

1.a. Palomba Pizza Stores

Statement of Cash Flows Year Ended December 31, 2000

Cash Flows from Operating Activities:		
Cash Collections from Customers	\$ 250,000	
Cash Payments to Suppliers	(85,000)	
Cash Payments for Salaries	(45,000)	
Cash Payments for Interest	(10,000)	
Net Cash from Operating Activities		\$ 110,000
Cash Flows from Investing Activities:		
Sales of Equipment	38,000	
Purchase of Equipment	(30,000)	
Purchase of Land	(14,000)	
Net Cash for Investing Activities		(6,000)
Cash Flows from Financing Activities:		
Retirement of Common Stock	(25,000)	
Payment of Dividends	(35,000)	
Net Cash for Financing Activities		(60,000)
Net Increase in Cash	44,000	
Cash at Beginning of Year	50,000	
Cash at End of Year		\$ 94,000

b. Cash Flow from Operations (CFO) measures the cash generating ability of operations, in addition to profitability. If used as a measure of performance, CFO is less subject to distortion than net income. Analysts use the CFO as a check on the quality of reported earnings, although it is not a substitute for net income. Companies with high net income and low CFO may be using overly aggressive income recognition techniques. The ability of a firm to generate cash from operations on a consistent basis is one indication of the financial health of the firm. Analysts search for trends in CFO to indicate future cash conditions and potential liquidity or solvency problems.

Cash Flow from Investing Activities (CFI) reports how the firm is investing its excess cash. The analyst must consider the ability of the firm to continue to grow and CFI is a good indication of the attitude of management in this area. This component of total cash flow includes the capital expenditures made by management to maintain and expand productive capacity. Decreasing CFI may be a forecast of slower future growth.

Cash Flow from Financing (CFF) indicates the sources of financing for the firm. For firms that require external sources of financing (either borrowing or equity financing) it communicates management's preferences regarding financial leverage. Debt financing indicates future cash requirements for principal and interest payments. Equity financing will cause future earnings per share dilution.

For firms whose operating cash flow exceeds investment needs, CFF indicates whether that excess is used to repay debt, pay (or increase) cash dividends, or repurchase outstanding shares.

c. Cash payments for interest should be classified as CFF for purposes of analysis. This classification separates the effect of financial leverage decisions from operating results. It also facilitates the comparison of Palomba with other firms whose financial leverage differs.

d. The change in cash has no analytic significance. The change in cash (and hence, the cash balance at the end of the year) is a product of management decisions regarding financing. For example, the firm can show a large cash balance by drawing on bank lines just prior to year end.

e. and f. There are a number of definitions of free cash flows. In the text, free cash flow is defined as cash from operations less the amount of capital expenditures required to maintain the firm's current productive capacity. This definition requires the exclusion of costs of growth and acquisitions. However, few firms provide separate disclosures of expenditures incurred to maintain productive capacity. Capital costs of acquisitions may be obtained from proxy statements and other disclosures of acquisitions (See Chapter 14).

In the finance literature, free cash flows available to equity holders are often measured as cash from operations less capital expenditures. Interest paid is a deduction when computing cash from operations as it is paid to creditors. Palomba's free cash flow available to equity holders is calculated as follows:

Net cash flow from operating activities less net cash for investing activities: \$110,000 - \$6,000 = \$104,000. The investment activities disclosed in the problem do not indicate any acquisitions.

Another definition of free cash flows, which focuses on free cash flow available to

all providers of capital, would exclude payments for interest (\$10,000 in this case) and debt. Thus, Palomba's free cash flow available to all providers of capital would be \$114,000.

2. a.

	1996	1997	1998	1999	2000	2001
Sales	\$ ---	\$ 140	\$150	\$165	\$175	\$195
Bad debt expense	---	7	7	8	10	10
Net receivables	30	40	50	60	75	95
Cash collections¹	\$ ---	\$ 123	\$133	\$147	\$150	\$165

1 Sales - bad debt expense - increase in net receivables

b.

	1997	1998	1999	2000	2001
Bad debt expense/sales	5.0%	4.7%	4.9%	5.7%	5.1%
Net receivables/sales	28.6	33.3	36.4	42.8	48.7
Cash collections /sales	87.9	88.7	89.1	85.7	84.6

c. The bad debt provision does not seem to be adequate. From 1997 - 2001 sales increased by approximately 40%, while net receivables more than doubled, indicating that collections have been lagging. The ratios calculated in part b also indicate the problem. While bad debt expense has remained fairly constant at 5% of sales over the 5 year period, net receivables as a percentage of sales have increased from 29% to 49%; cash collections relative to sales have declined. Other possible explanations for these data are that stated payment terms have lengthened or that Stengel has allowed customers to delay payment for competitive reasons.

3. Niagara Company Statement of Cash Flows 2001

Cash collections	980	[Sales - (Accounts Receivable)]
Cash inputs	(670)	[COGS + (Inventory)]
Cash expenses	(75)	[Selling & General Expense - (Accounts Payable ¹)]
Cash interest paid	(40)	[Interest Expense - (Interest Payable)]
Income taxes paid	(30)	[Income Tax Expense - (Deferred Tax)]

Cash from Operations	\$ 165	
Purchase of fixed assets	(150)	
Cash Used for Investing	(150)	[Depreciation Expense + (Fixed Assets (net))]
Increase in LT debt	50	
Decrease in notes P	(25)	[Net Income - (Retained earnings)]
Dividends paid	(30)	
Cash Used for Financing	(5)	
Net Change in Cash	\$ 10	
Cash Balance 12/31/00	50	
Cash Balance 12/31/01	\$ 60	

1 Can also be used to calculate cash inputs, decreasing that outflow to \$645 while increasing cash expenses to \$100.

5. a. (i) Statement of Cash Flows - Indirect Method

Cash from operations:

Net income		\$1,080	
Add noncash expense: depreciation		600	
Add/Subtract changes in working capital:			
Accounts receivable	(150)		
Inventory	(200)		
Accruals	80		
Accounts payable	120	(150)	
			\$1,530
Cash from investing:			
Capital expenditures			1,150
Cash from financing:			
Short term borrowing		550	
Long-term repayment		(398)	

Dividends	(432)	
		\$(280)
Net change in cash		\$ 100

cash items are balanced and "closed" to their respective accounts (PP&E and retained earnings) providing the amounts of capital expenditures and dividends.

Worksheet for (Indirect Method) Cash Flow Statement

	Income Statement	Balance Sheet 12/31/00	Balance Sheet 12/31/01	Change	Cash Effect
Net income	\$1,080				\$1,080
Depreciation	600				600
Accounts receivable		\$1,500	\$1,650	\$150	(150)
Inventory		2,000	2,200	200	(200)
Accruals		800	880	80	80
Accounts payable		1,200	1,320	120	120
Depreciation	(600)				(600)
Net fixed assets		6,500	7,050	550	(550)
Capital expenditures					\$(1,150)
Note payable		5,500	6,050	550	550
Short-term borrowing					\$ 550
Long-term debt		2,000	1,602	(398)	(398)
Long-term debt repayment					\$ (398)
Net income	(1,080)				(1,080)
Retained earnings		500	1,148	648	648
Dividends paid					\$ (432)
		<u>0</u>			<u>\$ 100</u>

The worksheet to create the cash flow statement is presented above. Each balance sheet change (other than cash) is accounted for and matched with its corresponding activity. As a last check, the net income and the add-backs of non-

a. (ii) Statement of Cash Flows - Direct Method

Cash from Operations:

Cash collections	\$9,850	
Cash payments for merchandise	(6,080)	
Cash paid for SG&A	(920)	
Cash paid for interest	(600)	
Cash paid for taxes	(720)	
		\$1,530
Cash for Investing Activities:		
Capital expenditures		(1,150)
Cash for Financing Activities:		
Short-term borrowing	550	
Long-term debt repayment	(398)	
Dividends	(432)	
		\$(280)

Net Change in Cash

\$ 100

The worksheet to create the cash flow statement is presented below. Each balance sheet change (other than cash) is accounted for and matched with its corresponding activity. Furthermore the operating account changes are matched to their corresponding income statement item. As a last check, the net income is balanced and "closed" to retained earnings providing the amount of dividends.

Note that there is no difference between the indirect and direct methods in the cash flow statement and in the worksheet for cash for investing and financing activities,

Worksheet for (Direct Method) Cash Flow Statement

	Income Statement	Balance Sheet 12/31/00	Balance Sheet 12/31/01	Change	Cash Effect
Sales	\$10,000				\$10,000

Accounts receivable	\$ 1,500	\$ 1,650	\$ 150	(150)
Cash Collections				\$ 9,850
COGS	(6,000)			(6,000)
Inventory	2,000	2,200	200	(200)
Accounts payable	1,200	1,320	120	120
Cash Paid for Merchandise				\$(6,080)
SG&A expense	(1,000)			(1,000)
Accruals	800	880	80	80
Cash Paid for SG&A				\$(920)
Interest expense	(600)			(600)
Cash Paid for Interest				\$(600)
Taxes	(720)			(720)
Cash Paid for Taxes				\$(720)
Depreciation	(600)			(600)
Net fixed assets	6,500	7,050	550	(550)
Capital Expenditures				\$(1,150)
Note payable	5,500	6,050	550	550
Short-term Borrowing				\$ 550
Long-term debt	2,000	1,602	(398)	(398)
Long-term Debt Repaid				\$(398)
Net income	(1,080)			(1,080)
Retained earnings	500	1,148	648	648
Dividends				\$(432)

\$ 0	\$ 100
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