CHAPTER 4

Free Cash Flow

It should come as no surprise there is no better predictor of stock prices than free cash flow. It is, after all, the reason for-profit entities are started in the first place. As the saying goes, "Cash pays the rent." The free cash flow of the corporation is the shareholder's income.

Yet somewhere along the line came accrual accounting and the matching principle, and investors became further and further alienated from free cash flow and pushed toward financial reporting under generally accepted accounting rules, more formerly known as *generally accepted accounting principles* (GAAP).

Free cash flow is a very intuitive concept; it focuses on the amount of cash that owners of a business can consume without reducing the value of the business. It recognizes that a business needs to invest in current and long-term assets in order to continue and grow its operations. Thus free cash flow focuses on the ability of a business to generate cash flows beyond those needed to invest in such assets as inventories, plant and equipment, advertising, labor, other cost of sales, research and development, and the like. When a firm is able to generate more cash flows from its ongoing operations than are needed to remain in business, the firm has free cash flow. Such a firm can distribute the free cash flow to its owners through dividends immediately or retain the free cash flow within the firm for future growth and hope to generate more free cash flow in the future. Thus a firm with growing free cash flow may be a good candidate for investment because rising free cash flow eventually will lead to higher security prices. Absent those investors who became wealthy on the greater fool theory, all great investors attained their status because their companies were strong and growing producers of free cash flow.

Despite free cash flow being a primary objective of management and analytical measurements, net income must too be studied as it can emit signals which cash flow overlooks—but its usefulness is more of short-term significance. For example, if a firm is in distress, management will take measures to maximize cash,

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the result of which would provide high levels of cash flow from operating activities, and hence free cash flow, while GAAP reported net income portrays a weakened condition. This sort of stepped-up cash management could only take place for several reporting periods, and, to the extent it did occur, would be picked up through the balance sheet changes reflected in power operating cash flows. Additionally, as stock-based compensation grows in importance, and to the extent net income influences short-term stock price movements, the GAAP net income measure has cash flow relevance, particularly in terms of the cost of any stock buybacks put in place to offset dilution of issued shares. For the longer-term, however, it is free cash flow and metrics based off of free cash flow that determines the security price and its associated valuation.

Firms that generate free cash flow and have financial flexibility are able to use their credit strength (low cost of capital) to finance customer's purchases.

Example:

Boeing Co. reports in its 2008 10K customer financing slightly above \$5.8 billion out of total assets of \$53.8 billion. In order to compete with Airbus, Boeing must make attractive financing available to its customers, with the majority of such financing given to commercial airlines having a low credit rating.

Firms that do not produce free cash flow and do not have other assets available to satisfy their fixed charges will default on their obligations, with bankruptcy the likely outcome. My credit model in Chapter 8 evaluates such a financial possibility.

The ability of the firm to grow free cash flow is better understood through the use of various sensitivity models. These models show how important economic and market events, resulting from changes to either input costs or pricing, affect revenues, net income, or cash flows or the financial structure. In the following example, JM Smucker reports the impact of a 10 percent change in market prices for its raw materials. Since most firms do not report sensitivity analysis on their important inputs, it is the analyst's responsibility to do so, as I will show throughout this text, including a sensitivity analysis in this chapter for Clorox that shows the effects of various scenarios on the company's free cash flow, leverage, and cost of capital. Normally, analysts formulate their sensitivity models using best estimates from many sources, including the company, trade associations, and traded exchange pricing. It is, however, just as important to consider a wide range of sensitivity scenarios, not just the ones related to the biggest numbers on the financial statements.

The following sensitivity analysis presents the company's potential loss of fair value of its hedged commodity portfolio resulting from a hypothetical 10 percent change in market prices (in thousands of dollars).

	October 31, 2009	April 30, 2009
Raw material commodities:		
High	\$20,620	\$16,374
Low	1,459	3,949
Average	10,699	9,785

Source: JM Smucker, November 20, 2009, 10Q.

Fair value was determined using quoted market prices and was based on the company's net derivative position by commodity for the previous four quarters. The calculations are not intended to represent actual losses in fair value that the company expects to incur. In practice, as markets move, the company actively manages its risk and adjusts hedging, derivative, and purchasing strategies as appropriate. The commodities hedged have a high inverse correlation with price changes of the derivative commodity instrument; thus the company would expect that any gain or loss in the fair value of its derivatives generally would be offset by an increase or decrease in the fair value of the underlying exposures.

When BP, which previously was assigned a cost of equity of 6 percent, suffered a tragic explosion in the Gulf of Mexico, we created a sensitivity analysis which both reduced free cash flow and raised cost of capital. By doing so, even using rough estimates for free cash flows, we concluded it was better to avoid commitment to its shares until a better understanding of the ramifications was apparent.

An integral part of my methodology in the estimatation of free cash flow is the overspending on behalf of the firm. When such unnecessary spending is curtailed, additional cash is released, often leading to higher stock prices. For example, during a third-quarter 2009 conference call, Waste Management, Inc., executives attributed its \$30 million reduction in selling, general, and administrative (SG&A) expenses to lower labor costs associated with an earlier restructuring. "Been running \$10 million a month—looking for ways to drive out additional costs," their CFO stated during the conference call, and investors reacted positively to the news, bidding up the stock despite the company having reported lower profits.

Accounting for overspending can result in very significant free-cash-flow recapture (as is evident in Table 4-2). This is not surprising because the traditional measure of free cash flow—net cash flow from operating activities minus capital expenditure and cash dividends—does not capture the wasteful spending on everything from overstaffing to acquisitions to capital expenditures as well as it should because we are striving to gain a clear understanding of the maximum distributable cash. The more appropriate method, as we will see, is to determine the amount of the discretionary pie that can be considered wasteful. This is reflected as the "Free Cash Flow Adjusted for Corporate 'Fat'" in Table 4-2, and as is apparent, the gap is often quite substantial.

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			Scenario 1		Scenario 2		Scenario 3	Scenario 4
Free Discount Cash Flow Factor Year Per Share @ 11%	Present Value Using 11% COE	Discount Factor @ 10%	Present Value Using 10% COE	Free Cash Flow Per Share	Present Value Using 10% COE	Present Value Using 11% COE		
2010	\$4.00	0.90	\$3.60	0.91	\$3.64	\$4.00	\$3.64	\$3.60
2011	\$1.00	0.81	\$0.81	0.83	\$0.83	\$2.00	\$1.65	\$1.62
2012	\$0.00	0.73	\$0.00	0.75	\$0.00	\$3.00	\$2.25	\$2.19
2013	\$1.00	0.66	\$0.66	0.68	\$0.68	\$3.00	\$2.05	\$1.98
2014	\$2.00	0.59	\$1.19	0.62	\$1.24	\$3.00	\$1.86	\$1.78
2015	\$2.00	0.53	\$1.07	0.56	\$1.13	\$3.00	\$1.69	\$1.60
2016	\$4.00	0.48	\$1.93	0.51	\$2.05	\$4.00	\$2.05	\$1.93
2017	\$4.00	0.43	\$1.74	0.47	\$1.87	\$4.00	\$1.87	\$1.74
2018	\$4.00	0.39	\$1.56	0.42	\$1.70	\$5.00	\$2.12	\$1.95
2019	\$4.00	0.35	\$1.41	0.39	\$1.54	\$5.00	\$1.93	\$1.76
2020	\$4.00	0.32	\$1.27	0.35	\$1.40	\$5.00	\$1.75	\$1.59
2021	\$4.00	0.29	\$1.14	0.32	\$1.27	\$6.00	\$1.91	\$1.72
2022	\$4.00	0.26	\$1.03	0.29	\$1.16	\$6.00	\$1.74	\$1.55
2023	\$4.00	0.23	\$0.93	0.26	\$1.05	\$6.00	\$1.58	\$1.39
2024	\$4.00	0.21	\$0.84	0.24	\$0.96	\$6.00	\$1.44	\$1.25
2025	\$5.00	0.19	\$0.94	0.22	\$1.09	\$6.00	\$1.31	\$1.13
2026	\$6.00	0.17	\$1.02	0.20	\$1.19	\$6.00	\$1.19	\$1.02
2027	\$6.00	0.15	\$0.92	0.18	\$1.08	\$6.00	\$1.08	\$0.92
2028	\$6.00	0.14	\$0.83	0.16	\$0.98	\$6.00	\$0.98	\$0.83
2029	\$6.00	0.12	\$0.74	0.15	\$0.89	\$6.00	\$0.89	\$0.74
2030	\$7.00	0.11	\$0.78	0.14	\$0.95	\$7.00	\$0.95	\$0.78
2031	\$7.00	0.10	\$0.70	0.12	\$0.86	\$7.00	\$0.86	\$0.70
2032	\$7.00	0.09	\$0.63	0.11	\$0.78	\$7.00	\$0.78	\$0.63
2033	\$7.00	0.08	\$0.57	0.10	\$0.71	\$7.00	\$0.71	\$0.57
2034*	\$30.00	0.07	\$2.21	0.09	\$2.77	\$30.00	\$2.77	\$2.21
FV			\$28.52		\$31.81		\$41.05	\$37.19
Probability			15%		15%		30%	40%
						Weighte	d Average	\$36.24

BP Sensitivity Analysis Resulting from Rig Explosion

*: terminal value

Source: Research Insight, CT Capital LLC.

Some of the companies in the table are known to be greater producers of excess cash than is determined using a GAAP approach. For instance, Altria, according to the commonly used definition, produced a paltry \$86 million in free cash flow for its fiscal year ending 2008. That magnitude of free cash certainly

would not support the company's \$36 billion market value. Thus there must be another factor at work. Altria, according to its statement of cash flows, paid \$4.4 billion in dividends, which, along with stock repurchases of \$1.2 billion and subtracting the net debt increase of \$2.7 billion, all else equal, would have resulted in generation of \$2.9 billion in free cash flow. During the year, Altria also paid a large \$3 billion dividend to Phillip Morris International, which is why the company's net debt increased.

Below I summarize Altria's free cash flow of \$5.098 billion (the amount in Table 4-1), which represents the actual cash Altria normally could have distributed to its shareholders without impairing its future growth opportunities. Net operating cash flows may not match published financial statements owing to adjustments (discussed in Chapter 8).

TABLE 4-1

Altria Corp.

Cash Flow Items-Discretionary								
Year	Dec-04	Dec-05	Dec-06	Dec-07	Dec-08	Most Recent Quarter Jun-09	Previous Quarter Jun-08	
Net Operating Cash Flow	10890.0	11060.0	13586.0	10304.0	4755.0	(1908.0)	(2381.0)	
Capital Expenditures	1913.0	2206.0	2454.0	1458.0	241.0	69.0	40.0	
Sale of PPE	NA	NA	NA	NA	525.0	0.0	NA	
Free Cash Flow – Including Discretionary Items	8977.0	8854.0	11132.0	8846.0	5039.0	(1977.0)	(2421.0)	
Free Cash Flow – Excluding Discretionary Items	9463.3	9188.1	11298.2	9056.1	5098.4	_	_	
Discretionary Capital Expenditures	0.0	0.0	62.3	185.9	0.0	_	_	
Discretionary R&D	49.2	33.0	25.3	24.2	2.4	_	_	
Discretionary Cost of Goods Sold	437.1	301.0	25.1	0.0	57.1	_	_	
Discretionary SG&A	0.0	57.1	0.0	53.5	0.0	_	_	
Discretionary Advertising	0.0	0.0	0.0	0.0	0.0	_	_	
Large Buildup (Reduction) in Accounts Receivable	0.0	778.1	(277.8)	337.9	101.7	(1321.8)	(1711.1)	
Large Buildup (Reduction) in Inventory	(1805.2)	945.7	635.2	1822.9	4575.9	(1863.3)	(2486.3)	
Large Buildup (Reduction) in Accounts Payable	(3117.7)	2353.3	650.9	1883.5	4576.1	2176.8	(659.6)	

Source: CT Capital, LLC.

ALTRIA CORP. STATEMENT OF CASH FLOWS Consolidated Statements of Cash Flows, 2008

(Millions of Dollars)

	Year Ended December 31,		
	2008	2007	2006
Cash provided by (used in) operating activities:			
Earnings from continuing operations—consumer products	\$3,065	\$2,910	\$3,059
Earnings from continuing operations—financial services	25	221	123
Earnings from discontinued operations, net of income			
taxes and minority interest	1,840	6,655	8,840
Net earnings	4,930	9,786	12,022
Impact of earnings from discontinued operations,			
net of income taxes and minority interest	(1,840)	(6,655)	(8,840)
Adjustments to reconcile net earnings to operating cash flows:			
Consumer products:			
Depreciation and amortization	215	232	255
Deferred income tax provision (benefit)	121	101	(332)
Equity earnings in SABMiller	(467)	(510)	(460)
Dividends from SABMiller	249	224	193
Escrow bond for the Engle tobacco case		1,300	
Escrow bond for the Price tobacco case			1,850
Asset impairment and exit costs, net of cash paid	197	333	7
Gain on sale of corporate headquarters building	(404)		
Loss on early extinguishment of debt	393		
Income tax reserve reversal			(1,006)
Cash effects of changes, net of the effects from acquired and divested companies:			
Receivables, net	(84)	162	150
Inventories	185	375	216
Accounts payable	(162)	(82)	(105)
Income taxes	(201)	(900)	(398)
Accrued liabilities and other current assets	(27)	(247)	(45)
Accrued settlement charges	5	434	50
Pension plan contributions	(45)	(37)	(288)
Pension provisions and postretirement, net	192	165	318
Other	139	302	299
Financial services:			
Deferred income tax benefit	(259)	(320)	(238)
Allowance for losses	100	. ,	103
Other	(22)	(83)	(102)
Net cash provided by operating activities—continuing operations	3,215	4,580	3,649
Net cash provided by operating activities—discontinued operations	1,666	5,736	9,937
Net cash provided by operating activities	4,881	10,316	13,586

See notes to consolidated financial statements.

	Year Ended December		mber 31,
	2008	2007	2006
Cash provided by (used in) investing activities:			
Consumer products Capital expenditures Proceeds from sale of corporate headquarters building	\$(241) 525	\$(386)	\$(399)
Purchase of businesses, net of acquired cash Other	110	(2,898) 108	(6)
Financial services			
Investments in finance assets Proceeds from finance assets	(1) 403	(5) 486	(15) 357
Net cash provided by (used in) investing activities—continuing operations Net cash used in investing activities—discontinued operations	796 (317)	(2,695) (2,560)	(63) (555)
Net cash provided by (used in) investing activities	479	(5,255)	(618)
Cash provided by (used in) financing activities:			
Consumer products Net issuance of short-term borrowings		2	1
Long-term debt proceeds	6,738		
Long-term debt repaid	(4,057)	(500)	(2,052)
Financial services Long-term debt repaid		(617)	(1,015)
Repurchase of Altria Group, Inc., common stock	(1,166)	(0.050)	(0.015)
Issuance of Altria Group, Inc., common stock	(4,428) 89	(6,652) 423	(6,815) 486
Kraft Foods, Inc., dividends paid to Altria Group, Inc.	00	728	1,369
Philip Morris International, Inc., dividends paid to Altria Group, Inc. Debt issuance costs	3,019 (46)	6,560	2,780
Tender and consent fees related to the early extinguishment of debt	(371)		
Changes in amounts due to/from discontinued operations	(664)	(370)	(166)
Other	(51)	278	164
Net cash used in financing activities—continuing operations	(937)	(148)	(5,248)
Net cash used in financing activities—discontinued operations	(1,648)	(3,531)	(9,118)
Net cash used in financing activities	(2,585)	(3,679)	(14,366)
Effect of exchange-rate changes on cash and cash equivalents			0.4
Discontinued operations	(126)	347	34 126
	(126)	347	160
Cash and cash equivalents—continuing operations:			
Increase (decrease)	3,074	1,737	(1,628)
Balance at beginning of year	4,842	3,105	4,733
Balance at end of year	\$7,916	\$4,842	\$3,105
Cash paid—continuing operations: Interest—Consumer products	\$208	\$348	\$377
— Financial services	\$38	\$62	\$108
Income taxes	\$1,837	\$2,241	\$3,074

Source: Altria Corp 2008 10K.

Security Valuation and Risk Analysis

In the following section I discuss an improvement to commonly used free-cashflow definitions, one that enhances the widespread definition by including the discretionary departments we see with Altria (Table 4-1). As affirmed during the 2007–2009 severe economic downturn, the vast number of entities reducing overhead and discretionary expenses created significant additional free cash flow, leading, for the year 2009, to a big run in equity valuations. For instance, during 2009, it was common for companies to report declines or disappointments in revenues with surprisingly strong free cash flow; on this list were IBM, Coca-Cola, Quest, Hill-Rom, and Waste Management. The potential improvements were picked up by the model.

My adjusted measure effectively captures such excess and adds it back as free cash flow. By doing so, I am able to more correctly value the entity as a cashflow-maximizing enterprise, just as firms actually were being managed during the recession and ensuing slow period of revenue growth.

Table 4-2 compares large free-cash-flow generators using the most prevalent formula in security analyst models compared with my adjusted definition, which includes corporate "fat."

TABLE 4-2

Company Name	Ticker	Free Cash Flow Adjusted for Corporate "Fat"	Traditional Free Cash Flow
Abbott Laboratories	ABT	6,393	3,882
Allianz SE-ADR	AZ	36,257	30,018
Altria Group, Inc.	MO	5,098	86
Amgen, Inc.	AMGN	5,568	5,316
Anglo American PLC-ADR	AAUK	4,561	1,369
Apple, Inc.	AAPL	8,810	8,505
Arcelormittal-ADR	MT	10,506	6,545
Astrazeneca PLC-ADR	AZN	7,996	4,908
AXA-ADR	AXA	29,635	25,156
Berkshire Hathaway	BRK.A	9,069	5,114
BHP Billiton Group (GBR)-ADR	BBL	10,103	6,116
BP PLC-ADR	BP	19,933	5,095
British Amern TOB PLC-ADR	BTI	4,610	2,482
Chevron Corp.	CVX	13,777	4,804
China Life Insurance CoADR	LFC	12,532	10,272
China Telecom Corp., LtdADR	CHA	5,183	3,509
CISCO Systems, Inc.	CSCO	11,272	10,821
Coca-Cola Co.	KO	6,077	2,082

Large Free-Cash-Flow Generators: Traditional versus Adjusted Definition (Fiscal Year 2008)

Company Name	Ticker	Free Cash Flow Adjusted for Corporate "Fat"	Traditional Free Cash Flow
COMCAST Corp.	CMCSA	4,667	3,934
Discover Financial Services, Inc.	DFS	4,557	4,294
Exxon Mobil Corp.	XOM	41,630	32,349
Gazprom OAO-ADR	OGZPY	6,357	(581)
Glaxosmithkline PLC-ADR	GSK	8,786	4,168
Google, Inc.	GOOG	5,817	5,494
Hewlett-Packard Co.	HPQ	12,155	10,805
Imperial Tobacco Group-ADR	ITYBY	5,670	1,779
ING Group NV-ADR	ING	18,365	10,449
Intel Corp.	INTC	5,920	2,629
International Business Machines Corp.	IBM	15,237	12,056
Johnson & Johnson	JNJ	12,202	6,882
Lilly (Eli) & Co.	LLY	7,634	4,292
Lukoil Oil CoADR	LUKOY	6,118	2,350
Merck & Co.	MRK	5,453	1,995
Microsoft Corp.	MSFT	16,959	11,450
Nestle SA-ADR	3NSRGY	6,101	1,251
Nippon Telegrph & Telephone-ADR	NTT	12,146	9,751
Novartis AG-ADR	NVS	8,121	4,081
NTT Docomo, IncADR	DCM	6,636	4,559
Occidental Petroleum Corp.	OXY	6,474	5,048
Oracle Corp.	ORCL	7,773	7,476
Pepsico, Inc.	PEP	4,848	2,012
Phelps Dodge Corp.	PD	4,791	2,913
Philip Morris International	PM	6,889	1,757
Prudential Financial, Inc.	PRU	12,229	10,521
Rio Tinto Group (AUS)-ADR	RTOLY	6,969	4,376
Roche Holding, LtdADR	RHHBY	8,911	4,673
Royal Dutch Shell PLC-ADR	RDS.A	17,043	(663)
Sanofi-Aventis-ADR	SNY	10,762	5,867
Siemens AG-ADR	SI	7,464	4,845
Statoilhydro ASA-ADR	STO	6,976	1,448
Taiwan Semiconductor-ADR	TSM	5,069	2,610
Telecom Italia SPA-ADR	TI	8,284	5,399
Time Warner, Inc.	TWX	6,746	5,054
Tokio Marine Holdings-ADR	TKOMY	8,215	7,747
Total SA-ADR	TOT	10,999	2,593
United Parcel Service, Inc.	UPS	6,233	3,571
United Technologies Corp.	UTX	4,965	3,735
Verizon Communications, Inc.	VZ	10,190	4,388
Vodafone Group PLC-ADR	VOD	11,259	4,284
Volkswagen AG-ADR	VLKAY	12,549	11,392
Wal-Mart Stores, Inc.	WMT	13,085	7,902

Source: CT Capital LLC.

Example:

In its 2009 10K filing, JCPenney used the expression *free cash flow* 15 times, writing that it is central to maintaining a strong competitive position. They stated

To enhance our liquidity position and ensure we maintain a strong financial position, we addressed these difficult operating conditions by focusing on those areas within our control, specifically by reducing inventory and tightly controlling operating expenses. As a result of our efforts, we finished the year with approximately \$2.4 billion of cash and cash equivalents on our balance sheet. Our strong liquidity and solid financial position allow us to focus our efforts on appropriately managing inventory levels, operating expenses, and capital expenditures under our Bridge Plan without the need for substantial changes to our business model. A significant accomplishment and indication of our solid financial position is shown by our free cash flow (a non-GAAP financial measure defined and discussed on page 28), which provided a positive \$21 million despite the harsh economic conditions.

And Penney defines free cash flow as follows:

Free Cash Flow (Non-GAAP Financial Measure)

We define free cash flow as net cash provided by operating activities of continuing operations less capital expenditures and dividends paid, plus proceeds from sale of assets. Free cash flow is considered a non-GAAP financial measure under the rules of the Securities and Exchange Commission. We believe that free cash flow is a relevant indicator of our ability to repay maturing debt, revise our dividend policy, or fund other uses of capital that we believe will enhance stockholder value. Free cash flow is limited and does not represent remaining cash flows available for discretionary expenditures due to the fact that the measure does not deduct the payments required for debt maturities and other obligations or payments made for business acquisitions. Therefore, we believe it is important to view free cash flow in addition to, rather than as a substitute for, our entire statement of cash flows and those measures prepared in accordance with GAAP.

The following table reconciles net cash provided by operating activities of continuing operations, the most directly comparable GAAP measure, to free cash flow, a non-GAAP financial measure.

	(\$ in millions)			
	2008	2007	2006	
Net cash provided by operating activities of continuing operations (GAAP measure)	\$1,155	\$1,249ª	\$1,258ª	
Less: Capital expenditures Dividends paid, common	(969) (178)	(1,243) (174)	(772) (153)	
Plus: Proceeds from sale of assets	13	26	20	
Free cash flow (a non-GAAP financial measure)	\$21	\$(142)	\$353	

^a Includes a \$300 million discretionary cash contribution to our qualified pension plan in 2006. The approximately \$110 million tax benefit related to the 2006 contribution was realized in 2007. No such contributions were made in 2008 or 2007.

Notwithstanding the difficult operating conditions in 2008, we generated \$21 million of positive free cash flow, an improvement of \$163 million over 2007.

Source: JCPenney 2009 10K.

For Penney, beginning with Operating Cash Flow, adding asset sales and subtracting capital expenditures would have endorsed the most commonly used industry and analyst definition. Its subtraction of common stock dividends is acceptable because free cash flow is meant to include distributable cash. A review of financial filings reveals that a large number of company's tailor-make their own formula.

For example, U.S. Concrete includes properties acquired, including the purchase of competitor's assets, in its interpretation.

Example:

We define free cash flow as net cash provided by operating activities less purchases of property, plant, and equipment (net of disposals). Free cash flow is a liquidity measure not prepared in accordance with GAAP. Our management uses free cash flow in managing our business because we consider it to be an important indicator of our ability to service our debt and generate cash for acquisitions and other strategic investments. We believe free cash flow may provide users of our financial information additional meaningful comparisons between current results and results in prior operating periods. As a non-GAAP financial measure, free cash flow should be viewed in addition to, and not as an alternative for, our reported operating results or cash flow from operations or any other measure of performance prepared in accordance with GAAP.

Our historical net cash provided by operating activities and free cash flow is as follows (in thousands):

	Year Ended December 31			
	2008	2007	2006	
Net cash provided by operating activities	\$29,678	\$44,338	\$39,537	
Less: Purchases of properties and equipment, net of disposals of \$4,403, \$2,574, and \$3,699	(23,380)	(27,145)	(38,232)	
Free cash flow	\$6,298	\$17,193	\$1,305	

Example:

Dun & Bradstreet

We define free cash flow as net cash provided by operating activities minus capital expenditures and additions to computer software and other intangibles.

Example:

Monsanto

We define free cash flow as the total of net cash provided or required by operating activities and net cash provided or required by investing activities.

Monsanto's definition leaves much to its own interpretation regarding cash required in its investing activities. Is it purely capital expenditures? The answer is no, because the timing of Monsanto's short-term debt maturity schedule can influence its defined free cash flow. During 2008, capital expenditures from its statement of cash flows were \$918 million and for 2007 they were \$507 million. Obviously, Monsanto's definition can lead to easy manipulation. The timing and classification of the investment items must be reviewed with a determination of whether they are normal for Monsanto.

Cash Flow

	Year Ended Aug. 31,		
(Dollars in Millions)	2008	2007	2006
Net cash provided by operating activities	\$2,799	\$1,854	\$1,674
Net cash required by investing activities	(2,027)	(1,911)	(625)
Free cash flow ^a	772	(57)	1,049
Net cash required by financing activities	(102)	(583)	(117)
Effect of exchange-rate changes on cash and cash equivalents	77	46	3
Net increase (decrease) in cash and cash equivalents	747	(594)	935
Cash and cash equivalents at beginning of period	866	1,460	525
Cash and cash equivalents at end of period	\$1,613	\$866	\$1,460

^aFree cash flow represents the total of net cash provided or required by operating activities and provided or required by investing activities (see the "Overview—Non-GAAP Financial Measures" section of MD&A for a further discussion).

From Monsanto's statement of cash flows:

cash nows provided (required) by investing activities:			
Purchases of short-term investments	(132)	(59)	(171)
Maturities of short-term investments	59	22	300
Capital expenditures	(918)	(509)	(370)
Acquisitions of businesses, net of cash acquired	(1,007)	(1,679)	(258)
Purchases of long-term equity securities	(78)	—	-
Technology and other investments	(41)	(54)	(147)
Proceeds from sale of Stoneville and NexGen businesses (see Note 27)	_	317	_
Other investments and property disposal proceeds	90	51	21
Net Cash Required by Investing Activities	(2,027)	(1,911)	(625)

A customed-tailored definition reported by Century Aluminum.

Example:

Century Aluminum excludes capital expenditures related to a certain plant expansion and increase in that project's short-term cash. As the company reports in its 2007 10K:

We define free cash flow as net cash (used in) provided by operating activities less capital expenditures (other than capital expenditures related to the expansion of Grundartangi) and including the net increase in short-term investments due to their liquidity. Our calculation of free cash flow may not be comparable to similarly titled measures reported by other companies due to differences in the components used in its calculation.

Example:

Comfort Systems adds back taxes paid from the sale of businesses because it was subtracted from net operating cash flows. Unlike JCPenney, Comfort Systems reports free cash flows exclusive of its dividend payments. It deducts "customary" capital spending.

	Year ended December 31 (in Thousands)			
	2005	2006	2007	
Cash provided by (used in):				
Operating activities	\$37,446	\$17,734	\$83,642	
Investing activities	\$(6,769)	\$17,721	\$(18,132)	
Financing activities	\$(7,660)	\$(762)	\$(16,165)	
Free cash flow:				
Cash provided by operating activities	\$37,446	\$17,734	\$83,642	
Taxes paid related to the sale of businesses	—	7,020	_	
Purchases of property and equipment	(6,188)	(8,113)	(11,088)	
Proceeds from sales of property and equipment	696	477	265	
Free cash flow	\$31,954	\$17,118	\$72,819	

Cash Flow—We define free cash flow as cash provided by operating activities excluding items related to sales of businesses, less customary capital expenditures, plus the proceeds from asset sales. Positive free cash flow represents funds available to invest in significant operating initiatives, to acquire other companies, or to reduce a company's outstanding debt or equity. If free cash flow is negative, additional debt or equity is generally required to fund the outflow of cash. Free cash flow may be defined differently by other companies.

Security Valuation and Risk Analysis

Our business does not require significant amounts of investment in long-term fixed assets. The substantial majority of the capital used in our business is working capital that funds our costs of labor and installed equipment deployed in project work until our customers pay us. Customary terms in our industry allow customers to withhold a small portion of the contract price until after we have completed the work, typically for six months. Amounts withheld under this practice are known as retention or retainage. Our average project duration together with typical retention terms generally allow us to complete the realization of revenue and earnings in cash within one year. Accordingly, we believe free cash flow, by encompassing both profit margins and the use of working capital over our approximately one year working capital cycle, is an effective measure of operating effectiveness and efficiency. We have included free cash flow information here for this reason, and because we are often asked about it by third parties evaluating us. However, free cash flow is not considered under generally accepted accounting principles to be a primary measure of an entity's financial results, and accordingly free cash flow should not be considered an alternative to operating income, net income, or amounts shown in our consolidated statements of cash flows as determined under generally accepted accounting principles.

Free cash flow plays such a leading role in decision making and planning that a few creditors have begun taking it into consideration when formulating debt repayment schedules. This should help borrowers in their long-range planning and allow for a healthier enterprise. One might wonder, though, if, by basing interest payments on free cash flow, it might cause a borrower to manipulate its balance sheet to lower upcoming obligations or perhaps assume greater risks, which could negate free cash flow. As a term of some loans by private equity groups, free cash flow is being used as a condition of an earn-out—if free cash flow exceeds a predetermined level, the acquirer or lender receives additional equity.

Example:

Debt

	December 31, 2005	December 31, 2004
Debt consists of the following:		
 Revolving credit at lender prime rate (7.00 percent) at December 31, 2005, plus 0.75 percent, interest payable monthly. Secured by receivables and inventory. 	\$6,193,000	\$10,195,000
 \$900,000 mortgage note secured by Hope, AK, property. Monthly principal payments of \$13,687. Monthly interest due at bank prime (7.00 percent) plus 2 percent on unpaid principal balance. Term of note 7 years. 	762,000	866,000
 Promissory notes payable, non-interest-bearing. Payable in 28 payments quarterly through 1st qtr. 2005. 	-0-	6,000
 Earn-out notes payable, non-interest-bearing. Contingent on the availability of defined free cash flow, payable up to \$500,000 annually in years 2005–2009. 	1,793,000	1,793,000

	December	December
	31, 2005	31, 2004
5. Asset purchase promissory note payable. Payable monthly.		
Contingent on attaining certain sales levels.	130,000	130,000
Total debt	\$8,878,000	\$12,990,000
Less portion due within one year	109,000	110,000
Total long-term debt	\$8,769,000	\$12,880,00

Figure 4-1 illustrates, by industry, major Standard and Poor's (S&P) industry groups based on their 3-year average free cash flow.¹ Although the consumer

FIGURE 4-1



¹ The determination of the period on which to average cash flows is based on the company, industry, and desire to include an economic cycle while incorporating the current and forward capital structure. In this book I use both 3- and 4-year average free cash flow because both metrics currently include economic expansion and contraction. Since the economic expansion began in 2009, in 2011, the analyst would prefer the 4-year measure. In my cost-of-capital worksheet, I include periods as far back as 10 years, although the older periods carry less weight.

discretionary stocks shows the highest valuation multiple, it is a result of falling cash flows; the consumer staple stocks actually turned in the best relative performance, not surprising given the period of economic weakness. Financial stocks are excluded because many of the companies had negative free cash flow.

When accounting rules distort the relation between cash and reported income, cash-flow analysis becomes increasingly important. Because entities typically define free cash flow using a mix of GAAP and non-GAAP components, though, they fall short of the measure's purpose—that of providing the maximum return to the business owners without impairing future growth in free cash flow.

TAXES

Taxes are an important focal point of securities analysis owing to their scope, size, and direct and measurable impact on cash flows. Taxes impair current and prospective operating cash flows because taxes are imposed on residual profits—the only question is the degree. Investment projects are always considered on an after-tax basis from both the income tax effect and the financing effect. Special tax incentives also may affect the hurdle rate and project return in invested capital (ROIC). *Because taxes are not imposed on the income an enterprise pays as interest to creditors, the income tax system creates a bias in favor of debt financing*. This bias often results in the overuse of leverage by some firms and a greater probability of bankruptcy.

A change in the marginal tax rate will influence the amount of capital firms invest by changing the cost of debt capital. This is so because the tax shield will become either larger or smaller, resulting in greater or diminished project free cash flow.

Some industries are, by their nature (i.e., mature, stable, no non-U.S. income), subject to heavier taxation, whereas others, owing to their jurisdiction, are subject to tax benefits. Changes in tax rates can impair cash flows or allow for relief. Tax holidays can provide a temporary salve and must be monitored for the holiday's end. For example, Stanley Works, Inc., stated in its 2008 10K: "Tax holidays resulted in a reduction of tax expense amounting to \$2.7 million in 2008, \$4.3 million in 2007, and \$3.1 million in 2006. The tax holiday in Thailand is in place until 2010, while the tax holiday in China expires between 2009 and 2015."

Tax disputes leave shareholders in doubt as to the firm's real cash flows, whereas completion of a tax audit can provide relief in the form of certainty of prospective free cash flow. The loss of a tax dispute can trigger a loan-covenant violation if the payment reduces cash flows, or earnings, below that called for in the loan agreement.

The tax status may affect the choice of financing alternatives. For instance, a firm with loss carry-forwards, tax credits, or expected losses for tax purposes

may wish to choose equity as a financing vehicle because it might not benefit from the deductibility of interest expense.

Taxes provide an impetus for shifting income between countries, including where to borrow. Entities that transact business in both high- and low-taxation jurisdictions may shift income by borrowing in high-tax countries. They also may shift income out of high-tax jurisdictions by financing a project in a high-tax country from loans from affiliates in a low-tax country. Some countries limit such a practice, including the United States.

Taxes represent one of the highest costs of doing business. In 2007, total corporate taxes amounted to \$370 billion, according to the Congressional Budget Office (CBO). Entire organizations are uprooted in search of low-tax territories, often resulting in large cash savings. Certain industries, such as insurance and pharmaceuticals, have found success in such jurisdictions, engaging in a form of income tax "arbitrage," where they hold cash and earn income in low-tax countries and incur other expenses in high-tax countries. ALICO, a large insurer, does this between Japan and Eastern Europe. While this focus on tax minimization often has its intended benefits, it is not always the case. Attracting new employees is not always easy and can result in poor productivity as new hires ramp up the learning curve. The Tonka Toy Company's production shift from Minnesota to Mexico was a failure owing, in part, to poor productivity at the new facility.

The statutory federal rates are up to 35 percent in the United States, 30 percent in Japan, 33 percent in Europe, and 25 percent in China. When the federal statutory corporate income tax rate of 35 percent is added to the weighted average of state corporate income taxes, the resulting rate is 39.3 percent, as shown in Table 4-4. Companies holding cash offshore also may be subject to a repatriation tax that

TABLE 4-3

Taxable Income Over	Not Over	Tax Rate
\$0	\$50,000	15 percent
50,000	75,000	25 percent
75,000	100,000	34 percent
100,000	335,000	39 percent
335,000	10,000,000	34 percent
10,000,000	15,000,000	35 percent
15,000,000	18,333,333	38 percent
18,333,333		35 percent

U.S. Corporate Income Tax Rates

Source: Internal Revenue Code, Title 26, Subtitle A.

TABLE 4-4

Comparing U.S. State Corporate Taxes to the OECD

OECD Overall Rank	Country/State	Federal Rate Adjusted	Top State Corporate Tax Rate	Combined Federal and State Rate (Adjusted) ^a
	Iowa	35	12	41.6
	Pennsylvania	35	9.99	41.5
	Minnesota	35	9.8	41.4
	Massachusetts	35	9.5	41.2
	Alaska	35	9.4	41.1
	New Jersey	35	9.36	41.1
	Rhode Island	35	9	40.9
	West Virginia	35	9	40.9
	Maine	35	8.93	40.8
	Vermont	35	8.9	40.8
	California	35	8.84	40.7
	Delaware	35	8.7	40.7
	Indiana	35	8.5	40.5
	New Hampshire	35	8.5	40.5
	Wisconsin	35	7.9	40.1
	Nebraska	35	7.81	40.1
	Idaho	35	7.6	39.9
	New Mexico	35	7.6	39.9
	Connecticut	35	7.5	39.9
	New York	35	7.5	39.9
	Kansas	35	7.35	39.8
	Illinois	35	7.3	39.7
	Maryland	35	7	39.6
	North Dakota	35	7	39.6
l	Japan	30	11.56	39.54
	Arizona	35	6.968	39.5
	North Carolina	35	6.9	39.5
	Montana	35	6.75	39.4
	Oregon	35	6.6	39.3
2	United States	35	6.57	39.27
	Arkansas	35	6.5	39.2
	Tennessee	35	6.5	39.2
	Washington*	35	6.4	39.2
	Hawaii	35	6.4	39.2
3	Germany	26.38	17.0	38.9
	Michigan*	35	6	38.9
	Georgia	35	6	38.9
	Kentucky	35	6	38.9
	Oklahoma	35	6	38.9
	Virginia	35	6	38.9

OECD Overall Rank	Country/State	Federal Rate Adjusted	Top State Corporate Tax Rate	Combined Federal and State Rate (Adjusted) ^a
	Florida	35	5.5	38.6
	Louisiana	35	8	38.5
	Missouri	35	6.25	38.4
	Ohio	35	5.1	38.3
	Mississippi	35	5	38.3
	South Carolina	35	5	38.3
	Utah	35	5	38.3
	Colorado	35	4.63	38.0
	Alabama	35	6.5	37.8
4	Canada	22.1	14	36.1
	Texas*	35	1.6	36.0
	Nevada	35	0	35.0
	South Dakota	35	0	35.0
	Wyoming	35	0	35.0
5	France	34.43	0	34.4
6	Belgium	33.99	0	33.99
7	Italy	33	0	33
8	New Zealand	33	0	33
9	Spain	32.5	0	32.5
10	Luxembourg	22.88	7.5	30.38
11	Australia	30	0	30
12	United Kingdom	30	0	30
13	Mexico	28	0	28
14	Norway	28	0	28
15	Sweden	28	0	28
16	Korea	25	2.5	27.5
17	Portugal	25	1.5	26.5
18	Finland	26	0	26
19	Netherlands	25.5	0	25.5
20	Austria	25	0	25
21	Denmark	25	0	25
22	Greece	25	0	25
23	Czech Republic	24	0	24
24	Switzerland	8.50	14.64	21.32
25	Hungary	20	0	20
26	Turkey	20	0	20
27	Poland	19	0	19
28	Slovak Republic	19	0	19
29	Iceland	18	0	18
30	Ireland	12.5	0	12.5

*Michigan, Texas, and Washington have gross receipts taxes rather than traditional corporate income taxes. For comparison purposes, we converted the gross receipts taxes into an effective CIT rate.

^aCombined rate adjusted for federal deduction of state taxes paid.

Source: OECD, www.oecd.org/dataoecd/26/56/33717459.xls.

would need to be discounted by that rate. For example, Textron, during 2009, reported lower earnings in part owing to the year-earlier temporary tax benefit associated with repatriation of cash. Also seen in the table are the combined tax rates of U.S. states and various leading countries where many U.S. entities conduct business.

No wonder Ireland, with its 12.5 percent tax rate, has been so successful in attracting businesses from around the world. In general, small countries have lower tax rates. Differences in corporate tax rates affect where businesses decide to invest.

Because the U.S. tax code offers preferential treatment to equity holders in the form of capital gains, there is an incentive for corporations to invest in valueenhancing projects rather than pay out dividends.

Many states tax the portion of income attributable to income within their state. There are three states in the United States having a zero corporate tax rate, whereas Texas has a 1.6 percent rate. As states become hard pressed to balance their budgets, tax rates often increase, affecting corporate cash flows. Other times, large employers may enter treaties with states, fixing their rate at a reduced level for a specified period of time.

A low tax rate, defined as being below the statutory rate, raises a flag for an apparently healthy company and, as such, might provide a boost to free cash flow that might be unsustainable. For example, a company that enjoys the advantage of a tax-haven jurisdiction, such as Bermuda-based companies, would receive a severe jolt to their cash flows if that benefit were stripped away. If the tax benefit were removed, its effect on their market values could be dramatic.

Last in, first out (LIFO) accounting can lower the cash tax rate as input prices rise, but bear in mind, the entities adopting LIFO are required to use it for financial reporting purposes. If input prices fall, their taxes would rise. Shareholders' equity also will rise by the LIFO reserve.

Stock-based compensation often yields a tax deduction to the issuer regardless of whether the issuer has been expensing the awards for financial reporting purposes. It will be reported under operating activities only to the extent it relates to the accounting expense. If the credit is larger, it is considered a financing activity. The tax deduction takes place on the exercise, the granting of the options. For shareholder reporting, the issuer expenses the fair value of the options, determined on the grant date. The tax benefit, for shareholder reporting, is shown as an increase to shareholders equity because GAAP does not allow an entity to record a tax deduction for excess tax benefits, as is illustrated in the following example, of Globecomm, Inc., in its 2009 10K.

During the year ended June 30, 2008, based on positive evidence from our earnings trends, we recognized a portion of our deferred tax assets through a reduction in our deferred tax asset valuation allowance of approximately \$12.5 million. As of June 30, 2007, we maintained a full

valuation allowance against our deferred tax assets due to our prior history of pre-tax losses and uncertainty about the timing of and ability to generate taxable income in the future and our assessment that the realization of the deferred tax assets did not meet the "more likely than not" criterion under FAS 109. At June 30, 2009 and 2008, we had a deferred tax valuation allowance of approximately \$6.6 million primarily relating to \$6.2 million from net operating losses related to excess stock based compensation expense deductions. If the remaining valuation allowance for the excess stock based compensation were to be reversed, the amount would be recorded to additional paid-in capital as it is attributable to the tax effects of excess compensation deductions from exercises of employee stock options.

Federal income taxpayers that receive income (cash flows) from tax-exempt securities would be placed into a higher tax bracket if that benefit somehow were curbed or if those assets were replaced with productive assets. Also, compensation for corporate officers greater than \$1 million cannot be deducted from income unless such compensation is paid pursuant to shareholders approval on attainment of specified performance objectives. If this Internal Revenue Service (IRS) provision were to change, so too might the tax rate.

If there is settlement of a lawsuit, the amount of the payment should be adjusted to taxes because the payments normally are tax deductable. In general, deductibility depends on whether the expenditures stem from actions taken in the ordinary conduct of business or, instead, have their origin in a capital transaction, such as an acquisition. Expenditures of the latter are not deductible. For a settlement, taxes would be due.

In a business combination where there is a recapitalization, in which the assets are restructured and there is no step up with respect to purchase price and the net assets acquired, there is no transactional goodwill. Generally, all goodwill is nondeductible for tax purposes unless it arises from an asset sale or a deemed asset sale under the tax code, where it is amortized over 15 years using the straight-line method. Therefore, nondeductible goodwill has a tax basis of zero.

To the extent that an entity is able to enjoy a consistently low cash tax rate, the advantage will accrue to both creditors and shareholders. When I studied the investment returns for companies having cash tax rates of 35 percent and above and those having a tax rate of 0 to 20 percent, I found that the low-rate companies (having a \$250 million minimum market value) outperformed for the five-year period ending October 2009, having a 9.1 percent median total return versus a median 6.6 percent total return for the high taxpayers. It was only when I introduced the tax-stability measures, as described in Chapter 8, that I found that stable payers outperformed the unstable payers by 9.5 to 3.1 percent during the identical period.

Consistent tax rate companies at any level normally also have cash flows that are more predictable. This makes sense because the tax provision is mostly a residual of the firm's operating success. The stable rate allows executives to plan better and accept projects more readily owing to a stable return on investment (ROI). It was not a surprise that when searching for clues of the impending bankruptcy of Enron, an inconsistent tax rate was one that stood out, along with its use of "mark-to-market" accounting to prop up values.

Oracle Corporation's income in low-tax jurisdictions enables the company to lower its cash tax rate significantly, the company claiming that those overseas funds that generated the income were permanently invested in those countries.

	Year End	led May 31 (ir	n Millions)
	2009	2008	2007
Tax provision at statutory rate	\$2,742	\$2,742	\$2,095
Foreign earnings at other than U.S. rates	(673)	(569)	(580)
State tax expense, net of federal benefit	201	135	98
Settlement of audits and expiration of statutes, net	(28)	(20)	(29)
Other	(1)	25	128
Total provision for income taxes	\$2,241	\$2,313	\$1,712

Source: Oracle Corp. 2009 10K.

By permanently investing capital in low-tax-rate geographies, an enterprise is able to enjoy lower foreign tax rates without being subject to the full U.S. rate. Should entities that, for years, have low tax rates owing to non-U.S. operating profits be penalized with a higher cost of capital? Yes, because it does present a potential risk, although the "hit" to cost of equity capital could be only slight, depending on the individual country risk in which such companies operate, as well as the percentage of total free cash flow received from those countries. In certain foreign jurisdictions, exchange controls make it difficult to repatriate cash back to the United States.

For the analyst, taxes represent more than a use or source (refund) of cash. They can provide an important clue as to the stability of the cash flows and, at times, provide a short-term forecast of year-end results.

As illustrated in an upcoming example, Airgas Corp. received a tax refund in a year they reported \$54.8 million in net income to shareholders. The *Statement of Financial Accounting Standards No. 95, Statement of Cash Flows* (SFAS 95), classifies income tax payments as cash flow from operating activities, even though some income tax payments relate to gains and losses on investing and financing activities, such as gains and losses on plant asset disposals and early debt extinguishments. Table 4-5 provides a list of companies where there is a disparity between the effective tax rate and cash income taxes paid given their reported net income. The four columns at the right are the most revealing.

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Taxes Disparity Between Taxes Paid and Effective Rate

Company Name	Ticker Symbol	Effective Rate[-1Y]	Effective Rate[0Y]	Income Taxes Paid[-1Y]	Income Taxes Paid[0Y]	Net Income (Loss)	Income (Loss)[0Y]
CAMERON INTERNATIONAL CORP	CAM	31.917	26.027	159.680	231.171	593.726	475.519
CARDINAL HEALTH INC	CAH	32.511	31.446	116.000	429.300	1,300.600	1,151.600
CHICAGO BRIDGE & IRON CO	CBI	166.334	39.000	62.405	113.403	(21.146)	174.289
EASTMAN KODAK CO	ШĶ	16.819	(98.291)	145.000	225.000	(442.000)	(210.000)
EVEREST RE GROUP LTD	RE	77.564	14.088	10.955	111.831	(18.758)	806.989
FAIRFAX FINANCIAL HOLDINGS	FRFHF	30.913	17.825	483.800	823.300	1,473.800	856.800
IDT CORP	IDT	(4.705)	4.126	13.090	113.552	(224.330)	(155.449)
LUBRIZOL CORP	ΓZ	446.471	29.154	88.100	180.300	(66.100)	500.800
NIPPON TELEGRPH & TELE -ADR	TTN	38.482	33.545	2,376.675	4,073.122	6,361.102	5,432.970
PROGRESSIVE CORP-OHIO	PGR	68.511	32.077	258.000	461.700	(20.000)	1,057.500
PROLOGIS	РГD	(55.043)	(2.307)	67.300	234.600	(406.773)	22.773
SIMS METAL MANAGEMENT -ADR	SMS	33.547	(23.030)	138.149	191.729	414.190	(121.063)
SUNCOR ENERGY INC	SU	31.769	11.094	521.242	833.572	1,745.915	1,095.498
SUPERVALU INC	SVU	39.304	(2.735)	107.000	274.000	593.000	(2,855.000)
SYMANTEC CORP	SYMC	34.900	(3.406)	181.089	321.039	463.850	(6,728.870)
TOSHIBA CORP -ADR	TOSYY	44.366	(19.453)	1,074.310	1,437.990	1,274.130	(3,505.704)
WEATHERFORD INTL LTD	WFT	17.090	6.528	271.418	389.652	1,353.903	253.766
	Median	33.547	11.094	145.000	274.000	463.850	253.766

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DEFERRED TAX ASSETS AND LIABILITIES

Deferred tax assets are recorded any time a firm has a greater expense for financial reporting purposes than for tax purposes. The asset reflects a likely reduction in future taxes and can result from a number of circumstances outside a reported loss from operations, including asset retirements, tax credits, and stock-based compensation. Companies must record a valuation allowance against the deferred asset to the extent that they might not be able to use the asset. They will recognize deferred tax assets and liabilities on their balance sheet based on the differences between the financial statement carrying values and the tax basis of the assets and liabilities.

During periods of rising prices, there is a boost to cash flows for those entities using the LIFO method through tax savings, thereby reducing the deferred tax asset (or creating or increasing a deferred liability).

When health care legislation was passed by the House of Representatives, many firms announced that an end to the Medicare subsidy would raise their taxes substantially. This was due to a 28 percent tax-free subsidy the federal government was providing to companies for reimbursement to their retired employees related to Part D (prescription drug) payments. Since under the new health care legislation the government subsidy will be taxed, Caterpillar and Deere announced that they would take over \$250 million in charges related to a reduction in their deferred tax asset, which had been established based on the expectation that they would continue getting the tax-free subsidy, as was provided for under the tax law. The charges announced by Caterpillar and Deere were a current noncash impact but would affect cash if the firms continued their retiree reimbursement plan. Since the federal subsidy still would be received but no longer would be a deductable expense, future cash taxes would be affected, and hence the need to eliminate that portion of the deferred tax asset.

A deferred tax liability is incurred whenever a firm uses accelerated depreciation for tax purposes. Over the life of an asset, if the present value of the tax deductions for depreciation exceeds the present value of those deductions for shareholder purposes, the effective marginal corporate tax rate will be less than the statutory rate. Only if they are equal will the effective marginal rate equal the statutory rate.

Owing to losses occurring during 2008, many entities were forced to establish or increase their valuation reserves based on their historical taxable income and projected future taxable income, including the expected timing of the reversals of existing temporary differences. If the entities operated at a loss for an extended period of time, were unable to generate sufficient future taxable income, or if there was a material change in the effective tax rates or time period within which the underlying temporary differences become taxable or deductible, these entities could be required to record a valuation allowance against all or a significant portion of their deferred tax assets, which could increase their effective tax rate for such a period substantially. This could affect cash flows for those firms that used a simple definition of cash flow as net profit plus depreciation.

Any significant changes in statutory tax rates or the amount of a valuation allowance could have a material effect on the value of deferred tax assets and liabilities and the entity's reported financial results. For entities that record a foreign tax credit as part of the deferred tax asset, any change in applicable U.S. standards or governing tax rates overseas also would affect the tax asset or liability. If an entity records a deferred tax asset that currently carries a valuation allowance, it may record a reduction to income tax expense in the period of such realization.

Example:

Supplemental Cash-Flow Information

Airgas, Inc.

Cash Paid for Interest and Taxes

	Three Months Ended	June 30 (in Thousands)
	2009	2008
Interest paid	\$24,773	\$16,184
Discount on securitization	1,615	2,984
Income taxes (net of refunds) ^a	(6,635)	1,965

During the three months ended June 30, 2009, the company applied for and received a \$10 million federal income tax refund. The refund related to an overpayment of fiscal year 2009 estimated federal income taxes as a result of a difference between actual and forecasted profitability, primarily in the fourth quarter.

^aAIRGAS, INC., AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited)

	Three Months Ended	Three Months Ended
	Julie 30, 2009	Julie 30, 2006
Cash flows from operating activities:		
Net earnings	\$54,816\$	\$68,883
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation	51,583	48,098
Amortization	4,816	5,406
Deferred income taxes	15,641	23,455
(Gain) loss on sales of plant and equipment	252	(12)
Stock-based compensation expense	9,914	7,973
Changes in assets and liabilities, excluding effects of business acquisitions:		
Securitization of trade receivables	(15,900)	_
Trade receivables, net	16,986	(6,526)
Inventories, net	23,375	(9,874)

(Continued)

	Three Months Ended June 30, 2009	Three Months Ended June 30, 2008
Prepaid expenses and other current assets	5,603	2,563
Accounts payable, trade	(8,660)	(7,451)
Accrued expenses and other current liabilities	6,039	(3,613)
Other noncurrent assets	1,190	(542)
Other noncurrent liabilities	(3,396)	259
Net cash provided by operating activities	162,259	128,619
Cash flows from investing activities:		
Capital expenditures	(67,312)	(85,564)
Proceeds from sales of plant and equipment	2,510	3,329
Business acquisitions and holdback settlements	(2,863)	(21,680)
Other, net	(1,433)	(1,518)
Net cash used in investing activities	(69,098)	(105,433)
Cash flows from financing activities:		
Proceeds from borrowings	88,553	594,109
Repayment of debt	(163,977)	(596,080)
Purchase of treasury stock	_	(4,613)
Financing costs	_	(5,000)
Proceeds from the exercise of stock options	2,123	9,927
Stock issued for the employee stock purchase plan	3,888	3,934
Tax benefit realized from the exercise of stock options	1,334	7,280
Dividends paid to stockholders	(14,701)	(10,040)
Change in cash overdraft and other	2,163	(805)
Net cash used in financing activities	(80,617)	(1,288)
Change in cash	\$12,544	\$21,898
Cash—Beginning of period	47,188	43,048
Cash—End of period	\$59,732	\$64,946

Example:

Provision for Income Taxes

	Y	ear Ended	June 30 (in	Thousands)
	2008	2009	\$ Change	Percent Change
Income before provision for income taxes	\$48,788	\$65,810	\$17,022	34.9%
Provision for income taxes	17,688	11,486	(6,202)	-35.1%
Percent of income before provision for income taxes	36.3%	17.5%		
Percent of net revenue	4.9%	2.4%		

The provision for income taxes for the year ended June 30, 2009, was approximately \$11.5 million compared with \$17.7 million for the year ended June 30, 2008, reflecting higher pre-tax profits in lower tax rate jurisdictions, partially offset by an increase of valuation allowance related to impairment charges on certain investments. The income tax provision represented estimated federal, foreign, and state taxes for the years ended June 30, 2008, and 2009. The effective tax rate for the year ended June 30, 2008, was approximately 36.3 percent and diverged from the combined federal and state statutory rate primarily as a result of the incremental research credits associated with stock option activity and tax-exempt interest income, partially offset by the impact of impairment losses, foreign withholding taxes, and the accounting for share-based compensation. The effective tax rate for the year ended June 30, 2009, was approximately 17.5 percent and diverged from the combined federal and state statutory rate primarily as a result of an increase in profits in lower tax rate jurisdictions, the incremental research credits associated with stock option activity, and the extension of the federal research credit, and taxexempt interest income, partially offset by the impact of accounting for share-based compensation and foreign withholding taxes.

In accordance with SFAS 123R, we recognize tax benefit upon expensing nonqualified stock options and deferred stock units issued under our share-based compensation plans. However, under current accounting standards, we cannot recognize tax benefit concurrent with expensing incentive stock options and employee stock purchase plan shares (qualified stock options) issued under our share-based compensation plans. For qualified stock options that vested after our adoption of SFAS 123R, we recognize tax benefit only in the period when disgualifying dispositions of the underlying stock occur, which historically has been up to several years after vesting and in periods when our stock price substantially increases. For gualified stock options that vested prior to our adoption of SFAS 123R, we record the tax benefit directly to additional paid-in capital. Tax benefit associated with total share-based compensation was approximately \$6.1 million and \$8.0 million for the years ended June 30, 2008 and 2009, respectively. Excluding the impact of sharebased compensation and the related tax benefit, the effective tax rate for the years ended June 30, 2008 and 2009 would have been 35.9 percent and 21.6 percent, respectively. Because we cannot recognize the tax benefit for share-based compensation expense associated with qualified stock options until the occurrence of future disqualifying dispositions of the underlying stock and such disqualified dispositions may happen in periods when our stock price substantially increases, and because a portion of that tax benefit may be recorded directly to additional paid-in capital, our future guarterly and annual effective tax rates will be subject to greater volatility and, consequently, our ability to reasonably estimate our future guarterly and annual effective tax rates is greatly diminished.

Synaptics also lowered its investment in municipals:

	June 30, 2008			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market	\$70,756	\$—	\$—	\$70,756
Commercial paper	28,319	_	_	28,319
U.S. Treasury bills	2,998	_	1	2,997
Municipal securities	41,201	133	_	41,334
Auction rate securities	40,412	_	2,466	37,946
Total available-for-sale securities	\$183,686	\$133	\$2,467	\$181,352

Security Valuation and Risk Analysis

	June 30, 2009				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	
Money market	\$166,334	\$—	\$—	\$166,334	
Commercial paper	2,598	_	_	2,598	
U.S. Treasury bills	7,992	3	_	7,995	
Municipal securities	12,898	43	_	12,941	
Auction rate securities	28,715	52	—	28,767	
Total available-for-sale securities	\$218,537	\$98	\$—	\$218,635	

Example:

Resulting from its large loss (carry-foward) for federal tax purposes reported under supplemental cash flow information,YRC Worldwide, Inc., received cash refunds its past two years despite positive effective tax rates. The instability in its effective tax rate would serve to increase the cost of equity capital because such instability, as explained in Chapter 8, is associated with higher-risk enterprises. Much of the tax-rate instability for YRC is caused by the impairment of tax-deductible goodwill, which allowed for the speedup of the deduction, thereby lowering the effective and real rate. SFAS 142 requires annual and periodic tests relating to the impairment of goodwill.

The following charts are taken from YRC's 2008 10K:

Supplemental cash-flow information:			
Income taxes paid (refund), net	\$(46,463)	\$(48,132)	\$109,500
Interest paid	70,945	84,076	90,072
Employer 401(k) contributions settled in common stock	8,108	9,548	7,38

A reconciliation between income taxes at the federal statutory rate and the consolidated effective tax rate follows:

	2008	2007	2006
Federal statutory rate	35.0%	35.0%	35.0%
State income taxes, net	0.5	0.2	2.7
Goodwill impairment	(21.0)	(34.3)	_
Nondeductible business expenses	(0.4)	(0.7)	1.1
Foreign tax credit and rate differential	(1.4)	(0.1)	0.2
Alternative fuel tax credit	0.6	1.4	_
Other, net	1.5	0.5	0.3
Effective tax rate	14.8%	2.0%	39.3%

Example:

Union Drilling, Inc., provides contract land drilling services primarily to natural gas producers in the United States. In its footnoted table on income taxes, taken from its 2008 10K, the company reported a higher than effective statutory 35 percent tax rate, even though, through "bonus" depreciation legislation passed as part of the 2008 U.S. economic stimulus package, Union Drilling used accelerated depreciation for taxes (temporary difference) and was entitled to a small cash refund.

The higher than effective tax rate primarily results, in part, from meal allowances, for which only 50 percent is permitted for tax purposes, but is totally expensed for shareholder reporting and the write-off of goodwill for shareholder reporting, which was not deductible for tax reporting. These are two examples of permanent timing differences.

Total income tax expense differed from the amounts computed by applying the U.S. statutory federal income tax rate to income before income taxes as a result of the following (in thousands):

	2008	2007	2006
U.S. statutory federal income tax rate	35%	35%	35%
Income tax expense at the statutory federal tax rate	\$7,126	\$18,498	\$18,994
State, local, and provincial income taxes, net of federal tax benefit	755	2,322	2,382
Meal allowances	1,962	1,924	1,559
Noncash compensation	130	96	235
Goodwill and intangibles impairment charge	3,062	_	350
Domestic production deduction	_	(549)	(343)
Decrease in unrecognized tax benefits	(276)	_	_
Deferred tax adjustment	_	(169)	(693)
Other	(148)	(102)	(66)
Income tax expense	\$12,611	\$22,020	\$22,418

Example:

In order to incentivize energy exploration, the U.S. Congress passed legislation potentially boosting the cash flows of the industry through tax incentives. Hopeful companies would take advantage by increasing exploration, resulting in the nation having less reliance on imported oil. The use of accelerated depreciation for tax purposes relative to shareholder reporting also helps minimize current cash taxes paid, resulting in a temporary timing difference.

In its 2008 fiscal year, Exxon Mobil reported a \$16.062 billion net deferred tax liability on its balance sheet. As long as Exxon continues to grow its exploration budget and Congress does not change the tax law, an analyst can presume that this liability will continue to grow indefinitely. The other item causing the large deferred tax liability relates to intangible development costs.

Exploration companies can expense for tax purposes a large percentage of intangible items related to the exploration process, which are expenditures having no salvageable value. For instance, clearing land, repairs, fuel, and even mud placed on the rig fit into the category, whereas piping would not. The items are capitalized for shareholder reporting purposes. We also see that Exxon Mobil capitalized interest expense related to its exploration programs.

Tax Effects of Temporary Differences for	2008 (Millions of Dollars)	2007 (Millions of Dollars)
Depreciation	\$17,279	\$18,810
Intangible development costs	5,578	4,890
Capitalized interest	2,751	2,575
Other liabilities	3,589	3,955
Total deferred tax liabilities	\$29,197	\$30,230
Pension and other postretirement benefits	\$(6,275)	\$(3,837)
Tax loss carry-forwards	(2,850)	(2,162)
Other assets	(5,274)	(5,848)
Total deferred tax assets	\$(14,399)	\$(11,847)
Asset valuation allowances	1,264	637
Net deferred tax liabilities	\$16,062	\$19,020

Deferred income tax (assets) and liabilities are included in the balance sheet, as shown below. Deferred income tax (assets) and liabilities are classified as current or long term consistent with the classification of the related temporary difference—separately by tax jurisdiction.

Balance Sheet Classification	2008 (Millions of Dollars)	2007 (Millions of Dollars)	
Other current assets	\$(2,097)	\$(2,497)	
Other assets, including intangibles, net	(1,725)	(1,451)	
Accounts payable and accrued liabilities	158	69	
Deferred income tax liabilities	19,726	22,899	
Net deferred tax liabilities	\$16,062	\$19,020	

In its 2008 income statement and income tax footnote, Exxon Mobil reports a 47 percent effective tax rate amounting to \$36,530 million. We discover from the footnote, "Cash Flow Information," that the company actually made cash tax payments for the year of \$33,942 million, or \$2.6 billion less.

Table 4-6 depicts Exxon Mobil's actual tax payments versus the amount it accrued in the income statement for the 10 years ending December 2008. Exxon

Mobil paid \$161.8 billion in total taxes versus the \$177 billion shown in the income statements under the effective rate.

TABLE 4-6

Exxon Mobil Actual Taxes Paid versus Accrued

Cash Paid	Accrued
2,718	2,616
3,805	3,240
8,671	11,091
9,855	9,014
6,106	6,499
8,149	11,006
13,510	15,911
22,535	23,302
26,165	27,902
26,342	29,864
33,941	36,530
161,797	176,975
	Cash Paid 2,718 3,805 8,671 9,855 6,106 8,149 13,510 22,535 26,165 26,342 33,941 161,797

As is taken from CT Capital's credit model (discussed in Chapter 8), from which we determine cost of equity capital, Exxon Mobil is not penalized for income tax stability, meaning that it has a stable rate, whether using accrued or actual tax payments. The stability rate of 0 represents the markup to the cost of capital resulting from the tax payment rate changing by more than 10 percent from the prior year or exceeding other stability measures, as explained in Chapter 8.

Tax stability:	
Tax expense/pretax income	42%
Tax payment/pretax income	39%
Stability of tax rate	0
Tax expense/pretax income (most recent quarter)	46%

Source: CT Capital, LLC, September 18, 2009.

Example:

Archer Daniels Midland Company (ADM) is one of the world's largest processors of oilseeds, corn, wheat, cocoa, and other feedstuffs and is a leading manufacturer of vegetable oil and protein meal, corn sweeteners, flour, biodiesel, ethanol, and other value-added food and feed ingredients. Its 2009 10K shows the reporting effect when deferred taxes are reversed. In this instance, Archer Daniels had invested in an overseas entity (WIHL), where it claimed the funds were permanently invested. During 2009, ADM began liquidation of WIHL, and thus Archer Daniels could no longer make this claim and had to reverse the tax benefit. Fortunately, its consolidated tax rate, owing to other jurisdictional benefits, overcame this, bringing the company below the statutory rate. As we see from its segments and geographic information, owing to the U.S. recession, over half the company's sales came from "other foreign" during 2009, including South America, where the tax rate is low.

	2009	2008	2007
Net sales and other operating income			
United States	\$35,485	\$37,466	\$24,244
Germany	7,431	8,335	6,569
Other foreign	26,291	24,015	13,205
	\$69,207	\$69,816	\$44,018

Archer Daniels Midland Income Taxes

	2009 (Millions of Dollars)	2008 (Millions of Dollars)
Deferred tax liabilities		
Property, plant, and equipment	\$599	\$592
Equity in earnings of affiliates	142	272
Inventory reserves	64	28
Other	80	36
	\$885	\$928
Deferred tax assets		
Pension and postretirement benefits	\$301	\$156
Purchased call options	78	98
Stock compensation	59	53
Tax credit carryforwards, net	36	43
Reserves and other accruals	19	9
Other	153	96
	\$646	\$455
Net deferred tax liabilities	\$239	\$473
Current deferred tax liabilities included in accrued expenses	(9)	_
Noncurrent deferred tax liabilities	\$230	\$473

Reconciliation of the statutory federal income tax rate with the company's effective tax rate on earnings is as follows:

	2009	2008	2007
Statutory rate	35.0%	35.0%	35.0%
State income taxes, net of			
federal tax benefit	1.0	1.3	1.4
Foreign earnings taxed at rates			
other than the U.S. statutory rate	(9.2)	(4.6)	(2.9)
WIHL liquidation	6.6	_	—
Adjustment of income taxes to filed tax returns	(0.1)	0.2	(0.4)
Other	(0.7)	(0.6)	(1.6)
Effective rate	32.6%	31.3%	31.5%

QUARTERLY EFFECTIVE TAX RATES

It is not unusual for entities to overaccrue a reported tax rate during early quarters of the year, leaving themselves a cushion for later in the year. Table 4-7 shows the quarterly effective tax rates reported to shareholders of General Electric (GE) and, in the second column, the eventual effective rate for that year. For the five years shown, GE management overaccrued in each of their first quarters, based on the final rate. Whether GE was attempting to manage earnings for later in the year cannot be stated with certainty, although the consistency is obvious because GE's fourth quarter had its lowest effective rate in all periods shown. The investor should be aware of the effective quarterly rate and what signals it may mean for management's expectation for full-year results. As depicted in the case of Kellogg, which, unlike GE, has a high effective rate, the fourth quarter rate often has been the highest reported rate of its fiscal year, with quarterly swings not as pronounced as with GE, especially the first quarter estimated rate compared with the full-year rate. Unquestionably, quarterly effective rates give management a tool to manipulate earnings and operating cash flows over the very short term and present another reason one should look toward free cash flow and actual tax payments.

OTHER TAX CREDITS

Tax credits allow a firm to potentially lower cash taxes due. They can be in the form of a credit applied against the actual tax rate or a direct dollar-for-dollar credit against taxes otherwise due. This is true for both U.S. and foreign taxes.

TABLE 4-7

	Kellogg Co.		General Electric	
	Tax Rate (Qtly)	Tax Rate (Year)	Tax Rate (Qtly)	Tax Rate (Year)
Mar 04	35.5		23.6	
Jun 04	33.6		15.1	
Sep 04	34.5		18.6	
Dec 04	35.9	34.8	14.9	17.3
Mar 05	32.0		18.8	
Jun 05	33.1		16.6	
Sep 05	30.0		19.7	
Dec 05	29.1	31.2	14.4	17.2
Mar 06	32.0		18.4	
Jun 06	31.3		17.8	
Sep 06	32.0		15.1	
Dec 06	31.4	31.7	14.7	15.5
Mar 07	24.1		19.3	
Jun 07	31.9		20.1	
Sep 07	26.7		10.8	
Dec 07	33.8	28.7	10.4	15.0
Mar 08	30.3		15.7	
Jun 08	29.9		15.9	
Sep 08	28.1		10.4	
Dec 08	31.4	29.7	-52.7	5.3

Quarterly and Yearly Effective Tax Rate-General Electric and Kellogg

For example, under the Tax Reform Act of 1986, the U.S. government incentivized the formation of affordable housing aimed at low-income Americans. The credit, because it provides a direct reduction in taxes otherwise due, has economic value for profitable enterprises. As the U.S. economy was expanding, lowincome-housing tax credits (LIHTC) traded at premiums, but as the United States entered recession, companies such as FNMA, which had large unusable credits, were forced to write down their value.

Tax credits are shown as an operating item on the cash-flow statement under U.S. GAAP only to the extent that they relate to the accounting expense; if the tax deduction exceeds the amount attributable to the accounting expense, such excess is a financing item.

Example:

This decreased demand has reduced the value of these investments. We determine the fair value of our LIHTC investments using internal models that estimate the present value of the expected future tax benefits (tax credits and tax deductions for net operating losses) expected to be generated from the properties underlying these investments. Our estimates are based on assumptions that other market participants would use in valuing these investments. The key assumptions used in our models, which require significant management judgment, include discount rates and projections related to the amount and timing of tax benefits. We compare the model results to the limited number of observed market transactions and make adjustments to reflect differences between the risk profile of the observed market transactions and our LITHC investments.

Source: FNMA March 2009 10Q.

In a related story, in November 2009, the financial press reported that Goldman Sachs was interested in buying million of dollars of such credits from FNMA, which would have the effect of lowering Goldman Sachs' tax bill while providing cash to FNMA.

Tax credits are incentives and can come from state, federal, or foreign authorities.² The goals of incentives vary—but always involve motivation—from labor force hiring, research or capital equipment expenditures, remittance of overseas earnings, purchase of certain securities, or prevention of unemployment, such as aid following natural disasters. They are aimed at improving the economic activity of the provider, with the ultimate goal of increased taxes in the longer run. The analyst should determine the continuing likelihood of such credits and the durational impact on cash flows. For example, in its 2009 10K, Graham Packaging Company, Inc., reported a higher than 35 percent statutory rate owing to the absence of tax benefits being recorded on losses in jurisdictions with valuation allowances and the inability to offset foreign tax credits against domestic tax expense because of net operating losses.

² The corporate foreign tax credit is a set of provisions designed by Congress to eliminate potential double taxation on the foreign-source income of U.S. corporations. Double taxation occurs when an item of income is taxed by both the United States, as the corporation's country of residence, and the country where the income was generated. The current provisions allow U.S. businesses to credit their foreign taxes paid, accrued, or deemed paid against their U.S. income tax liability, subject to limitations that prevent taxpayers from using taxes paid in a country with a higher tax rate than the United States to offset their tax liability on U.S. income. Corporations are required to calculate this credit separately for different income categories to prevent taxpayers from combining income that traditionally is taxed at low rates, such as dividend or interest income, with income that typically is taxed at higher rates, such as active business income. For additional information, go to IRS.gov.

Security Valuation and Risk Analysis

Example:

Provision for Income Taxes

Our provision for income taxes increased \$3.1 million, or 39.2 percent, from \$8.0 million for the year ended December 31, 2007, to \$11.1 million for the year ended December 31, 2008. We had an effective income tax rate of approximately 33.3 percent and 36.1 percent for the years ended December 31, 2007 and 2008, respectively. The 2007 effective income tax rate is lower primarily due to the 2007 federal tax credit related to Hurricane Katrina and higher tax exempt interest income for 2007.

Source: Odyssey HealthCare, Inc., 2008 10K.

STABILITY OF TAX RATE

Entities with stable businesses and cash flows have more predictable and steady tax rates. Entities with unstable businesses, either in sales, cost of sales, or operating cash flows, have more unpredictable tax rates, both the effective rate and the cash rate of the tax return. Unstable tax rates are not a surefire warning sign of trouble, but there is always a precipitating event or events that force the inconsistency—when tax rate levels are routinely low or volatile, the analyst should uncover the reason, especially if owing to business conditions, foreign income or credits, tax holidays, or clever bookkeeping. Investors cannot count on growing distributable cash with such volatility. For this reason, more stable rate payers enjoy lower cost of capital, on average. Uncertainty, even in tax planning, is the enemy of security valuation and credit analysis and, for this reason, is directly associated with the cost of capital.

As with Enron, we see a very volatile cash tax rate for General Motors (GM) prior to its declaring bankruptcy. There was no single period in the 10 years preceding GM's bankruptcy when their actual cash tax rate was stable (Fig. 4-2).

Under SFAS 95, the analyst is able to model the historic and expected stability of the company's financial performance more accurately because of the cash tax and cash interest information. As noted, an estimate (that was not always accurate) was necessary prior to SFAS 95. Since the analyst does not have access to actual tax-based profits or corporate tax returns, one needed to approximate the cash taxes from the income tax footnote.

GM was characterized by a very volatile effective tax rate as well. When reviewing the company's effective tax rate, we see somewhat greater stability until 2003, a time when the stock still was trading above \$40 per share. By 2007, the company already reported 5 years of 10 percent swings in its effective tax rate (Fig. 4-3).

In the upcoming examples, for Kraft, Jo-Ann Stores, and Tesoro, depicted are the actual taxes paid/pretax income, the latter from the income statement. As long
FIGURE 4-2



Source: Company filings.

FIGURE 4-3

General Motors' Effective Tax Rate



Source: Company filings.

as the cash tax rate, defined as taxes paid/pretax income, is applied consistently (including adding permanent differences), the result is meaningful in assessing stability. There are analysts who prefer to use earnings before interest, taxes, depreciation and amortization (EBITDA) as the denominator as a form of unlevered tax rate. To exclude interest and depreciation would not accurately reflect pretax income, even though those amounts would differ from the tax return.

As we see in the three charts in Figs. 4-4 through 4-6, Kraft, a stable-cash-flow company, shows a fairly steady tax rate (Fig. 4-4), in contrast to both Jo-Ann Stores and Tesoro. Each of these companies had small amounts of permanent timing differences, so there was no need to add that amount to pretax income in arriving at the cash tax rate.

Jo-Ann Stores, a specialty crafts retailer, historically has had an unstable tax rate, reflective of its underlying business, which likewise has shown inconsistent results. Notice the relationship for the years 1999–2005, when the company had a consistently high rate along with its increasing market value, and its subsequent tax volatility, along with the concurrent fluctuation in its market value (Fig. 4-5).

Tesoro, a large refiner and gasoline marketer, saw a large negative cash tax rate jump to a large positive rate, then down again, and then up again (Fig. 4-6).



FIGURE 4-4

Source: CT Capital, LLC.

FIGURE 4-5



Source: CT Capital, LLC.

FIGURE 4-6





Its market value rose from \$374 million to \$541 million, back down to \$292 million, then up to \$6.5 billion, and then down to \$1.8 billion. Tesoro, of course, has had a very unstable tax rate, reflective of its underlying business. Also of interest is Tesoro's beta, which at just 1.3, is considerably lower than GE's beta of 1.7, suggesting that Tesoro should be assigned a lower cost of equity capital by users of the popular capital asset pricing model (CAPM). Tesoro has a BB+ credit rating, and GE is rated AA+.

Example:

During 2006, Starwood Hotels sold 38 luxury hotels to Host Marriott, another publicly held company, for cash and stock (based on Host's share price at closing) valued at \$4.1 billion The deal also included the assumption by Host of \$600 million of debt associated with the hotels being purchased. In the second part of the deal, Starwood purchased from its shareholders, its class B preferred shares, ending the firm's listing as a real estate investment trust (REIT). The book value associated with the class B shares, because it involved a transaction with its shareholders, was treated as a nonreciprocal transaction³ with owners and was removed through retained earnings up to the amount of retained earnings that existed at the sale date, with the remaining balance reducing additional paid-in capital. This class B portion was treated as a noncash transaction and therefore was excluded from the consolidated statement of cash flows.

The deal with Host resulted in a large year-end capital loss of \$2.4 billion for federal tax purposes. Thus Starwood gained a large tax shield should it be in a taxable position going forward. Starwood also sold the stock consideration in Host that year for an approximate \$1 billion gain, seen under investment activities as part of the \$1.5 billion proceeds from asset sales, net.

On the other hand, Starwood, under the provisions of SFAS 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, was able to record and use a large income tax benefit for shareholder reporting, as well as tax purposes. We see \$620 million of the benefit as noncash for 2006 reversed under cash flow from operations.

During the subsequent year, Starwood reduced its estimate of that capital loss and corresponding valuation allowance, perhaps owing to an IRS examination, to \$1.4 billion of particular interest in 2006 is that the sale of the hotels involved a long-term management contract with Host under which Starwood would continue to manage the sold properties. The gain on the sale is allowed to be deferred and amortized over the life of the management contract, which is 20 years, in accordance with SFAS 144. On the statement of cash flows, the book income is reversed as noncash portion of deferred gains. In booking the gain each year, EBITDA is artificially boosted by about \$48 million a year, based on the \$955 million gain. Since Starwood typically sells properties under this arrangement, its deferred gains each year are significant.

From Starwood's 2006 10K:

The portion of the transaction between the company and Host was recorded as a disposition under the provisions of SFAS No. 144. As Starwood sold these hotels subject to long-term management contracts, the calculated gain on the sale of approximately \$955 million has been deferred and is being amortized over the initial management contract term of 20 years. This transaction also generated a capital loss, net of carry back and current year utilization, of \$2.4 billion for federal tax purposes.

³A *nonreciprocal transaction* is a transferred asset without an attached condition, such as there is only a performance obligation.

Starwood used the cash received from Host Marriot to buy back stock of \$1.3 billion and \$1.5 billion in debt. The company also paid about 45 percent less in taxes than the year earlier, benefiting from the favorable tax treatment resulting in a low effective and real rate.

In its income tax footnote, Starwood reported that it had a year-end deferred tax asset on its balance sheet of \$487 million. We see this in the \$518 million asset and the \$31 million deferred tax liability reflected on its balance sheet. This book asset, as stated in the footnote, predominantly emanates from the Host transaction; the year prior, the deferred asset was just \$173 million. Of the \$2.6 billion in capital losses generated by the Host transaction, \$200 million was used during 2006 to offset prior-year gains, in the form of tax carry-backs (refunds), resulting in the year-end \$2.4 billion remainder.

We also see in the income tax footnote that Starwood is claiming, among other items, a tax benefit of \$832 million on the \$2.4 billion capital loss generated for tax purposes. The \$832 million is derived using a 34.7 percent tax rate ($$2,400 \times 0.347 = 832).

Income Taxes

A reconciliation of the tax provision of the company at the U.S. statutory rate to the provision for income tax as reported is as follows (in million):

	Year Ended December 3		
	2006	2005	2004
Tax provision at U.S. statutory rate	\$239	\$225	\$144
U.S. state and local income taxes	(10)	(14)	(37)
Exempt Trust income	(32)	(64)	(62)
Tax on repatriation of foreign earnings	(16)	11	13
Tax on repatriation of foreign earnings under the American Jobs Creation Act of 2004	_	47	_
Foreign tax rate differential	(15)	(28)	(6)
Change in tax law and regulations	_	—	(15)
Deferred gain on ITT World Directories disposition	_	52	_
Tax settlements	(59)	(8)	(15)
Tax benefit on the deferred gain from the Host transaction	(356)	_	_
Tax benefits recognized on Host transaction	(1,017)	_	_
Basis difference on asset sales	(41)	_	_
Change in of valuation allowance	884	7	24
Other	(11)	(9)	(3)
Provision for income tax (benefit)	\$(434)	\$219	\$43

Source: Starwood 2006 10K.

As discussed in note 5, the company completed the Host transaction during the second quarter of 2006, which included the sale of 33 hotel properties. Since the company sold these hotels subject to long-term management contracts, the gain of approximately \$955 million has been deferred over the life of those contracts. As a result of the recognition of this deferred

gain, the company has established a deferred tax asset and recognized the related tax benefit of approximately \$356 million for the book-tax difference on the deferred gain liability. Additional tax benefits of \$1,017 million resulted from the Host transaction, consisting primarily of the tax benefit of \$832 million on the \$2.4 billion capital loss generated for federal tax purposes. The remaining benefit consisted of an adjustment to deferred income taxes for the increased tax basis of certain retained assets, partially offset by current tax liabilities generated in the transaction.

During 2005, the company was notified by ITT Industries that a refund of tax and interest had been approved by the IRS for payment to ITT Industries related to its 1993–1995 tax returns. In connection with its acquisition of Sheraton Holding, the company is party to a tax-sharing agreement among ITT Industries, Hartford Insurance, and Sheraton Holding as a result of their 1995 split of ITT Industries into these companies and is entitled to one-third of this refund. As a result of this notification, the company recorded an \$8 million tax benefit during 2005.

During 2004, the IRS completed its audits of the company's 1999 and 2000 tax returns and issued its final audit adjustments to the company. As a result of the completion of these audits and receipt of the final audit adjustments, the company recorded a \$5 million tax benefit. In addition, the company recognized a \$10 million tax benefit related to the reversal of previously accrued income taxes after an evaluation of the applicable exposures and expiration of the related statutes of limitation.

STARWOOD HOTELS & RESORTS WORLDWIDE, INC. CONSOLIDATED BALANCE SHEETS

(In Millions, Except Share Data)

	Decen	nber 31
	2006	2005
Assets		
Current assets:		
Cash and cash equivalents	\$183	\$897
Restricted cash	329	295
Accounts receivable, net of allowance for doubtful accounts of \$49 and \$50	593	642
Inventories	566	280
Prepaid expenses and other	139	169
Total current assets	1,810	2,283
Investments	436	403
Plant, property, and equipment, net	3,831	4,169
Assets held for sale	2	2,882
Goodwill and intangible assets, net	2,302	2,315
Deferred tax assets	518	40
Other assets	381	402
	\$9,280	\$12,494

	Decen	nber 31
	2006	2005
Liabilities and Stockholders' Equity		
Current liabilities:		
Short-term borrowings and current maturities of long-term debt	\$805	\$1,219
Accounts payable	179	156
Accrued expenses	955	1,049
Accrued salaries, wages, and benefits	383	297
Accrued taxes and other	139	158
Total current liabilities	2,461	2,879
Long-term debt	1,827	2,849
Long-term debt held for sale	_	77
Deferred income taxes	31	602
Other liabilities	1,928	851
	6,247	7,258
Minority interest	25	25
Commitments and contingencies		
Stockholders' equity:		
Class A exchangeable preferred shares of the trust, \$0.01 par value, authorized 30,000,000 shares, outstanding 0 and 562,222 shares at December 31, 2006 and 2005, respectively	_	_
Class B exchangeable preferred shares of the trust, \$0.01 par value, authorized 15,000,000 shares, outstanding 0 and 24,627 shares at December 31, 2006 and 2005, respectively	_	_
Corporation common stock, \$0.01 par value, authorized 1,050,000,000 shares, outstanding 213,484,439 and 217,218,781 shares at December 31, 2006 and 2005, respectively	2	2
Trust class B shares of beneficial interest, \$0.01 par value, authorized 1,000,000,000 shares, outstanding 0 and 217,218,781 shares at December 31, 2006 and 2005, respectively	_	-
Additional paid-in capital	2 286	5 412
Deferred compensation	2,200	(53)
Accumulated other comprehensive loss	(228)	(322)
Retained earnings	948	(022)
Total stockholders' equity	3 008	5 211
	\$9,280	\$12,494

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The accompanying notes to financial statements are an integral part of the above statements.

STARWOOD HOTELS & RESORTS WORLDWIDE, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS

(In Millions)

	Year E	Year Ended December 3		
	2006	2005	2004	
Operating Activities				
Net income	\$1,043	\$422	\$395	
Adjustments to net income:				
Discontinued operations:				
Loss (gain) on dispositions, net	2	—	(26)	
Other adjustments relating to discontinued operations		11	1	
Cumulative effect of accounting change	70	_	_	
Stock-based compensation expense	103	31	16	
Excess stock-based compensation tax benefit	(87)	_	_	
Depreciation and amortization	306	407	431	
Amortization of deferred loan costs	5	12	12	
Noncash portion of restructuring and other special				
charges (credits), net	(7)	(3)	(37)	
Noncash foreign currency losses (gains), net	(8)	2	(9)	
Provision for doubtful accounts	25	6	25	
Equity earnings, net of distributions	(30)	(7)	31	
Gain on sale of VOI notes receivable	(17)	(25)	(14)	
Loss on asset dispositions and impairments, net	3	30	33	
Noncash portion of income tax (benefit) expense	(620)	(110)	31	
Changes in working capital:				
Restricted cash	(35)	50	(257)	
Accounts receivable	49	(152)	(67)	
Inventories	(82)	105	(22)	
Prepaid expenses and other	(11)	(8)	(52)	
Accounts payable and accrued expenses	12	157	118	
Accrued income taxes	(64)	(135)	(24)	
VOI notes receivable activity, net	(138)	(40)	(114)	
Other, net	(19)	<u>11</u>	107	
Cash from operating activities	500	764	578	
Investing Activities				
Purchases of plant, property, and equipment	(371)	(464)	(333)	
Proceeds from asset sales, net	1,515	510	74	
Collection (issuance) of notes receivable, net	95	11	(2)	
Acquisitions, net of acquired cash	(25)	(242)	(65)	
Proceeds from (purchases of) investments	191	47	(73)	
Proceeds from (acquisition of) senior debt	_	221	(4)	
Other, net	(3)	2	(12)	
Cash from (used for) investing activities	1,402	85	(415)	

	Year Ei	nber 31	
	2006	2005	2004
Financing Activities			
Revolving credit facility and short-term borrowings			
(repayments), net	73	333	(20)
Long-term debt issued	2	9	300
Long-term debt repaid	(1,534)	(583)	(451)
Distributions paid	(276)	(176)	(172)
Proceeds from employee stock option exercises	380	405	379
Excess stock-based compensation tax benefit	87	_	_
Share repurchases	(1,287)	(228)	(310)
Other, net	(80)	(13)	1
Cash used for financing activities	(2,635)	(253)	(273)
Exchange-rate effect on cash and cash equivalents	19	(25)	9
Increase (decrease) in cash and cash equivalents	(714)	571	(101)
Cash and cash equivalents—beginning of period	897	326	427
Cash and cash equivalents-end of period	\$183	\$897	\$326
Supplemental Disclosures of Cash-Flow Information Cash paid during the period for:			
Interest	\$247	\$274	\$293
Income taxes, net of refunds	\$249	\$447	\$21

The accompanying notes to financial statements are an integral part of the preceding statements.

December 31		
2006	2005	
\$236	\$(448)	
6	(158)	
151	139	
80	51	
1,052	173	
(103)	(154)	
74	(40)	
1,496	(437)	
(1,009)	(125)	
\$487	\$(562)	
	Decen 2006 \$236 6 151 80 1,052 (103) 74 1,496 (1,009) \$487	

OTHER TAXES AND INCENTIVES

While income taxes are a vital consideration to all profitable enterprises, other taxes can impair cash flows as well, including property, sales, and excise taxes, among others. While a firm may be able, to an extent, to manage income taxes, the same cannot be said for so-called use taxes. In addition, states that are in financial difficulty often find the profitable corporation as an easy political mark to close budget deficits. Increases in state taxes, whether income or "use" taxes, often result in unexpected and sometimes significant cash expense.

On the other hand, it is not unusual for large employers to benefit from special tax incentives from states hoping to create employment and boost state revenues through the property, sales, and other taxes paid by a rising employment base. Or the company itself, through, such incentives can amount to substantial cash savings, especially if moving to a low-tax jurisdiction from a high-tax jurisdiction. For tax incentives about to expire, the reverse would be in order.

Example:

Boyd Gaming is a casino gaming company. Some of its properties operate from riverboats.

In April 2007 the Indiana General Assembly amended the manner in which riverboats are to be taxed for property tax purposes. Retroactive to March 1, 2006, riverboats are to be taxed based on the lowest valuation as determined by an application of each of the following methodologies: (i) cost approach; (ii) sales comparison approach; and (iii) income capitalization approach. Alternatively, the Riverboat Licensee and the respective Township Assessor may reach an agreement regarding the value of the riverboat. All Indiana state excise taxes, use taxes, and gross retail taxes apply to sales made on a riverboat. In 2004 the Indiana Supreme Court ruled that vessels purchased out of the State of Indiana and brought into the State of Indiana would be subject to Indiana sales tax. Additionally, the Supreme Court declined to hear an Indiana Tax Court case that determined wagering tax payments made by a riverboat could not be deducted from the riverboat's adjusted gross income.

Example:

Biostar Pharmaceuticals develops, manufactures, and markets pharmaceutical and medical nutrient products for a variety of diseases and condition. It is based in Maryland and owned by a Chinese (PRC) company.

Our effective tax rate decreased by 4 percent from the year ended December 31, 2007, to the year ended December 31, 2008, primarily as a result of reduction in the PRC statutory tax rate effective on January 1, 2008. Based on our current operating structure and the preferential tax treatments available to us in the PRC, our PRC operation, Aoxing

Pharmaceutical, qualifies as a high-tech enterprise entitled to a 50 percent income tax reduction from January 1, 2007, to December 31, 2009. Therefore, the effective tax rate for Aoxing Pharmaceutical was 13 percent for the year ended December 31, 2008, and 17 percent for the year ended December 31, 2007. If the tax benefits currently available to us in the PRC become unavailable, the effective income tax rate for Aoxing Pharmaceutical could increase to 25 percent. We expect our effective tax rate to increase in the future, as we experience further expiration of tax incentives.

Example:

Hanesbrands is a consumer goods company with manufacturing operations in Puerto Rico. Its taxes jumped when an important incentive ended.

Our effective income tax rate increased from 24.3 percent for the six months ended December 31, 2005, to 33.8 percent for the six months ended December 30, 2006. The increase in our effective tax rate as an independent company is attributable primarily to the expiration of tax incentives for manufacturing in Puerto Rico of \$9 million, which were repealed effective for the periods after July 1, 2006, higher taxes on remittances of foreign earnings for the period of \$9 million and \$5 million tax effect of lower unremitted earnings from foreign subsidiaries in the six months ended December 30, 2006, taxed at rates less than the U.S. statutory rate.

Example:

Pacific Ethanol, Inc., is a producer and marketer of ethanol-based products, especially for use in gasoline. A change in tax incentives related to ethanol production would have very severe ramifications for its business, including its ability to raise capital, as outlined in its 2009 10K:

The amount of ethanol production capacity in the U.S. exceeds the mandated usage of renewable biofuels. Ethanol consumption above mandated amounts is primarily based upon the economic benefit derived by blenders, including benefits received from federal excise tax incentives. Therefore, the production of ethanol is made significantly more competitive by federal tax incentives. The federal excise tax incentive program, which is scheduled to expire on December 31, 2010, allows gasoline distributors who blend ethanol with gasoline to receive a federal excise tax rate reduction for each blended gallon they sell regardless of the blend rate. The current federal excise tax on gasoline is \$0.184 per gallon, and is paid at the terminal by refiners and marketers. If the fuel is blended with ethanol, the blender may claim a \$0.45 per gallon tax credit for each gallon of ethanol used in the mixture. The 2008 Farm Bill enacted into law reduced federal excise tax incentives from \$0.51 per gallon in 2008 to \$0.45 per gallon in 2009. The federal excise tax incentive program may not be renewed prior to its expiration in 2010, or if renewed, it may be renewed on terms significantly less favorable than current tax incentives. The elimination or significant reduction in the federal excise tax incentive program could reduce discretionary blending and have a material adverse effect on our results of operations and our financial condition.

Security Valuation and Risk Analysis

While many states use incentives to lure companies, some jurisdictions impose new taxes that are harmful to cash flows. For example, *tax increment financing* (TIF) has been used in Chicago and elsewhere. If it is deemed that a municipal or other such improvement takes place that enhances the value of existing properties, those properties are accessed additional taxes. These TIFs are aimed at companies doing business in the area. During difficult economic times for municipal and state governments, taxes, especially property and use taxes, come to the forefront.

On the other hand, firms can be expected to take advantage of new tax laws even if they need to be resourceful in the application of legislation which may not have been intended originally for their industry. For instance, a 2005 law intended to encourage alternate use of fuels for motor vehicles is currently helping pulp and paper companies realize substantial cash benefits.

Example:

Verso Paper Company, a large manufacturer and supplier of coated paper, as well as other companies in its industry, such as International Paper, have seized the opportunity to realize cash through such credits.

Subsequent Event

The company burns alternative fuel mixtures at its Androscoggin and Quinnesec mills in order to produce renewable energy and help manage the company's exposure to high energy costs. The federal government has implemented a program that provides incentive payments under certain circumstances for the use of alternative fuels and alternative fuel mixtures in lieu of fossil-based fuels. In the fourth quarter of 2008, the company filed applications with the Internal Revenue Service for certification of its eligibility to receive incentive payments for its use of black liquor in alternative fuel mixtures in the recovery boilers at the Androscoggin and Quinnesec mills. In January and February 2009, the IRS certified that the company's operations at the two mills gualified for the incentive payments. In February 2009, the company received an incentive payment of \$29.7 million for operations at the Androscoggin mill in the fourth guarter of 2008. The company's claim for a similar incentive payment for operations at the Quinnesec mill in the fourth quarter of 2008 is expected during March 2009. The federal regulations relating to the alternative fuels mixture incentive program are complex, and further clarification is needed by the company prior to the recognition of any payment received for financial reporting purposes.

Source: Verso Paper Corp. 2008 10K.

While not considered a tax, additional governmental regulation is a quasi-tax in the form of increased fixed costs as the license for conducting business. The proposal or fear of added industry regulation should serve to suppress valuation multiples to the extent cash flows could be impaired or cost of capital raised. In 2005, sales of GM's cars in China, a large, profitable market for the company, dropped in part owing to new restrictions there on corporate and governmental purchase of fleets.

U.S.-imposed duties on foreign goods could lead to retaliation by foreign governments. In September 2009, China threatened tariffs on certain U.S. industries in retaliation for the United States placing duties on Chinese tires. Stocks in those effected industries fell, even though China called for talks. The introduction and overhang of the new risk served to increase the cost of equity.

Duties, taxes, levies, sanctions, or tighter controls and reviews affect cash flows and should be brought into the analytic review process by the security analyst for their effects on cash flows and cost of capital. They can critically affect valuation.

SEGMENTS OF OPERATION

Analysts must understand which of the entity's operating units are producing cash and which require cash—which are capital intensive and which are not. They need to know the magnitude of each, the history of each, and their prospects for growth. They would need to know how the various segments compare with their competitors. Yet accounting rule makers do not require a full set of financial statements for operating segments.

In order to understand the cash flow and cost of capital for the enterprise as a whole, it is important to decompose the organization into individual units based on their relative importance. However, because firms are required to provide information only on reportable segments, which can comprise many operating units, it may be difficult for the analyst to determine with precision how an entity can most maximize its cash flows. For years, Zurn, Inc., reported mediocre cash flows owing to its cash-using golf division. Meanwhile, its plumbing division had record profits and cash flow for at least 15 years in a row. Zurn was later acquired with the golf division disposed of.

The Financial Accounting Standards Board (FASB) requires segment reporting as set forth in SFAS 131. In 2006, the International Accounting Standards Board (IASB) also required segment reporting consistent with the FASB. SFAS 131 states

This Statement requires that a public business enterprise report financial and descriptive information about its reportable operating segments. Operating segments are components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. Generally, financial information is required to be reported on the basis that it is used internally for evaluating segment performance and deciding how to allocate resources to segments.

Source: Financial Accounting Standards Board.

Security Valuation and Risk Analysis

Unfortunately, the standard has not led to the consistency desired owing to interpretation of the wording because what constitutes a *reporting segment* varies widely; some entities supply investors with a wealth of information, including a full management discussion and analysis of the reportable segments, as in the case of Proctor & Gamble, whereas other entities offer little more than segment profit and revenues, as in the case of Microsoft. If there is a division responsible for greater than 10 percent of operating profits or revenues but it is part of a reportable segment, its results would not need to be reported separately. It would be helpful to the analyst if such results were given, especially if the division were responsible for large positive or negative free cash flow. Thus, while SFAS 131 was intended to provide insight and comparability, it does not go far enough. In such cases, it is up to the analyst to acquire the relevant information from the CFO or appropriate executive.

SFAS 131 required companies to present segment results when a reportable segment meets one or more of the following tests: (1) revenue is 10 percent or more of combined revenue, (2) operating profit is 10 percent or more of combined operating profit (operating profit excludes unallocable general corporate revenue and expenses, interest expense, and income taxes), or (3) identifiable assets are 10 percent or more of the combined identifiable assets (also called *line of business reporting*). Condensed segment reporting is also required for interim statements.

SFAS 131 also requires disclosure if revenues from transactions with a single external customer amount to 10 percent or more of an enterprise's revenues; the enterprise shall disclose that fact, the total amount of revenues from each such customer, and the identity of the segment or segments reporting the revenues. Cash flows would be affected if there was either a change in the business outlook of such customer or the customer was lost.

Example:

Jabil Circuit is one of the leading providers of worldwide electronics manufacturing services and solutions. The company provides comprehensive electronics design, production, product management, and aftermarket services to companies in the aerospace, automotive, computing, consumer, defense, industrial, instrumentation, medical, networking, peripherals, solar, storage, and telecommunications industries. As stated in its 2009 10K:

Sales of the company's products are concentrated among specific customers. For the fiscal year ended August 31, 2009, the company's five largest customers accounted for approximately 43 percent of our net revenue and 50 customers accounted for approximately 90 percent of our net revenue. Sales to the following customers who accounted for 10 percent or more of the company's net revenues, expressed as a percentage of consolidated net revenue, and the percentage of accounts receivable for each customer, were as follows:

	Percent	age of Net	Revenue	Percent Accounts F	age of Receivable
	Fiscal Year Ended August 31		Fiscal Year Ended August 31,		
	2009	2008	2007	2009	2008
Cisco Systems, Inc.	13%	16%	15%	*	*
Research in Motion,					
Limited	12%	*	*	10%	*
Nokia Corporation	*	*	13%	*	*
Hewlett-Packard Company	*	11%	*	10%	*

It is not uncommon to find, within reporting entities, a particular segment that is stable to declining, whereas another segment is growing faster than its peers. Such has been the case for telecom companies that have wireless (high growth) and wireline (negative growth) segments. The analyst must examine the cash needs of such segments and whether the low-growth segment is providing important levels of cash that could be used by the high-growth segment. All segmental market values should be established, even if the value is not directly a cash producer. If cash drains are expected to continue for a particular reporting segment, the analyst should determine the value of the enterprise without that segment and if management's outlook for the cash-using segment is realistic or if the unit could be sold, spun off (if possible),⁴ or shut down.

Example:

Microsoft reports its revenues and operating profits for its five segments, not providing sufficient information to determine each segment's free cash flow. As reported in the company's 2009 10K:

SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information*, establishes standards for reporting information about operating segments. This standard requires segmentation based on our internal organization and reporting of revenue and operating income (loss) based upon internal accounting methods. Our financial reporting systems present various data for management to operate the business, including internal profit and loss statements prepared on a basis not consistent with U.S. GAAP. The segments are

⁴ As of this writing, Motorola has decided to spin off its telecom unit after years of poor performance and attempts at sale.

designed to allocate resources internally and provide a framework to determine management responsibility. Amounts for prior periods have been recast to conform to the current management view. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision making group, in deciding how to allocate resources and in assessing performance. Our chief operating decision maker is our Chief Executive Officer. Our five segments are Client; Server and Tools; Online Services Business; Microsoft Business Division; and Entertainment and Devices Division.

	Year Ended June 30 (In Millions)				
	2009	2008	2007		
Revenue:					
Client	\$14,414	\$16,472	\$14,779		
Server and Tools	14,135	13,121	11,117		
Online Services Business	3,088	3,190	2,434		
Microsoft Business Division	18,902	18,935	16,478		
Entertainment and Devices Division	7,753	8,213	6,136		
Unallocated and other	145	489	178		
Consolidated	\$58,437	\$60,420	\$51,122		
	Year Ended June 30 (In Millions)				
	2009	2008	2007		
Operating income (loss):					
Client	\$10,435	\$12,566	\$11,295		
Server and Tools	5,047	4,170	3,520		
Online Services Business	(2,391)	(1,304)	(617)		
Microsoft Business Division	11,940	12,169	10,757		
Entertainment and Devices Division	5	325	(1,945)		
Reconciling amounts	(4,673)	(5,655)	(4,572)		
Consolidated	\$20,363	\$22,271	\$18,438		

Example:

PepsiCo reports six segments of operations: Frito-Lay North America (FLNA), Quaker Foods North America (QFNA), Latin America Foods (LAF), PepsiCo Americas Beverages (PAB), United Kingdom & Europe (UKEU), and Middle East, Africa and Asia (MEAA). Although Pepsi does not provide a statement of cash flows for each segment, an investor can estimate, based on the information provided, (1) the revenue growth rate of each segment, (2) the capital intensity of each segment, and (3) operating profits. From this information, one could construct a naive statement of cash flows.

Below I estimate the free cash flow for the Frito-Lay North American segment; I allocated 37 percent of corporate overhead, based on that segment's sales (relative to total sales), for 2008 and 35.9 percent for 2007. I used the same percentages for capital spending of the parent and allocated that down as well, which I added to total capex. By allocating corporate overhead, I am implicitly taking into consideration expenses like interest and dividend payments on preferred stock that may not appear on the financial statements of the subsidiary. As you can see, Frito-Lay North America is a very strong generator of free cash flow and has a very high return on its invested capital. A precise determination of its invested capital is not possible without its financial statement, even though assets are given. In Chapter 5 I discuss in detail return on invested capital (ROIC).

Since segment operating profit is before depreciation and amortization, the analyst has no need to add those items back to what is reported by the company. If it were a true statement of cash flows, they would be subtracted from operating profits and added back under operating activities unless reporting under the direct method. I am not adding back excess discretionary spending, as you will see I will do for Clorox in an upcoming example.

For 2008, Pepsi reported an effective tax rate of 26.8 percent and, according to its statement of cash flows, supplemental information, actually paid \$1.477 billion in income taxes on pretax income of \$5.142 billion, or an approximate tax return rate of 28.7 percent, which I use below.

ΕΙ ΝΔ	2008	2007
	2000	2007
Operating profit	2,959	2,845
Capex	(654)	(705)
Corp. overhead	(375)	(270)
Pretax	1,930	1,870
Taxes (28.7 percent)	(554)	(537)
Free cash flow	1,382	1,333

	2008	2007	2006	2008	2007	2006
		Net Reve	nue	Ор	erating P	rofit ^a
FLNA	\$12,507	\$11,586	\$10,844	\$2,959	\$2,845	\$2,615
QFNA	1,902	1,860	1,769	582	568	554
LAF	5,895	4,872	3,972	897	714	655
PAB	10,937	11,090	10,362	2,026	2,487	2,315
UKEU	6,435	5,492	4,750	811	774	700
MEAA	5,575	4,574	3,440	667	535	401
Total division	43,251	39,474	35,137	7,942	7,923	7,240
Corporate—net impact of mark-to- market on commodity hedges	_	_	_	(346)	19	(18)
Corporate—other	—	_	—	(661)	(772)	(720)
	\$43,251	\$39,474	\$35,137	\$6,935	\$7,170	\$6,502

^aFor information on the impact of restructuring and impairment charges on our divisions, see note 3.

Security Valuation and Risk Analysis



Corporate

Corporate includes costs of our corporate headquarters, centrally managed initiatives, such as our ongoing business transformation initiative and research and development projects, unallocated insurance and benefit programs, foreign exchange transaction gains and losses, certain commodity derivative gains and losses, and certain other items.

Other Division Information

	2008	2007	2006	2008	2007	2006
	Т	otal Assets	3	Ca	pital Spen	ding
FLNA	\$6,284	\$6,270	\$5,969	\$553	\$624	\$499
QFNA	1,035	1,002	1,003	43	41	31
LAF	3,023	3,084	2,169	351	326	235
PAB	7,673	7,780	7,129	344	450	516
UKEU	8,635	7,102	5,865	377	349	277
MEAA	3,961	3,911	2,975	503	413	299
Total division	30,611	29,149	25,110	2,171	2,203	1,857
Corporate ^a	2,729	2,124	1,739	275	227	211
Investments in bottling affiliates	2,654	3,355	3,081	_	—	_
	\$35,994	\$34,628	\$29,930	\$2,446	\$2,430	\$2,068

^aCorporate assets consist principally of cash and cash equivalents, short-term investments, derivative instruments, and property, plant, and equipment.



^aRepresents net revenue from businesses operating in these countries.

^bLong-lived assets represent property, plant, and equipment; nonamortizable intangible assets; amortizable intangible assets; and investments in noncontrolled affiliates. These assets are reported in the country where they are used primarily.

Security Valuation and Risk Analysis



ESTIMATING FREE CASH FLOW

Corporate executives must, over the long term, manage their companies with the goal of maximizing free cash flow. To accomplish that objective, they must balance output, pricing, and expenditures with the intent that current spending will lead not only to satisfactory short-term cash-flow generation but also to sustainable long-term performance. It is when expenditures, unit output, and cash flows become unbalanced that actions should be taken to rebalance the fulcrum. Risks, whether they are business risk, financial risk, or country risk, must be weighed carefully.

Equity investors must gauge the firm's free cash flow, for this is how they are compensated. Everyone else is paid before the shareholders. The greater the free cash flow, the greater is the flexibility to pursue additional growth strategies and return cash to the owners of the equity capital. The weaker the free cash flow, the more difficult it will be to remain in business, and little or nothing will be left for shareholders. To have as a management goal long-term free-cash-flow maximization without current free cash flows introduces risk. Such enterprises have a higher cost of capital because that long-term free cash flow may be illusory.

Estimating free cash flow is not simple for those inside the company and thus even more difficult for analysts. Free cash flow, especially over shortened time periods, is fairly unpredictable and subject to discretionary expenditures. It can be subject to the entity's stock price, which determines the ability of the enterprise to substitute stock for cash compensation. Some capital spending programs are quite large and lumpy, subject to delays and cost overruns, and so affect free cash flow for years. Free cash flow is also subject to the vagaries of the stock market as it impacts pension funding, which is determined by the return on plan assets. Free cash flow is subject to interest rates because it affects

consumer demand, interest expense, and the timing and cost of a sinking-fund payment or debt repurchase. Free cash flow is subject to congressional and accounting rule makers to the extent that tax incentives are granted or withdrawn; accounting promulgations affect credit ratings and shareholders equity, which, in turn, alter the potential growth rate of the entity. And of course, free cash flow is most affected by business conditions—demand for the company's product and/or services and the input costs required to produce revenues.

Free cash flow is not the same as EBITDA, because it is derived only from income statement inputs, comes with a big theoretical caveat: It fails to capture capital intensity, the proportion of cash flows that must be reinvested to maintain the business, including working capital. This varies structurally between industries and companies, which is why I look to growth rates when evaluating capital spending requirements. Calculating EBITDA is certainly a lot simpler than calculating free cash flow. Later in the chapter I enumerate other failings of EBITDA.

So why do we do it? Because this is what an operating company is truly worth—the potential *cash* it can return to shareholders in return for the *cash* they invested in the business. Would you quit your job to buy a business you knew would return zero cash back? Our lives are based on cash. We cannot accrue that bill at a restaurant—pay it, or the owner will call the cops!

To estimate free cash flow, one can follow two approaches—the direct and the indirect approach—just like the derivation of net cash from operations. Under the direct approach, the cash-flow analyst estimates the components of cash flows of operating activities and then estimates the portion of those components that are discretionary in nature. The cash-flow analyst also estimates the discretionary components of the firm's major investments in fixed assets. As we saw in Chapter 3, very few companies use the direct method for reporting changes in operating activities, although the FASB and the IASB clearly have been advocating its adoption.

Under the indirect approach, the cash-flow analyst begins with the change in cash during a period and makes adjustments to that amount for various events that affect free cash flow. Generally, all cash outlays that are not necessary for the firm's continuing operations will be added back to the change in cash because the firm could have avoided making those payments and still continued its operations. Consequently, free cash flow would have increased had the firm not made those expenditures. Similarly, increases in cash that result from liquidation of fixed assets or from external financing are subtracted from the change in cash because they do not represent cash flows that were generated from continuing operations of the business or because they represent the gradual liquidation of the firm.

Although free cash flow can be estimated beginning with the changes in the balance-sheet cash, an easier yet still precise method is to begin with cash flows from operating activities, as stated in the statement of cash flows, and from that to make the necessary adjustments.

Security Valuation and Risk Analysis

This approach is based on the following rationale: Consider the cash sources–uses identity:

OCF + net debt + net equity = dividends + investments + change in cash

where

OCF = net cash flow from operating activities

Net debt = net cash provided by debt issuance

Net equity = net cash provided by equity issuance

Dividends = cash dividends paid by the firm

Investments = cash investments in capital expenditures and such investments Change in cash=change in cash balance from beginning to end of period

Simple algebraic manipulation yields

OCF - investments = change in cash + dividends - net debt - net equity

On the left-hand side of the equation, which I will call FCF1, is equal to net operating cash flows minus net investments during the period, mostly in capital expenditures. By now, we know that some of the investments in capital expenditures can be considered discretionary. Let us denote discretionary investments by *DiscInv* and nondiscretionary investments by *NonDiscInv*. Similarly, some of the cash outlays, such as payments to employees and suppliers, research and development (R&D), and so forth, may be discretionary. Let us denote these discretionary cash outflows by *DiscOCF* and the nondiscretionary cash from operations by *NonOCF*.

Thus the equation can be written as

(NonOCF - DiscOCF) - (NonDiscInv + DiscInv) = change in cash + dividends - net debt - net equity

Simple manipulation yields

NonOCF - NonDiscInv = change in cash + dividends - net debt - net equity + DiscInv + DiscOCF

Note that the left-hand side of this equation now contains the free cash flow as we have defined it—the cash generated by ongoing operations of the business during the period in excess of necessary investments in capital expenditures and other necessary payments. Note that this represents free cash flow because net operating cash flow now includes cash receipts from operations in excess of necessary

cash outflows for generating these cash receipts during the period and in excess of investments that are intended to maintain the ability of the firm to generate those cash receipts in the future. Obviously, the excess cash receipts can be distributed to shareholders without affecting the growth of the business.

The right-hand side of the equation shows the indirect method alternative way of estimating free cash flow from operations. Instead of estimating the cash receipts minus necessary cash flows, one begins with the change in cash during the period and makes adjustments to it as it is portrayed on the right-hand side of the equation. For example, decreases in cash owing to financing events, such as payment of dividends or retirement of debt, are added back to the change in cash. Similarly, decreases in cash owing to discretionary capital expenditures or investing activities beyond those needed to sustain the growth of the firm are added back to the change in cash. Decreases in cash owing to operating expenses beyond those needed to sustain the growth of the firm are also added back to the change in cash because they represent discretionary expenditures. Using similar logic, increases in cash owing to disinvesting events, such as the sale of plant, property, and equipment (PPE), or increases in cash owing to financing events, such as the issuance of common stock, are subtracted from the change in cash. This procedure yields another estimate of free cash flow, but it uses an indirect method to estimate the free cash flow.

While we normally would opt for the indirect approach because information is gleaned by viewing the various items that supply and use cash, preparers of financial statements do not always present sufficient data (or lump other data together) for the analyst to prepare an accurate model. For this reason, our credit models use the direct approach, starting with cash flow from operating activities and then making the necessary adjustments.

For the positive free-cash-flow producer, principal sources of liquidity are cash on hand and cash generated from operations. For the non-free-cash-flow generator, it is external financing, cash on hand, asset sales, and tax refunds. Management also focuses on managing the critical components of working capital, which include receivables, inventory, payables, and short-term debt, to make certain that all short-term obligations are able to be satisfied. If long-term credit is needed as a result of a cash shortfall, a decision must be made on the optimal means to secure it. The most optimal way may not always be the cheapest but may be the right decision for the current period. This is so because the entity might be in need of quick access to cash, such as to fund an acquisition or pay debt, and timing may have an added cost.

As we have seen from company reporting, there is no simple or single definition of free cash flow in use today, nor can an analyst simply rearrange a few numbers from the statement of cash flows to arrive at free cash flow. Some models value an entity as the present value of dividends but do not consider if the dividend

to pay the cash was generated from free cash flow. Using my definition, bank borrowing to pay a dividend would result in a neutral cash generation, as it should, because the payment does not represent free cash flow. Free cash flow, as defined in my model, can be used to reduce leverage, if desired or required, without depriving the firm of needed cash for expansion.

I now show a detailed procedure to estimate free cash flow using Clorox as an example. I also show Clorox's ability to satisfy its obligations from free cash flow and credit capacity.

Example: CLOROX

The Clorox Company (the company or Clorox) is a leading manufacturer and marketer of consumer products with fiscal year 2008 net sales of \$5.3 billion. The company sells its products primarily through mass merchandisers, grocery stores, and other retail outlets. It markets some of consumers' most trusted and recognized brand names, including its namesake bleach and cleaning products, Green Works natural cleaners, Poett and Mistolín cleaning products, Armor All and STP auto-care products, Fresh Step and Scoop Away cat litter, Kingsford charcoal, Hidden Valley and K C Masterpiece dressings and sauces, Brita water-filtration systems, Glad bags, wraps and containers, and Burt's Bees natural personal care products. With approximately 8,300 employees worldwide, the company manufactures products in more than 15 countries and markets them in more than 100 countries. The company was founded in Oakland, Calif., in 1913, and is incorporated in Delaware.

Source: Clorox 2009 10K.

We begin our model with Clorox's cash flow from operating activities as stated in its financial reports (column "d" in Table 4-8). Cash flow from operations reveals the important cash collections and disbursements from its primary business activities, including payments for supplies, taxes, and labor; it ignores the basic outflows of the financing and investment decisions. It thus cannot be considered a measure of free cash flow. It does not make comparability adjustments.

Table 4-8 shows three approaches to calculating free cash flow. The first uses operating cash flows minus capital expenditures. This method ignores excess spending in discretionary areas, which can be captured through cost cutting. I will refer to this approach as *FCF1*.

The second approach, *FCF2*, uses a naive but still widely used version of free cash flow, one where operating cash flows are estimated from after-tax profits plus depreciation, and from which we subtract capital expenditures. In FCF2, free cash flows vary widely from FCF1, which uses actual operating cash flows. Despite this, many finance textbooks still define cash flow as profits plus depreciation. FCF2 would not be an accurate measure of distributable cash flow.

TABLE 4-8

Clorox: Free Cash Flow, as Commonly Defined

	EBITDA	Net Income	Deprec. & Amort.	Opt. Act. Net Cash Flow	CapEx	Est. OCF	FCF1	FCF2	FCF3
Year	(a)	(b)	(c)	(d)	(e)	(b) + (c)	(d) – (e)	(b) + (c) – (e)	(a) – (e)
1998	628	298	123	313	99	421	214	322	529
1999	853	246	176	588	176	422	412	246	677
2000	907	394	176	658	158	570	500	412	749
2001	843	323	194	747	192	517	555	325	651
2002	899	322	159	876	177	481	699	304	722
2003	1,004	493	160	803	205	653	598	448	799
2004	1,041	549	176	899	172	725	727	553	869
2005	991	1,096	174	765	151	1,270	614	1,119	840
2006	954	444	175	522	180	619	342	439	774
2007	1,056	501	180	709	147	681	562	534	909
2008	1,124	461	201	730	170	662	560	492	954
2009	1,219	537	189	738	197	726	541	529	1,022
Avg.							527	477	791

Notice the large after-tax profit Clorox reported for 2005. The company booked a \$550 million profit owing to the exchange of certain of its businesses with a low book value and cash in return for 29 percent of its common stock. This amount is reversed in the statement of cash flows. It did, however, result in a large gain for shareholder reporting purposes, and thus the difference between FCF1 and FCF2 is substantial.

The boom of the 1990s through 2007 in merger and acquisition (M&A) activity brought on a concurrent rise in the use of EBITDA. The theory behind EBITDA was the desire to capture unlevered cash flows, believing that it (*FCF3*) represented the amount that could be used to cover debt service, with any balance available for shareholders. EBITDA, of course, ignores capital spending, balance-sheet changes, other operating activities, and discretionary areas that could be trimmed to provide additional cash flows, or other obligations that might require cash. While at times EBITDA is considered a proxy for cash earnings, changes in accounting promulgations make this increasingly an accrual-based earnings measure. EBITDA minus capital expenditures is one the most commonly used definition of free cash flow despite the fact that it does not represent cash that could be distributed to equity holders. It is not surprising that FCF3 results in the highest of the common free-cash-flow measures. In FCF3, dividends on preferred stock would also be subtracted from operating cash flows.

ADDING DISCRETIONARY EXCESS

Corporate executives are under constant intense pressure to cut costs, improve liquidity, and bolster financial performance. Whether owing to competition, shareholder, or creditor pressure or the effects of the business cycle, discretionary expenses come under steady scrutiny as a means to maximize and lever free cash flow with output, credit position and cost of capital.⁵ Investors are quick to react if they perceive that managers are not acting to reduce costs. For example, during their third quarter 2009 conference call, Sprint executives expressed disappointment because the cost savings of earlier quarters could not be duplicated, and stock in Sprint fell on this announcement.

Over the long term, discretionary spending should be related directly to the unit growth rate of the entity and the maximization of its free cash flow. Many discretionary areas – from manufacturing to support – should be identified to help in leveraging free cash flow, given that expected output level. Using published financial information, the analyst can identify obvious targets for management to attack. While the analyst does not have inside access or perhaps the skill to see waste at the lowest level, such as identifying cost reductions and duplications on the factory floor, a diligent analyst can deduce how spending in key areas compares with output and current free cash flow and how these yardsticks measure against the competition. Companies that lose efficiency or competitive positioning will have rising cost-of-sales and SG&A ratios in relation to their cash flows—it is then management's prerogative how to implement techniques to restore those metrics to more appropriate levels that would reinstate or minimize a loss of free cash flow. It is only the production or sales manager who would have the informed knowledge of which specific actions to undertake while not impairing revenues. The CEO must work with middle-management to identify these items, including plans for prospective savings, but would normally be unaware of the specifics, other than having a broad sense of what needs to be done. The goal is a permanent and continuing attack on cost of sales, SG&A and other discretionary areas, with clearly defined and measurable targets.

Helping to boost free cash flow has been the significant trend toward outsourcing (which began in earnest with the 2001 recession), lean management, and

⁵A study by McKinsey & Co. of purchasing performance at more than 400 companies across the globe found that companies with the most effective purchasing functions delivered annual purchasing savings more than twice those of poorly performing firms. These same companies managed to reduce their cost of goods sold significantly at times when poor performers were struggling with rising costs. Most compellingly, profit margins at leading firms were twice as high as those of poor performers. For more information, see "Operations Extranet," Guido and Spiller, McKinsey & Co., October 2009.

other operational techniques, movements that have enhanced the value to both industrial and service entities. Large cost savings can be achieved rather quickly while, for many companies, providing cash, because some outsourcing companies have purchased the manufacturing plants as a seller's condition of entering a long-term supply contract. Because outsourcing companies often have been more efficient in the manufacturing process, they have been able to step up time to market, an important competitive advantage, especially if customer demand is strong or the entity is concerned over losing market share to a competitor who is a lower-cost producer. As aggregate demand slowed following the 2007–2009 recession, cost cutting continued to be recognized as a leading method to increase market share because price increases became unthinkable.

However, while outsourcing has resulted, for many, in increases in free cash flow, the use of outsourced manufacturers can remove control and expertise. Boeing admits that it lost control of the manufacturing process by outsourcing more design and production work on its new Dreamliner series and by not keeping close tabs on suppliers. Senior management discovered that it needed to retake control, but not before the company lost as many as 60 orders owing to delays.

It is important to consider the special case of high-unit-growth industries such as technology or companies with "hot consumer products." When the growth rate of these entities slows owing to the inevitable competitive pressures or market saturation, the firms must waste little time addressing and pressing their cost side. This is so because output and expenses are now unbalanced, leading to deteriorating free cash flow. If the same entity is successful reestablishing growth in operating cash flows, it then, in the most efficient way possible, rebuilds flexible manufacturing coverage. When growth does slow, companies quickly should reduce both fixed costs and discretionary expenditures to match their new lower long-term unit growth rate.

Example:

Kraft Foods, Inc., highlighted on Wednesday its latest efforts to improve productivity and save on costs over the next two years, in a continued effort to make the case that it is in a strong position to engineer its bold takeover bid for Cadbury PLC.

Kraft highlighted the steps it is taking to boost its margins, like cutting the number of suppliers it works with. The company also pointed to the turnaround efforts of the last three years, noting that it cut 19,000 positions between 2004 and 2008 as part of its restructuring plan. Kraft said it is focusing on faster growing brands in Europe and said the efforts will fuel margin expansion.

Source: Wall Street Journal, September 9, 2009.

Security Valuation and Risk Analysis

Although the term *corporate fat* has a negative connotation, every company, like every living being, has and needs some. The question all companies face is, How much corporate fat is justified under the current circumstances, and for what reason? If manufacturing capacity is at 100 percent, or the firm needs to step up its applied research budget, perhaps greater than normalized spending may be justified. Footlocker, Inc., explained during an investor conference call reviewing its 2009 fourth quarter that cutbacks were warranted in "store scheduling," meaning that locations were operating with too many employees. Basically, corporate fat represents overspending, which is found most often in SG&A expenses; cost of goods sold (COGS), in which both material expense and labor expenses may be included; advertising expenses; and R&D expenditures. Thus I will focus on these items in estimating discretionary cash outflows on the continuing operations of a firm. Of course, overspending can be found with every cash outlay and must be checked to free cash. Corporate fat also represents insurance against employees leaving and not having a trained replacement.

The savings from cuts to discretionary areas can be quite substantial. For instance, speeding up collection of accounts payable can add days of sales to cash, in effect creating the same result as adding revenue. For instance, it has been estimated that improving collections by 4 days for a company with \$20 billion in revenue adds the equivalent of \$200 million in cash. Cutting unneeded capital spending or inventory for a company this size can add additional hundreds of millions of dollars.⁶

Management consultants are well known for studying an entity's productive and administrative processes to determine how cutbacks could be accomplished while maintaining the same or improved level of production. Six Sigma and continuous process improvement (CPI) techniques and efficiency (including outsourcing) in R&D budgets have added to better quality control and superior (less defective) products, which, in turn, serve to reduce corporate waste. Management consulting firms continue to help their clients strive for operational excellence by helping them to reduce overhead and improve supply-chain management through "lean" production techniques and knowledge sharing.

While running lean can help to improve cash flows, the running down of inventory and staff can lead to lost sales. Proctor & Gamble, during conference calls with analysts and investors, has repeatedly stated that its biggest challenge is to make sure that inventory is on retailers' shelves or in back of the store. To that end, the company works closely with retailers so that they are never out of product, even during busy periods. Likewise, eliminating service staff can adversely

⁶ See McKinsey & Co, Operations—Extranet, "Freeing Up Cash from Operations," by Alexander Niemeyer, December 2008.

affect relationships with important customers. Many companies are now servicing smaller customers through less expensive service centers.

Example:

Macy's attacked corporate fat by, among other things, combining its 12 payroll support locations into one. The company reduced the number of banks its uses. The result of these actions, according to the company, was a savings of 25 percent.

Although the proper amount of corporate fat must be determined case by case, I have found that when public firms restructure their operations, they are able to trim about 20 percent from what I defined as overspending without affecting future growth⁷. This is the same assumption as that of capital expenditures; not all excess payments to suppliers and employees can be considered discretionary, and to be conservative, only 20 percent of these amounts are classified as overexpenditure.

The cost-cutting trend that begun in earnest during the merger boom of the late 1980s continued during the economic expansion of the 1990s, with the largest companies leading the way. As the world entered the economic recession of 2007, corporate overhead and discretionary areas were slashed further, this time from a real fear of financial failure. Companies merged departments and shifted research and manufacturing to low-cost countries as quickly as they could, while requiring their remaining employees to put in longer hours, all in the hope that when demand returned, the increase in revenues would result in historically wide margins. No industry was immune, whether it be manufacturing, banking, insurance, or service. And when the economy began recovery during 2009, these companies benefited and were able to show increases in free cash flow that would not have been possible a few years earlier.

Improvements in supply-chain management saved hundreds of millions of dollars for some companies. For example, transportation accounts for about 50 percent of supply-chain costs, and through better asset utilization, routes, and modal mix, significant cash savings have been achieved.

While security analysts may not have knowledge of small departments capable of such potential improvements, published financial statements are sufficient to spot trends in expenditures where savings can be delivered without revenue diminishment.

⁷ Because the amount a particular entity can free up while still maintaining maximum growth must be determined on an ad hoc basis, financial software can serve only as a general guide.

Security Valuation and Risk Analysis

Currently, security analysts are taught to compare various expenses as a percentage of sales over a period of years to get an idea of whether such expenses are out of line. Such analysis is often misleading because it is the company's current and projected unit growth rate that determines the appropriate level of many expenses and expense ratios. Then, as discussed in the productivity section of Chapter 2, the firm must be managed to produce free cash flow based on that output and expense level. If the firm is incapable of doing so, expenses must be controlled further, or other means to enhance revenues (e.g., price increases or additional sales) must be put into place.

Because of inflation's effect on sales, unit growth ideally should be compared with discretionary expenditures. For example, if revenues double with no change in unit growth (in, say, an inflationary spiral), a doubling in selling and administrative expenses would destroy value because the inflation-adjusted cash flow and ROIC could decline. To calculate unit growth, the analyst would deflate revenues by the inflation adjustment for the company or industry depending on available data. This information for various industries is assembled by the Bureau of Economic Analysis.

The entity's unit growth also should be compared with growth of that unit in the industry, on a quarterly reporting basis, using industry or Bureau of Labor Statistics (BLS) data. Market share is important, but only if it results in growing free cash flow. Table 4-9 shows the price data for wireless carriers, revealing price

TABLE 4-9

Chain-Type Price Changes-Cellular Carriers

Series ID: PCU517212517212 Industry: Cellular and other wireless carriers Product: Cellular and other wireless carriers													
Base D	Date: 199 Jan	906 Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annua
1999						100.0	100.9	99.4	99.2	98.8	98.0	97.0	
2000	96.3	95.4	95.4	94.5	95.7	94.5	94.9	93.6	94.3	92.5	90.9	91.1	94.1
2001	87.6	91.0	90.2	90.2	90.8	90.6	90.1	89.9	89.8	90.4	90.3	90.0	90.1
2002	89.7	89.5	89.3	89.6	90.2	92.2	92.9	92.5	92.7	93.7	93.3	93.5	91.6
2003	92.9	91.4	91.5	92.1	92.1	92.4	92.6	92.5	92.9	92.3	92.3	92.4	92.3
2004	92.2	91.7	91.6	92.3	91.7	91.7	91.9	91.4	90.3	89.6	88.9	88.1	90.9
2005	86.4	83.7	82.1	81.9	80.8	79.2	79.2	78.3	77.2	76.0	75.3	74.8	79.6
2006	74.5	74.5	74.0	75.3	74.1	74.4	74.6	74.8	74.5	73.8	74.8	74.3	74.5
2007	73.9	73.2	72.5	73.7	74.6	74.4	76.5	73.8	75.1	74.2	73.4	71.6	73.9
2008	71.4	70.7	69.4	70.7	70.4	69.8	68.8	70.2	70.0	69.0	69.0	69.6	69.9
2009	68.8	68.9	68.2	67.7	70.1(P)	67.0(P)	67.0(P)	67.9(P)					

P = preliminary. All indexes are subject to revision 4 months after original publication.

deflation, which is common for new, fast-growing industries attracting many new entrants. In order to calculate unit growth, the analyst would need to deflate a firm's yearly revenues by the amount shown in the table. In this case, there have not been price increases but price declines. For example, \$100 in revenue in June 1999 would require about \$110 in revenue in July 2001 for the same volume. This would not be accurate if the firm is buying sales through acceptance of lower margins, so discretion is advised when using such tables. Unit growth has been greater for this industry than is implied by the price declines against sales revenue in the table and is why I prefer also evaluating cost-of-sales growth rates when prices are stable or declining with firms fighting over market share.

CAPITAL EXPENDITURES

Of all the discretionary expenditures in a business, capital spending is probably the most scrutinized because of its visibility and its nature. The mere size of capital spending (it is usually the largest use of cash on the statement of cash flows), combined with the fact that cash returns on capital spending occur many periods away, forces investors to investigate whether an entity's capital expenditures are economically justified.

Because capital spending typically represents such a large use of cash and can be cut easily, it is often the main target when business conditions soften, thereby giving the entity time to either work its way through its difficulties or wait until the economy improves.

Example:

NEW YORK (MarketWatch) – Pressured by the declining economic environment, Limited Brands—which operates the Victoria's Secret and Bath & Body Works chains—said Wednesday it plans to reduce capital spending next year by as much as 60 percent from a spending peak just two years earlier. Spending in 2009 will decline to between \$300 million and \$400 million from a projected \$500 million this year, Chief Financial Officer Stuart Burgdoerfer said at the company's annual analyst meeting in Columbus, Ohio, compared with the company's peak spending level of \$749 million in 2007. The spending cuts for this year and next will come from curtailing various real estate projects, including scaling back the number of store openings and remodels the company plans, said Chief Administrative Officer Martyn Redgrave at the company's analyst meeting.

Source: MarketWatch, October 22, 2008.

Forecasting capital spending is difficult because it depends on the economy, available investment opportunities, and the specific conditions of the firm, particularly on its expected rate of growth and its ability to produce free cash flow, alongside its cost of capital, leverage, and financial flexibility. Thus, forecasting capital spending is best left up to management estimates, and corporate executives should clearly state their capital expenditure budgets for as many years into the future as practical, including their requirements and the financial standards of projects they have or would accept. Analysts then must determine if management is true to those standards.

For cyclic entities, capital expenditures can be as volatile as cash flows. For such entities, especially when liquidity deteriorates, capital spending often would reflect the minimum that is needed to sustain the business entity. Still, we must devise a way to estimate the component of capital expenditures that is discretionary and that is not necessary to sustain the growth of the business.

When credit-rating agencies evaluate capital spending, they often add to the reported amount what they call *imputed capital spending* from the operating lease payment, on the theory of comparability. I do not agree with this methodology because to do so would distort the actual free cash flow that could be distributed to shareholders if it were to be subtracted. The financing method does indeed, in and of itself, provide or reduce free cash flow; hopefully, it also will result, by virtue of the asset financed, in even greater free cash flow in the future.

If the entity is capable of servicing its operating leases from operating cash flows, management is left with cash to deploy as it sees fit and not keep in reserve, as the credit agencies would imply. The present value of such leases is added to total debt, and its impact would be felt there (including my ROIC measure), as well as the credit metrics based on total debt. To the extent that an analyst believed a portion of operating leases should be considered a capital-spending surrogate, capital ratios would be affected.

Some security analysts prefer to look at what they consider to be "maintenance" capital spending, that is, capital expenditures that are adequate to keep up the current level of production. This is faulty for the growing concern because it does not take into account the appropriate future needs any capital budget should consider. During periods of financial stress, it would not be inappropriate to consider maintenance capital spending because maximum liquidity may be needed to satisfy debt or other legal obligations—maintenance capital spending in fact may be too high, and the entity may shut or partially close certain of its facilities. If the entity is forced to cut back capital spending plans to a minimum for an extended period, it most likely does not have growing free cash flow or, perhaps, any free cash flow. These entities would not have the required cash to stay competitive if their peers are investing in productive assets. Also, the time to reduce capital spending to a maintenance level could be longer than anticipated if agreements to purchase capital already have been entered into.

When evaluating long-term capital projects, the preferable method is to fund projects that have an expected ROIC in excess of its cost of capital while allowing for a margin of error to the return. Theorists claim that the entity should accept any project for which ROIC is greater than its cost of capital.

Example:

Crown Castle defines recurring cash flow to be Adjusted EBITDA, less interest expense and less sustaining capital expenditures. Each of the amounts included in the calculation of recurring cash flow are computed in accordance with GAAP, with the exception of sustaining capital expenditures, which is not defined under GAAP. We define sustaining capital expenditures as capital expenditures (determined in accordance with GAAP) which do not increase the capacity or life of our revenue generating assets and include capitalized costs related to (i) maintenance activities on our towers, (ii) vehicles, (iii) information technology equipment, and (iv) office equipment.

Source: Crown Castle, Q2, 2009, conference call to shareholders.

Clorox's normalized capital expenditure (Fig. 4-7) pattern is typical for a mature consumer goods firm when viewed in relation to its \$1.1 billion net property account, characterized by a low growth rate, and as capital expenditure patterns go, is somewhat, but not excessively, "lumpy." Clorox made large capital investments in PPE commencing in 1997 (not shown) and then saw a generally declining account as that build neared its end. The company began a new program during 2003. We see a fairly smooth relationship between capital spending and cost of goods sold when trend lines are introduced. However, to assess the benefits of a capital expenditures program, one has to look at the long-term benefits of free cash flow and commensurate ability to repay the added debt assumed as part of the build. Once those debt levels have been brought down, additional free cash flow should accrue to equity holders.

In some cases, one finds that a firm writes down or writes off some of the capital expenditures made earlier. Not so in Clorox's case because management has made prudent decisions and has not overinvested; free cash flow continued to rise for the period under analysis, although leverage ratios increased, resulting from the large repurchase of stock from the former controlling shareholder. The increase in free cash flow indicates that capital expenditures were justified. It is not unusual for companies to see the SG&A expense rise in the early years of a significant capital program because new hires are not yet covered by the additions to operating cash flows. Again, this was not the case with Clorox because perhaps management was concerned with a restrictive covenant (soon explained) and reigned in all unnecessary expenditures.

TABLE 4-10

Largest Capital Spending Companies, Fiscal Year 2008

Company Name	Capital Expenditures
AT&T INC	19,676
BHP Billiton Group (AUS)–ADR	8,908
BHP Billiton Group (GBR)–ADR	8,908
BP PLC-ADR	22,658
Canadian Natural Resources	9,098
Chesapeake Energy Corp.	17,649
Chevron Corp.	19,666
China Mobile, LtdADR	18,001
China Petroleum & ChemADR	15,832
ConocoPhillips	19,099
Daimler AG	12,456
Deutsche Telekom AG-ADR	9,615
Devon Energy Corp.	9,375
E.On AG-ADR	12,522
Encana Corp.	8,254
Enel Spa–ADR	9,825
Eni Spa–ADR	17,137
Exxon Mobil Corp.	19,318
Ford Motor Credit Co., LLC	11,230
France Telecom-ADR	10,044
Gazprom O A O-ADR	22,171
General Electric Cap. Corp.	13,184
General Electric Co.	16,010
General Motors Corp.–PRE FASB	7,530
GMAC, LLC	10,544
Hertz Global Holdings, Inc.	10,203
Honda Motor Co., LtdADR	13,145
Korea Electric Power CoADR	7,072
Lukoil Oil Co.–ADR	10,525
Marathon Oil Corp.	7,146
Motors Liquidation Co.	7,530
Nippon Telegrph. & TeleADR	14,241
Nissan Motor Co., LtdADR	13,333
ORIX Corp.–ADR	8,875
Petrobras Brasileiro-ADR	29,874

Company Name	Capital Expenditures				
Petrochina Co., LtdADR	31,574				
Rio Tinto Group (AUS)–ADR	8,574				
Rio Tinto Group (GBR)–ADR	8,574				
Royal Dutch Shell, PLC-ADR	35,065				
Statoilhydro ASA–ADR	9,368				
Telefonica SA-ADR	10,981				
Total SA–ADR	16,509				
Toyota Motor CorpADR	23,668				
Toyota Motor Credit Corp.	7,626				
Vale SA–ADR	8,074				
Verizon Communications, Inc.	17,238				
Vodafone Group, PLC-ADR	7,442				
Volkswagen AG-ADR	10,808				
Wal-Mart Stores, Inc.	11,499				
XTO Energy, Inc.	13,030				

FIGURE 4-7

Clorox: Three-Year Growth Rates in Yearly Capital Spending and Cost of Goods Sold



Source: Clorox 10Ks and CT Capital, LLC.

One way of estimating the requisite level of capital expenditures⁸ is to compare its growth rate with COGS (Fig. 4-11). Presumably, in order to sustain a specific growth rate of COGS, capital expenditures should grow by approximately the same rate, especially during periods of modest inflation, as was the case during the years shown. If the data are given, depreciation included in COGS should be removed to both improve comparability and to adjust to a figure closer to the actual growth rate of the important inputs. Depreciation related to COGS may be found either in the property, plant, and equipment footnote or in the management discussion and analysis.

Typically, product price inflation in a competitive industry will grow similarly, if not below, the overall inflation rate for fear of losing market share. If we observe a substantially higher growth rate of capital expenditures than cost of sales during a reasonable period, then it can be assumed that the firm had overinvested in PPE during the period, and this overinvestment represents discretionary capital expenditures that can be considered a free cash flow. An entity continually needing to grow its capital spending at a greater rate than its nominal cost of sales almost always would have negative free cash flow.

To show the estimation for Clorox, I follow these steps:

- 1. I first estimate the annual average growth rate in capital expenditures and cost of sales over the most recent three years (Table 4-11). For example, in 2009, I divide \$197 by \$180 to obtain 1.094. I take the log of that, divide by the number of years growth rate (three), and then take the antilog of that for an average growth rate of 3.1 percent per year.
- 2. I follow similar calculations to estimate the growth rate in COGS. If the information is given, depreciation in COGS should be subtracted, and then the growth rates applied. Clorox does not report its depreciation in COGS, SG&A, R&D, or other line items, although a call to the company revealed that 80 percent the total firm depreciation was in COGS. Since depreciation would not have significantly changed the growth rate and it was not reported separately, the example shows reported COGS. For other entities, it will be significant and must be excluded from reported COGS. For 2009, the growth rate of COGS was 5 percent.

⁸ Wasteful capital spending also can result from cost and time overruns, especially with projects of a long duration. Delays in such projects can be substantial and harm the estimated return, causing it to fall below its cost of capital. Additionally, if market conditions change during construction, the project could be "mothballed" or placed on hold until demand improves. The model illustrated in this chapter does not take such scenarios into account.
- 3. I subtract the growth rate of COGS from that of capital expenditures and substitute zero if the result is negative. For example, in 2009, the difference is -1.9 percent (5.0 3.1). In 2003, it is 9.9 percent because the growth rate of COGS was -0.8 percent, and the growth rate of capital expenditures was 9.1 percent.
- **4.** I multiply the excess growth rate of capital expenditures by the COGS that year to obtain an estimate of discretionary capital expenditures for the year. For example, in 2003, I multiply the COGS of \$2.076 billion by the excess growth rate of 9.9 percent to obtain \$205 million, which I then multiply by 20 percent to obtain the excess, or \$41.1 million. Since cost of sales was negative, indicating no growth, there was no reason to spend more than \$160 million in capital expenditure (capex), which was slightly lower than the prior year. As seen, Clorox did in fact reduce its capex below that figure in subsequent years.

In 2009, the excess is zero, and no discretionary capital expenditures are designated.⁹

TABLE 4-11

	Fiscal Year Ended June									
Discretionary Capital Expenditure	2009	2008	2007	2006	2005	2004	2003	2002	2001	
Capital expenditure	197	170	147	180	151	172	205	177	192	
Three-year growth rate of cap. ex.	3.1	4.0	(5.1)	(4.2)	(5.2)	(3.6)	9.1	0.2	24.7	
COGS	2,905	2,862	2,581	2,510	2,323	2,218	2,076	2,161	2,146	
Three-year growth rate of COGS	5.0	7.2	5.2	6.5	2.4	1.1	(0.8)	5.9	24.4	
Excess growth rate of COGS	0.0	0.0	0.0	0.0	0.0	0.0	9.9	0.0	0.3	
Discretionary cap. ex.	0.0	0.0	0.0	0.0	0.0	0.0	41.1	0.0	1.3	

Estimating Growth Rates of Capital Expenditure and Cost of Sales

⁹ The astute reader may ask why should we consider some capital expenditures as discretionary (when the growth rate of capital expenditures exceeds that of cost of sales), but when capital expenditures lag behind sales, I do not subtract from operating cash flows an additional amount that is equal to the "required" capital expenditures that were not undertaken. The reason for this seeming inconsistency is that firms can increase productivity owing to technological advances and other measures (outsourcing) without requiring comparable investments in capital expenditures. Thus, in my calculations, I do not penalize firms that became more efficient.

Based on these estimates of the discretionary expenditures on PPE, I obtain the estimated free cash flow by subtracting total capital expenditures from net operating cash flows and adding back discretionary capital expenditures, or FCFIV (Table 4-12). If Clorox had preferred stock in its capital structure, one would need to deduct those dividend payments to arrive at cash available to shareholders.

The procedure I used to estimate discretionary capital expenditures may seem arbitrary at a first glance. I first estimate the growth rate over three years (which requires four years of data) in capital expenditures and cost of sales. The decision to use four years stems from a balancing of two errors; a longer period may yield unfair comparisons because firms change substantially over time. They branch out to other lines of business or decide to dispose of existing lines of business. However, a period shorter than four years is unlikely to include an entire business cycle. Thus I focus on four years in my analysis. In this example I have both an expansion and a recession in the data.

I compare the rate of growth in capital expenditures with that of COGS. Ideally, as stated, I could have used a physical measure of output to examine the required growth rate of inputs needed to support the growth level of output. However, firms do not provide physical output or input measures, and one has to resort to estimates if BLS or trade data pricing is unavailable or not comparable with the entity's product mix. I feel that cost of sales is a good measure of growth in output because it comprises all components of product costs. Given fairly similar price increases between inputs and outputs, the growth rates in physical outputs and inputs.

TABLE 4-12

Estimating Free Cash Flow-FCFIV

				Fiscal	Year End	led June			
Calculating Free Cash Flow	2009	2008	2007	2006	2005	2004	2003	2002	2001
Operating cash flow minus	5	500	500	0.40	014	707	500		
cap. ex.	541	560	562	342	614	121	598	699	555
Discretionary cap. ex.	0.0	0.0	0.0	0.0	0.0	0.0	41.1	0.0	1.3
FCFIV	541.0	560.0	562.0	342.0	614.0	727.0	639.1	699.0	556.3

COGS needs to be inspected because it is a product of many items in addition to the cost of merchandise sold, some of which could be temporary aberrations and could account for a biased result. Where a bias exists, the result should be adjusted. Items included in COGS could include taxes (other than income), supplies, maintenance and repairs, insurance, licenses, and light and power. I exclude the depreciation piece of SG&A because doing so may better reflect the discretionary component.

Over 30 years of using this method supports the estimation procedure. When checking the distribution of what was termed *discretionary payments* to suppliers and employees in the entire population of Compustat firms (existing firms and those in the research database of merged and failed firms), about 20 to 25 percent of all firms had discretionary payments to suppliers and employees in any given year. When comparing the magnitude of those discretionary cash flows with total sales of the firm, it was found that fewer than 6 percent of the firms in any given year had any discretionary cash flows that exceeded 10 percent of total sales. Thus errors in estimates probably would not affect the ranking of firms significantly in terms of their free cash flow. Even if one used other percentages or other approaches to estimate the discretionary components of these expenditures, one probably would have obtained similar results to those obtained in the estimation procedure.

One might ask, Why not add the full amount of excess spending? It has been shown that companies can cut too much, leading to a less efficiently run enterprise for the long term.¹⁰ When labor is thin and the remaining workforce is over-taxed, inefficiencies begin to appear. When executives speak of "across the board" cuts, analysts should be concerned that the cuts are taking place in the right areas, in the right amounts, and for the right reasons. Additionally, our research at CT Capital has found 20 percent of the excess to be correct, even if cost of sales growth is negative, as it was for Clorox during 2003. To stipulate that Clorox should have had zero capital spending if there was no growth in cost of sales would be incorrect, especially for an entity with strong free cash flow. Had the company's cost of sales continued to fall, its capital spending should have continued to fall. The model correctly picked up Clorox's peak capital

¹⁰ Low levels of capital spending can lead to staying with a less than optimal mix of more costly labor, whereas cutting back on advertising has shown to lead to loss of market share for many companies. As Ted Turner, the founder of CNN, was known to say, "Early to bed and early to rise, but don't forget to advertise." And of course, R&D budgets are crucial for innovative companies, such as 3M. McKinsey Quarterly, in July 2008, wrote, "Cutting research costs across the board in a recession isn't smart."

spending and adjusted it to a normal level. This was verified because Clorox did reduce capital spending in subsequent years.

Can one identify expenses other than capital expenditures that are discretionary in nature? An immediate candidate is expenditures made in the daily operations of the firm, where management may expend cash flows in its operations beyond those needed to sustain growth. For example, payments for goods that were acquired or produced, payments for SG&A expenses, payments for advertising, and payments for R&D efforts may be in excess of the level that is needed to sustain the current growth rate in sales. Thus it is important to obtain estimates of discretionary cash outflows for the firm's ongoing operations.

Unfortunately, few have attempted to quantify the corporate fat portion of overhead. In fact, little has been written about corporate overhead in textbooks on security analysis, investments, and accounting. The current literature has not tied the financial process to the management process, although management consulting firms have long established that corporate overhead is excessive for most firms. For example, whereas corporate overhead represented about 10 percent of total product cost at the beginning of the twentieth century, corporate overhead now contributes more than 40 percent to total product costs (e.g., see articles that discuss activity-based costing in the *Journal of Cost Management*).

Corporate restructuring, which became so prevalent beginning in the 1980s, still has a long way to go, according to the measures explained in this chapter. Management consultants agree because one sees a greater percentage of companies adopting a variety of management tools and techniques all aimed to cut corporate fat some thirty years later. There is little doubt that labor and production efficiencies are here to stay, whereas bloated overhead practices and featherbedding are a thing of the past.

The severity of the 2007–2008 recession, as well as the lingering effects of the previous expansion's debt buildup, has only stepped up the frontal attack on corporate cost structure both in the United States and abroad. Employers, from small to large, both private to public, including leading-edge management firms such as IBM, Sony, United Technologies, Colgate-Palmolive, and Hitachi, are just some who have taken a hard look at their corporate fat and decided it was too high in relation to their current and projected rate of growth. In fact, it is difficult to find a company of any size that has not been forced to review its cost structure. The investment marketplace has rewarded companies that already had strong cash flows as they announced incremental reductions to their cost structure because such steps are bound to further increase their free cash flow. Also rewarded were companies cutting costs or divisions in slow-growth segments and deploying those additional resources into their proven high-free-cash-flow growth segment.

Example:

AT&T made the following announcement in December 2008:

AT&T said Thursday that it will cut about 12,000 jobs, or 4 percent of its workforce, due largely to "economic pressures."

AT&T said it wants to streamline its operations as its business morphs to one that's largely dependent on wireless service. AT&T added that it will add jobs in growth areas such as wireless, video, and broadband. *For many quarters*, AT&T's wireless and U-verse broadband service have shown growth as its once-core wireline business erodes. AT&T also said that it will cut its 2009 capital spending budget from 2008 levels,

but didn't give specific guidance.

For other entities announcing cost cuts but which had negative free cash flow, such as GM, the market punished their stocks as further proof that the cuts were too late, and their operating cash flows too weak, to be saved by shaving expenses. These announcements were merely a tacit recognition that their business prospects were extremely weak.

CONSOLIDATED BALANCE SHEETS The Clorox Company

	As of J (Dollars ir Except Shar	une 30 1 Millions, e Amounts)
	2009	2008
Assets		
Current assets		
Cash and cash equivalents	\$206	\$214
Receivables, net	486	505
Inventories, net	366	384
Other current assets	122	150
Total current assets	1,180	1,253
Property, plant, and equipment, net	955	960
Goodwill	1,630	1,658
Trademarks, net	557	560
Other intangible assets, net	105	123
Other assets	149	158
Total assets	\$4,576	\$4,712

(Continued)

	As of J (Dollars in Except Shar	une 30 Millions, e Amounts)
iabilities and Stockholders' Deficit urrent liabilities Notes and loans payable Current maturities of long-term debt Accounts payable Accrued liabilities Income taxes payable Total current liabilities ong-term debt ther liabilities referred income taxes Total liabilities rommitments and contingencies tockholders' deficit Common stock: \$1.00 par value, 750,000,000 shares authorized, 158,741,461 shares issued on June 30, 2009 and 2008, and 139,157,976 and 138,038,052 shares outstanding on June 30, 2009 and 2008, respectively Additional paid-in capital Retained earnings Treasury shares, at cost: 19,583,485 and 20,703,409 shares on June 30, 2009 and 2008, respectively Accumulated other comprehensive net losses Stockholders' deficit	2009	2008
Liabilities and Stockholders' Deficit		
Current liabilities		
Notes and loans payable	\$421	\$755
Current maturities of long-term debt	577	_
Accounts payable	381	418
Accrued liabilities	472	440
Income taxes payable	86	52
Total current liabilities	1,937	1,665
Long-term debt	2,151	2,720
Other liabilities	640	632
Deferred income taxes	23	65
Total liabilities	4,751	5,082
Commitments and contingencies		
Stockholders' deficit		
Common stock: \$1.00 par value, 750,000,000 shares		
authorized, 158,741,461 shares issued on		
129 029 052 shares outstanding on		
lune 30, 2009 and 2008, respectively	159	150
Additional naid-in capital	579	534
Retained earnings	640	386
Treasury shares at cost: 19 583 485 and 20 703 409	040	000
shares on June 30, 2009 and 2008, respectively	(1.206)	(1.270)
Accumulated other comprehensive net losses	(347)	(179)
Stockholders' deficit	(175)	(370)
Total liabilities and stockholders' deficit	\$4,576	\$4,712

CONSOLIDATED STATEMENTS OF EARNINGS

The Clorox Company

	Years (Dollars Per-S	Years ended June 30 (Dollars in Millions, Except Per-Share Amounts)			
	2009	2008	2007		
Net sales	\$5,450	\$5,273	\$4,847		
Cost of products sold	3,104	3,098	2,756		

	Years (Dollars Per-\$	s ended Ju in Millions Share Amo	ne 30 , Except unts)
	2009	2008	2007
Gross profit	2,346	2,175	2,091
Selling and administrative expenses	715	690	642
Advertising costs	499	486	474
Research and development costs	114	111	108
Restructuring and asset impairment costs	20	36	13
Interest expense	161	168	113
Other expense (income), net	26	(9)	(2)
Earnings from continuing operations before income taxes	811	693	743
Income taxes on continuing operations	274	232	247
Earnings from continuing operations	537	461	496
Earnings from discontinued operations	_	_	5
Net earnings	\$537	\$461	\$501
Earnings per share Basic			
Continuing operations	\$3.86	\$3.30	\$3.28
Discontinued operations	· _	· _	0.03
Basic net earnings per share	\$3.86	\$3.30	\$3.31
Diluted			
Continuing operations	\$3.81	\$3.24	\$3.23
Discontinued operations			0.03
Diluted net earnings per share	\$3.81	\$3.24	\$3.26
Diated net carrings per share	φ0.01	ψ0.24	ψ0.20
Weighted average shares outstanding (in thousands)			
Basic	139,015	139,633	151,445
Diluted	141,063	142,004	153,935

See notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

The Clorox Company

	Years En	Years Ended June 30 (In M	
	2009	2008	2007
Operating activities:			
Net earnings	\$537	\$461	\$501
Deduct: Earnings from discontinued operations	—	_	5
Earnings from continuing operations	537	461	496

(Continued)

Years En	ded June 30 (Ir	Millions)
2009	2008	2007
100	205	100
190	205	192
(1)	(51)	(10)
(1)	(31)	(13)
33	23	26
00	20	20
(2)	(8)	(15)
(=)	(26)	(8)
(4)	11	13
(40)	63	(30)
(6)	(24)	11
(30)		(10)
738	730	709
(197)	(170)	(147)
(137)	(913)	(123)
—	(010)	(120)
(197)	(1,082)	(268)
(334)	681	(87)
11	1,256	_
—	(500)	(150)
_	(868)	(155)
(258)	(228)	(183)
41	39	119
(540)	380	(456)
(9)	4	5
(8)	32	(10)
214	182	192
\$206	\$214	\$182
\$161	\$153	\$117
275	299	272
2/0	200	<i>L1L</i>
70	64	61
	Years En 2009 190 58 (1) 3 (2) (4) (40) (6) (30) 738 (197) (197) (197) (197) (197) (334) 11 (258) 41 (540) (9) (8) 214 \$206 \$161 275 70	Years Ended June 30 (In 2009 2008 190 205 58 47 (1) (51) 3 29 33 23 (2) (8) - (26) (4) 11 (40) 63 (6) (24) (30) - 738 730 (197) (170) - (913) - 1 (197) (1,082) (334) 681 11 1,256 - (500) - (868) (258) (228) 41 39 (540) 380 (258) (228) 41 39 (540) 380 (9) 4 (8) 32 214 182 \$206 \$214 \$161 \$153 275 299 70 64

Clorox has invested heavily in its own stock, using debt and free cash flow to finance the purchases. Over the nine-year period ending June 2008, Clorox spent \$2.7 billion buying back its shares (of which \$2.1 billion was from its former majority shareholder and was financed with debt) while paying out \$1.95 billion in dividends, which was somewhat offset by its issuance of \$673 million in equity to employee stock plans. As Fig. 4-8 shows, Clorox's ability to produce strong and consistent free cash flow has benefited shareholders because the stock outperformed the Standard and Poor's (S&P) 500 Index by a wide margin. This has not come without a cost because the cash used to purchase those shares has wiped out shareholders' equity.

Fortunately, the consistency of Clorox's operating and free cash flow has given the firm the financial flexibility to conduct its operations with sufficient borrowing capacity, if needed. Clorox states in its 10K that it has \$1.1 billion committed in unused credit lines (expires in 2013) and an additional \$600 million it could borrow without being in violation of restrictive covenants on that line. Given that Clorox has negative net worth, its most restrictive covenant is a maximum ratio of total debt/four-quarter trailing EBITDA of 3.25.

Table 4-13 shows EBITDA and total debt for one quarter, and to calulate the covenant ratio, one needs to compute the past four quarters. Clorox had four quarters of EBITDA totaling \$1,161 million, which, when divided by its total debt,



FIGURE 4-8

Clorox: Cumulative Return versus S&P 500

TABLE 4-13

Quarter Ending June 2009: EBITDA and Total Debt Used in Covenant Calculation

	(\$ Millions)
Net income	128
Add: Interest expense	42
Income taxes	58
Depreciation and amortization	47
Interest income	(1)
EBITDA	274
Total debt	3,149

TABLE 4-14

Clorox Contractural Obligaions, 2010-2014

	2010	2011	2012	2013	2014	Thereafter	Total
Long-term debt maturities and	* =0.0	<i></i>	6 44.0	* ~~~	450	\$1.000	\$2.000
interest payments	\$706	\$414	\$116	\$925	\$52	\$1,069	\$3,282
Notes and loans payable	421	—	—	—	—	_	421
Purchase obligations (see note 18)	336	153	71	17	3	4	584
Operating leases (see note 18)	61	58	58	54	50	21	302
ITS agreement (service agreement only) (See note 18)	38	34	33	31	7	_	143
Contributions to nonqualified supplemental postretirement plans	14	15	15	15	16	119	194
Terminal obligation pursuant to venture agreement (see note 13)	_	_	_	_	_	269	269
Total contractual obligations	\$1,576	\$674	\$293	\$1,042	\$128	\$1,482	\$5,195

equates to 2.71. Based on the 3.25 ceiling, Clorox could have taken on an additional \$624 million in debt $(3.25 \times 1,161 - 3,149)$ and still been under the credit revolver covenant.

Clorox's cash flows and unused credit capacity should be able to satisfy its contractural oblications, as reported in Table 4-14.¹¹

¹¹ The appropriate liquidity cushion an entity has available depends on its stage of the economic cycle, trade, debt, and other obligations coming due, and its ability to generate operating cash flow. During its third quarter 2009 conference call with investors and security analysts, Prudential Financial stated that it felt comfortable having an 18- to 24-month cash cushion, which some investors believed was excessive and would retard results.

1. I now break the discretionary payments to suppliers and employees into several components. The first is the component of R&D expenditures that is discretionary (Table 4-15). To estimate them, I use the same procedure as for capital expenditures, except here I multiply the excess by current R&D expenditures, not by cost of sales, and then by 20 percent, which is considered excess. If there is depreciation expense included with R&D, it should be excluded, meaning that it should be deducted from the reported R&D figure. About 7 percent of reported depreciation is related to R&D, as learned from a call to the company. R&D is a naturally smoother time series than is capital spending and is an area where expenses typically are less subject to economic cycles. For this reason, excess capital spending, a lumpier item, is smoothed to cost of sales, whereas the other excess discretionary areas are smoothed in relation to themselves. I use the three-year growth rate, which required four yearly data points.

2. I next proceed to estimate discretionary cash flows in the firm's expenditures on COGS (Table 4-16). Depreciation expense included in COGS should be excluded wherever possible from stated COGS. Clorox does not report this. The estimation process here is to compare the ratio of COGS to sales with the long-run ratio (average of the most recent four years). If the ratio exceeds the long-run average ratio, some of these expenditures are considered discretionary, and 20 percent of the excess is multiplied by current sales to determine the amount of excess COGS that is considered discretionary cash flows. We can see the jump in Clorox's COGS in 2001, explained by the company in its 10K as "mostly due to the provision for inventory obsolescence of \$54 million which included \$39 million for inventories associated primarily with discontinued product lines, packaging, and unsuccessful product launches. Higher energy, raw-material and packaging costs, and an unfavorable assortment mix due to a shift to larger sizes also contributed to the increase."

IABLE 4-15

Discretionary R&D

	Fiscal Year Ended June								
Discretionary R&D	2009	2008	2007	2006	2005	2004	2003	2002	2001
Research and development	114	111	108	99	88	84	76	67	67
Three-year growth rate of R&D	4.8	8.0	8.7	9.2	9.5	7.8	6.5	2.6	6.2
Three-year growth rate of COGS	5.0	7.2	5.2	6.5	2.4	1.1	-0.8	0.0	0.1
Discretionary R&D	0.0	0.2	0.8	0.5	1.2	1.1	1.1	0.4	0.8

TABLE 4-16

Discretionary COGS

	Fiscal Year Ended June								
Discretionary COGS	2009	2008	2007	2006	2005	2004	2003	2002	2001
COGS	2,905	2,862	2,581	2,510	2,323	2,218	2,076	2,161	2,146
Sales	5,450	5,273	4,847	4,644	4,388	4,324	4,144	4,061	3,903
Four-year average as percent of sales	53.7%	53.6%	52.9%	52.1%	51.9%	52.4%	52.6%	51.4%	48.2%
Current-year COGS as percent of sales	53.3%	54.3%	53.2%	54.0%	52.9%	51.3%	50.1%	53.2%	55.0%
Discretionary COGS	0.0	6.8	3.6	18.1	9.2	0.0	0.0	14.8	52.9

Of all the discretionary areas, cost of sales is, after capital spending, normally the largest item. For Clorox, unusual bumps in COGS always have been followed by retreat to normal levels.

I use a very similar process for the SG&A expenses, after excluding advertising expenses and R&D expenses, which are usually included in SG&A expenses. I also multiply the excess by 25 percent, not 20 percent as for COGS, because this item is more subject to managerial discretion. We see a clear trend in the reduction in Clorox's SG&A expenses as a percent of sales owing to substantial labor force reduction and synergies from acquisitions (Fig. 4-9 and Table 4-17). This reduction in SG&A expenses, more than any other area, has led to the increase seen in free cash flow for Clorox over the years. In the company's 2001 10K, Clorox stated that the large reduction on SG&A was due to the ongoing benefit of combining the former First Brands businesses with the company and savings from lower commission expense primarily owing to the consolidation of the company's broker network. The analyst should remove all atypical inputs the firm shoves into SG&A, such as early extinguishment of debt, because it should reflect only the actual expenses related to sales.

Clorox has shown that it is continually searching for ways to stay lean because the efficiencies that it put in place today may not be optimal tomorrow. This way of thinking has not been confined to Clorox, as clearly substantiated by the secular international production shift to lower-cost geographies for most manufacturers. For example, in 1997, labor costs were roughly equal between China and Vietnam; a decade later, a Chinese manufacturing worker costs nearly three times as much as his or her Vietnamese counterpart. In 2009, Nike manufactured more shoes in Vietnam than in China for the first time in its history.

FIGURE 4-9





TABLE 4-17

Clorox: SG&A as a Percentage of Sales

				Fiscal \	/ear End	ed June			
Discretionary SG&A	2009	2008	2007	2006	2005	2004	2003	2002	2001
SG&A	1,326	1,287	1,210	1,180	1,074	1,065	1,064	1,001	914
Sales	5,450	5,273	4,847	4,644	4,388	4,324	4,144	4,061	3,903
Four-year average as percent of sales	24.8%	24.8%	24.9%	25.0%	24.9%	24.6%	24.9%	26.8%	29.8%
Current year SG&A as percent of sales Discretionary SG&A	24.3% 0.0	24.4% 0.0	25.0% 1.2	25.4% 4.6	24.5% 0.0	24.6% 0.0	25.7% 8.3	24.6% 0.0	23.4% 0.0

As clearly evidenced, Clorox is a well-managed company having very limited excess SG&A expenditures. This was not always the case. In the mid–1980s through the mid–1990s, Clorox had shown a larger amount of corporate fat that it has combatted each year and continues to do so. The large share buyback, by driving shareholders equity negative, has been the motivating factor.

3. I now estimate the discretionary component in advertising expenses. The estimation process is very similar to that of the prior two components, except that I consider 50 percent of the excess of advertising expenses to be discretionary. Being a consumer product company, Clorox has a large advertising budget that can be altered quickly if business conditions warrant. The company has been very efficient with its advertising expenditures, constantly reducing the budget as a percentage of revenues, and so my model picks up no corporate fat in this area over the past six years. The shift from television and print media to the Internet also has positively affected the expense budget. This is far different from the 1980s and early 1990s, when Clorox had been overspending on advertising almost every year, as shown through this methodology. Bear in mind that total advertising dollars grew in nominal terms over the years shown (Table 4-18), but revenues were showing at an even greater percentage growth, forcing the result.

4. Finally, I estimate the extent to which funding (prepayment) of pension obligations can be considered discretionary. I compute the change in pension prepayment during the year and assume that 25 percent of it is discretionary, if it is positive (Table 4-19). If the change is negative, I disregard it in the estimation of free cash flow.

Let me now summarize all the discretionary items and the resulting net free cash flow. To arrive at net free cash flow, I subtract capital expenditures from cash flow from operating activities (FCF1) and add back overspending on discretionary items, including that related to capital spending. Recall that I also could have come up with the same result beginning with the change in cash between two periods and then adding and subtracting those events which were not necessary for the firm's continuing operations. Increases in cash that result from liquidation of fixed

TABLE 4-18

Discretionary Advertising Expenses

				Fiscal N	/ear Ende	d June			
Discretionary Advertising	2009	2008	2007	2006	2005	2004	2003	2002	2001
Advertising expense	499	486	474	450	435	429	456	397	352
Sales	5,450	5,273	4,847	4,644	4,388	4,324	4,144	4,061	3,903
Four-year average as percent of sales	9.5%	9.6%	9.8%	10.1%	10.2%	9.9%	10.3%	10.5%	11.3%
Current-year advertising as percent of sales	9.2%	9.2%	9.8%	9.7%	9.9%	9.9%	11.0%	9.8%	9.0%
Discretionary advertising	0.0	0.0	0.0	0.0	0.0	0.0	14.5	0.0	0.0

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TABLE 4-19

Discretionary Pension Prepayment

Year:	6/98	6/99	6/00	6/01	6/02	6/03
Pension prepayment	23	7	16	23	0	17
25% of difference:	5.8	, 1.8	4	5.8	0	4.3
Year:	6/04	6/05	6/06	6/07	6/08	6/09
Pension prepayment	44	26	17	-74	-125	-193
25% of difference	11	6.5	4.3	0	0	0

assets or from external financing would be subtracted from the change in cash because they do not represent cash flows that were generated from continuing operations of the business. I also would adjust cash flow from operations if any artificial boosts or charges existed, such as the under(over)funding of a pension contribution, payment in kind, or classification as a financing or investment activity (reverse) that should have been listed as an operating activity. These are explained in Chapter 8. I made no such adjustments with Clorox.

At this point I can assess total corporate fat as the excess of discretionary capital expenditures plus discretionary R&D expenditures and discretionary COGS, advertising, pension prepayment, and discretionary SG&A (Table 4-20). These items represent corporate fat or additions to free cash flow because they are not required to sustain the current growth of the firm. On this account, Clorox can be described as a strong, consistent generator of free cash flow.

Aside from being an efficiently managed firm (lack of egregious overspending), the data on Clorox illustrate that well-managed firms are more likely to be good freecash-flow generators because they fully use their resources; such entities typically show better than average investment performance. In Clorox's case, its free cash flow was used, in good part, to repurchase stock, which might have contributed, with the company's back against the wall, to its tight expense control in discretionary spending. Management has been very diligent in controlling the company's labor expense, advertising, and capital expenditures while they have shrunk the capital base, but not to the detriment of creating shareholder value.

Compare the lack of Clorox's corporate fat with that of a competitor, Proctor & Gamble (P&G), which has \$67 billion in shareholder's equity. While Clorox has been forced, by virtue of its deficit equity, to operate lean, not quite the same can be said for P&G, which, using the same methodology shown for Clorox, exhibits excess spending in three areas. P&G, like Clorox, is also an excellent generator of

TABLE 4-20

Summary of Discretionary Items

6/98	6/99	6/00	6/01	6/02	6/03
0.0	5.2	0.0	1.3	0.0	41.1
7.7	7.0	4.7	0.8	0.4	1.1
0.0	24.1	59.7	52.9	14.8	0
.7	0.0	0.0	0.0	0.0	8.3
5.8	1.8	4.0	5.8	0.0	4.3
0.0	0.0	0.0	0.0	0.0	14.5
227.3	454.1	566.2	615.8	714.2	667.3
6/04	6/05	6/06	6/07	6/08	6/09
0.0	0.0	0.0	0.0	0.0	0.0
1.1	1.2	0.5	0.8	0.2	0.0
1.1 0.0	1.2 9.2	0.5 18.1	0.8 3.6	0.2 6.8	0.0 0.0
1.1 0.0 0.0	1.2 9.2 0.0	0.5 18.1 4.6	0.8 3.6 1.2	0.2 6.8 0.0	0.0 0.0 0.0
1.1 0.0 0.0 11.0	1.2 9.2 0.0 6.5	0.5 18.1 4.6 4.3	0.8 3.6 1.2 0.0	0.2 6.8 0.0 0.0	0.0 0.0 0.0 0.0
1.1 0.0 0.0 11.0 0.0	1.2 9.2 0.0 6.5 0.0	0.5 18.1 4.6 4.3 0.0	0.8 3.6 1.2 0.0 0.0	0.2 6.8 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0
	6/98 0.0 7.7 0.0 .7 5.8 0.0 227.3 6/04	6/98 6/99 0.0 5.2 7.7 7.0 0.0 24.1 .7 0.0 5.8 1.8 0.0 0.0 227.3 454.1 6/04 6/05 0.0 0.0	6/98 6/99 6/00 0.0 5.2 0.0 7.7 7.0 4.7 0.0 24.1 59.7 .7 0.0 0.0 5.8 1.8 4.0 0.0 0.0 0.0 227.3 454.1 566.2 6/04 6/05 6/06	6/98 6/99 6/00 6/01 0.0 5.2 0.0 1.3 7.7 7.0 4.7 0.8 0.0 24.1 59.7 52.9 .7 0.0 0.0 0.0 5.8 1.8 4.0 5.8 0.0 0.0 0.0 0.0 227.3 454.1 566.2 615.8 6/04 6/05 6/06 6/07	6/98 6/99 6/00 6/01 6/02 0.0 5.2 0.0 1.3 0.0 7.7 7.0 4.7 0.8 0.4 0.0 24.1 59.7 52.9 14.8 .7 0.0 0.0 0.0 0.0 5.8 1.8 4.0 5.8 0.0 0.0 0.0 0.0 0.0 227.3 454.1 566.2 615.8 714.2 6/04 6/05 6/06 6/07 6/08

free cash flow and has had superior stock performance by virtue of those free cash flows and low cost of capital. Quite noticeably, its overspending was reduced considerably during 2009 in reaction to its decline in operating cash flows resulting from the severe recession. During fiscal year 2009, P&G executed a number of significant reorganization changes and, as seen in Table 4-21, eliminated its excess SG&A and almost all its excess advertising.

An area I have not included in this section is the analysis of working capital items. Such savings can result in significant cash flows, but in my estimation procedure, I am concerned with built-in structural spending. The analyst is free to add excess working capital to free cash flow, if desired, but only to the extent that it has not been captured by other items. In another section of this book I address the cash-conversion cycle, which, when reduced, has an important positive effect on cash flows. An entity that operates with excessive working capital will have lower free cash flow than need be. Working capital also can be enhanced by changes in interest rates because many companies finance their seasonal or longer-term working capital needs using floating-rate borrowings.

Proctor and Gamble Co.: Cash Flows and Excess Expenditures

	Fiscal Year Ended June							
	2005	2006	2007	2008	2009			
Net operating cash flow	8,722	11,375	13,435	15,814	14,919			
Capital expenditures	2,181	2,667	2,945	3,046	3,238			
Sale of PPE								
Free cash flow-incl. discretionary items	6,541	8,708	10,490	12,768	11,681			
Free cash flow—excl. discretionary items	6,770	8,886	10,565	12,600	11,588			
Discretionary capital expenditures	0.0	138.5	17.9	0.0	20.4			
Discretionary R&D	0.0	0.0	0.0	0.0	0.0			
Discretionary COGS	0.0	0.0	0.0	0.0	55.8			
Discretionary SG&A	124.2	55.8	187.5	183.2	0.0			
Discretionary advertising	0.0	240.7	0.0	35.2	7.9			

Source: CT Capital, LLC.

Supply-chain improvements have been significant over the past few decades, although it is still not uncommon to see excess inventory/sales ratios for many companies that wish to satisfy their most demanding customers. While there is a normal managerial inclination to have inventory on hand for clients and customers, this represents a decision that must be weighed carefully against the cash savings. Reducing the cash-conversion cycle, for many companies, has the same impact as offsetting a decline in sales.

As Table 4-22 and Figure 4-10 depict, free cash flow, stock price, and net income indicate a rising trend, and as an earlier illustration showed, Clorox stock has easily outperformed the S&P 500 Index because investors value the free cash-flow consistency. Market value, owing to the reduced share count, actually declined during the period. A negative aspect of large stock repurchases is that they make it easier for a hostile acquirer to buy the company. This is possible here because Clorox has not been able to increase the valuation multiple of its shares. We see that its free-cash-flow multiple has fallen from 26.5 in 2000, based on the three-year average free cash flow, to just 14.6 at fiscal end 2009.

It is almost always critical to prepare a sensitivity analysis to evaluate the change in fair value given changes in free cash flow, cost of capital, or other variables having an important impact on valuation. I prepared such a table for Clorox using a standard net-present-value model. As seen in Table 4-23, a change in Clorox's cost of capital of 0.1 will change the company's fair value by about 2 percent; an increase of 10 percent in the company's total debt will decrease fair value by 15 percent. The cost

TABLE 4-22

Clorox: Summary of Net Income, Free Cash Flow, Market Value, and Stock Price

		Fiscal Year Ende	ed June	10							
Year	Net Income	Free Cash Flow	Market Value	Stock Price							
1998	298	227	9,933	48							
1999	246	454	12,604	53							
2000	394	566	10,518	45							
2001	323	616	8,005	45							
2002	322	714	9,524	41							
2003	493	667	9,243	43							
2004	549	739	11,408	54							
2005	1,096	630	8,589	56							
2006	444	370	9,198	61							
2007	501	568	9,428	62							
2008	461	557	7,195	52							
2009	537	541	7,763	55							
2009	537	541	7,703								

FIGURE 4-10



Clorox: Free Cash Flow, Stock Price, Net Income, and Market Value

TABLE 4-23

Sensitivity Analysis Clorox Corp.

	Change	Intrinsic Value	Change in Intrinsic Value	Weighted- Average Cost of Capital
Change in cost of equity	0.1	57.8	(2.0)	8.2
Change in total debt	10.0	51.0	(14.9)	7.9
	(10.0)	66.8	11.3	7.6
Change in first-year free cash flow	0.1	68.6	14.3	7.7
Change in cash tax rate	1.0	56.3	N/A	8.0
Change in rate of perpetuity				
growth	0.01	64.9	0.08	7.7
	(0.01)	61.4	(0.06)	7.7

of equity for Clorox is affected by changes in debt owing to its deficit net worth, which is somewhat offset by its consistent free-cash-flow generation.

Example:

Table 4-24 presents the results of an analysis of corporate fat for IBM, a company that is continually shedding low-return businesses, moving assets and labor to low-cost areas, and trading up its business asset portfolio for more profitable and stable software businesses in its never-ending quest for maximizing free cash flow.

Also shown in Table 4-24 is IBM's free cash flow (using the methodology outlined for Clorox), including and excluding discretionary spending, and as seen, the difference has been substantial. Since IBM has moved a substantial portion of its production and research staff to low-cost geographies, including a large base in India, while at the same time shedding its PC division, we clearly see the savings, with R&D overspending dropping from over \$103 million to zero in two years. As a result of IBM's additional cutbacks in overspending, the company was able to increase its free cash flow during the first half of 2009 (not shown in table) despite falling sales, resulting in its stock having the highest return of all companies in the Dow Jones Index. I still see quite a bit of overspending on SG&A, indicating that IBM still has a way to go before it can consider itself a lean organization. We learn later that IBM also has substantial pension liabilities.

TABLE 4-24

IBM Cash Flows Including Discretionary Overspending

Part I – Cash	Part I – Cash Flow Items:									
Year	Dec-04	Dec-05	Dec-06	Dec-07	Dec-08					
Net Operating Cash Flow	15323.0	14874.0	15007.0	16090.0	18812.0					
Capital Expenditures	4368.0	3842.0	4362.0	4630.0	4171.0					
Sale Of PPE	1311.0	1107.0	430.0	537.0	350.0					
Free Cash Flow–Including Discretionary Items	12266.0	12139.0	11075.0	11997.0	14991.0					
Free Cash Flow–Excluding Discretionary Items	12395.7	12522.1	11732.9	12682.8	15237.0					
Discretionary Capital Expenditures	0.0	0.0	72.5	242.1	16.2					
Discretionary R&D	0.0	0.0	103.4	87.6	0.0					
Discretionary Cost of Goods Sold	0.0	0.0	0.0	0.0	0.0					
Discretionary SG&A	129.7	0.0	383.1	482.0	356.1					
Discretionary Advertising	0.0	0.0	0.0	0.0	0.0					
Large Buildup (Reduction) in Accounts Receivable	0.0	(3432.5)	(5025.0)	(1243.2)	(1150.9)					
Large Buildup (Reduction) in Inventory	(1648.9)	(1140.8)	(991.2)	(618.7)	(657.8)					
Large Buildup (Reduction) in Accounts Payable	(843.7)	2430.4	(825.4)	2152.3	780.0					

Figure 4-11 displays the gap between IBM's free cash flow both inclusive and exclusive of its corporate fat. The success of IBM in reducing its cost structure has been a prime reason for its superior investment return.

Few, if any, business owners would deny the very strong and sound relationship between the entity's free cash flow and market value. To establish a current *fair* value for the common stock, the analyst must discount the free cash flow at a deserved cost of equity.

Additionally, in the free-cash-flow valuation discount model, the analyst should net excess cash (adjusted for required working capital and other current obligations requiring cash) on hand and total debt from the net present value of the free cash flow to calculate the unlevered value. For instance, if the entity has a net present value of its free cash flow of \$20 per share and \$10 per share in net debt, fair unlevered value is \$10. An exception, to some investors, would be if the entity could maintain that debt and shareholders still receive their \$20 in present value, but this is not the same as unlevered free cash flow, which might be a preferable metric in comparisons of relative value. If the same entity has \$10 per share in cash, its fair value is \$30, net of the tax effect, because shareholders theoretically could receive a \$10 per share dividend (excluding taxes) in addition to the annual free cash flow. The unlevered value is primarily a theoretical exercise because typically a company's debt and cash are assumed by the new owner when the entity

FIGURE 4-11





Source: CT Capital, LLC.

is acquired. Where the new owner is capable of replacing high-cost debt with either equity or low-cost debt, the new fair value should be determined.

FREE CASH FLOW, RETURN ON INVESTED CAPITAL, AND SHARE BUYBACKS

An area receiving much scrutiny when free cash flow exists and/or stock performance is sub-par is the potential repurchase of outstanding corporate shares. Share buybacks traditionally have been viewed as an outlet for free cash flow and excess balance-sheet liquidity with the intent of bolstering a firm's valuation. By shrinking the equity base and number of shares outstanding, it is believed, the firm would enhance its earnings and cash flow per share, economic profit, and hence market valuation. As has been seen by the number of companies that bought back significant amounts of their stock for treasury and later returned to investors to sell back shares at a considerably lower price, share buybacks are often a poor choice. The loss of financial flexibility and equity cushion was a central reason for the

demise of many firms that had acquired large amounts of their own stock during 2007–2008. For most firms, share buybacks are used to offset the dilution resulting from stock-based compensation. Financial theory states that companies that shrink equity by buying back shares or paying dividends with balance-sheet cash and new debt tend to see their

shares or paying dividends with balance-sheet cash and new debt tend to see their cost of capital decline. This occurs for two reasons. The first has to do with the mystery of what management might wind up doing with the cash. Too often bad acquisitions burn cash or lower ROIC, waste management time, and increase leverage. This occurs most often when companies acquire outside of their own industry (e.g., Mobil and Montgomery Ward) but also when firms seek to diversify outside of their core competency from within their industry (e.g., AT&T and NCR).

As stated in the 2009 10K of Perrigo, Inc.:

As part of the company's strategy, it evaluates potential acquisitions in the ordinary course of business, some of which could be and have been material. Acquisitions involve a number of risks and present financial, managerial and operational challenges. Integration activities may place substantial demands on the company's management, operational resources, and financial and internal control systems. Customer dissatisfaction or performance problems with an acquired business, technology, service, or product could also have a material adverse effect on the company's reputation and business.

The other benefit concerns the tax shield of interest payments. Using excess balance-sheet cash to pay common stock dividends does not change the cost of capital, according to popular finance, because payment is made after taxes, and the entity receives no tax benefit, as does a credit against taxes for interest expense. It is the tax shield of interest expense that reduces a firm's cost of (debt) capital because profits paid to creditors in the form of interest are not taxed. Unlike financial theory, if a firm paid a dividend through borrowing, it could raise the cost of capital in my credit model because of the increase in leverage and debt metrics.

The Chapter 8 credit model would not lower the cost of capital owing to a stock repurchase program. It does not provide cash flow and reduces financial flexibility. It has been observed, in widespread practice over the course of several business cycles, that such programs actually wind up raising the cost of capital more often than lowering it.

Entities buying back stock in the midst of a large capital spending program significantly raising leverage ratios would be especially prone to increases in their cost of debt and equity capital. Business runs in cycles, and even investment-grade companies such as The Home Depot have seen higher cost of capital resulting in part to large stock repurchases.

Seen too often are share buybacks forced on management by aggressive and vocal shareholders hoping a share repurchase program will either support the stock or allow them the flexibility to sell their holdings. But what if the entity has surplus cash on its balance sheet, low leverage, no promising investment opportunities, and is a consistent producer of free cash flow? Rather than continually shrinking its equity, which has not shown to improve stock valuation, shareholders are best rewarded by changing to management that can find worthwhile opportunities either within or outside the firm. Providing cash to selling shareholders has not proven to improve the wealth of the remaining shareholders if ROIC falls below the cost of capital.

The road to superior stock performance always has been for management to raise the ROIC, not stock buybacks.¹² Berkshire Hathaway was a slow-growth, stable free-cash-flow producer until new management arrived, deploying excess cash at every opportunity to buy high-ROIC companies, finding hundreds of opportunities, from very small to very large, including furniture manufacturers, newspapers, brokerages, food, and now a railroad. Despite Berkshire outperforming the S&P 500 by a huge margin, Berkshire has never repurchased its own shares. And even today, being a company with a \$195 billion market value, it is finding no shortage of investment opportunities of the kind that are generally available to all investors.

Example:

Aside from the probable loss in financial flexibility, do share buybacks otherwise improve valuation? Take the case of a hypothetical company, Worldwide Electric Co. Think of Worldwide as having two parts: (1) the operating company, which produces \$100 million in annual free cash flow, and (2) Worldwide's cash and cash equivalents (14.3 percent of equity), which can be used to buy back its shares. The firm has \$100 million in payables and no other liabilities.

Assume that the company generates \$100 million in free cash flow (putting aside taxes), with a market value of \$1.3 billion and 100 million shares outstanding, so it generates \$1.00 per share (including interest), and the stock sells at \$13 per share.

If the company were to use its \$100 million in cash to buy back 7.7 million shares (at its current market price), the multiple on its shares would fall to that of the operating company, or 12.5, and the company now would have approximately 92.3 million shares outstanding.

¹² For example, a *Wall Street Journal* article, "America's New Cash Conundrum," on January 20, 2010, pointed out that over the prior 10 years, over half the companies surveyed had a zero or negative return on their stock repurchases.

Worldwide's return on invested capital would remain exactly the same because we exclude interest income from the metric; we are only interested in the cash on cash return. While their GAAP ratios would fall, including the P/E, as a result of the reduced number of shares outstanding, the more vital cash flow return ratio is identical. And by this measure, the company still produces \$96 million in free cash flow on the same capital base, or a 13.4 percent return on invested capital. The only differences are the shares outstanding and the reduced cash. If Worldwide had a greater amount of cash on its balance sheet to repurchase stock, the fall in P/E and free-cash-flow multiples would be more dramatic, and yet the ROIC still would remain the same 13.4 percent. The free-cash-flow multiple falls to that of the operating company, so from the shareholders point of view their value is not enhanced. And certainly lost is the company's financial flexibility. If it had balance-sheet debt or operating leases, the debt ratios would have increased in addition to the elimination of cash that might have been used for expansion as a low cost of capital.

Under typical circumstances, as you can see in the example to follow on Clorox, a large stock buyback can completely eliminate shareholders equity.

	Before Buyback	After Buyback
Balance sheet:		
Cash	100	0
Property, plant, and equipment	700	700
Liabilities	100	100
Equity	700	600
Market value of operating company	1,200	1,200
Value of cash	100	0
Market value	1,300	1,200
Income statement:		
Free cash flow—operations	96	96
Interest income—tax-free	4	0
Free cash flow	100	96
Shares outstanding	100	92.3
Share price	\$13.00	\$13.00
Free cash flow per share	\$1.00	\$1.04
Free-cash-flow multiple	13.0	12.5
Return on invested capital	13.4%	13.4%

WORLDWIDE ELECTRIC CO.

SHARES OUTSTANDING

Equity is normally the most expensive cost class of capital, but at times it represents the only outlet available because leverage is already at an uncomfortable level, the price of additional debt, if available, is excessive, and there are few, if any, buyers for the firm's noncore assets. Warrants and convertible securities or other forms of calls on an entity's equity can provide a necessary part of financing, and those costs also must be considered because they can equate to selling off a stake in the company, similar to selling stock.

To the equity analyst, if potential claims are far from the striking price, the current market value is to be calculated based on the total shares currently outstanding, as listed on the cover of the entity's latest regulatory filing. Dilutive securities would be added to this base amount.

When an entity reports primary or fully diluted earnings per share, it is based on the weighted-average number of shares outstanding during the quarter. It is more accurate to begin with the actual number listed on the SEC filing, as shown below for Talbots. Talbots, a clothing retailer, had an actual number of 55,303,147 shares outstanding, whereas the company reported, in its 10Q, a weighted-average number of shares for the quarter ending of 53,621,000.

Example: UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 Form 10-Q

□ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURI-TIES EXCHANGE ACT OF 1934

For the guarterly period ended May 2, 2009 or

□ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURI-TIES EXCHANGE ACT OF 1934

For the transition period from to

Commission File Number: 1-12552

THE TALBOTS, INC.

(Exact name of registrant as specified in its charter)

Delaware

41-1111318

(State or other jurisdiction of incorporation or organization)

(IRS Employer Identification No.)

One Talbots Drive, Hingham, MA 02043 (Address of principal executive offices) Registrant's telephone number, including area code 781-749-7600 Indicate by checkmark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. 🗆 Yes 🗆 No Indicate by checkmark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). 🗆 Yes 🗆 No Indicate by checkmark whether the registrant is a large accelerated filer, an accelerated filer, a nonaccelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one): Large accelerated filer \Box Accelerated filer \Box Nonaccelerated filer Smaller reporting company \Box (Do not check if a smaller reporting company) Indicate by checkmark whether the registrant is a shell company (as defined in Rule 12b–2 of the Exchange Act). □ Yes □ No Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date. Class Outstanding as of June 8, 2009 Common Stock, \$0.01 par value 55.303.147 And from the income statement, we see Diluted Basic Weighted-average number of shares of common stock outstanding: 53.621 53.621 Source: Talbots June 30, 2009 10Q

The reason, in Talbots case, diluted and basic shares outstanding are identical is the fall in the price of the company's stock price such that there was no dilution from common stock equivalents in the calculation of the weighted average. In the calculation of both free cash flow per share and fair value per share, the analyst needs to divide available free cash flow by the 55.3 million actual share count, as is listed on the cover of the 10Q. If there were options or warrants outstanding, under the treasury method, it is presumed that the company uses the proceeds from

the option or warrant exercise to buy back stock at the average price throughout the period. Talbot's reports a greater number of shares than the weighted amount owing to stock-based compensation and awards, demonstrating its real cost to remaining shareholders, as was shown in a previuos example for Oracle.

When an enterprise purchases its stock for treasury, we assume that the stock has been retired, although it may be accounted for under the par-value method, where it is considered a temporary reduction in shares outstanding.

Example:

Paychex is a large payroll processing company also involved in ancillary services such as benefits outsourcing, tax administration, and regulatory compliance services. The company has very strong credit and is a consistent producer of free cash flow (Table 4-25). The company has no debt, other than trade, a very stable cash tax rate, no pension or other postretirement liabilities, and holds excess cash. My credit model has picked up some deterioration in net working capital over the year, but even with that, I assign a cost of equity capital to Paychex of 7 percent, which is the discount rate I use to calculate fair value (Table 4-26), based on its free cash flow.

TABLE 4-25

Paychex Cost of Equity Capital

	Part I – C	ash Flow	Items:				
						Most Recent Quarter	Previous Quarter
Year	May-05	May-06	May-07	May-08	May-09	May-09	May-08
Net Operating Cash Flow	467.9	569.2	631.2	724.7	688.8	125.4	134.3
Capital Expenditures	70.7	81.1	79.0	82.3	64.7	11.4	17.7
Sale of PPE	3.5	0.0	0.1	0.7	0.6	0.6	0.0
Free Cash Flow – Including							
Discretionary Items	400.7	488.1	552.3	643.1	624.7	114.6	116.6
Free Cash Flow – Excluding							
Discretionary Items	401.4	522.3	579.0	660.1	634.5	_	—
Discretionary Capital Expenditures	0.0	0.0	0.0	0.0	0.0	_	_
Discretionary R&D	0.0	0.0	0.0	0.0	0.0	—	—
Discretionary Cost of Goods Sold	0.0	34.1	26.7	17.0	9.8	—	—
Discretionary SG&A	0.8	9.8	0.0	0.0	0.0	—	—
Discretionary Advertising	0.0	0.0	0.0	0.0	0.0	_	_
Large Buildup (Reduction) in							
Accounts Receivable	0.0	(7.0)	2.2	(10.0)	(48.5)	(54.7)	(34.4)
Large Buildup (Reduction) in Inventory	(39.0)	0.0	0.0	0.0	0.0	0.0	0.0
Large Buildup (Reduction) in							
Accounts Payable	0.0	(414.9)	133.5	123.7	(521.3)	(726.1)	(5.2)

TABLE 4-26

Paychex Fair Value Estimate

Current free cash flow	\$634.50						
Growth rate in cash flows	-10%	-5%	0%	3%	5%	10%	15%
Cost of capital	7%	7%	7%	7%	7%	7%	7%
Growth after 5 years	-5%	-3%	0%	2%	3%	5%	5%
Value per share	\$11.94	\$17.16	\$26.63	\$36.96	\$48.15	\$138.20	\$171.62

With Paychex reporting \$472 million in cash on its balance sheet as of May, 31, 2009, and no bank debt, one could reasonably assume, given its consistent historical ability to produce free cash of over \$100 million per quarter, even during the 2007–2009 recession, that the company would need no more than \$100 million in short-term liquidity, and most likely just a fraction of that, to run its day-to-day operations. Let's say that the CFO felt very comfortable holding \$100 million, which would protect the company against an unusual occurrence, such as a client default on an advance from Paychex for funds for payroll taxes.¹³ The analyst would evaluate quarterly cash balances and draws on credit lines to have a better understanding of Paychex's maximum daily cash needs, including a discussion, if possible, with it CFO. To the extent that the excess cash is invested in instruments earning a *de minimis* return, equity investors are being penalized if those funds could be put to more productive uses, such as expansion of the firm's existing business, which has a high ROIC.

Paychex	
Current cash balance	\$472 million
Maximum cash needed	\$100 million
Excess cash	\$372 million
Total borrowings	0
Shares outstanding	361.1 million
Net cash per share	\$1.03

¹³ Today, there are excellent cash-flow requirement software packages available to the cash manager. Such programs take into account collection periods, payables, inventory, capital requirements, labor and other operating expenses, tax payments, and any unusual circumstances. In addition, each CFO needs to build in a factor for any unforeseen expenses, especially if the entity has more uncertain or lumpy cash inflows (collections).

The cover of Paychex's 10K reveals that it had 361.1 million shares outstanding as of the most recent filing period of June 30, 2009. This is less than a 1 million share variation from fully diluted shares outstanding. Thus, if one estimates Paychex's growth in free cash flow to be 3 percent, based on a conservative outlook for the company, its fair value of discounted free cash flow is \$36.96, to which you add the net cash per share, resulting in a fair value of \$37.99. This compares very favorably with a current price of the shares of \$28.1 the day this was written.

For entities having net debt, that amount should be subtracted from fair value. In addition, if the analyst believes that the entity has need of additional cash borrowings to cover a liability not indicated by the financial statement information, such as a derivative contract that must be settled and whose value on the balance sheet understates the true liability, that added amount also should be subtracted from fair value. Of course, if the entity increasingly relied on debt or its credit metrics were either deteriorating or becoming potentially weaker, risk would be adjusted through a higher cost of equity such that even with free cash flow that met expectations, fair value would decline. For instance, increasing credit spreads, which are often based on such expectations, can serve to change the cost of capital.

CASH-FLOW PROJECTIONS

There are many excellent financial programs available for which the analyst can construct a cash-flow projection. The advised format is to use the direct method, as outlined in Chapter 3, using the firm's typical line entries. To those line entitries, the analyst should show any adjustments that are necessary, such as a reclassification of a cash-flow activity.

Reproduced as Table 4-27 is a direct-method template from Microsoft Excel that is similar to but not as detailed as that shown in the Chapter 3 example on Nu-Horizons Corp. Additional lines should be inserted as appropriate to reflect the cash transactions.

While it may be easier to formulate a cash-flow projection under the indirect format because this is the overwhelmingly common method in practice today, you will find that the information under the direct method makes more sense and will provide a better feel for the true cash flows given that noncash activities are absent and format begins where the cash process does.

In my free-cash-flow summary, as shown in Table 4-26, I estimate the fiveyear free cash flow and a longer-term forecast based on various growth rates. I have found this kind of general forecast, which is based on the past four-year average as

TABLE 4-27

Statement of Cash Flows Template

Statement of Cash Flows	[Name]	[Time Period]
Cash flows from operating activities		
Cash received from customers		
Cash paid for merchandise		
Cash paid for wages and other operating expenses		
Cash paid for interest		
Cash paid for taxes		
Other		
Net cash provided (used) by operating activities		
Cash flows from investing activities		
Cash received from sale of capital assets (plant and equipment, etc.)		
Cash received from disposition of business segments		
Cash received from collection of notes receivable		
Cash paid for purchase of capital assets		
Cash paid to acquire businesses		
Other		
Net cash provided (used) by investing activities		
Cash flows from financing activities		
Cash received from issuing stock		
Cash received from long-term borrowings		
Cash paid to repurchase stock		
Cash paid to retire long-term debt		
Cash paid for dividends		
Other		
Net cash provided (used) in financing activities		
Increase (decrease) in cash during the period		
Cash balance at the beginning of the period		
Cash balance at the end of the period		

a foundation for normalized growth, to be a more reliable indicator of fair value than attempting to estimate the last dime of next year's free cash flow, which, in itself, is an impossible feat. Once I am confident that my historic free cash flows are computed correctly and my cost of capital is accurate, a reasonable estimate of free-cash-flow growth ranges will confidently let the analyst know if the equity security is fairly valued.

THE SIGNIFICANCE OF ADDING CORPORATE FAT

Figure 4-12 shows the relationship between free cash flow both with and without discretionary items taken into account. Since free cash flow typically is much greater than corporate fat, one would expect the lines to be closely parallel. But the added difference is significant and can add substantially to market value because those unencumbered funds are put to use.

It is not surprising that the line indicating the presence of corporate fat remains consistently above the traditional measure, indicating that even for large, highly regarded companies, there remains substantial extra expense that could be cut.

The chart indicates that many S&P companies could increase their free cash flow by up to 30 percent if they were to benefit by 20 percent of that difference in overspending, using the procedure illustrated in the Clorox example. The analysis of discretionary savings gains momentum with each economic slowdown, and for firms that continually practice lean methods, the additional cash is often placed into high-ROIC projects.

Since the benefits are apparent, one might wonder why it takes a recession for operating officers to take action. Whether it be unions, inertia, miscalculation of

FIGURE 4-12

90 80 70 Average Free Cash Flow (\$M) 60 50 30 20 10 0 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 **December Year-End** – – FCF Excl. 'Corp. Fat' FCF Incl. 'Corp. Fat'

Average Free Cash Flow: S&P 500 Before and After Corporate Fat (\$Million)

product demand, or some other factor, ultimately, corporate officers responsible to their shareholders accept and recognize the benefits of removing overstaffing and overspending, including that on facilities (supply chain), and welcome the new contribution to cash flows. As we have seen, the savings, without affecting the potential ability to deliver goods and services, are significant and can change the valuation of the entity by a considerable margin because the added free cash flow is recognized by investors. The cost cutting also provides a cushion during a business downturn and can, in effect, save further job cuts because the entity can reduce the price of its products or service by virtue of the lower cost structure and increased operating cash flow. Recall that Clorox used the savings to repurchase shares, boosting its stock value during an otherwise negative equity market. We unmistakably saw this again with IBM.

REVENUE GROWTH AND FREE CASH FLOW

Growth and stability of revenues are included in my cost-of-capital credit model. Revenues that are flat or declining often require reductions in costs for the entity to preserve its operating and free cash flow. Entities that are able to improve their products and services typically are able to generate growing cash flows along with reduced demand for external capital. To the extent that external capital is required, such entities normally have low cost of capital, allowing them to accept projects offering value creation to shareholders. Companies in cyclical industries often find it difficult to improve their products through differentiation, and so revenue growth normally is associated with gains in market share via acquisition or expansion of plant capacity. For them, free cash flows tend to be very strong during periods of economic strength and poor during recessions and slowdowns.

For companies that are riding the crest of a new technology or consumer product, revenue growth can be impressive, as could operating cash flows, but they may not lead to free cash flow if large additions to plant capacity are required. For such companies, sustainability of that growth in revenues is the important consideration because investors may be discounting free cash flow that does not currently exist.

Some companies may have aggressive policies regarding revenue recognition. If this is the case, the gap between growth in revenues and operating cash flows will be material. For some companies, the exchange rate may affect reported revenue growth.

For large technology companies, service revenue growth normally is associated with more stable and stronger free cash flow than revenues achieved from the sale of hardware.

Example:

During recessions, service segment revenues typically hold up compared with hardware sales. As reported in its July 31, 2009 10Q, Hewlett-Packard's hardware sales declined by over 20 percent, whereas services rose by almost 70 percent, driven by the company's acquisition of EDS as well as the need for the company's support by clients, even when business conditions were weak. Clients continue to prefer to have their products serviced by the original equipment manufacturer, even though it might be slightly more expensive. Also, hardware revenue typically reflects sales for a given year, whereas service revenue reflects sales over many years.

HEWLETT-PACKARD COMPANY AND SUBSIDIARIES Consolidated Condensed Statements of Earnings

(Unaudited)

	Three Months Ended July 31		Nine Months Ended July 31			
	2009	2008	2009	2008		
	(In Millions, Except Per-Share Amounts)					
let revenue:						
Products	\$17,606	\$22,180	\$53,627	\$67,866		
Services	9,749	5,757	29,700	16,619		
Financing income	96	95	275	276		
Total net revenue	\$27.451	\$28.032	\$83.602	\$84.761		

Example:

Producers of coal and iron ore are often able to forecast their short-duration revenues as they work off contract prices set up to a year in advance. Thus, despite current market conditions, revenues for the year can be reasonably estimated. Their stock prices, however, often react to changes in current commodity prices, reflecting a belief the follow-up contract will result in a shift in revenues and free cash flow. This also would affect cost of capital because lenders are more willing to finance projects to a cyclic entity with a revenue stream less in doubt, even if it be for a single year.

BHP Billiton announced Wednesday it had agreed to prices on 53 percent of its ironore sales for the 2009 contract year. Historically, prices were set in opaque negotiations between large miners and big steelmakers, striking a benchmark price for the year.

But this time, just 23 percent of BHP's volumes have been set on an annual contract price so far. A bigger proportion, 30 percent, is being priced using a mix of quarterly, spot market, and index-based prices.

Anglo-Australian BHP, which accounts for about 15 percent of global iron-ore exports, has been pressing for more market-based pricing. Spot prices have out-paced contract prices for much of the past five years. But when spot prices collapsed last year, some steelmakers reneged on contracts. For producers, this left contracts looking like a great way to cap any upside while offering uncertain guarantees on the downside.

Market-based pricing also ought to favor large, low-cost miners like BHP. Shorter contracts and more-competitive pricing could make financing rival mines more difficult.

Source: Wall Street Journal, July 29, 2009.