

CHAPTER 6
MASTER BUDGET AND RESPONSIBILITY ACCOUNTING

6-36 (30 min.) Cash budget, fill in the blanks, chapter appendix.

	Quarters				Year as a Whole
	I	II	III	IV	
Cash balance, beginning	\$ 15,000	\$ 32,000	\$ 15,000	\$ 50,000	\$ 15,000
Add receipts					
Collections from customers	385,000	315,000	295,000	365,000	1,360,000
Total cash available for needs	<u>400,000</u>	<u>347,000</u>	<u>310,000</u>	<u>415,000</u>	<u>1,375,000</u>
Deduct disbursements					
Direct materials	175,000	125,000	110,000	155,000	565,000
Payroll	125,000	110,000	95,000	118,000	448,000
Other costs	50,000	45,000	40,000	49,000	184,000
Interest expense (LT debt)	3,000	3,000	3,000	3,000	12,000
Machinery purchase	0	85,000	0	0	85,000
Income taxes	15,000	14,000	12,000	20,000	61,000
Total disbursements	368,000	382,000	260,000	345,000	1,355,000
Minimum cash balance desired	15,000	15,000	15,000	15,000	15,000
Total cash needed	383,000	397,000	275,000	360,000	1,370,000
Cash excess (deficiency)	<u>17,000</u>	<u>(50,000)</u>	<u>35,000</u>	<u>55,000</u>	<u>5,000</u>
Financing					
Borrowing (at beginning)	0	50,000	0	0	50,000
Repayment (at end)	0	0	0	(50,000)	(50,000)
Interest (at 12% per annum)	<u>0</u>	<u>0</u>	<u>0</u>	<u>(4,500)</u>	<u>(4,500)</u>
Total effects of financing	0	50,000	0	(54,500)	(4,500)
Cash balance, ending	\$ 32,000	\$ 15,000	\$ 50,000	\$ 15,500	\$ 15,500

6-37 (40- 50 min.) Cash budgeting.

Itami Wholesale Co.
Statement of Budgeted Cash Receipts and Disbursements
For the Months of December, 2001, and January, 2002

	December, 2001	January, 2002
Cash balance, beginning	\$ 10,000	\$ 2,025
Add receipts:		
Collections of receivables (Schedule 1)	<u>235,900</u>	<u>285,800</u>
(a) Total cash available for needs	245,900	287,825

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Deduct disbursements:		
For merchandise purchases (Schedule 2)	183,875	141,750
For variable costs (Schedule 3)	50,000	25,000
For fixed costs (Schedule 3)	<u>10,000</u>	<u>10,000</u>
(b) Total disbursements	243,875	176,750
Cash balance, end of month (a – b)	<u>\$ 2,025</u>	<u>\$111,075</u>

Enough cash should be available for repayment of the note on January 31, 2002

Schedule 1: Collections of Receivables

	Collections in	October	November	December	Total
December		\$14,400 ^a	\$ 50,000 ^b		
January			171,500 ^c		\$235,900
			20,000 ^d	\$ 60,000 ^e	
				205,800 ^f	<u>\$285,800</u>

a. $0.08 \times \$180,000$ b. $0.20 \times \$250,000$ c. $0.70 \times \$250,000 \times .98$
d. $0.08 \times \$250,000$ e. $0.20 \times \$300,000$ f. $0.70 \times \$300,000 \times .98$

Schedule 2: Payments for Merchandise

	December	January
Target ending inventory (in units)	875 ^a	800 ^c
Add units sold (Sales ÷ \$100)	<u>3,000</u>	<u>1,500</u>
Total requirements	3,875	2,300
Deduct beginning inventory (in units)	<u>1,250^b</u>	<u>875</u>
Purchases (in units)	<u>2,625</u>	<u>1,425</u>
Purchases in dollars (units × \$70)	<u>\$183,750</u>	<u>\$99,750</u>

	December	January
Cash disbursements:		
For previous month's purchases at 50%	\$ 92,000	\$ 91,875
For current month's purchases at 50%	<u>91,875</u>	<u>49,875</u>
	<u>\$183,875</u>	<u>\$141,750</u>

a. $500 \text{ units} + 0.25(\$150,000 \div \$100)$ b. $\$87,500 \div \70 c. $500 \text{ units} + 0.25(\$120,000 \div \$100)$

Schedule 3: Marketing, Distribution, and Customer- Service Costs

Total annual fixed costs, \$150,000, minus \$30,000 depreciation	<u>\$120,000</u>
Monthly fixed cost requiring cash outlay	\$ 10,000
Variable cost ratio to sales = $\frac{\$400,000 - \$150,000}{\$1,500,000} = 1/6$	

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December variable costs: $1/6 \times \$300,000$ sales = \$50,000
 January variable costs: $1/6 \times \$150,000$ sales = \$25,000

Net cash decrease \$ 7,280* \$12,680

*Given

6-38 (60-75 min.) Comprehensive budget; fill in schedules.

1. Schedule A: Budgeted Monthly Cash Receipts

Item	September	October	November	December
Total sales	\$40,000*	\$48,000*	\$60,000*	\$80,000*
Credit sales (25%)	<u>10,000*</u>	<u>12,000*</u>	<u>15,000</u>	<u>20,000</u>
Cash sales (75%)	<u>\$30,000</u>	<u>\$36,000</u>	<u>\$45,000</u>	<u>\$60,000</u>
Receipts:				
Cash sales		\$36,000*	\$45,000	\$60,000
Collections on accounts receivable		10,000*	12,000	15,000
Total		<u>\$46,000*</u>	<u>\$57,000</u>	<u>\$75,000</u>

*Given.

2. Schedule B: Budgeted Monthly Cash Disbursements for Purchases

Item	October	November	December	4th Quarter
Purchases	\$42,000*	\$56,000	\$25,200	\$123,200
Deduct 2% cash discount	840*	1,120	504	2,464
Disbursements	<u>\$41,160*</u>	<u>\$54,880</u>	<u>\$24,696</u>	<u>\$120,736</u>

*Given. Note that purchases are 70.0% of next month's sales given a gross margin of 30%.

3. Schedule C: Budgeted Monthly Cash Disbursements for Operating Costs

Item	October	November	December	4th Quarter
Salaries and wages (15% of sales)	\$ 7,200*	\$ 9,000	\$12,000	\$28,200
Rent (5% of sales)	2,400*	3,000	4,000	9,400
Other cash operating costs (4% of sales)	1,920*	2,400	3,200	7,520
Total	<u>\$11,520*</u>	<u>\$14,400</u>	<u>\$19,200</u>	<u>\$45,120</u>

*Given.

4. Schedule D: Budgeted Total Monthly Cash Disbursements

Item	October	November	December	4th Quarter
Purchases	\$41,160*	\$54,880	\$24,696	\$120,736
Cash operating costs	11,520*	14,400	19,200	45,120
Light fixtures	<u>600*</u>	<u>400</u>	<u>- -</u>	<u>1,000</u>
Total	<u>\$53,280*</u>	<u>\$69,680</u>	<u>\$43,896</u>	<u>\$166,856</u>

*Given.

5. Schedule E: Budgeted Cash Receipts and Disbursements

Item	October	November	December	4th Quarter
Receipts	\$46,000*	\$57,000	\$75,000	\$178,000
Disbursements	53,280*	69,680	43,896	166,856
Net cash increase			<u>\$31,104</u>	<u>\$ 11,144</u>

6. Schedule F: Financing Required

Item	October	November	December	4th Quarter
Beginning cash balance	\$12,000*	\$ 8,720*	\$ 8,040	\$12,000
Net cash increase			31,104	11,144
Net cash decrease	7,280*	12,680		
Cash position before borrowing (a)	4,720*	(3,960)	39,144	23,144
Minimum cash balance required	8,000*	8,000	8,000	8,000
Excess (Deficiency)	(3,280)*	(11,960)	31,144	15,144
Borrowing required (b)	4,000*	12,000		16,000
Interest payments (c)			540	540
Borrowing repaid (d)			<u>(16,000)</u>	<u>(16,000)</u>
Ending cash balance (a+b-c-d)	<u>\$ 8,720*</u>	<u>\$ 8,040</u>	<u>\$22,604</u>	<u>\$22,604</u>

*Given.

Interest computation:

\$ 4,000 @ 18% for 3 months = \$180
 \$12,000 @ 18% for 2 months = 360
 Total interest expense \$540

7. Short-term, self-liquidating financing is best. The schedules clearly demonstrate the mechanics of a self-liquidating loan. The need for such a loan arises because of the seasonal nature of many businesses. When sales soar, the payroll and suppliers must be paid in cash. The basic source of cash is proceeds from sales. However, the credit extended to customers creates a lag between the sale and the collection of cash. When the cash is collected, it in turn may be used to repay the loan. The amount of the loan and the timing of the repayment are heavily dependent on the credit terms that pertain to both the purchasing and selling functions of the business. Somewhat strangely, in seasonal businesses, the squeeze on cash is often heaviest in the months of peak sales and is lightest in the months of low sales.

8.

Newport Stationery Store
 Budgeted Income Statement
 For the Quarter Ending December 31, 2001

Revenues—Schedule A		\$188,000
Cost of goods sold (70% of sales)		<u>131,600*</u>
Gross margin		56,400
Operating costs		
Salaries and wages—Schedule C	\$28,200	
Rent—Schedule C	9,400	
Other cash operating costs—Schedule C	7,520	
Depreciation (\$1,000 × 3 months)	<u>3,000</u>	<u>48,120</u>

Operating income		8,280
Deduct interest expense—Schedule F		540
Add purchase discounts—Schedule B		<u>2,464</u>
Net income (before taxes)		<u>\$ 10,204</u>

*Note: Ending inventory and proof of cost of goods sold:

Inventory, September 30	\$ 63,600	
Add purchases—Schedule B	<u>123,200</u>	\$186,800
Deduct inventory, December 31:		
Basic inventory	30,000	
December purchases—Schedule B	<u>25,200</u>	<u>55,200</u>
Cost of goods sold		<u>\$131,600</u>

Newport Stationery Store
Budgeted Balance Sheet
December 31,

Assets:

Current assets:

Cash—Schedule F		\$ 22,604
Accounts receivable		
December credit sales—Schedule A		20,000
Inventory (see Note above)		55,200
Total current assets		97,804

Equipment and fixtures:

Equipment—net (\$100,000 – \$3,000 depreciation)	\$97,000	
Fixtures—Schedule D	1,000	98,000
Total		\$195,804

Liabilities and Owners' Equity:

Liabilities		None
Owners' equity		<u>\$195,804*</u>
Total		<u>\$195,804</u>

*Owners' equity, September 30:

\$12,000 + \$63,600 + \$10,000 + \$100,000 (Given)	\$185,600
Net income, quarter ended December 31	10,204
Owners' equity, December 31	<u>\$195,804</u>

9. All of the transactions have been simplified for example, no bad debts are considered. Also, many businesses face wide fluctuation of cash flows within a month. For example, perhaps customer receipts lag and are bunched together near the end of a month, and disbursements are due evenly throughout the month, or are bunched near the beginning of the month. Cash needs would then need to be evaluated on a weekly and, perhaps, daily basis rather than on a monthly basis.