Cash Flow and Financial Planning

Analyzing the Firm's Cash Flow
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Cash Planning: Cash Budgets
Profit Planning: Pro Forma Statement
Preparing the Pro Forma Income Statement
Preparing the Pro Forma Balance Sheet
Evaluation of Pro Forma Statements

Learning Goals

- Understand tax depreciation procedures and the effect of depreciation on the firm's cash flows.
- Discuss the firm's statement of cash flows, operating cash flow, and free cash flow.
- Understand the financial planning process, including long-term (strategic) financial plans and short-term (operating) financial plans.
- Discuss the cash-planning process and the preparation, evaluation, and use of the cash budget.
- Explain the simplified procedures used to prepare and evaluate the pro forma income statement and the pro forma balance sheet.
- Evaluate the simplified approaches to pro forma financial statement preparation and the common uses of pro forma statements.

Analyzing the Firm's Cash Flow

depreciation A portion of the costs of fixed assets charged against annual revenues over time.

operating flows Cash flows directly related to sale and production of the firm's products and services.

investment flows Cash flows associated with purchase and sale of both fixed assets and equity investments in other firms.

financing flows Cash flows that result from debt and equity financing transactions; include incurrence and repayment of debt, cash inflow from the sale of stock, and cash outflows to repurchase stock or pay cash dividends.

noncash charge An expense that is deducted on the income statement but does not involve the actual outlay of cash during the period; includes depreciation, amortization, and depletion.

Inflows (sources)	Outflows (uses)
Decrease in any asset	Increase in any asset
Increase in any liability	Decrease in any liability
Net profits after taxes	Net loss
Depreciation and other noncash charges	Dividends paid
Sale of stock	Repurchase or retirement of stock

TABLE 4.6 Baker Corporation Statement of Cash Flows ($000) for the Year Ended December 31, 2012

Cash Flow from Operating Activities	
Net profits after taxes	$180
Depreciation	100
Decrease in accounts receivable	100
Decrease in inventories	300
Increase in accounts payable	200
Decrease in accruals	(100)[a]
Cash provided by operating activities	$780
Cash Flow from Investment Activities	
Increase in gross fixed assets	($300)
Changes in equity investments in other firms	0
Cash provided by investment activities	($300)
Cash Flow from Financing Activities	
Decrease in notes payable	($100)
Increase in long-term debts	200
Changes in stockholders' equity[b]	0
Dividends paid	(80)
Cash provided by financing activities	$ 20
Net increase in cash and marketable securities	$500

[a] As is customary, parentheses are used to denote a negative number, which in this case is a cash outflow.

[b] Retained earnings are excluded here, because their change is actually reflected in the combination of the "Net profits after taxes" and "Dividends paid" entries.

operating cash flow (OCF) The cash flow a firm generates from its normal operations; calculated as net operating profits after taxes (NOPAT) plus depreciation.

net operating profits after taxes (NOPAT) A firm's earnings before interest and after taxes, EBIT * (1 - T).

free cash flow (FCF) The amount of cash flow available to investors (creditors and owners) after the firm has met all operating needs and paid for investments in net fixed assets and net current assets.

$$\begin{aligned} FCF = OCF &- \text{Net fixed asset investment (NFAI)} \\ &- \text{Net current asset investment (NCAI)} \end{aligned}$$

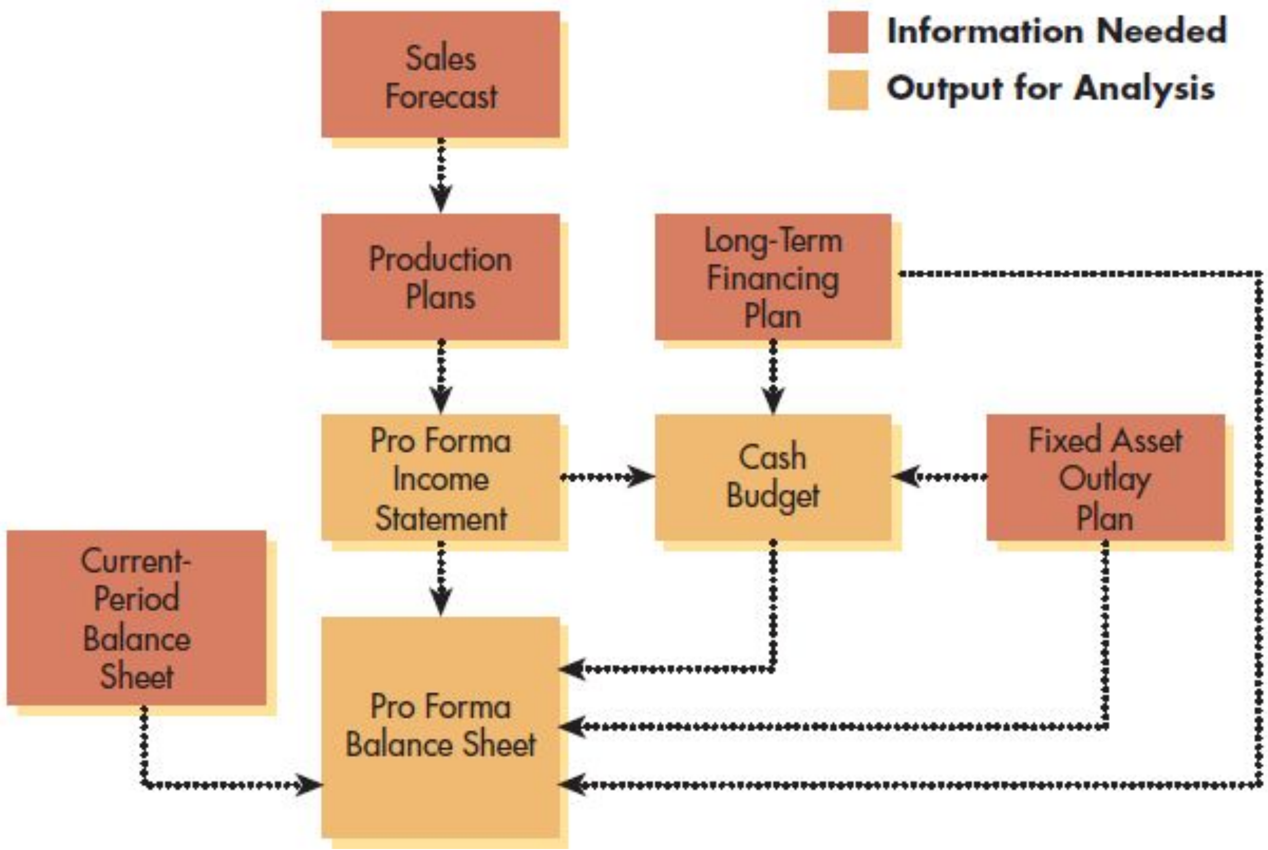
$$NFAI = \text{Change in net fixed assets} + \text{Depreciation}$$

The Financial Planning Process

financial planning process Planning that begins with long-term, or strategic, financial plans that in turn guide the formulation of short-term, or operating, plans and budgets.

long-term (strategic) financial plans Plans that lay out a company's planned financial actions and the anticipated impact of those actions over periods ranging from 2 to 10 years.

short-term (operating) financial plans Specify short-term financial actions and the anticipated impact of those actions.



Cash Planning: Cash Budgets

cash budget (cash forecast) A statement of the firm's planned inflows and outflows of cash that is used to estimate its short-term cash requirements.

sales forecast The prediction of the firm's sales over a given period, based on external and/or internal data; used as the key input to the short-term financial planning process.

external forecast A sales forecast based on the relationships observed between the firm's sales and certain key external economic indicators.

internal forecast A sales forecast based on a buildup, or consensus, of sales forecasts through the firm's own sales channels.

PREPARING THE CASH BUDGET

	Jan.	Feb.	. . .	Nov.	Dec.
Cash receipts	$XXX	$XXG		$XXM	$XXT
Less: Cash disbursements	XXA	XXH	. . .	XXN	XXU
Net cash flow	$XXB	$XXI		$XXO	$XXV
Add: Beginning cash	XXC	XXD	XXJ	XXP	XXQ
Ending cash	$XXD	$XXJ		$XXQ	$XXW
Less: Minimum cash balance	XXE	XXK	. . .	XXR	XXY
Required total financing		$XXL		$XXS	
Excess cash balance	$XXF				$XXZ

cash receipts All of a firm's inflows of cash during a given financial period.

cash disbursements All outlays of cash by the firm during a given financial period.

net cash flow The mathematical difference between the firm's cash receipts and its cash disbursements in each period.

ending cash The sum of the firm's beginning cash and its net cash flow for the period.

required total financing Amount of funds needed by the firm if the ending cash for the period is less than the desired minimum cash balance; typically represented by notes payable.

excess cash balance The (excess) amount available for investment by the firm if the period's ending cash is greater than the desired minimum cash balance; assumed to be invested in marketable securities.

	Oct.	Nov.	Dec.
Total cash receipts[a]	$210	$320	$340
Less: Total cash disbursements[b]	213	418	305
Net cash flow	($ 3)	($ 98)	$ 35
Add: Beginning cash	50	47	(51)
Ending cash	$ 47	($ 51)	($ 16)
Less: Minimum cash balance	25	25	25
Required total financing (notes payable)[c]		$ 76	$ 41
Excess cash balance (marketable securities)[d]	$ 22		

COPING WITH UNCERTAINTY IN THE CASH BUDGET

	October			November			December		
	Pessimistic	Most likely	Optimistic	Pessimistic	Most likely	Optimistic	Pessimistic	Most likely	Optimistic
Total cash receipts	$160	$210	$285	$210	$320	$410	$275	$340	$422
Less: Total cash disbursements	200	213	248	380	418	467	280	305	320
Net cash flow	($ 40)	($ 3)	$ 37	($170)	($ 98)	($ 57)	($ 5)	$ 35	$102
Add: Beginning cash	50	50	50	10	47	87	(160)	(51)	30
Ending cash	$ 10	$ 47	$ 87	($160)	($ 51)	$ 30	($165)	($ 16)	$132
Less: Minimum cash balance	25	25	25	25	25	25	25	25	25
Required total financing	$ 15			$185	$ 76		$190	$ 41	
Excess cash balance		$ 22	$ 62			$ 5			$107

Profit Planning: Pro Forma Statements

pro forma statements Projected, or forecast, income statements and balance sheets.

percent-of-sales method A simple method for developing the pro forma income statement; it forecasts sales and then expresses the various income statement items as percentages of projected sales.

Sales revenue	$135,000
Less: Cost of goods sold (0.80)	108,000
Gross profits	$ 27,000
Less: Operating expenses (0.10)	13,500
Operating profits	$ 13,500
Less: Interest expense (0.01)	1,350
Net profits before taxes	$ 12,150
Less: Taxes (0.15 × $12,150)	1,823
Net profits after taxes	$ 10,327
Less: Common stock dividends	4,000
To retained earnings	$ 6,327

judgmental approach A simplified approach for preparing the pro forma balance sheet under which the firm estimates the values of certain balance sheet accounts and uses its external financing as a balancing, or "plug," figure.

external financing required ("plug" figure) Under the judgmental approach for developing a pro forma balance sheet, the amount of external financing needed to bring the statement into balance. It can be either a positive or a negative value.

Assets			Liabilities and Stockholders' Equity	
Cash		$ 6,000	Accounts payable	$ 8,100
Marketable securities		4,000	Taxes payable	455
Accounts receivable		16,875	Notes payable	8,300
Inventories			Other current liabilities	3,400
Raw materials	$ 4,000		Total current liabilities	$ 20,255
Finished goods	12,000		Long-term debt	18,000
Total inventory		16,000	Total liabilities	$ 38,255
Total current assets		$ 42,875	Common stock	30,000
Net fixed assets		63,000	Retained earnings	29,327
Total assets		$105,875	Total	$ 97,582
			External financing required[a]	8,293
			Total liabilities and stockholders' equity	$105,875