Statement of Cash Flows

PREPARING THE STATEMENT OF CASH FLOWS: THE INDIRECT METHOD OF REPORTING CASH FLOWS FROM OPERATING ACTIVITIES

The work sheet method described in the text book is not the recommended approach. We will provide a comprehensive example of how the work sheet should be used in determining cash flows. All of our examples use the indirect method.

Preparation of the Work Sheet
The steps in preparing the cash flow worksheet are as follows:

1 **Comparative Balance Sheets.** In the first two columns enter the ending and beginning balance sheet account balances. Foot the first two columns to make sure that you have not made an error in transcribing the balances to the work sheet.
2 **Changes in Cash**. In the third and fourth columns of the work sheet, analyze how the change in each account balance increases or decreases cash. Note that the chance in cash is separated. It is not included in the footing of the two columns because this is the number to which we are trying to reconcile. Foot the columns. You should be out of balance by the change in cash at the top of the work sheet. Transcribe the change in cash under the column total with the smallest amount and re-foot the columns so that the "changes in cash" section is now in balance.
3 **Operating Activities:** Extend the amounts that relate to operating activities to the fifth and sixth columns. This should start with accounts receivable and include all of the changes in current assets and current liabilities, except for changes in dividends payable. Also, you will need to analyze the changes in the accumulated deprecation accounts to determine the amount of depreciation expense that is included in net income. This amount is treated as an increase in cash flow from operating activities. If you have any intangible assets you will need to analyze the account to determine the amount of amortization that was charged to net income. Again, this amount is treated as an increase in to cash flow from operating activities.
4 **Analysis of Retained Earnings:** There is a special section at the bottom of the worksheet to analyze the changes in retained earnings. Net income is treated as an increase in cash flows from operating activities. Gains from investing or financing activities are treated as a decrease in cash flows from operating activities, while losses from investing or financing activities are treated as a increase in cash flows from operating activities. The reason for this adjustment is that these transactions are included in net income but are not classified as operating activities for cash flow purposes. These amounts are effectively being transferred to the appropriate section of the cash flow work sheet; investing activities or financing activities.
5 **Operating Activities:** Once you have analyzed the changes in retained earnings the impact the operating activities section of the work sheet you are ready to foot the columns. One column will be larger than the other. If the increase column is larger than the decrease column, this indicates that there is a net increase in cash flow from operating activities. The difference between the two columns is entered under the larger amount and subtracted to balance the operating activities columns of the work sheet. The location of the difference provides an indication as to whether there is a net increase or net decrease in cash flows from operating activities.

6 **Investing Activities:** Extend the changes in accounts that affect cash flows for investing activities. This will require some T-account analysis. Be careful to make sure that you examine the changes in all of the accounts that might be impacted by a particular transaction. For example, if the entity disposed of a piece of equipment there should be three amounts entered in the investing section of the work sheet. An increase in cash from the credit to the equipment account, a decrease in cash as a result of the debit to the accumulated deprecation account and an increase (decrease) in cash as a result of the gain (loss) that was transferred from the operating section to the investing section. Again, foot the investing activities columns and place the increase or decrease under the largest number. Then re-foot so that the final columns balance.

7 **Financing Activities:** Extend the changes in accounts that affect cash flows for financing activities. This will require some T-account analysis. For example, the issuance of stock might include both the capital stock account and the additional paid-in capital account. Don't forget that the dividends paid are part of this section. The dividends paid include the changes in dividends payable and the dividends declared that were a part of the changes in retained earnings. Once you have completed the extensions you should foot the two columns and place the increase or decrease in cash under the largest number. Then re-foot the columns so that they balance. If you add or subtract the change in cash for the three sections together you will get the change in the cash account at the top of the work sheet. If you don't get this amount you made a mistake somewhere along the way.

8 **Noncash Transactions:** If there are changes in general ledger accounts that have no cash flow effect they should be extended to the two extreme right hand columns. The two columns are labeled increase and decrease although there is no effect on cash flow. Think of these "as if" amounts. If the transaction had a cash flow effect these are the amounts that would have been reported. The increase and decrease columns should equal when you have completed the noncash entries on the work sheet.

Example: Spencer Company has the following comparative balance sheets for the years ended December 31, 2001 and 2000.

Statement of Cash Flows

Spencer Company
Comparative Balance Sheets
December 31, 2001 and 2000

	2001	2000
Assets		
Cash	$ 57,870	$ 66,200
Trade receivables (net)	137,180	117,800
Inventories	211,500	190,150
Prepaid expenses	5,160	6,120
Investments	44,500	93,500
Land	77,250	75,000
Buildings	412,500	225,000
Accumulated depreciation	(91,260)	(81,220)
Equipment	493,700	437,500
Accumulated depreciation	(179,700)	(149,750)
Total assets	$ 1,168,700	$ 980,300
Liabilities and Stockholders' Equity		
Accounts payable (merchandise creditors)	$ 58,715	$ 51,875
Accured expenses (operating expenses)	11,000	10,500
Interest payable	1,875	1,875
Income tax payable	5,000	8,500
Dividends payable	15,660	12,500
Mortgage note payable	175,000	-
Bonds payable	100,000	250,000
Common stock, $25 per value	450,000	375,000
Paid-in capital in excess of par	47,250	41,250
Retained earnings	304,200	228,800
Total liabilities and stockholders' equity	$ 1,168,700	$ 980,300

The company’s income statement for the year ended December 31, 2001 is as follows:

Statement of Cash Flows

Spencer Company
Income Statement
For The Year Ended December 31, 2001

Sales		$ 1,520,700
Cost of merchandise sold		1,110,200
Gross profit		410,500
Operating expenses		
Depreciation expense	$ 39,990	
Other operating expenses	227,110	
Total operating expenses		267,100
		143,400
Other income:		
Gain on sale of land	20,500	
Gain on sale of investments	11,000	
	31,500	
Other expense:		
Interest expense	25,000	
	25,000	6,500
Income before income tax		149,900
Income tax		38,500
Net income		$ 111,400

The following additional information was obtained from an examination of the general ledger and subsidiary ledgers.

- ✓ Investments (long-term) were purchased for $40,500
- ✓ Investments (long-term) costing $89,500 were sold for $100,500
- ✓ Equipment was purchased for $56,200. There were no disposals.
- ✓ A building valued at $187,500 and land valued at $62,500, were acquired by a cash payment of $250,000.
- ✓ Land which cost $60,250 was sold for $80,750 cash
- ✓ A mortgage note payable for $175,000 was issued for cash
- ✓ Bonds payable of $150,000 were retired by the payment of their face amount
- ✓ 3,000 shares of common stock were issued for cash at 27
- ✓ Cash dividends of $36,000 were declared

Statement of Cash Flows

To prepare the work sheet we begin by entering the comparative balance sheets in the first two columns. (Step 1)

	December 31,	
Accounts	**2001**	**2000**
Cash	$57,870	$66,200
Trade receivables (net)	137,180	117,800
Inventories	211,500	190,150
Prepaid expenses	5,160	6,120
Investments	44,500	93,500
Land	77,250	75,000
Buildings	412,500	225,000
Accumulated depreciation	(91,260)	(81,220)
Equipment	493,700	437,500
Accumulated depreciation	(179,700)	(149,750)
Accounts payable	(58,715)	(51,875)
Accrued expenses	(11,000)	(10,500)
Interest payable	(1,875)	(1,875)
Income tax payable	(5,000)	(8,500)
Dividends payable	(15,660)	(12,500)
Martgage note payable	(175,000)	0
Bonds payable	(100,000)	(250,000)
Common stock, $25 par value	(450,000)	(375,000)
Paid-in capital in excess of par	(47,250)	(41,250)
Retained earnings	(304,200)	(228,800)
	$0	$0

The next step is to extend the changes to the “Changes is Cash” columns. (Step 2)

Statement of Cash Flows

	December 31,		Changes in Cash	
Accounts	**2001**	**2000**	**Increase**	**Decrease**
Cash	$57,870	$66,200		$8,330
Trade receivables (net)	137,180	117,800		$19,380
Inventories	211,500	190,150		21,350
Prepaid expenses	5,160	6,120	$960	
Investments	44,500	93,500	49,000	
Land	77,250	75,000		2,250
Buildings	412,500	225,000		187,500
Accumulated depreciation	(91,260)	(81,220)	10,040	
Equipment	493,700	437,500		56,200
Accumulated depreciation	(179,700)	(149,750)	29,950	
Accounts payable	(58,715)	(51,875)	6,840	
Accrued expenses	(11,000)	(10,500)	500	
Interest payable	(1,875)	(1,875)		
Income tax payable	(5,000)	(8,500)		3,500
Dividends payable	(15,660)	(12,500)	3,160	
Martgage note payable	(175,000)	0	175,000	
Bonds payable	(100,000)	(250,000)		150,000
Common stock, $25 par value	(450,000)	(375,000)	75,000	
Paid-in capital in excess of par	(47,250)	(41,250)	6,000	
Retained earnings	(304,200)	(228,800)	75,400	
	$0	$0	431,850	440,180
				8,330
			$431,850	$431,850

Notice how we have isolated the analysis of the change in the cash account. This is the amount to which we are trying to reconcile. At the bottom of the two columns we foot the amounts not including the changes in cash and come up with $431,850 increase in cash and $440,180 decrease in cash. This indicates that there was a net decrease in cash for the accounting period. If we subtract the smaller amount from the larger amount we get $8,330 which we enter in the decrease column. Note that this is the amount of the change in the cash account from the beginning to the end of the year. By subtracting this amount at the bottom we get the footed columns to balance.

Now we are ready to analyze the changes in cash as a result of operating activities. (Step 3) The following is a partial work sheet presenting this extension.

Statement of Cash Flows

	Changes in Cash		Operating Activities	
Accounts	**Increase**	**Decrease**	**Increase**	**Decrease**
Cash		$8,330		
Trade receivables (net)		$19,380		$19,380
Inventories		21,350		21,350
Prepaid expenses	$960		$960	
Investments	49,000			
Land		2,250		
Buildings		187,500		
Accumulated depreciation	10,040		10,040	
Equipment		56,200		
Accumulated depreciation	29,950		29,950	
Accounts payable	6,840		6,840	
Accrued expenses	500		500	
Interest payable				
Income tax payable		3,500		3,500
Dividends payable	3,160			
Martgage note payable	175,000			
Bonds payable		150,000		
Common stock, $25 par value	75,000			
Paid-in capital in excess of par	6,000			
Retained earnings	75,400			
	431,850	440,180		
		8,330		
	$431,850	$431,850		
Analysis of retained earnings:				
Net income			111,400	
Gain on sale of investments				11,000
Gain on sale of land				20,500
Dividends				
			159,690	75,730
Net Cash Flows			**83,960**	
			$75,730	$75,730

The changes in current assets and current liabilities (except dividends payable) are extended to the operating activities section. The changes in accumulated depreciation must be analyzed in order to determine if there are more entries then just current year depreciation expense. It this example, we can go to the income statement and find that the company did not dispose of any long-term assets that had accumulated deprecation so we can enter the changes as the amount of depreciation expense.

In the analysis of changes in retained earnings (Step 4) we enter the net income from the income statement. We also need to reverse out the gain on the sale of investments and the gain on the sale of land. These two amounts are transferred to the investing activities section of the work sheet.

Once the extensions are complete we can foot the columns (Step 5). As you can see from the example, Spencer Company has an increase in cash from operating activities of $159,690 and a decrease in cash of $75,730. If we subtract the smaller from the larger number we get a net increase in cash of $83,960. This amount is subtracted from the largest amount. The two columns are re-footed to make sure they balance.

Now we are ready to extend the changes in account balances to the investing activities section of the work sheet (Step 6). The following is a partial work sheet for Spencer Company presenting this extension.

Statement of Cash Flows

	Changes in Cash		Investing Activities	
Accounts	**Increase**	**Decrease**	**Increase**	**Decrease**
Cash		$8,330		
Trade receivables (net)		$19,380		
Inventories		21,350		
Prepaid expenses	$960			
Investments	49,000		$89,500	$40,500
Land		2,250	60,250	62,500
Buildings		187,500		187,500
Accumulated depreciation	10,040			
Equipment		56,200		56,200
Accumulated depreciation	29,950			
Accounts payable	6,840			
Accrued expenses	500			
Interest payable				
Income tax payable		3,500		
Dividends payable	3,160			
Martgage note payable	175,000			
Bonds payable		150,000		
Common stock, $25 par value	75,000			
Paid-in capital in excess of par	6,000			
Retained earnings	75,400			
	431,850	440,180		
		8,330		
	$431,850	$431,850		
Analysis of retained earnings:				
Net income				
Gain on sale of investments			11,000	
Gain on sale of land			20,500	
Dividends				
			181,250	346,700
Net Cash Flows				**165,450**
			$181,250	$181,250

Note that the gains on the sale of investments and land have been transferred from the operating activities section to the investing section of the work sheet. In analyzing the investments account we need to do a T-Account analysis to figure out what all of the entries were during the year. The following is such an analysis.

T-Account: Investments

Description	Debit	Credit
Beginning balance	$93,500	
Purchase of investment	40,500	
Sale of investment		$89,500
Ending balance	$44,500	

From this analysis we can see that we purchased an investment for $40,500 and disposed of an investment which originally cost $89,500. The purchase is a decrease in cash and the disposition is an increase in cash. To determine the actual amount of cash received as a result of the disposition of the investment we must add the original cost to the gain reported in the income statement. This gives us a total of $100,500 of cash received from the sale of the investment.

Likewise, we will need to do a T-account analysis to determine all of the entries in the land account. The following is such an analysis.

T-Account: Land

Description	Debit	Credit
Beginning balance	$75,000	
Purchase of investment	62,500	
Sale of investment		$60,250
Ending balance	$77,250	

From the T-account we can see that we purchased some land and sold some land. The purchase decreases cash and the original cost of the land sold increases cash flow. Again, we need to look at the gain or loss reported on the income statement to determine the total cash receipts from the sale of the land. In this case the gain reported was $20,500 which is added to the $60,250 to give us total cash received from the sale of the land of $80,750.

Once we have completed the extensions we are ready to foot the columns. From the work sheet you can see that the increase in cash from investing activities was $181,250 and the decrease was $346,700. Therefore, there was a net decrease in cash from investing activities of $165,450. This amount is subtracted from the larger number to make the two columns balance.

We are now ready to extend the changes in account balances to the financing activities section of the work sheet (Step 7). The following is a partial work sheet presenting this analysis.

Statement of Cash Flows

Accounts	Changes in Cash Increase	Changes in Cash Decrease	Financing Activities Increase	Financing Activities Decrease
Cash		$8,330		
Trade receivables (net)		$19,380		
Inventories		21,350		
Prepaid expenses	$960			
Investments	49,000			
Land		2,250		
Buildings		187,500		
Accumulated depreciation	10,040			
Equipment		56,200		
Accumulated depreciation	29,950			
Accounts payable	6,840			
Accrued expenses	500			
Interest payable				
Income tax payable		3,500		
Dividends payable	3,160		$3,160	
Martgage note payable	175,000		175,000	
Bonds payable		150,000		$150,000
Common stock, $25 par value	75,000		75,000	
Paid-in capital in excess of par	6,000		6,000	
Retained earnings	75,400			
	431,850	440,180		
		8,330		
	$431,850	$431,850		
Analysis of retained earnings:				
Net income				
Gain on sale of investments				
Gain on sale of land				
Dividends				36,000
			259,160	186,000
Net Cash Flows			**73,160**	
			$186,000	$186,000

Dividends payable and long-term debt and equity securities are all extended. Also note that the dividends declared that were reported on the income statement are entered in the decrease column. The net of the dividends declared less the increase in dividends payable give use the cash paid for dividends during the year. Again, the columns are footed and we end up with an increase in cash of $259,160 and a decrease in cash of $186,000 giving us a net increase in cash of $73,160. This amount is subtracted from the larger number to balance the columns.

The final analysis is to extend any changes in account balances that are not a result of changes in cash (Step 8). In this example, there are no noncash transactions. The following is a partial worksheet presenting the noncash columns.

	Changes in Cash		Noncash Transactions	
Accounts	**Increase**	**Decrease**	**Increase**	**Decrease**
Cash		$8,330		
Trade receivables (net)		$19,380		
Inventories		21,350		
Prepaid expenses	$960			
Investments	49,000			
Land		2,250		
Buildings		187,500		
Accumulated depreciation	10,040			
Equipment		56,200		
Accumulated depreciation	29,950			
Accounts payable	6,840			
Accrued expenses	500			
Interest payable				
Income tax payable		3,500		
Dividends payable	3,160			
Martgage note payable	175,000			
Bonds payable		150,000		
Common stock, $25 par value	75,000			
Paid-in capital in excess of par	6,000			
Retained earnings	75,400			
	431,850	440,180		
		8,330		
	$431,850	$431,850		
Analysis of retained earnings:				
Net income				
Gain on sale of investments				
Gain on sale of land				
Dividends				
			$0	$0

Statement of Cash Flows

The increase and decrease columns are “as if” the transaction had been a cash transaction. The increase and decrease amounts must be equal. There is no affect on net cash flows but these amounts must be reported in the statement of cash flows as additional disclosure at the bottom of the statement.

To better picture the entire worksheet you may download the worksheet by clicking on this file. C22CashFlowWorksheet.xls

Preparation of the Statement of Cash Flows
The preparation of the statement is just a matter is copying and/or combining amounts that are presented on the work sheet. If you are working in Excel you can link the cash flow statement to the amounts on the work sheet.

The following is the completed statement of cash flows for Spencer Company for the year ended December 31, 2001.

Statement of Cash Flows

Spencer Company
Statement of Cash Flows-Indirect Method
For the Year Ended December 31, 2001

Cash flows from operating activities:		
Net income		$111,400
Adjustments to reconcile net income to net cash used by operating activities:		
Depreciation expense	$39,990	
Increase in accounts receivable	(19,380)	
Increase in inventories	(21,350)	
Decrease in prepaid expenses	960	
Increase in accounts payable	6,840	
Increase in accrued expenses	500	
Decrease in income tax payable	(3,500)	
Gain on sale of investment	(11,000)	
Gain on sale of land	(20,500)	(27,440)
Net cash provided by operating activities		83,960
Cash flows from investing activities:		
Cash received from sale of investments	100,500	
Cash received from sale of land	80,750	
Cash payments for purchase of investments	(40,500)	
Cash payments for purchase of equipment	(56,200)	
Cash payments for purchase of land	(62,500)	
Cash payments for purchase of building	(187,500)	
Net cash used in investing activities		(165,450)
Cash flows from financing activities:		
Cash received from issuance of mortage note	175,000	
Cash received from issuance of stock	81,000	
Cash paid for retirement of bonds payable	(150,000)	
Cash paid for dividends	(32,840)	
Net cash provided by financing activities		73,160
Net decrease in cash		(8,330)
Cash, January 1, 2001		66,200
Cash, December 31, 2001		$57,870
Supplemental Disclosures of Cash Flow Information:		
Cash paid for the year for:		
Interest		$25,000
Income taxes		42,000

Statement of Cash Flows

Note that there is a special section at the bottom of the statement providing disclosure regarding the cash paid for interest expense and income taxes. Using the indirect method these amounts are not presented in the body of the statement.

If there were noncash transactions there would be a second supplementary disclosure indicating the nature of the transaction.