Chapter 6:
THE MASTER BUDGET

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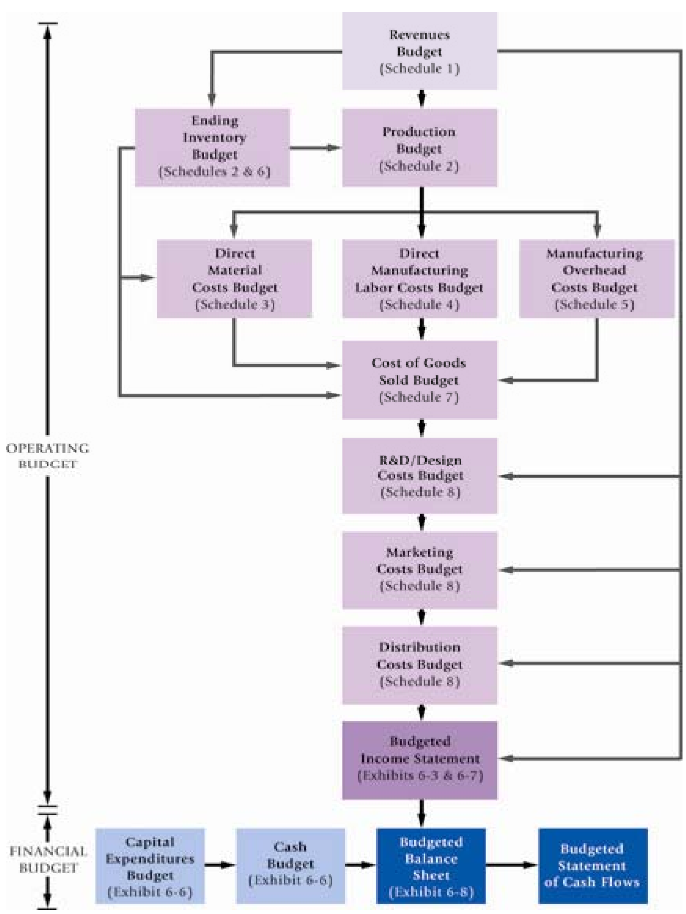
OVERVIEW OF THE MASTER BUDGET



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	A	B	C	D	E	F
1	Stylistic Furniture					
2	Cash Budget					
3	For Year Ending December 31, 2010					
4		Quarters				Year as a
5		1	2	3	4	Whole
6	Cash balance, beginning	$ 300,000	$ 350,715	$ 350,657	$ 350,070	$ 300,000
7	Add receipts					
8	Collections from customers	9,136,600	10,122,000	10,263,200	8,561,200	38,083,000
9	Total cash available for needs (x)	9,436,600	10,472,715	10,613,857	8,911,270	38,383,000
10	Deduct disbursements					
11	Direct materials	2,947,605	2,714,612	2,157,963	2,155,356	9,975,536
12	Payroll	3,604,512	2,671,742	2,320,946	2,562,800	11,160,000
13	Manufacturing overhead costs	2,109,018	1,530,964	1,313,568	1,463,450	6,417,000
14	Nonmanufacturing costs	1,847,750	1,979,000	1,968,250	1,705,000	7,500,000
15	Machinery purchase			758,000		758,000
16	Income taxes	725,000	400,000	400,000	400,000	1,925,000
17	Total disbursements (y)	11,233,885	9,296,318	8,918,727	8,286,606	37,735,536
18	Minimum cash balance desired	350,000	350,000	350,000	350,000	350,000
19	Total cash needed	11,583,885	9,646,318	9,268,727	8,636,606	38,085,536
20	Cash excess (deficiency)*	$(2,147,285)	$ 826,397	$ 1,345,130	$ 274,664	$ 297,464
21	Financing					
22	Borrowing (at beginning)	$ 2,148,000	$ 0	$ 0	$ 0	$ 2,148,000
23	Repayment (at end)	0	(779,000)	(1,234,000)	(135,000)	(2,148,000)
24	Interest (at 12% per year)**	0	(46,740)	(111,060)	(16,200)	(174,000)
25	Total effects of financing (z)	$ 2,148,000	$ (825,740)	$ (1,345,060)	$ (151,200)	$ (174,000)
26	Cash balance, ending***	$ 350,715	$ 350,657	$ 350,070	$ 473,464	$ 473,464
27	*Excess of total cash available for needs − Total cash needed before financing.					
28	**Note that the short-term interest payments pertain only to the amount of principal being repaid at the end of a quarter. The specific computations regarding interest are $779,000 x 0.12 x 0.5 = $46,740; $1,234,000 x 0.12 x 0.75 = $111,060; $135,000 x 0.12 = $16,200. Also note that *depreciation does not require a cash outlay*.					
29	***Ending cash balance = Total cash available for needs (x) − Total disbursements (y) + Total effects of financing (z)					

Learning Objective 1: Describe the master budget. . . The master budget is the initial budget prepared before the start of a period and explain its benefits. . . benefits include planning, coordination, and control

Well-managed companies usually follow an annual budget cycle including the following steps:

- Plan the performance of the company as a whole and of the subunits within the company.
- Senior managers communicate to subordinates a set of expectations against which performance will be measured.
- Management accountants investigate variations from plans, and corrective action may be taken.
- Managerial accountants and managers take into account market feedback, changed conditions, and their own experiences in making plans for the upcoming period.

Budgeting is the common accounting tool companies use for planning and controlling. Budgets

a. provide a measure of planned financial results.
b. are prepared independent of the company's long term strategies.
c. do not usually reflect actual results, so they are a useless exercise.
d. serve as the financial expression of management's plans for the upcoming period.

[EXERCISE]

Dewitt Co. budgeted its activity for October 2004 from the following information:

- Sales are budgeted at $750,000. All sales are credit sales and a provision for doubtful accounts is made monthly at the rate of 2% of sales.
- Merchandise inventory was $120,000 at September 30, 2004, and an increase of $10,000 is planned for the month.
- All merchandise is marked up to sell at invoice cost plus 50%.
- Estimated cash disbursements for selling and administrative expenses for the month are $105,000.
- Depreciation for the month is projected at $25,000.

Required: Calculate Dewitt's projected operating income for October 2004:

Learning Objective 2: Describe the advantages of budgets. . . advantages include coordination, communication, performance evaluation and managerial motivation

Which of the following is *not* a major benefit of budgets?

a. Compels planning
b. Eliminates innovation
c. Provides performance criteria
d. Promotes coordination and communication

A budget should/can do all of the following EXCEPT

a. be prepared by managers from different functional areas working independently of each other.
b. be adjusted if new opportunities become available during the year.
c. help management allocate limited resources.
d. become the performance standard against which firms can compare the actual results.

Learning Objective 3: Prepare the operating budget . . . the budgeted income statement and its supporting schedules . . . such as cost of goods sold and nonmanufacturing costs

[EXERCISE]

Gerdie Company has the following information:

Month	Budgeted Sales
March	$50,000
April	53,000
May	51,000
June	54,500
July	52,500

In addition, the gross profit rate is 40% and the desired inventory level is 30% of next month's cost of sales.

Required:
Prepare a purchases budget for April through June.

Learning Objective 4: Use computer-based financial planning models in sensitivity analysis. . . for example, understand the effects of changes in selling prices and direct material pries on budgeted income

[EXERCISE]

Michelle Enterprises reports the year-end information from 20x2 as follows:

Sales (100,000 units)	$250,000
Less: Cost of goods sold	150,000
Gross profit	100,000
Operating expenses (includes $10,000 of Depreciation)	60,000
Net income	$ 40,000

Michelle is developing the 20x3 budget. In 20x3 the company would like to increase selling prices by 10%, and as a result expects a decrease in sales volume of 5%. Cost of goods sold as a percentage of sales is expected to increase to 62%. Other than depreciation, all operating costs are variable.

Required:

Prepare a budgeted income statement for 20x3.

Learning Objective 5: Explain kaizen budgeting. . . budgeting for continuous improvement in operations and how it is used for cost management. . . to reduce costs

KAIZEN BUDGETING

Kaizen budgeting is a budgetary process that explicitly incorporates continuous improvement during the budget period.

Kaizen is about working smarter, not working harder. The idea is to find better ways, not just faster ways to produce the product or service.

[EXERCISE]

Brad Corporation is using the kaizen approach to budgeting for 20x5. The budgeted income statement for January 20x5 is as follows:

Sales (240,000 units)	$720,000
Less: Cost of goods sold	480,000
Gross margin	240,000
Operating expenses (includes $64,000 of fixed costs)	192,000
Net income	$ 48,000

Under the kaizen approach, cost of goods sold and variable operating expenses are budgeted to decline by 1% per month.

Required:
Prepare a kaizen-based budgeted income statement for March of 20x5.

Learning Objective 6: Describe responsibility centers. . . a part of an organization that a manager is accountable for and responsibility accounting. . . measurement of plans and actual results that a manager is accountable for

A responsibility center is a part, segment, or subunit of an organization whose manager is responsible for a specified set of activities.

Responsibility accounting measures the plans, budgets, actions, and results of each responsibility center.

Four types of responsibility centers are:
1. Cost center, in which the manager is responsible for costs only. The accounting department would be accounted for as a cost center.
2. Revenue center, in which the manager is accountable for revenues only.
3. Profit center, in which the manager is accountable for revenues and costs. For example, the shoe department in a department store may be accounted for as a profit center.
4. Investment center, in which the manager is accountable for revenues and costs, but also the investment (or assets) under his control. A single store or a division within the company may be accounted for as an investment center.

A key to successful responsibility accounting is to properly identify the costs a manager is responsible for. Any costs over which the manager lacks control should not be a part of his evaluation.

Learning Objective 7: Explain how controllability relates to responsibility accounting. . . managers cannot control all of the costs that they are accountable for; responsibility accounting focuses on obtaining information, not fixing blame

Controllability is the degree of influence that a specific manager has over costs, revenues, or related items for which he or she is responsible.

A controllable cost is any cost that is primarily subject to the influence of a given responsibility center manager for a given period.

This controllability can be difficult to pinpoint for two reasons:

1. Few costs are clearly under the sole influence of one manager.
2. With a long enough time span, all costs will come under someone's control. Most performance reports cover a period of one year or less, so this does not normally present a problem.

Key Point: Someone cannot be held responsible for that which they cannot control. Control must be equal to the responsibility given.

Controllability

a. is always clear cut as to who has responsibility for a cost.
b. is another term for responsibility.
c. is the responsibility of the corporate controller.
d. is the degree of influence a specific manager has over costs, revenues, and other items.

Learning Objective 8: Recognize the human aspects of budgeting. . . to engage subordinate managers in the budgeting process

A budget is usually more effective if the lower-level managers have input into the budget process. Through this process of *participatory budgeting*, the manager obtains "ownership" in the budget and is more likely to achieve budgetary success.

Managers frequently play games with budgets and build in budgetary slack. This is the practice of underestimating revenues, overestimating costs, or overestimating time in order to make the budget targets more easily achievable.

In budgeting in multinational companies three adjustments must be made:

- Operating results must be translated into a common currency for external financial reporting.
- A currency gain or loss must be budgeted and recognized when currencies are translated.
- The political, legal, and economic environments must be understood.

Budgetary slack

a. is going to be included in budget estimates, so it should just be ignored.
b. provides managers with a hedge against unexpected circumstances.
c. should be totally eliminated from the budget.
d. is not found in governmental budgets.

Appendix: The Cash Budget

[EXERCISE]

Information pertaining to Brenton Corporation's sales revenue is presented in the following table.

	February	March	April
Cash sales	$160,000	$150,000	$120,000
Credit sales	300,000	400,000	280,000
Total sales	$460,000	$550,000	$400,000

Management estimates that 5% of credit sales are not collectible. Of the credit sales that are collectible, 60% are collected in the month of sale and the remainder in the month following the sale. Cost of purchases of inventory each month is 70% of the next month's projected total sales. All purchases of inventory are on account; 25% are paid in the month of purchase, and the remainder is paid in the month following the purchase.

Required:

1. Calculate Brenton's budgeted total cash receipts in April.
2. Calculate Brenton's budgeted total cash payments in March for inventory purchases.

QUIZ QUESTION

Hester Company budgets on an annual basis for its fiscal year. The following beginning and ending inventory levels (in units) are planned for the fiscal year of July 1, 2004 through June 30, 2005.

	7-1-04	6-30-05
Raw material[1]	40,000	10,000
Work in process	8,000	8,000
Finished goods	30,000	5,000

[1] Three (3) units of raw material are needed to produce each unit of finished product.

[CMA Adapted] If Hester Company plans to sell 500,000 units during the 2004–2005 fiscal year, the number of units it would have to manufacture during the year would be:

a. 505,000 units.
b. 500,000 units.
c. 480,000 units.
d. 475,000 units.

QUIZ QUESTION

Hester Company budgets on an annual basis for its fiscal year. The following beginning and ending inventory levels (in units) are planned for the fiscal year of July 1, 2004 through June 30, 2005.

	7-1-04	6-30-05
Raw material[1]	40,000	10,000
Work in process	8,000	8,000
Finished goods	30,000	5,000

[1] Three (3) units of raw material are needed to produce each unit of finished product.

[CMA Adapted] If 450,000 finished units were to be manufactured during the 2004–2005 fiscal year by Hester Company, the units of raw material needed to be purchased would be:

a. 1,350,000 units.

b. 1,360,000 units.

c. 1,320,000 units.

d. 1,330,000 units.