CHAPTER ONE

1 Concepts in Working Capital Management

This chapter covers these topics:

- Explanation of the basic concepts of working capital.
- Appreciation for the problems in assigning management responsibility for working capital.
- Consideration of traditional and modern ideas of working capital management.
- Understanding the essential focus of cost in working capital management.
- Applying working capital concepts to a successful company (Best Buy).

WORKING CAPITAL is the arithmetic difference between two balance sheet aggregated accounts: current assets and current liabilities. This calculation is done in a currency, such as U.S. dollars, which is the convention we will be using in this book.

WORKING CAPITAL CONCEPTS

Both current assets and current liabilities are composed of several ledger accounts, as shown *in italics* in the Exhibit 1.1 balance sheet. For the company presented in this balance sheet—we'll call it the Rengas Company—the amount of working capital in 2013 was $42.5 million, calculated as current assets ($65 million) less current liabilities ($22.5 million).

Description of Working Capital Accounts

The accounts noted in italics in Exhibit 1.1 are briefly explained next, with chapters of this book devoted to appropriate management procedures.

- **Cash accounts and short-term investments.** These account categories include cash on hand and in bank accounts, and any short-term investments that are expected to be turned into cash within one year. We'll review the management of cash in Chapters 3 and 4, and of short-term investments in Chapter 5.
- **Accounts receivable.** This category of current assets includes all credit sales where the customer is expected to pay by a future date specified on an invoice. Most companies have small amounts of uncollectible credit sales, and an account called "allowance for doubtful accounts" may be deducted from accounts receivable to reflect this experience. We'll examine receivables in Chapter 6.
- **Inventory.** Most companies hold some combination of raw materials, work-in-process (that is, partially manufactured and assembled), and finished goods. There are various accounting practices for valuing inventory and management concepts regarding inventory, which will be discussed in Chapter 7.
- **Payables.** The accounts payable account represents the amounts owed to creditors for purchases. Payroll is the other significant component of payables. Issues regarding payables will be reviewed in Chapter 8.
- **Other working capital accounts.** Prepaid expenses and accrued expenses often appear on balance sheets. **Prepaid expenses** are assets paid in advance of expenses as incurred; an example is insurance paid in advance of the incurrence of the expense. **Accrued expenses** are costs that have been incurred as of the date of a balance sheet but not paid; an example is payroll for employees whose expense has been incurred but not yet paid. These balance sheet accounts are not specifically discussed in subsequent chapters.

EXHIBIT 1.1 Rengas Company Balance Sheet as of December 31, 2012, and 2013

2012			
Assets		**Liabilities and Owners' Equity**	
Current assets	$ 59,200,000	Current liabilities	$ 16,500,000
Cash	*4,700,000*	*Accounts payable*	11,500,000
Short-term investments	*15,000,000*	Notes payable	4,000,000
Accounts receivable	*25,500,000*	Accrued expenses	1,000,000
Inventory	*12,000,000*		
Prepaid expenses	2,000,000	Long-term liabilities	36,500,000
		Bonds payable	20,000,000
Fixed assets	50,000,000	Mortgage payable	16,500,000
Plant & equipment (at cost)	85,000,000		
Less: Accumulated depreciation	35,000,000	Owners' equity	56,200,000
		Common stock (50,000 shares)	10,000,000
		Retained earnings	46,200,000
		Total Liabilities & Net	
Total Assets	$109,200,000	Worth	$109,200,000

2013			
Assets		**Liabilities and Owners' Equity**	
Current assets	$ 65,000,000	Current liabilities	$ 22,500,000
Cash	*5,000,000*	*Accounts payable*	15,000,000
Short-term investments	*15,000,000*	Notes payable	6,000,000
Accounts receivable	*27,500,000*	Accrued expenses	1,500,000
Inventory	*15,000,000*		
Prepaid expenses	2,500,000	Long-term liabilities	40,000,000
		Bonds payable	20,000,000
Fixed assets	60,000,000	Mortgage payable	20,000,000
Plant & equipment (at cost)	100,000,000		
Less: Accumulated depreciation	–40,000,000	Owners' equity	62,500,000
		Common stock (50,000 shares)	10,000,000
		Retained earnings	52,500,000
		Total Liabilities & Net	
Total Assets	$125,000,000	Worth	$125,000,000

- **The infrastructure of working capital.** Infrastructure involves those activities that are essential for managers to proceed. These include international working capital (Chapter 9), information and working capital (Chapter 10), and management of the working capital cycle (Chapter 11). Chapter 11 also provides a quick recommendations summary. Chapter 12 introduces the working capital cases that follow.

There are numerous considerations in the optimal management of working capital. For example, what are appropriate procedures for managing cash? For reducing accounts receivable? For improving the performance of accounts payable? We will examine these and many other issues throughout this book.

Ideas Basic to Working Capital

Various concepts and conventions are used to explain and illustrate ideas on working capital management:

- **The term *bank* refers to commercial banks, although other financial services companies and some vendors provide many of the services described.** Vendors are noted when the relevant topic is discussed; for example, payroll services are provided by four leading firms that are noted in Chapter 8. Freight invoice auditing firms are also discussed in that chapter, but there are so many companies in that business that we have not attempted to list them.
- **Float is critical to an understanding of working capital**. The concept of **float** refers to funds in the process of collection or disbursement. While the complete elimination of float is impossible, the calculation of the amount of float is critical in considering alternative processes. For example, in Chapter 3 we examine the bank product of lockboxing.[1] In deciding on the use of this service, we need to know the potential to save collection float as compared to the current system.
- **Concepts basic to finance but not defined as working capital are reviewed in Appendix I**. These include fixed assets, long-term liabilities and owners' equity on the balance sheet, and relevant income statement accounts. In addition, we demonstrate the calculation of the **cost of capital** (weighted average cost of capital, or WACC), which is used to value float. The WACC is the weighted average of a firm's cost of debt (after tax) and cost of equity (common stock and retained earnings), and is expressed as a percentage. For the purposes of our book examples, we use 10 percent as the cost of capital.

- **Reviews should be conducted by relevant functions to analyze each element of working capital**. For example, in payables, managers would examine the percent of payments made by check, the cost of those transactions, the extent of cash discounts offered and taken, the results of account reconciliation, the incidence of fraud, and other issues. As an essential part of this process, it is useful to document the delays and organizational units involved in the movement of forms, files, and other records, including computer systems.

IMPROVING WORKING CAPITAL MANAGEMENT

The traditional functional scheme of corporate management—such as sales, manufacturing, finance, and technology—prevents any one manager from having direct responsibility for working capital. Most often, the only common "manager" is the chief executive officer (CEO) or chief operating officer, who seldom has knowledge of or interest in the specific functioning of those activities.

The Missing Working Capital Manager

Since few organizations (if any) have a functional position for "working capital manager," consideration of these issues has not typically been a major focus for management. For this reason, companies that are focusing on this concern default responsibility to finance, where cash and various forms of capital reside. As a result, the initiative for a working capital program often begins in the office of the chief financial officer (CFO) or the treasurer.

However, this presents a dilemma for any manager attempting to improve working capital: The issue of violating someone else's turf, or area of responsibility, may prevent the appropriate action or the necessary cooperation from occurring. The author well remembers encountering hostile reactions when asking a payables manager how his/her department functioned or when asking a plant manager about what appeared to be stale raw materials and parts. Suggestions are provided later in this section for overcoming these objections—but it is a delicate job of diplomacy!

Payment Stream Matrix: First Draft

The recommended initial step is to prepare a draft **payment stream matrix,** listing working capital flows by name, dollar volume, and manager. The matrix becomes a kind of road map to understanding and improving the business by

EXHIBIT 1.2 Illustrative Payment Stream Matrix

	Name of Cash Flow, Mechanism, and Type*	Managed Where?	Manager	Supervisor	Annual $ Volume
1	Product W, Lockbox Receipts, C	Home Ops, Anytown	Rebecca Rhea	Sandy Sparrow	$500 million
2	Product X, Office Receipts, C	Division A, Anytown	Betty Bear	Charles Capybara	$250 million
3	Product Y, Wire Transfers In/Out, C	Division B, Anytown	Tony Tiger	Ursula Unicorn	$1.2 billion
4	Product Z, ACH Collections, C	Big Dept, Sometown	Wendy Walrus	Yetta Yak	$100 million
5	Accounts Payable, Check Disbursements, D	Large Dept, Sometown	Zachary Zebra	Anthony Alligator	$30 million
6	Accounts Payable, ACH Disbursements, D	Vivi Section, Yourtown	Denise Dolphin	Erik Eagle	$25 million
7	Payroll, Direct Deposit, D	Inter Section, Mytown	Frances Flounder	George Gopher	$80 million
8	Payroll, Check Disbursement, D	Grope Group, Ourtown	Harry Halibut	Ira Ibex	$75 million

*C = collection; D = disbursement

indicating those major activities that drive short- and intermediate-term successes and failures. A **working capital flow** is an activity of the organization that generates a cash inflow or outflow (see Exhibit 1.2):

- Inflows, or collection flows, usually result from the sale of products or services, although collections can occur from interest income, the sale of fixed assets, and other sources.
- Outflows, or disbursement flows, are accounts payable (to vendors for purchases), payroll, payments on fixed debt, and other uses of cash.

Payment Steam Matrix: Final Version

The draft matrix is used to bring other functions within an organization into the working capital review. It is usually necessary to involve managers in all of the disciplines of the business, including sales, operations, and finance. Input

from customers and vendors can be helpful in understanding their perspective of how a transaction occurs and to make the process more efficient and effective for all parties. Obviously, revisions to the matrix are expected and will improve the quality of the information that is developed.

The typical process for this activity involves one to three meetings of an ad hoc task force or committee of company managers. Often the president will request that his direct reports send a fairly senior person(s) who has (have) in-depth knowledge of that organizational activity. The collaboration of this group will result in a fair representation of significant working capital flows.

Efforts should be devoted to the major flows—usually those more than $1 million per month in activity—to allow the development of improvements through the application of technology, redesign of existing processes, and consideration of outsourcing to banks and vendors. A single product-line company may only have 12 to 15 major flows; a global firm with numerous business units could have 100 flows. It is necessary to prioritize the working capital effort in this manner to realize significant results and motivate manager participation.

Overcoming Resistance to Change

Bringing change to companies is often an extremely difficult task regardless of the logic of an innovation or the demonstrable savings that may result. Here are some ideas on meeting internal resistance:

- Solicit the support of senior management. Promote the program through presentations to middle managers and educational events to explain where opportunities can be found.
- Reward employees who work outside of finance for each idea suggested and accepted, and again when it is successfully implemented. These incentives draw company employees into the change process and foster an environment that controls naysayers. Rewards do not have to be cash, although that is certainly a strong incentive. Any recognition or award can promote cooperation, the submission of useful ideas, and an organizational spirit.
- Use any available marketing devices to publicize the effort, including articles in the company newspaper, announcements at company meetings, e-mail messages, and promotions through cafeteria or lunchroom events. If a company can sell a product or service, it can sell working capital efficiency!

THE SIGNIFICANCE OF WORKING CAPITAL

Why is working capital management important? In truth, businesses have not paid sufficient attention to working capital in past years, and have focused instead on such concerns as raising and using debt and equity capital, choosing information and manufacturing technology to run operations, and attempting to develop domestic and global marketing strategies to sell product. However, recent economic problems—specifically, the Great Recession that began in 2008—have forced companies to consider ways to improve profitability, to cut costs, and to make business processes efficient. These are not just necessary actions—they are required for survival!

Working Capital: The Traditional View

Working capital has traditionally been considered as a positive component of the balance sheet. The Rengas Company, with $65 million of current assets and $22.5 million of current liabilities, has a current ratio of 2.9:1 (calculated as $65 million ÷ $22.5 million, to be discussed in Chapter 2). Good performance has been considered as this type of result for the working capital relationship, with the higher the result, the better. Similar results hold for other ratios.

This thinking has been driven by the attitude of lenders and financial analysts that working capital constitutes a store of value to repay such debts as borrowings. Bankers are trained to look at financial ratios and demand numbers that exceed preset standards. In the past, this demand was to enable the bank to force a company to borrow to put more cash on the balance sheet, thereby growing the bank's loan portfolio.

Working Capital: The Modern View

The newer view is that working capital is undesirable in that it constitutes a drag on financial performance. Current assets that do not contribute to return on equity (ROE) hinder the performance of the company, and may hide obsolete inventory that may not be salable and receivables that may not be collectible. The emphasis now is on reducing current asset accounts to the point that current liabilities can be funded from the ongoing operations of the business. That is, cash collected from sales is used to pay for payables and payroll, with the minimum in idle current asset accounts.

The concept of working capital as a hindrance to financial performance is a complete change in attitude from earlier conventional wisdom. However, working capital has never actually contributed to a company's profits or losses;

instead, it just sits on the balance sheet awaiting disposition. No returns are directly generated by cash or accounts receivable, and inventories provide returns only when sold at prices above cost. In fact, there is a significant cost in carrying working capital, which can be calculated using the cost of capital.

If the financial manager attempts to drive working capital down to nearly zero, he or she must actively manage each asset and liability category. Today the discipline of working capital management is a growing field of practice, involving financial managers, marketing managers, accounts receivable and payable managers, order-entry and invoicing supervisors, and other staff.

COST AS *THE* WORKING CAPITAL ISSUE

The modern view of working capital changes the focus to cost efficiencies from the management of and accounting for assets and liabilities. This change started in the 1970s with the focus of banks on cash management, using such products as lockbox and electronic funds transfer. We will review the current status of cash and liquidity in Chapters 3 and 4. The objectives of these efforts include the following:

- Managing the entire timeline of a business process in order to achieve major cost savings.
- Optimizing cost efficiency by using a scenario methodology that determines the costs of the various operational processes for handling a business process.
- Seeking additional methods to capture working capital cost efficiencies.

Working Capital Timeline

Exhibit 1.3 provides a working capital timeline for the full range of transactions that take place for the business process of collections (above the timeline) and disbursements (below the timeline). The essence of cost management is the efficient design of an entire business process, not a single step or action within that process. The basic methodology advocated is a multiphase approach:

- Develop a baseline for the all-in costs for the full timeline of an existing business process, such as the collection process.
- Analyze and cost multiple alternate scenarios for handling that process.
- Specify nonquantifiable factors.
- Select the most appropriate scenario.

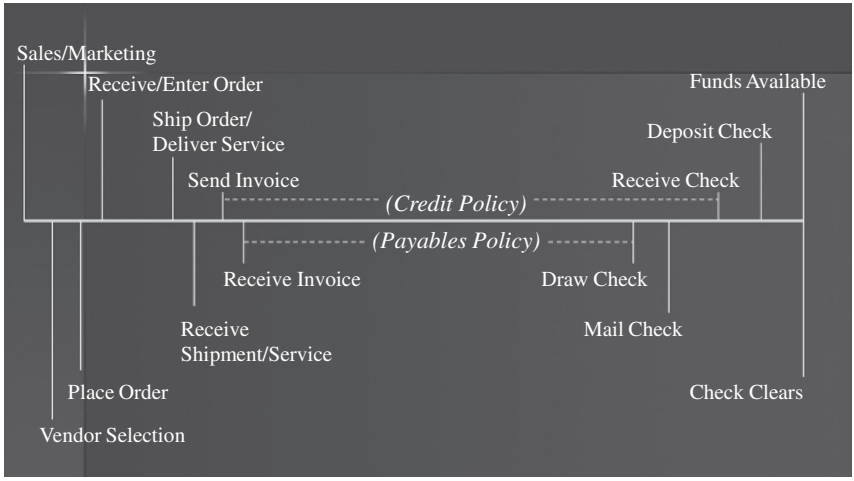

EXHIBIT 1.3 Working Capital Timeline

A change to only one element along the timeline is flawed for three reasons:

1. **The unseen solution.** It is impossible to examine all possible alternative procedures in optimizing the timeline.
2. **Objective evaluation.** All the elements within each alternative may not be properly analyzed.
3. **Timeline element interactions.** The impact of one timeline element on another may not be considered.

The interrelations among elements on the timeline are difficult to analyze, making it difficult to find the optimal solution for the full business process. Unfortunately, companies tend to perpetuate past practices, leading to embedded costs and inefficient practices.

Working Capital Cost Elements

The two most critical cost elements to analyze are float and processing expenses.

Float

Float involves funds in the process of collection or disbursement. These activities have inherent delays, which are costly for a company. Although float

cannot be eliminated, every step of the cash-flow timeline can be examined to search for savings opportunities.

Consider an example in which a large electronics manufacturing company allowed customers to delay payments while disputes were investigated on monthly invoices. Some invoices included hundreds of transactions, but even a few disputes caused a remittance delay during the investigation period, which could last weeks. The time wasted involved, averaging one week, translated to $2 million a year for this company with $1 billion a year in revenues!

Processing Expenses

Processing expenses are similarly important, as each transaction along the timeline—whether performed internally or outsourced—has a cost that directly affects your profitability.

A simple illustration is lockboxing, noted earlier. The all-in processing expense for a remittance handled internally by a company (without considering float) is about $2 (based on studies by the author performed for hundreds of clients). A retail lockbox application typically is priced by banks at about 25 cents.[2]

Illustrative Total Potential Savings

Managing the float cost throughout the timeline can significantly impact the bottom line. Based on our client experience, the typical industrial business will waste more than 40 days because of its failure to critically examine the timeline and its activities.[3]

For example, a business experiencing $1 billion a year in revenue will receive $4 million in sales each business day (assuming 250 business days a year). At an assumed cost of capital of 10 percent, each day of delay in receiving, processing, and banking funds is equal to $400,000.

On the disbursement side of the timeline, each day probably involves two-thirds or so of the revenue received in salaries and wages, materials, and other accounts payable. That same $1 billion a year business will have about $2.7 million in daily outflows ($667 million ÷ 250 days), valued at about $270,000.

Leisure Industry Working Capital Illustration

Traditional management of costs in the leisure industry has focused on the processing of consumer remittances and cash disbursements. Extending the search for cost management opportunities throughout the full business process timeline may yield savings far beyond those developed for specific portions of the timeline.

The benefits attained by a sample of companies in the consumer products/leisure industry involve annual savings totaling over $2.2 million, with the companies included in the sample having annual revenues ranging to the hundreds of millions of dollars. These results are exclusive of recommendations that could not be quantified (e.g., improved control and security).

Consider an example of a theatrical supply company, focusing only on float costs. The business of Show Business Services is to supply theaters, circuses, and amusement parks with equipment, food, beverages, paper products, cleaning supplies, lighting, projection equipment, and other products. Working capital has been a continuing problem, and a study of payables practices seemed appropriate. Disbursements are made by check, with two major payables/check runs on the 8th and 23rd business day of each month.

The results for its largest vendors are shown in Exhibit 1.4, demonstrating an annual value of float costing nearly $800,000. The company immediately researched other vendor transactions and found similar problems. The total cost to Show Business Services from all vendors in lost payables float was determined to be about $1 million a year. In addition to these float savings, competitively bidding the disbursement function resulted in operating cost efficiencies of $200,000, resulting in an annual total benefit of $1.2 million. In Chapter 8 we will discuss specific actions that can be taken to accomplish those savings.

APPLYING THESE IDEAS TO A REAL BUSINESS: BEST BUY

Thus far we've been considering the financials of fictional companies. Now we'll look at the working capital results for Best Buy (stock ticker symbol BBY), a leading consumer electronics retailer operating over a thousand stores primarily in the United States. Best Buy's business strategy centers on meeting individual consumer electronics needs with end-to-end solutions, which involves greater employee involvement and increased services than traditional outlets.

What Is Best Buy's Industry?

In searching for Best Buy's industry and competition, we will use "electronics and appliance stores" (NAICS code 443115).[4] Most observers would agree that Best Buy had a direct (although smaller and far less successful) competitor in Circuit City, but that company ceased operations in 2008. Other retailers competing with Best Buy include Game Stop and Radio Shack.

EXHIBIT 1.4 Show Business Services: Billing Activity of Largest Vendors (all invoices are received on the first or second of each month)

1	2	3	4	5	6	7
Vendors (and Accompanying Notes)	**Terms**	**Usual Pay Date**	**Days Paid Early vs. Net Terms**	**Discounts Offered***	**Annual Purchases ($000)**	**Value of Foregone Float (at 10%)**
Stagehands (a)	1/10, n/30	8th	20	1/10	$6,800	$ 0
Playwrights (b)	net 20	8th	12		$5,200	$208,000
Producers (c)	net 30	23rd	7		$4,000	$ 93,333
Choreographers (d)	net 30	23rd	7		$3,500	$ 81,667
Composers (e)	2/10, n/30	8th	0	2/10	$2,725	$ 0
Librettists (f)	net 30	23rd	7		$1,230	$ 28,700
Conductors (g)	2/20, n/90	23rd	67	2/20	$1,000	$223,333
Aging Stars (h)	net 30	8th	22		$ 835	$ 61,233
Stage Managers (i)	1/20, n/30	23rd	7	1/20	$ 750	$ 17,500
Supporting Cast (j)	net 45	8th	38		$ 680	$ 86,133
Annual Cost of Float Foregone (at 10%)						$ 799,900

Note: An assumed 10% cost of capital is used in these calculations.
*Cash discount of 1% or 2% if the invoice is paid by the 10th day after receipt of invoice with payment due in 20, 30, or 45 days (see column 2), commonly stated in the format of "2/10, net 30." Chapter 6 provides a more complete explanation.
N/A = not applicable
Notes:
a. Stagehands: paid on the 8th day to take the 1% cash discount.
b. Playwrights: paid 12 days early because a brother-in-law of an owner worked at the company and saw no harm in issuing payments once the payables cycle was completed.
c. Producers: paid 7 days early because the next payables cycle would cause check issuance to be past the due date by 8 days.
d. Choreographers: paid on the 23rd because the next payables cycle would cause check issuance to be past the due date by 8 days.
e. Composers: paid on the 8th to take the 2% cash discount.
f. Librettists: paid on the 23rd because the next payables cycle would cause check issuance to be past the due date by 8 days.
g. Conductors: paid on the 23rd equivalent to 67 days before the appropriate date because its salesperson had once asked for an early check to make her monthly sales goal. The payables clerk embedded the check release date as an ongoing system instruction. In addition, the payment missed the cash discount by 3 days.
h. Aging Stars: paid on the 8th (not the next cycle) for no apparent reason.
i. Stage Managers: paid on the 23rd because the next payables cycle would cause check issuance to be past the due date by 8 days. In addition, the payment missed the cash discount by 3 days.
j. Supporting Cast: paid on the 8th (not in the 2nd following cycle) for no apparent reason.

Companies like Best Buy are experiencing severe price competition from discounters like Walmart, direct mail sellers like Amazon, and warehouse stores like Costco. There have been various Best Buy responses to this development, including the closing of marginal operations and the layoff of employees, more aggressive management of operations through leaner inventory and other actions, and the expansion into more profitable foreign markets like Asia (particularly China) and Canada. As an example of this last trend, Best Buy now does about one-fifth of its business in other countries. The company's stock traded in the high $40s (per share) as recently as 2010, but now sells at about $25 per share.

Working Capital at Best Buy

The achievements of Best Buy can be traced to the retailing **category killer** concept,[5] which involves megastores with the size and general appearance of warehouses. These brick-and-mortar operations carry an enormous assortment of merchandise, low prices, and self-service supported by staff trained in specific electronics product lines.

Successful retailers have been able to seize market share from smaller operators who do not have the buying power to negotiate vendor discounts on inventory or the cash reserves to advertise aggressively or train staff. The consumer knows that prices are consistently low, so there is little reason to wait for special sales or to comparison shop.

Companies operating category killers have discovered that a key to this retail model is inventory, involving the ordering process, transportation, and warehousing. The process is highly automated in modern distribution centers through the use of bar coding equipment to scan and direct merchandise to holding bins or directly for delivery to stores.

As inventory is sold, computerized information notifies distribution to begin replenishment and marketing to match sales vs. projections. We see this in the 2009 ratios in Exhibit 1.5, with inventory turnover at 7.2 turns versus the industry median of 6.6. However, inventory turns have declined as Best Buy has been forced to adjust to competitive pressures and a weaker economy.

The other working capital ratios indicate similarly superior performance compared to the industry median. Furthermore, Best Buy managers understand that the capture of a market is a strategic process and cannot be accomplished in one quarter (the interval when public company earnings are reported). The compound growth rate for Best Buy over the 10 years prior to

EXHIBIT 1.5 Best Buy and Industry Working Capital Ratios

	Best Buy		Industry Median	
	2012	2009	2012	2009
Current ratio (to 1)	1.3	1.0	1.2	1.3
Quick ratio (to 1)	0.6	0.4	0.6	0.6
Receivables turnover (turns per year)	19.8	22.9	10.2	19.6
Inventory turnover (turns per year)	5.7	7.2	7.2	6.6
Return on equity (%)	20.5	22.0	15.3	17.4

Sources: RMA, Annual Statement Studies; Leo Troy, *Almanac of Business and Industrial Financial Ratios*; and BBY Corporate Reports

the 2008 economic crisis was 16.5 percent, while competitors experienced flat or negative growth.

In terms of operating revenues, Best Buy now has some three-fourths of the volume reported by the consumer electronic retailing industry,[6] versus just over one-third 10 years earlier. It is likely that the current weak economy will continue to harm competitors, perhaps forcing them to terminate operations (such as Circuit City) or close stores, while Best Buy has substantial liquidity and can withstand slower consumer traffic. The company is currently experiencing strong growth in certain product categories (e.g., cell phones, televisions, and appliances).

SUMMARY

Working capital involves two balance sheet aggregated accounts: current assets and current liabilities. There has been insufficient attention to this essential balance sheet metric due largely to the failure of most companies to assign manager or task force responsibility, allowing accountability to cross the various functions in the working capital timeline.

Working capital traditionally was viewed as a positive component in managing a business. The modern view is that it constitutes a drag on financial performance. Current assets that do not contribute to return on equity hinder the performance of the company, and may hide obsolete inventory that may not be salable and receivables that may not be collectible. The focus is now on reducing working capital accounts to the point that current obligations can be funded from the ongoing operations of a business.

NOTES

1. A **lockbox** is a collection mechanism in which mail containing payments bypasses a corporate office, going directly to a post office box maintained by the bank of deposit. After deposit of the mailed check, check copies, remittance advices, and other supporting material are forwarded to the company.
2. See above for a definition of lockboxing. **Retail lockbox** captures encoded MICR and/or OCR information from the bottom of the mailed documents and electronically transmits them to the client in a data file. **MICR** is magnetic ink character recognition; **OCR** is optical character recognition. Both formats are fonts or print characters that have a distinctive design recognizable by automated reader-sorter equipment.
3. See James Sagner, *Financial and Process Metrics for the New Economy* (New York: AMACOM, 2001), 75–95, esp. Exhibit 4.7 on p. 91.
4. NAICS is the North American Industry Classification System, and is used to classify business establishments according to type of economic activity (process of production). The Department of Commerce and the Office of Management and Budget (OMB) are the principal sponsoring federal agencies.
5. Examples of category killer retailers include the Home Depot and Lowe's (building supplies), Bed Bath & Beyond (home furnishings), Staples and Office Depot (office supplies), AutoZone (auto parts), and TJX Companies, the Gap, and Limited Brands (apparel). Although the category killer is not generally applied to companies that are in other industries, a few equivalent examples might include Apple (computer hardware); Goldman Sachs and T. Rowe Price (financial services); Coca-Cola, Colgate-Palmolive, and Pepsico (consumer nondurables); and Celgene, Gilead Sciences, and Teva Pharmaceuticals (biotechnology).
6. Using the definition of the industry used by S&P in its *Industry Surveys: Specialty Retailing—Computers and Electronics*. Within all of specialty retailing, only the Home Depot (at $71.3 billion) and Staples (at $23.1 billion) are of roughly similar size to Best Buy (at $45.0 billion).