

Revised, Updated, & Expanded 3rd Edition

Financial Statements

**A Step-by-Step Guide
to Understanding
and Creating
Financial Reports**

Thomas R. Ittelson

A handwritten signature in black ink, appearing to read 'T. R. Ittelson', with a long, sweeping underline that extends to the right.

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Section A. Financial Statements: Structure & Vocabulary

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Much of what passes for complexity in accounting and financial reporting is just specialized vocabulary and simple numeric structures. This section will introduce the words, the basic accounting principles and the structure of the main financial statements.

Chapter 1. Twelve Basic Principles	11
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Accountants have some basic rules upon which all their work in preparing financial statements is based. Who makes these rules? The simple answer is that the “FASB” makes the rules and they are called “GAAP.” Got that?

Chapter 2. The Balance Sheet	16
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The *Balance Sheet* is one of the two main business financial statements. The other is the *Income Statement*. The *Balance Sheet* states the basic equation of accounting at an instant in time: *What you have minus what you owe is what you're worth.*

Chapter 3. The Income Statement	46
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The *Income Statement* is one of the two main financial statements of a business. The other one is the *Balance Sheet*. The *Income Statement* gives a significant perspective on the health of the enterprise by showing its profitability.

Chapter 4. The Cash Flow Statement	63
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Where the company gets cash, and where that cash goes. The *Cash Flow Statement* tracks the movement of cash through the business over a defined period of time.

Chapter 5. Connections 77

The financial statements are connected; an entry in one may well affect each of the others. This interlocking flow of numbers allows the three statements together to form a cohesive picture of the company’s financial position.

- Balance Sheet Connections.
- Sales Cycle.
- Expense Cycle.
- Investment Cycle.
- Asset Purchase and the Depreciation Cycle.

***Section B. Transactions:
Exploits of AppleSeed Enterprises, Inc.***

About This Section 85

With our knowledge of the three main financial statements, we will now draft the books of a hypothetical company, AppleSeed Enterprises, Inc. We will report the common and everyday actions that AppleSeed takes as it goes about its business of making and selling applesauce. Accounting for these “transactions” (T1 through T33 below) is the subject of much of this book. We will describe the Balance Sheet, Income Statement and Cash Flow Statement entries for common and ordinary business actions from selling stock, to shipping product, to paying the owners a dividend.

Chapter 6. Startup Financing and Staffing 89

Welcome to our little business, AppleSeed Enterprises, Inc. Imagine that you are AppleSeed’s entrepreneurial chief executive officer (CEO). You also double as treasurer and chief financial officer (CFO).

- T1. Sell 150,000 shares of AppleSeed’s common stock (\$1 par value) for \$10 per share.
- T2. Pay yourself your first month’s salary. Book all payroll-associated fringe benefits and taxes.
- T3. Borrow \$1 million to buy a building. Terms of this 10 year mortgage are 10% per annum.
- T4. Pay \$1.5 million for a building to be used for office, manufacturing and warehouse space. Set up a depreciation schedule.

- T5. Hire administrative and sales staff. Pay first month's salaries and book fringe benefits and taxes.
- T6. Pay employee health, life and disability insurance premiums plus FICA, unemployment and withholding taxes.

Chapter 7. Staffing and Equipping Facility; Planning for Manufacturing Startup 103

Now begins the fun stuff. In a few short weeks we will be producing thousands of cases of the best applesauce the world has ever tasted.

- T7. Order \$250,000 worth of manufacturing machinery. Pay one-half down.
- T8. Receive and install manufacturing machinery. Pay the remaining \$125,000 due.
- T9. Hire production workers; expense first month's salary and wages.
 - Prepare bill of materials and establish labor requirements.
 - Set up plant and machinery depreciation schedules.
 - Plan monthly production schedule and set standard costs.
- T10. Place standing orders for raw materials with suppliers; receive 1 million jar labels.

Chapter 8. Startup of Manufacturing Operations 119

We're ready to start producing applesauce. The machinery is up and running, the workers are hired, and we are about to receive a supply of raw materials.

- T11. Receive two months' supply of raw materials.
- T12. Start up production. Pay workers and supervisor for the month.
- T13. Book depreciation and other manufacturing overhead costs for the month.
- T14. Pay for the labels received in Transaction 10 in Chapter 7.
- T15. Finish manufacturing 19,500 cases of applesauce and move them into finished goods inventory.
- T16. Scrap 500 cases' worth of work-in-process inventory.
 - Manufacturing variances: what can go wrong, what can go right and how to account for both.
- T17. Pay for the two months' supply of raw materials received in Transaction 11 above.
- T18. Manufacture another month's supply of applesauce.

Chapter 9. Marketing and Selling 139

A wise old consultant once said to me, “Really, all you need to be in business is a customer.”

- T19. Produce product advertising fliers and T-shirt giveaways.
 - Product pricing; break-even analysis.
- T20. A new customer orders 1,000 cases of applesauce. Ship 1,000 cases at \$15.90 per case.
- T21. Take an order (on credit) for 15,000 cases of applesauce at a discounted price of \$15.66 per case.
- T22. Ship and invoice customer for 15,000 cases of applesauce ordered in Transaction 21 above.
- T23. Receive payment of \$234,900 for the shipment made in Transaction 22 above and pay the broker’s commission.
- T24. OOPS! Customer goes bankrupt. Write off cost of 1,000 cases as bad debt.

Chapter 10. Administrative Tasks 159

We’ve been busy making and selling our delicious applesauce. But having been in business for three months, it is time to attend to some important administrative tasks.

- T25. Pay this year’s general liability insurance.
- T26. Make principal and interest payments on three months’ worth of building debts.
- T27. Pay payroll-associated taxes and insurance benefit premiums.
- T28. Pay some suppliers ... especially the mean and hungry ones.

Chapter 11. Growth, Profit & Return 169

We’ve had a very good first year of operations. We will determine our profit for the year, compute the taxes we owe, declare a dividend and issue our first Annual Report to Shareholders.

- T29. Fast-forward through the rest of the year. Record summary transitions.
- T30. Book income taxes payable.
- T31. Declare a \$0.375 per share dividend and pay to common shareholders.
 - Cash Flow Statement vs. Changes in Financial Position.

- AppleSeed Enterprises, Inc. Annual Report to Shareholders.
- What is AppleSeed worth? How to value a business.

Section C. Financial Statements: Construction & Analysis

About This Section 181

Here are some of the details of constructing and analyzing a company's financial statements, and also some of the ways of fudging them.

Chapter 12. Keeping Track with Journals and Ledgers 183

Journals and ledgers are where accountants scribble transaction entries. A journal is a book (or computer memory) in which all financial events are recorded in chronological order. A ledger is a book of accounts. An account is simply any grouping of like-items that we want to keep track of.

- Cash Ledger.
- Accounts Payable Ledger.
- Accrued Expenses.
- Accounts Receivable Ledger.

Chapter 13. Ratio Analysis 187

Often in judging the financial condition of an enterprise, it is not so much the absolute amount of sales, costs, expenses and assets that are important, but rather the relationships between them.

- Common Size Statements:
 - Income Statement,
 - Balance Sheet.
- Liquidity Ratios:
 - Current Ratio,
 - Quick Ratio.
- Asset Management Ratios:
 - Inventory Turn,
 - Asset Turn,
 - Receivable Days.
- Profitability Ratios:
 - Return on Assets,
 - Return on Equity,
 - Return on Sales,
 - Gross Margin.

- Leverage Ratios:
 - Debt-to-Equity,
 - Debt Ratio.
- Industry and Company Comparisons.

Chapter 14. Alternative Accounting Policies 201

Various alternative accounting policies and procedures are completely legal and widely used but may result in significant differences in the values reported on a company’s financial statements. Conservative? Aggressive? Some people would call this chapter’s topic “creative accounting.”

Chapter 15. Cooking the Books 205

“Cooking the books” means intentionally hiding or distorting the real financial performance or financial condition of a company. Cooking is most often accomplished by incorrectly and fraudulently moving Balance Sheet items onto the Income Statements and vice versa. Outright lying is also a favorite technique.

Section D. Business Expansion: Strategy, Risk & Capital

About This Section 213

“The numbers” are just a single tool—albeit a very useful one — to use with other management tools (and common sense) in deciding how to invest capital for expansion. But remember: A strategically unsound business expansion is very seldom financially sound ... regardless of what the numbers say. *Think strategy first.* This section is all about planning the future and raising capital.

Chapter 16. Mission, Vision, Goals, & Strategies 215

How to expand? Why expand? Why stick our necks out? What strategies should we employ to help us meet our goals? What are our goals anyway? Think through AppleSeed’s mission, vision, goals, strategies, actions and tactics. The Board of Directors wants to see our strategic plan!

- Mission, Vision & Goals ... a hierarchy of destinations.
- Strategies, Actions & Tactics ... a hierarchy of ways to get there.

Chapter 17. Risk and Uncertainty 219

Every action (or even inaction) carries a risk of failure and an uncertainty of outcome. Understanding risk and uncertainty help minimize the chance of “negative surprises” coming from important business decisions. This chapter describes ways to minimize risk and uncertainty.

- Risk, Uncertainty, Threats.
- Avoiding a “Bet-Your-Company Risk.”

Chapter 18. Making Decisions About AppleSeed’s Future 221

AppleSeed’s Board of Directors thinks that we can successfully expand and that now is a good time to do it. What are our business expansion alternatives and how should we decide between them?

- Decision Tree Analysis.
- Strategic Alternatives.
- AppleSeed’s “Make vs. Buy” Decision.

Chapter 19. Sources and Costs of Capital 225

Taking on debt (borrowing money) and/or selling equity (exchanging an ownership portion of the company for money) are the two ways of raising capital for expansion. More debt adds risk, but selling stock means our little portion of the pie gets even smaller. Sigh. AppleSeed will need more capital to expand. Our venture investor understands the mathematics of buying and selling stock and can do the manipulations in her head. We had better understand as well. Otherwise, this friendly venture investor will eat our applesauce.

- Business Valuation: “Pre-Money” & “Post-Money” Values.
- Selling Stock & Ownership Dilution.
- Cost of Equity Capital & Weighted Average Cost of Capital.

T32. Financial expansion! Sell more stock and negotiate a line of credit.

Section E. Making Good Capital Investment Decisions

About This Section 235

Capital investment decisions are among the most important that a company's management can make. Often capital is a company's scarcest resource and using capital well is essential for success. The chief determinant of what a company will become is the investments it makes today. Capital budgeting decisions require analyzing business cash flows spanning years. Accounting for the "time value of money" is essential in these analyses.

Chapter 20. The Time Value of Money 237

Would you rather I give you \$1,000 today or in five years? Most everyone intuitively knows that a "bird in the hand is worth two in the bush." Now you understand the "time value of money." The rest is details.

- Present Value (PV).
- Future Value (FV).
- Interest and Interest Rates.
- Discounting and Discount Rates.
- Computing Discounted Values.
- Present Value Table.

Chapter 21. Net Present Value (NPV) 243

We are going to invest cash now with high hopes of a large future return. But will the anticipated payback be enough to cover our initial investment? Further, would any of our alternative projects provide us with a better financial return? Net Present Value (NPV) computations are the "gold standard" for capital budgeting. NPV and Internal Rate of Return (IRR) are the two mainstays of investment valuation.

- Net Present Value (NPV).
- Internal Rate of Return (IRR).
- Cash Flow Forecasting for NPV and IRR Analysis.
- Other Capital Budgeting Techniques: ROI, Payback Period, Real Options and Monte Carlo Analysis.

Chapter 22. Making Good Capital Investment Decisions 251

Let's apply all that we have learned about capital budgeting and select the best business expansion course for AppleSeed. After all, the kids are getting older and will graduate soon; maybe one will want to join the business?

- Make vs. Buy Decision for AppleSeed's Business Expansion.
- Forecasting Cash Flows.
- NPV & IRR Analysis of AppleSeed's Expansion Alternatives.
- Business Combination Accounting.

T33. Chips-R-Us joins the AppleSeed happy family of companies!

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Appendix A. Short History of Business Fraud and Speculative Bubbles 263

Crooked investment promoters, speculative investment bubbles waiting to pop and even outright business fraud in high places have been with us for centuries. There are many ways to lose money. Some of the most infamous are discussed in this chapter. Congress recently passed far-reaching legislation to stop these shenanigans — the Sarbanes-Oxley Act — requiring that business bosses certify their company's financial statements are correct under penalty of going to jail and paying big fines. *Don't you feel much safer?*

- Ponzi Schemes and Pyramids.
- Bubbles: Tulips, Technology Stocks and U.S. Houses.
- Garden-Variety Frauds.

Appendix B. Nominal Dollars vs. Real Dollars 271

In financial calculations spanning time, currency value can be looked at from two different perspectives. It's important when doing historical analysis or making financial projections to understand these two views of value. In "nominal dollars" a McDonald's Big Mac only cost 50¢ 30 years ago, and it costs \$5.30 today. Prices tend to increase over time primarily due to inflation. Sometimes it is useful to look at values (i.e., "real dollars") of goods in the past (or expected values in the future) rather than what they actually cost way back when in nominal dollars.

Appendix C. Nonprofit Accounting and Financial Statements 275

Nonprofit accounting has a different focus than its for-profit cousin. Profit is less important (no taxes to collect) but demonstrating how charitable donations are spent in furtherance of public mission is of great importance. Revenue generation, cost & expense reporting, and management controls are documented for all (i.e., the public and the government) to see. Much of for-profit and nonprofit accounting and financial statements are the same. Here we describe the major differences.

Appendix D. Cash Flow vs. Change in Financial Position 283

Accountants prefer to use a *Statement of Changes in Financial Position* in the formal reporting of cash flow. This statement is likened to a “bridge” between the *Balance Sheet* at the start of a period and the *Balance Sheet* at the end of a period. This bridging format specifically shows the asset, liability, and equity accounts that change to provide cash and the accounts that use cash.

Appendix E. Debits and Credits? 285

Back in the olden days when systematic accounting and statement presentation was first developed, the monks would write down each and every transaction as they occurred. The concept of *debits* and *credits* was invented to structure: (a) the layout of accounting journal and ledger books for everyone to understand, (b) to aid the monks in classifying and recording transactions properly, and (c) to catch manual transcribing errors. Today we use computers.

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