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Nursery Financial Management: Basis for Decisions

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NFM: Basis for Decisions

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Most nurserymen prefer to concentrate on production rather than planning, recordkeeping and marketing. This management focus may have been adequate during periods of inflation and favorable commodity prices, but the recent economy has demonstrated the serious flaw in this one dimensional approach.

Survivors in the next decade will have to increase their emphasis on recordkeeping, planning, profitability analysis, and better monitoring and controls. This does not imply a neglect of production, simply a need for a better balance between the key performance areas. **NFM, or nursery financial management** will help nursery managers attain this balance.

More emphasis must be placed on justifying the purchase of inputs based on economic analysis rather than whether or not the practice(s) will increase output. Successful nurserymen will need to obtain more information pertaining to financial analysis, marketing, analysis of alternative enterprises and the “bottom line” contribution of each existing crop.

Financial Analysis of a Nursery Operation

High among any business’ goals should be (1) profitability, (2) liquidity, (3) solvency, and (4) efficiency. Yet some managers who are very capable in the technical and production aspects of their nursery are completely in the dark when it comes to measures of business status and performance. Sometimes, the only “business analysis” they do is to fill out their tax forms or prepare “required” financial information for their lender. Effective managers should be able to determine the financial position and performance of the business at any time. They must be able to evaluate where the business is, has been, and is going. This aids in the control of the business operation over time.

A sound basis of profitability, liquidity, solvency, and efficiency allows a nursery manager to develop sound operating plans and arrange for credit needs. The basic tools needed to conduct nursery business analysis are adequate records and properly prepared, complete financial statements.

Nursery Financial Statements

The most useful coordinated financial statements to use for summarizing a nursery’s financial position and demonstrating managerial ability are the balance sheet, income statement and cash flow statement. These financial statements allow a nursery to systematically analyze financial progress, plan operations for the year ahead and demonstrate credit worthiness to lenders. To be most useful, these statements should be compared over time. If not available from previous years, there is no better time to start preparing these statements than now.

The Balance Sheet

The balance sheet, also often referred to as the statement of financial position or net worth statement, is a summary of all assets and liabilities of the nursery operation at a specific point in time (see Table 1). At a minimum, a balance sheet should be prepared as of the last day of the fiscal year.

The Income Statement (Profit or Loss Statement)

The income statement reflects the profitability of a nursery business over a period of time, usually from the beginning to the end of the tax year (see Table 1). For accurate analysis, it is critical that income be calculated on an accrual basis. This does not imply, however, that nurserymen should not use the more flexible cash basis for tax accounting. It does mean that cash basis income accounting for management purposes can give a very distorted and inaccurate picture of business performance, and can produce lags of up to two years in recognizing developing profitability problems.

The Cash Flow Statement

A projected cash flow statement is a listing of all anticipated cash inflows for a specified future period, nursery operations, and all projected cash outflows, including operating expenses and capital outlays, along with family living expenses, borrowing transactions, and tax payments.

Using and Analyzing Financial Statements

Nurserymen need to utilize the information provided by the balance sheet, income statement and cash flow statement in order to understand how well their business is doing. Only by analyzing the components of all three financial statements and their interrelationships can a clear picture of financial position and performance be developed.

The objective of financial statement analysis is to assess the strength of the nurseryman's financial position and to monitor his financial performance. There are a multitude of methods that are used in analyzing financial statements. One of the most common and widely used methods of financial analysis (and the least understood) is ratio analysis.

Ratio Analysis

A financial ratio is simply a comparison of two measurements of a business. These two measurements are expressed in terms of a ratio or one as a percentage of the other. Each ratio is designed to highlight some particular aspect of the financial condition or performance of a business.

The primary function of financial ratios is to permit a manager to keep track of the financial side of a business without having to devote an excessive amount of time to detailed study of individual records. Most financial ratios can be calculated in minutes from figures contained primarily on the balance sheet and income statement.

Ratios provide insight into the financial strengths and weaknesses of a business. Production plans, investment decisions, and financing plans can then be directed toward building on strengths and shoring up weaknesses.

A well developed set of financial statements and their accompanying ratios are particularly important tools for demonstrating managerial ability to a lender and will help to obtain the necessary credit terms to conduct a viable operation.

Selecting Ratios for Financial Analysis

Since a ratio is nothing more than one number divided by another, there are an unlimited number of ratios which could be calculated. A nurseryman needs to select those which will help analyze and monitor the performance areas which are most critical to the success of the nursery operation. Unfortunately, the nursery industry, at the producer level, has not maintained adequate or accurate information approximating generally accepted accounting principles in order to develop a set of industry standards. Some progress has been made, but we still have a long way to go. Ratios, however, can still be used to identify “red flagged” items and relative trends.

For simplicity, it is useful to classify financial ratios into four fundamental types:

- **Liquidity ratios**, which measure the firm's ability to meet its maturing short-term debt or obligations.
- **Safety (leverage) ratios**, which measure the extent to which a company has been financed by debt.
- **Activity ratios**, which measure how effectively the firm is using its resources.
- **Profitability ratios**, which measure management's overall effectiveness as shown by the returns generated on sales and investment.

These four types of financial ratios are discussed in Table 2. After a careful review of financial ratios and all factors involved, the nurseryman may decide that something needs to be done. Unfortunately, there is no single prescription that will work for every operation. Just like a medical problem, any solution will depend on a specific diagnosis based on the business and the individuals involved. Carefully prepared and analyzed financial statements will provide financial management warning indicators in sufficient time to make needed adjustments. Good financial analysis does not guarantee success, but it definitely improves the odds.

Table 1. Sample nursery financial statements.

Balance Sheet

ASSETS		LIABILITIES	
Current Assets		Current Liabilities	
• Cash on hand	35,502	• Accts. Payable	30,000
• Accts. Receivable	202,085	• Short-term notes	28,326
• Plant Inventory	818,389	• Taxes	11,080
• Supply Inventory	15,004	<i>Total Current</i>	69,406
<i>Total Current</i>	1,070,980		
Long-term Assets		Long-term Liabilities	
• Machinery/Equip.	214,885	• Mortgages	120,000
• Bldgs./Fixtures	430,107	• Long-term notes	146,000
• Land	176,754	<i>Total Long-term</i>	266,920
• Less depreciation	(357,423)		
<i>Total Long-term</i>	464,323		
TOTAL ASSETS	1,535,302	TOTAL LIABILITIES	
		336,376	
		NET WORTH	1,198,926
		TOTAL LIABILITIES	
		& NET WORTH	1,535,302

Income Statement

Total Revenue	
• Value of plants sold	1,290,181
• Change in inventory	40,125
• Increase in supplies	897
• Misc. cash income	14,601
<i>Total Revenue</i>	1,345,803
less Cost of Goods Sold	878,633
(cost of production)	
Gross Margin	467,170
less Operating Expenses	392,924
NET REVENUE (before taxes)	74,246

Table 2. Summary of common financial ratios.

I. Liquidity ratios:

- *Current Ratio:* $\frac{\text{Current Assets}}{\text{Current Liabilities}}$
 - general test of solvency
 - should be around 1.25:1 to 2:1
 - high liquidity reduces risk but indicates poor investment in current assets

- *Quick Ratio:* $\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$
 - does not include inventory which is less liquid
 - should be around 1.25:1 to 2:1
 - trade-off between "strong" and "fat"

II. Safety (Leverage) Ratios:

- *Debt to Equity:* $\frac{\text{Current Liabilities}}{\text{Net Worth}}$
 - shows debt relative to net worth
 - most common gauge of overall risk
 - shows the extent financed by debt
 - most industries average around 33%

- *Times Interest Earned:* $\frac{\text{Net Profit} + \text{Interest}}{\text{Interest}}$
 - measures ability to meet interest payments
 - bankers prefer this ratio to be around 8 times

III. Activity Ratios

- *Average Collection Period:* $\frac{\text{Accounts Receivable}}{\text{Avg. Daily Credit Sales}}$
 - related to credit policy "trade-off"
 - shows average length of time receivables are outstanding
 - should not exceed 1:3 times the credit period
 - Avg. Daily Credit Sales = Credit Sales/# of days in period

- *Inventory Turnover:* $\frac{\text{Sales}}{\text{Inventory}}$ or $\frac{\text{COGS}}{\text{Inventory}}$
 - shows how fast inventory is turning
 - average inventory may be more appropriate
 - some use COGS instead of sales ***if inventories are carried at cost***

- *Total Assets Turnover:* $\frac{\text{Sales}}{\text{Total Assets}}$
 - measures turnover of all firm's assets
 - most industries average around 2 times

IV. Profitability Ratios

- *Profit Margin:* $\frac{\text{Net Profit}}{\text{Sales}}$
 - gives profit per dollar of sales
 - reflects pricing strategies, volume, level of expenses

- *Return on Assets (ROI):* $\frac{\text{Net Profit}}{\text{Total Assets}} = \text{Profit Margin} \times \text{Asset Turnover}$
 - keep checking level of asset base
 - measures profit per dollar of assets
 - to lender, high return indicates safety
 - to owner, high return indicates efficiency

- *Return on Equity:* $\frac{\text{Net Profit}}{\text{Net Worth}} = \text{ROI} \times \text{Leverage Factor}$
 - reflects returns to owners equity
 - should return > prime rate after 5 years

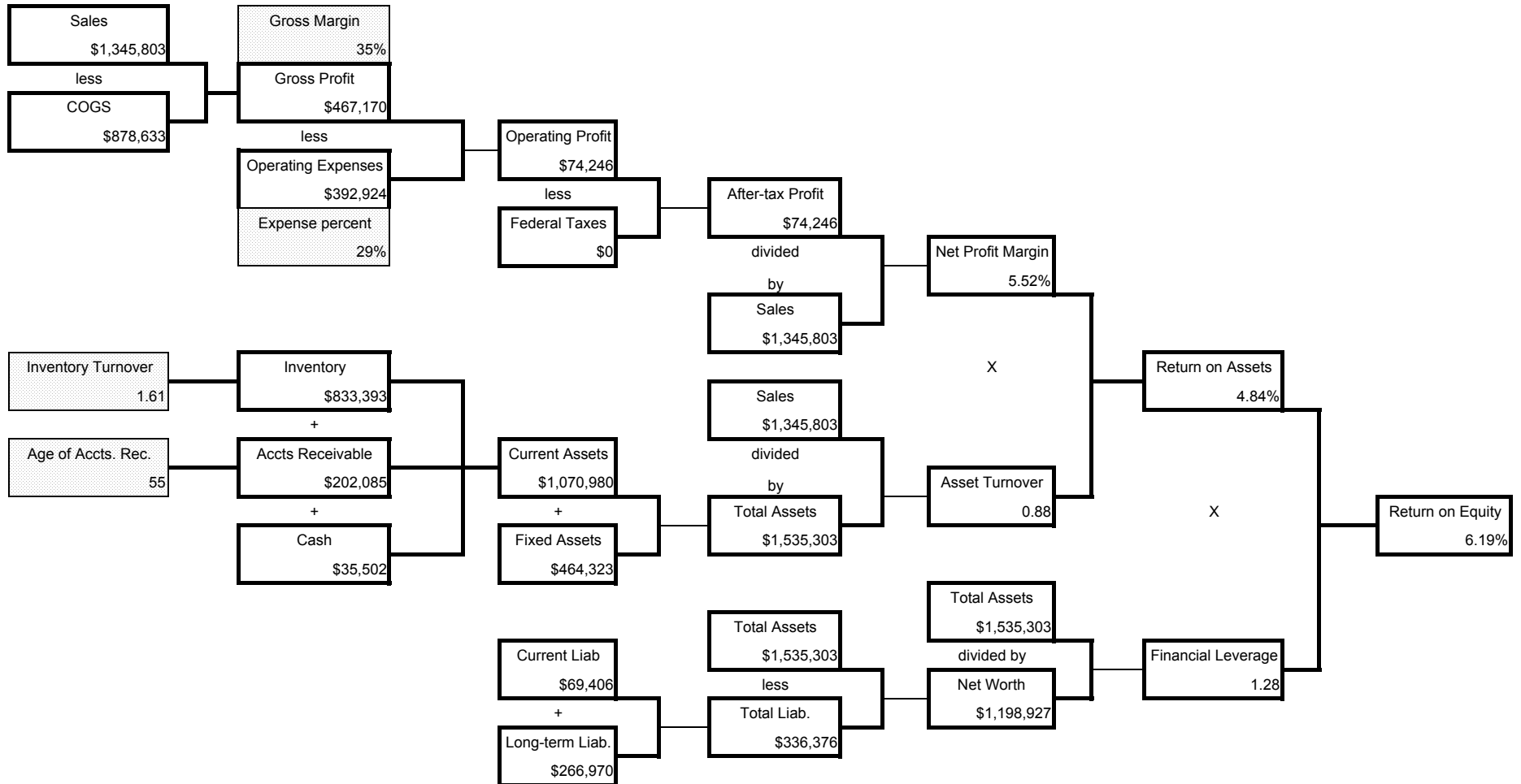
Limitations of Ratio Analyses

- Difficult to develop a meaningful set of industry averages.
- Attaining average performance is not necessarily good.
- Inflation can distort firms balance sheet entries for depreciation and inventory costs.
- Seasonal factors can distort ratio analysis.
- Some firms employ “window dressing” techniques to improve financial statements.
- Different operating and accounting practices can distort comparisons.
- Difficult to generalize about whether a ratio is “good” or “bad”.
- Firms may have some ratios which look “good” and others which look “bad”.

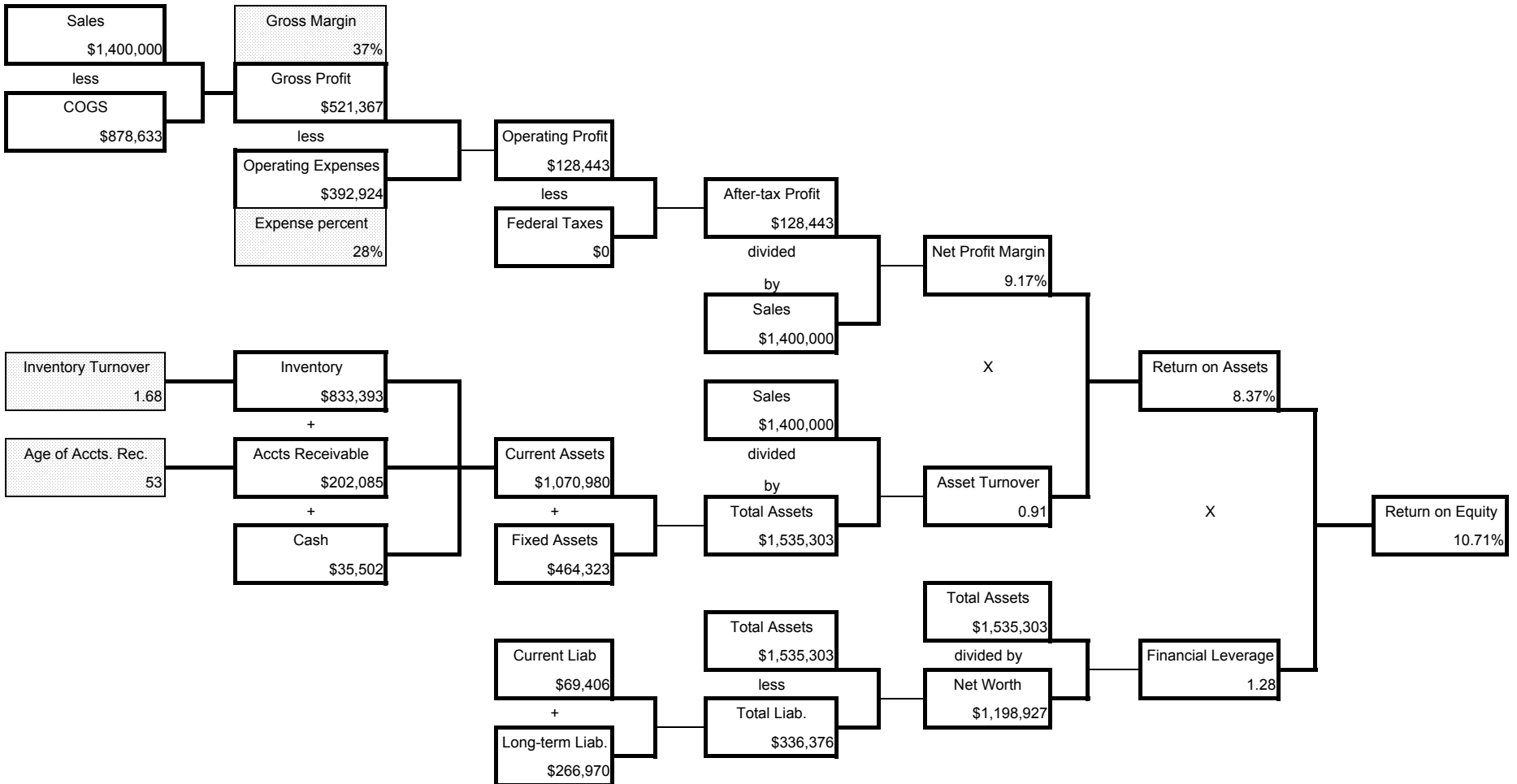
Total Profitability Model

A model for financial analysis, known as the Total Profitability Model (TPM), has achieved national recognition as a tool that is extremely useful for interpreting financial ratios. It brings together the activity ratios, leverage ratios, and profit margin on sales and shows how various ratios interact to determine the profitability of assets. The usual structure of the Total Profitability Model is illustrated below (Base Model) using the sample nursery/greenhouse data from the balance sheet and income statement from Table 1. The remaining pages demonstrate the effects of gross margin changes, reductions in overhead expenses, increases in inventory turns, reductions in the age of accounts receivable, and the effects of all of these combined. The point of this exercise is to illustrate that small changes made simultaneously in any nursery business can have very favorable financial outcomes. One doesn't have to change the entire business in one monumental reengineering effort to be successful (although sometimes that is needed). Instead, managers can find solace in the fact that daily efforts to improve the financial structure of the nursery business can ensure long-term survival.

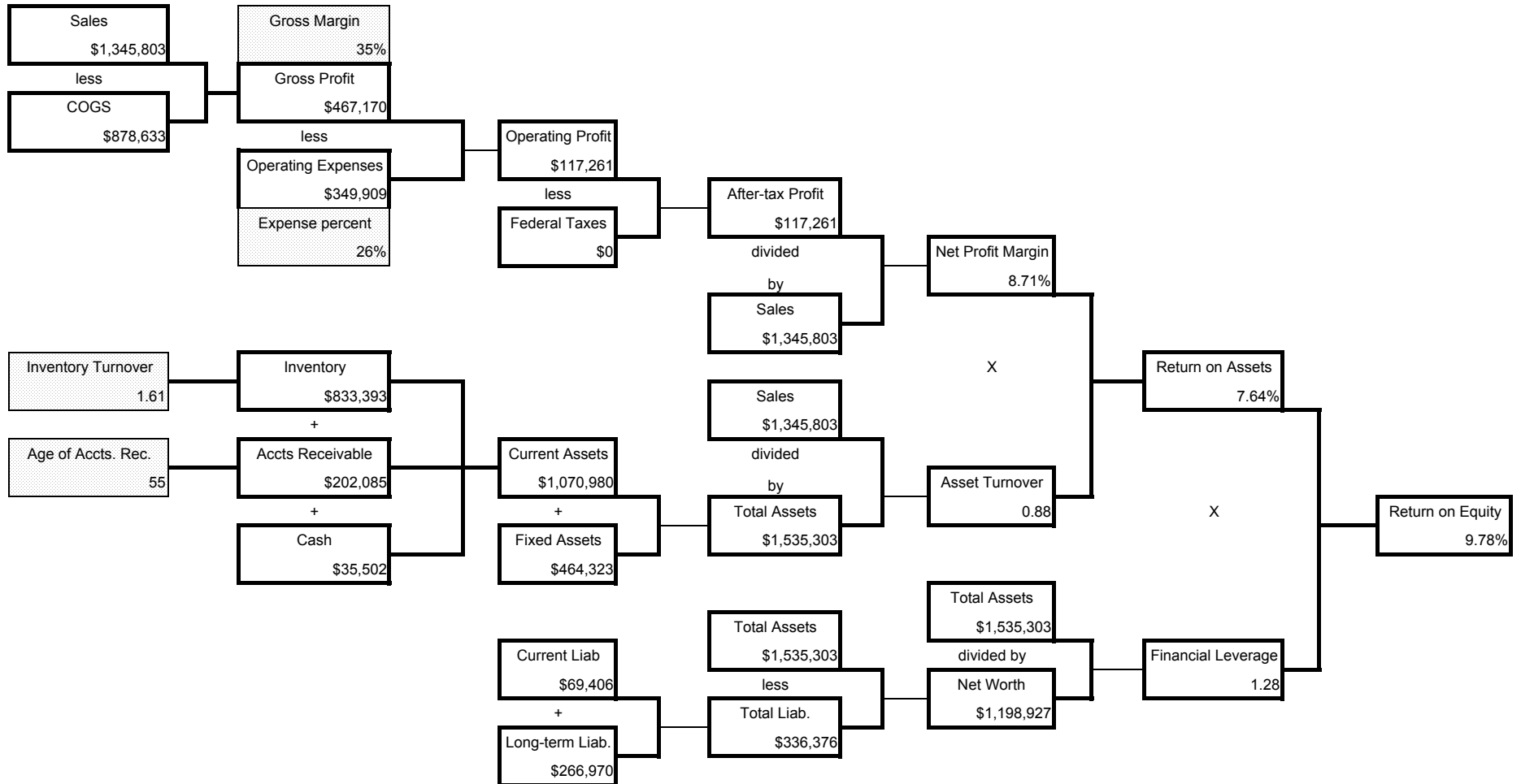
BASE MODEL



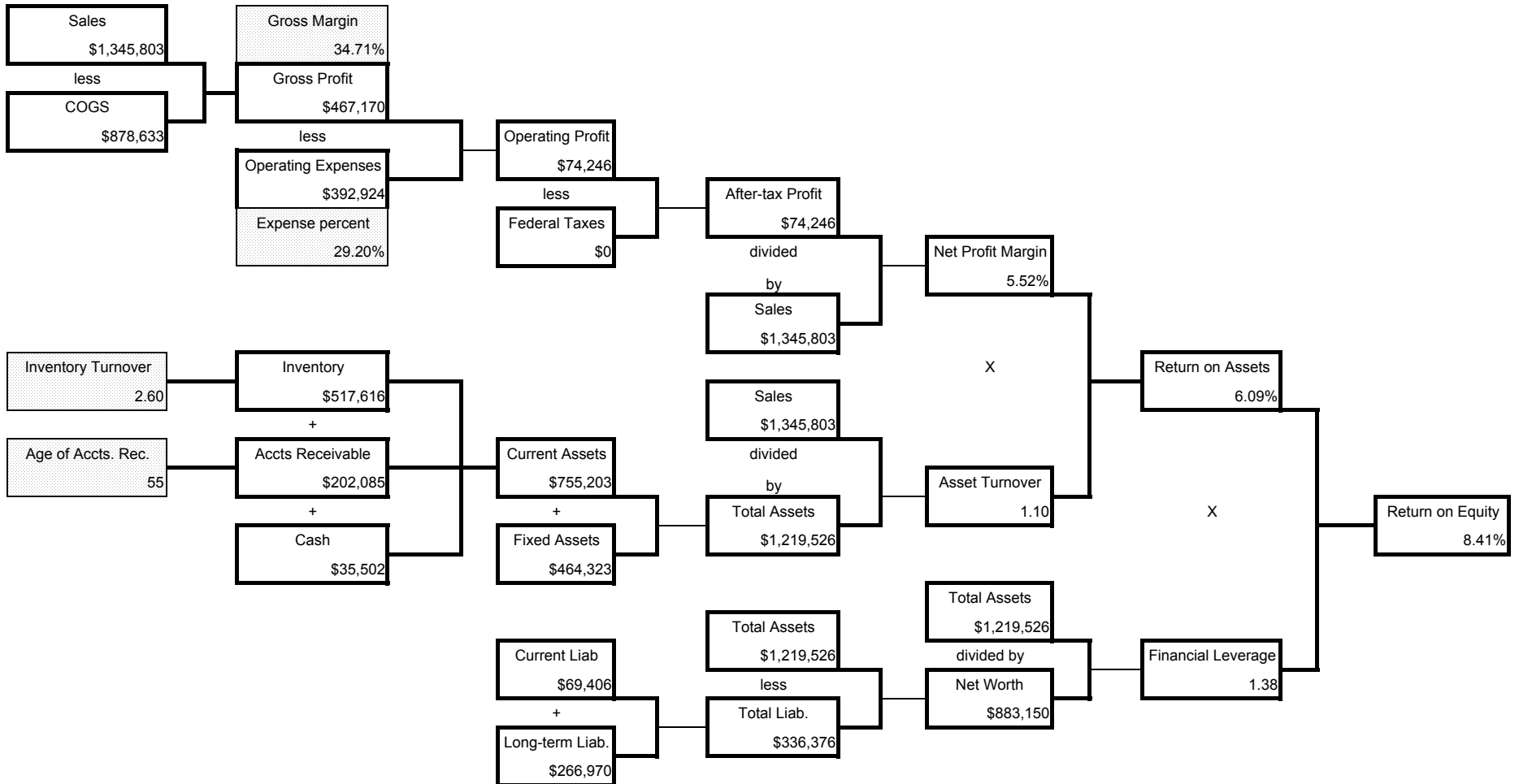
INCREASE GROSS MARGIN BY 2 PERCENT



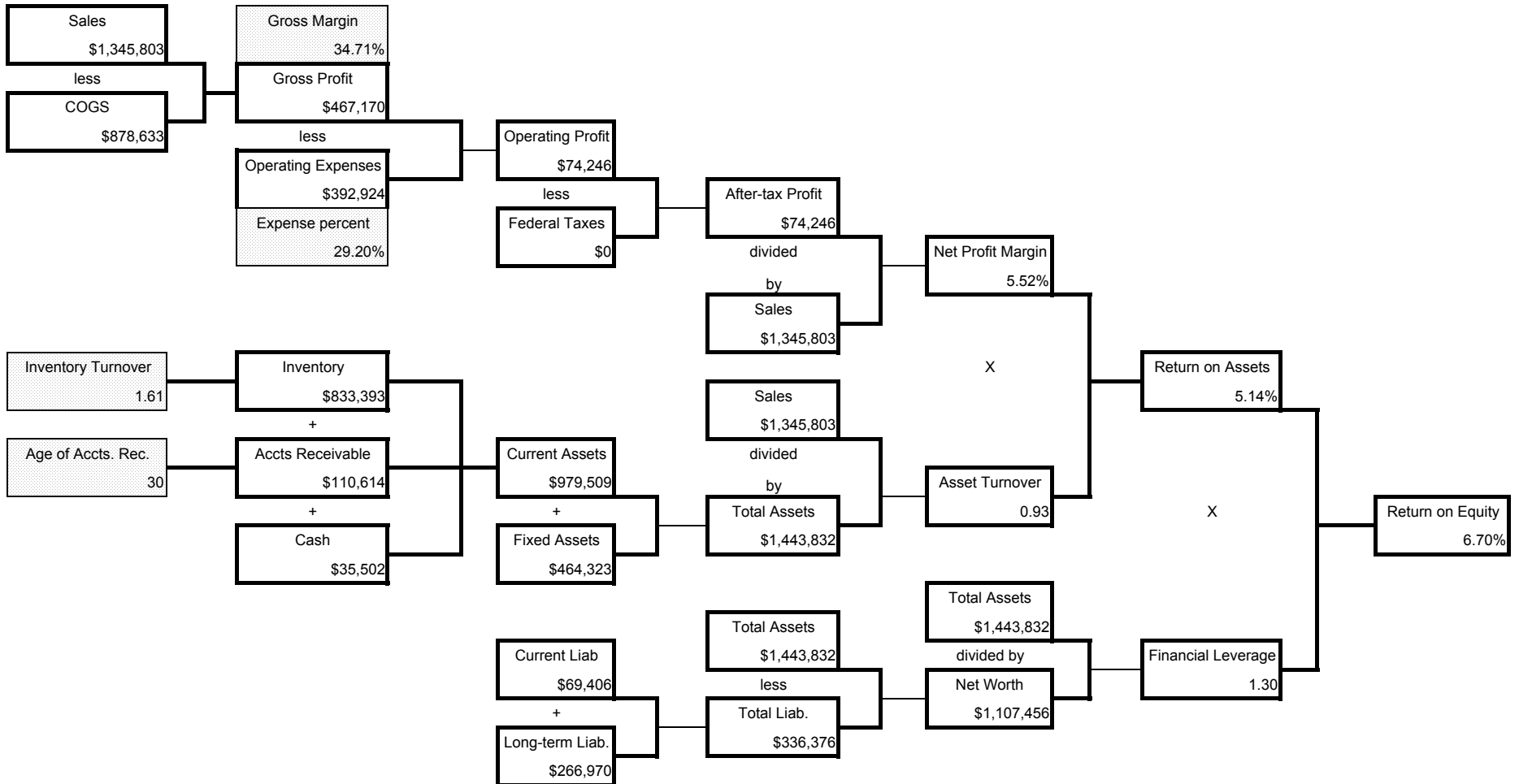
CUT OVERHEAD EXPENSE AS A PERCENT OF SALES BY 3 PERCENT



INCREASE INVENTORY TURNS BY 1



REDUCE RECEIVABLES TO 30 DAYS



COMBINED EFFECTS

1. INCREASE GROSS MARGIN 2%
2. CUT OVERHEAD BY 3%
3. INCREASE INVENTORY TURNS BY 1
4. REDUCE AGE OF ACCTS.RECEIVABLES TO 30 DAYS

