844	$ 2,663
All Other Assets*	$ 191,447	$ 144,007	$ 106,522	$ 114,709
Total Assets	$ 464,603	$ 411,204	$ 371,570	$ 392,730
Liabilities				
Accounts Payable	$ 15,885	$ 19,023	$ 15,096	$ 80,802
Mortgages, Bonds Payable in < 1 Year	$ 0	$ 0	$ 12,000	$ 12,000
Other Current Liabilities	$ 57,023	$ 61,721	$ 41,355	$ 23,732
Loans from Stockholders	$ 53,420	$ 92,068	$ 33,039	$ 6,449
Mortgages, Bonds Payable in > 1 Year	$ 0	$ 0	$ 45,500	$ 46,500
Other Liabilities	$ 0	$ 0	$ 0	$ 0
Total Liabilities	$ 126,328	$ 172,812	$ 146,990	$ 169,483
Stockholders' Equity	$ 338,275	$ 238,392	$ 224,580	$ 223,247
Total Liabilities and Stockholders' Equity	$ 464,603	$ 411,204	$ 371,570	$ 392,730
Income Statement				
Gross Sales	$ 1,166,708	$ 1,118,814	$ 925,914	$ 797,194
Cost of Goods Sold	$ 828,566	$ 890,456	$ 744,846	$ 205,648
Operating Profit	$ 338,142	$ 228,358	$ 181,068	$ 591,546
Other Expenses and Income				
Interest Expense	$ 0	$ 0	$ 360	$ 4,950
Depreciation	$ 60,085	$ 52,075	$ 49,631	$ 31,722
Depletion and Amortization	$ 0	$ 0	$ 0	$ 0
Other Expenses (Income)**	$ 276,034	$ 159,703	$ 129,167	$ 522,677
Total Expenses (Income)	$ 336,119	$ 211,778	$ 179,158	$ 559,349
Taxable Income Before NOL	$ 2,023	$ 16,580	$ 1,910	$ 32,197
Summary of Estimated Cash Flow				
Taxable Income Before NOL	$ 2,023	$ 16,580	$ 1,910	$ 32,197
Tax	$ (303)	$ (2,487)	$ (287)	$ (4,830)
Credit for Regulated Investment	$ 0	$ 0	$ 0	$ 0
Credit for Federal Fuels	$ 0	$ 0	$ 0	$ 0
Depreciation	$ 60,085	$ 52,075	$ 49,631	$ 31,722
Depletion and Amortization	$ 0	$ 0	$ 0	$ 0
Income Not Included on Return	$ 0	$ 0	$ 0	$ 0
Available After-Tax Cash Flow	$ 61,805	$ 66,168	$ 51,254	$ 59,089
Available Pre-Tax Cash Flow	$ 62,108	$ 68,655	$ 51,541	$ 63,919
Adjusted for Inflation	$ 64,033	$ 72,978	$ 56,484	$ 72,221

* May include loans to stockholders, mortgage and real estate loans, other investments, buildings and other depreciable assets, depletable assets, land, intangible assets, and other long-term assets; see Schedule L of firm's federal income tax return.

** Includes additional income categories listed on page 1, Income Section, of firms's federal income tax return and additional expense categories listed on page 1, Deductions Section, of firms's federal income tax return.

BALANCE SHEET

The balance sheet is broken into three components: assets, liabilities, and shareholders' equity. Assets represent the investing activities of the firm; liabilities and shareholders' equity represent the financing activities of the firm. It is important to consider three factors when assessing items appearing on the balance sheet, including: (1) when the balance sheet item is recognized (i.e., determining when a financial transaction legitimately results in the generation of an asset, liability, or equity); (2) how the balance sheet item is valued; and (3) how it is classified.

Assets

Assets are resources that: (a) have a potential for providing the firm with future economic benefits; (b) can be measured in dollar terms; and (c) are owned and controlled by the firm as a result of past transactions. Assets are generally valued using their acquisition or historical cost. They are typically classified according to their longevity, yielding two broad categories of assets, current assets and long-lived assets.

Current Assets

In general, current assets include cash and other assets that will likely be converted into cash in the near future, generally within one year from the date of the balance sheet.

- **Cash** includes coins and currency held by the firm or in bank deposits. At the end of 1996, Town Tool held $61,247 in cash accounts.

- **Accounts receivable** represent amounts due from customers but not yet collected. After goods are shipped or a service provided, a customer typically has a certain period of time (e.g., 30, 60, or 90 days) in which to pay. At the end of 1996, customers had yet to pay for $197,831 worth of goods they had received from Town Tool.

- **Inventories** represent raw materials held as inputs to a production process, partially finished goods in the process of manufacture, or finished goods ready for resale, such as automobiles coming off an assembly line or canned goods on the shelves of a grocery store. Town Tool had $10,631 worth of inventories at the end of 1996.

- **U.S. government obligations** are notes or bonds issued by the Federal government and purchased by the firm. They represent very liquid assets that, in general, can be easily converted into cash. Town Tool owned no government notes or bonds at the end of 1996.

- **Tax-exempt securities** are notes or bonds issued by authorities with certain tax-exempt status, primarily municipalities. In most cases, these debt instruments are easily sold and converted into cash. Town Tool owned no tax-exempt securities at the end of 1996.

- **Other current assets** include a variety of items that are likely to be converted into cash over the next operating period. These assets, which totaled $3,447 for Town Tool at the end of 1996, should be itemized in an attachment to the tax returns.

Long-Lived Assets

The category, "All Other Assets," appearing in the summary balance sheet includes a number of long-lived assets detailed on Schedule L (page 4) of the tax return. If you reference the tax returns for Town Tool included in the main section of this manual, you will notice that Town Tool owns a number of long-lived assets. They represent assets that are not intended for sale in the near term and generally are used continually over time throughout the production process. The asset items appearing in Schedule L include:

- **Loans to stockholders** represent money loaned to owners of the company. EPA generally regards such loans as being available to fund a penalty payment or Superfund contribution. Presumably, the owners could borrow equivalent sums from a commercial lending institution and repay the loan to the firm.

- **Mortgage and real estate loans** are funds loaned to other parties for purchasing real estate property. Depending on the nature of these loans, they may be "callable" to fund an environmental expenditure.

- **Other investments** represent funds the firm has used to purchase a variety of assets that it does not intend to liquidate in the near future. These assets and their value should be itemized in an attachment to the tax return.

- **Buildings and other depreciable assets** are manufacturing facilities, warehouses, and other pieces of productive equipment. Since their productive capacities are likely to last for a period of years, these assets are depreciated over time. Depreciation represents the allocation of the purchase price of these assets over their useful life. Referencing Town Tool's tax returns, the company owned buildings and other depreciable assets with a book value (net of depreciation) of $191,447 at the end of 1996.

- **Depletable assets** generally include natural resource reserves, like oil or coal.

- **Land** is simply property owned by the company.

- **Intangible assets** include patents, non-compete agreements, and goodwill among others. Patents and non-compete agreements are rights granted or purchased to exclude others from manufacturing, using, or selling certain processes or devices. Goodwill is an amount paid by the firm in acquiring another business enterprise that is greater than the sum of the then-current values assignable to the business's identifiable assets. Brand names, for example, represent something of potentially considerable, but intangible, value.

- **Other assets** includes those assets not identified above. An itemization of these assets should be included in an attachment to the tax returns.

Liabilities

Liabilities are obligations of the firm to transfer assets or provide services at a specific time in the future as a result of past transactions. Liabilities are generally measured at their current cash value (if payment is to be made within one year) or cost (the amount originally borrowed). Like assets, liabilities are typically classified into two categories, current and long-term.

Current Liabilities

Current liabilities include all debts that fall due within the next operating period (typically 12 months). They have a close relationship with current assets, since current assets represent the source of funds available to settle a firm's current liabilities. The ability of a firm to fund its current liabilities by converting current assets into cash is one of the most important indications of financial health.

- **Accounts payable** are amounts owed for goods or services acquired under an informal credit agreement. These accounts are usually payable within one or two months. (The same items appear as accounts receivable on the creditors' balance sheet.) At the end of 1996, Town Tool owed $15,885 for goods it had received from suppliers but had not yet paid for.

- **Mortgages, bonds payable in less than one year** equal the face amount of promissory notes given in the connection with loans from a bank or other lending entity. Town Tool listed no such liabilities in 1996.

- **Other current liabilities** includes other liabilities not categorized above. These items, which totaled $57,023 for Town Tool at the end of 1996, should be itemized in an attachment to the tax return.

Long-Term Liabilities

Long-term liabilities represent debts owed by the firm that are due in more than one year. They are important from an ability to pay perspective because the amount of debt held by a firm affects its debt capacity, or ability to borrow additional money, perhaps to fund a penalty payment or remediation expenditure.

- **Loans from stockholders** represents funds loaned to the firm by its owners. Town Tool owed $53,420 to its owners at the end of 1996.

- **Mortgages, bonds payable in more than one year** are long-term promissory notes or mortgages representing sums of money borrowed for a relatively long period of time under a formal written contract. It is the portion of the firm's liabilities that are not likely to be repaid within the current year. Town Tool held no long-term debt at the end of 1996.

Shareholders' Equity

Shareholders' equity represents the total interest that all shareholders have in the corporation. It is equal to the firm's net worth, or assets less liabilities. This item is typically split into two general components, capital stock and retained earnings. Capital stock represents shares in the firm, or a proportion of ownership. Retained earnings represents the sum of profits earned over the course of the firm's operating history net of any portion of these profits distributed to the owners in the form of dividends. Retained earnings is the total amount of profits owners choose to leave in the firm to provide working capital, fund reinvestment efforts, or initiate other productive activities. At the end of 1996, this amount equaled $338,275 for Town Tool. Note that shareholders have a "residual" interest in the value of the firm; that is, the claims of other creditors must generally be satisfied before shareholders can claim their share of the value of the firm.

Things To Look For In The Balance Sheet

The summary balance sheet presented in the ABEL results is particularly useful in identifying trends in performance over time. One should look for items that exhibit considerable variability year to year, or are trending upward or downward. Also consider the relationship of current assets to current liabilities. A healthy firm will generally have sufficient current assets, assets that can readily be converted into cash, to meet its near-term debt payments. A rough measure of this capability is

having current assets that are at least twice as large as current liabilities. Also look at long-term assets to determine whether these items are increasing or decreasing in value, perhaps suggesting that the firm is investing in new productive assets or selling these assets. Determine whether the firm is increasing or decreasing the amount of debt it is carrying. Increasing debt levels may indicate the firm is having difficulty generating sufficient funds internally to fund its ongoing operations, requiring it to borrow money. Determine whether the firm has loans from or to shareholders, indicating a close relationship between the company and its owners. After you have identified any interesting items or general trends in the data, consult with a financial analyst to help you interpret this information. Some items you might want to investigate further on Town Tool's balance sheet include:

- **Increase in long-lived assets.** Town Tool's long-term asset holdings increased considerably between 1995 and 1996, indicating the company may be investing in new plant or equipment.

- **Loans from stockholders.** Town Tool paid off more than $38,000 of the loans it owed to its owners. These repayments represent sums of money that could potentially be used to help fund an environmental enforcement payment.

INCOME STATEMENT

The income statement shows the firm's profits or losses generated during the course of the operating period. These earnings equal the difference between revenues and expenses. The income statement matches the amounts received from selling goods and services against the costs incurred to produce those goods and services.

Components of the Income Statement

A firm's primary income source is gross sales. To produce and sell a good or service, a business incurs expenses through the purchase of the required materials and labor. Expenses are generally broken into two categories, including cost of goods sold and overhead (or general and administrative costs).

- **Gross sales** represent income received or likely to be received (i.e., accounts receivable) as a result of selling goods or services. Sales are recognized when earned by the company (e.g., when a product is shipped to a customer) and if there is reasonable certainty that the firm will receive payment for that sale. Town Tool had gross sales of $$116,708 in 1996, much lower than gross sales in 1995 of $1,118,814.

- **Cost of goods sold** represents the input costs of the final product that is sold. It includes costs that can be directly attributed to the production of the good or service. Common items include cost of raw materials and labor, rent paid on the manufacturing facility, and expenses related to the operation and use of related equipment. These costs are itemized in Schedule A of a company's federal income tax return and related attachments. Town Tool's cost of goods sold in 1996 totaled $828,566.

- **Overhead, or general and administrative, expenses** represent the cost of operations not directly related to the manufacture of the product or delivery of a service. Examples include administrative and marketing costs. The "Deductions" section on page one of the tax return details a number of these expense items, including officers' compensation, interest payments, rent, depreciation, and a number of others, including an itemization of these expenses in attachments to Line 19 of the return.

For purposes of presentation, ABEL also includes in this section a summary of other income sources detailed in the "Income" section on page 1 of the tax return. Such income might include rental payments received on real estate holdings or interest payments received from loans made by the firm. Note that, although Town Tool's gross sales declined considerably from 1995 to 1996, the company recognized an equivalent amount of "other" income in 1996 to cover this decline. It would be important to investigate the reason for this apparent change in accounting practices in an ability to pay analysis.

Things To Look For In The Income Statement

The income statement provides useful information on a firm's past and likely future profitability. The difference between gross sales and cost of goods sold equals operating profit. Operating profit is an important measure of firm health because it indicates whether a firm's core operating activities are generating positive returns. Town Tool generated positive operating income in the years 1993 through 1995, but then negative operating income in 1996, apparently due to a change in the way the company classified its income in that year. The difference between the sum of all income and the sum of all expenses equals taxable income. Positive taxable income indicates the firm is generating sufficient income to meet all of its business expenses and has additional income left over. Town Tool generated positive, but variable taxable income, in every year under analysis.

Like the balance sheet, the summary income statement provides useful information to identify trends in performance. Look to see whether sales are increasing or decreasing, and whether expenses are changing in proportion. Observe whether particular expense items are variable or appear high relative to the size of the company. Determine whether profits appear to be increasing or decreasing over time. In the case of Town Tool, cost of goods sold expenses seem relatively stable, while the

"Other expenses (income)" items appear to be varying widely. These items likely merit further investigation. Once you have identified any interesting items, consult with a financial analyst to help you understand and interpret the information.

Note that certain expenses may not represent an outflow of cash from the company. The most important non-cash expense is generally depreciation. These expenses represent the annual usage of an asset. The presence of non-cash expenses has important consequences for the calculation of cash flow, as discussed below.

SUMMARY OF CASH FLOWS

The flow of income and expenses in and out of a firm may differ from the flow of cash. One source of this difference in the timing of income and expenses and cash is non-cash expenses. ABEL's cash flow summary illustrates these timing differences. To reconcile income with available cash, we start with taxable income and add back any non-cash expenses that are impounded in the taxable income amount. The resulting total represents a rough estimate of the annual pre-tax cash flow the firm is generating, as opposed to its taxable income. In most cases, this calculation will only include an allowance for depreciation expenses. In some cases, a firm will also have amortization expenses, which are non-cash expenses similar to depreciation. After subtracting out an appropriate cash allowance for taxes and other tax-related deductions, and adjusting for inflation, we can calculate a rough estimate of the after-tax cash flow being generated by the firm.

Cash flow is the lifeblood of any business. A firm with sufficient cash can easily fund its ongoing operations without acquiring additional debt; furthermore, it can easily make any interest or principal payments on debt it does maintain. As you review the cash flow summary, consider whether the firm's cash flow is positive or negative, is trending upward or downward, or is highly variable from year to year. Talk with a financial analyst to help you interpret the data. It is interesting to note for Town Tool that, while taxable income varied considerably year to year, the company's annual cash flow has been much more stable, and highly positive.

Remember that any positive cash flow amounts presented in this summary represent cash available after the firm meets all of its operating expenses. Accordingly, available cash flow is the primary consideration in ABEL's calculation of ability to pay. The model uses this information to estimate the average annual cash flow a firm is likely to generate. ABEL then projects this average cash flow amount out five years (or some alternative number of years as designated by the user) to predict the firm's future available cash flow. From this projection, the model then derives its conclusion presented in the "Ability to Pay Analysis" section of the model's results.