

Chapter 13- Statement of Cash Flows

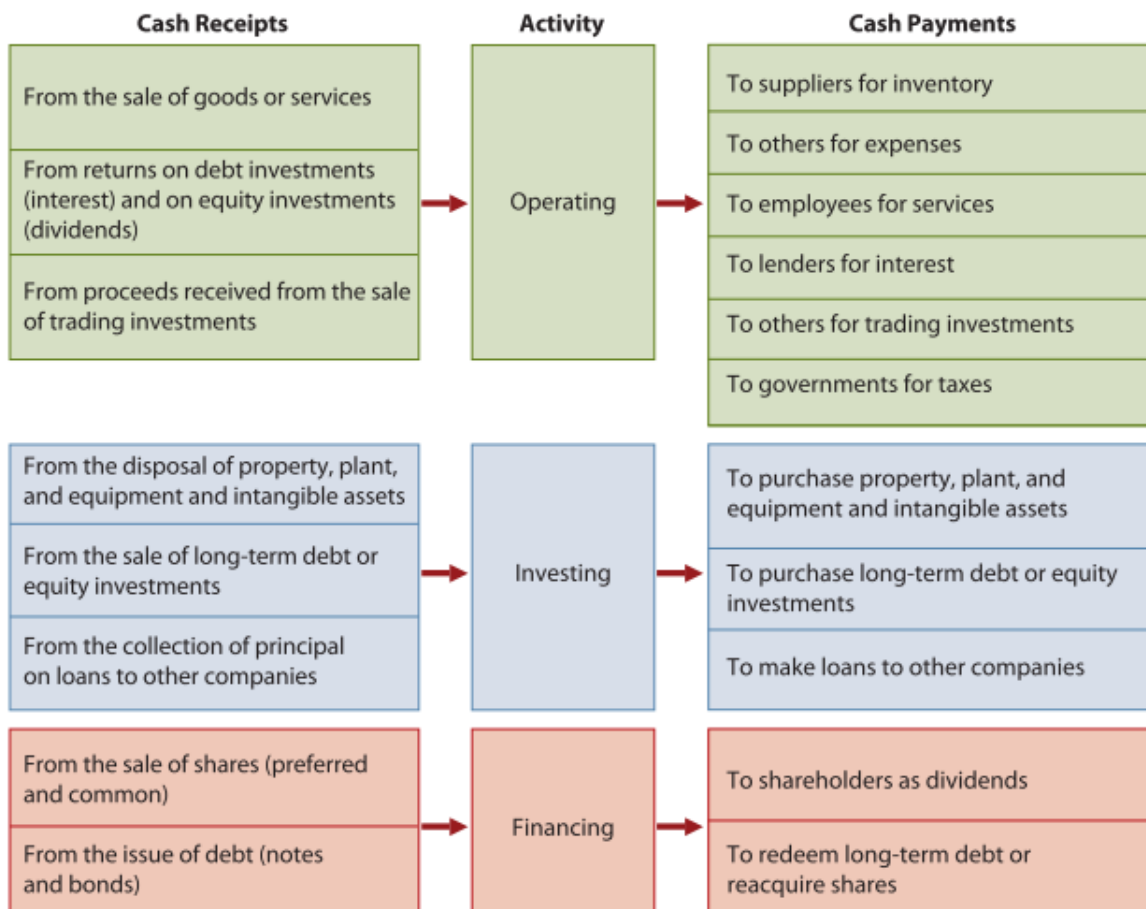
Purpose and Content of the Statement of Cash Flows

Purpose

- Help investors, creditors, and others assess:
 1. The reason for the difference between profits and cash provided or used by operating activities
 2. The investing and financing transactions during the period, or why assets and liabilities have increased or decreased
 3. The company's ability to generate future cash flows

Content

- The information reported in the statement of cash flows includes:
 1. Cash receipts
 2. Cash payments
 3. Net change in cash
- The statement of cash flows classifies cash receipts and cash payments into three types of activities:
 1. Operating activities
 2. Investing activities
 3. Financing activities



- Interest receivable and payable, and dividend are classified as operating activities under ASPE. Dividends as financing
- IFRS- companies have choice regarding the classification of interest and dividends received, may be classified as operating or investing
- Interest and dividends paid can be operating or financing

Noncash Activities Include:

- Issue of debt to purchase assets
- Issue of shares to purchase assets
- Conversions of debt into equity
- Exchanges of property, plant and equipment
- Significant investing and financing activities that do not affect cash are not reported in the body of the statement of cash flows. However these activities are reported in a note to the financial statements

COMPANY NAME		
Statement of Cash Flows		
Period Covered		
Operating activities		
(Prepared using indirect or direct method)	<u>XX</u>	
Net cash provided (used) by operating activities		XXX
Investing activities		
(List of individual inflows and outflows)	<u>XX</u>	
Net cash provided (used) by investing activities		XXX
Financing activities		
(List of individual inflows and outflows)	<u>XX</u>	
Net cash provided (used) by financing activities		<u>XXX</u>
Net increase (decrease) in cash		<u>XXX</u>
Cash, beginning of period		<u>XXX</u>
Cash, end of period		<u>XXX</u>

The Operating Activities Section

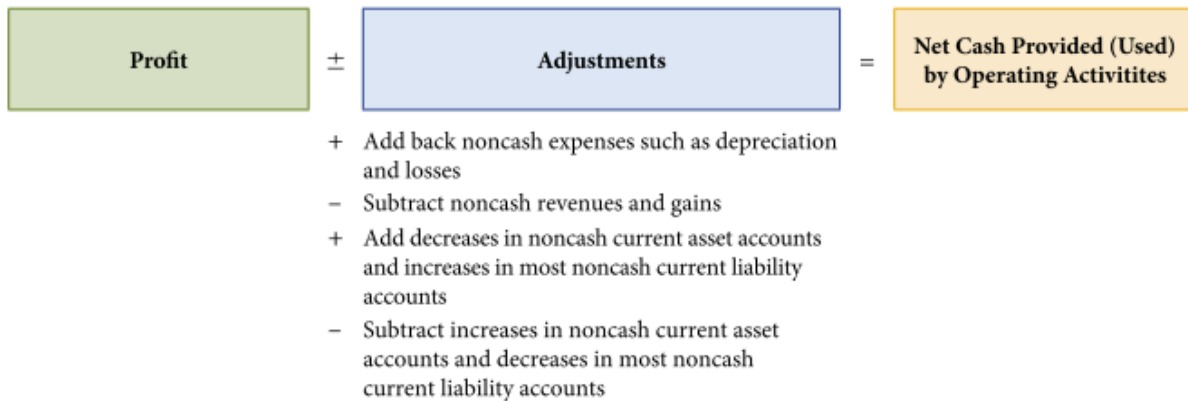
Profit must be converted from an accrual basis to a cash basis:

- Earned revenues may include credit sales that have not been collected in cash
- Expenses incurred may not have been paid in cash

Conversion may be done by either or two methods:

1. The indirect method
 - Converts total profit from an accrual basis to a cash basis
2. The direct method
 - Converts each individual revenue and expense account from an accrual basis to a cash basis, identifying specific cash receipts and payments

Indirect Method



I. Noncash Expenses and Revenues

- The income statement includes expenses that do not use cash:
 - Example: Depreciation expense, Amortization expense
 - Noncash expenses reduce profits but does not reduce cash, non cash expenses are added back to profit
- The income statement includes noncash revenues:
 - Example: Amortization of a bond discount
 - Noncash revenues are deducted from profit

II. Losses And Gains

- All gains and losses from investing activities and financing actives must be eliminated from profits to arrive at cash from operating activities
- If we do not eliminate these gains and losses, they would be counted twice, once in profits and again in the investing or financing activities section

III. Changes in Current Asset and Current Liability Accounts

1. Accounts Receivable

- Decrease in AR
 - Revenues on an accural basis would be lower than revenues on a cash basis
 - The amount of the decrease in accounts receivable is added to profit
- Increase in AR
 - Revenues on an accrual basis are higher than cash receipts
 - The amount of the increase in accounts receivable is deducted from profit

2. Merchandise Inventory

- When merchandise inventory increases during the year, the cost of goods purchased is greater than the cost of goods sold recored in the income statement

- Any increase (decrease) in the merchandise inventory account must be deducted from (added to) profit to arrive at net cash provided (used) by operating activities
- The analysis will be completed by converting the cost of goods purchased from accrual basis to a cash basis (need to analysis accounts payable)

3. Prepaid Expenses

- An increase in prepaid expenses means that Cash paid for expenses is higher than expenses reported on an accrual basis. Cash payments were made in the current period, but expenses have been deferred to future periods.
- The increase (decrease) in prepaid expenses is deducted from (added to) profit to arrive at net cash provided (used) by operating activities.

4. Changes in Account Payable

- Accounts payable is increased by the purchase of merchandise and decreased by payments to suppliers.
- An increase (decrease) in accounts payable means that less (more) cash was paid for purchases than was deducted in the accrual-based expenses
- An increase in accounts payable must be added to profit.

5. Changes in Income Tax Payable

- The change in the Income tax payable account reflects the difference between income tax incurred and income tax actually paid.
- A decrease (increase) in income tax payable would result in a decrease (increase) to cash provided (used) by operating activities since the amount paid was greater than (less than) the tax incurred.
- A decrease to Income Tax Payable will result in the amount being deducted from profit.

L

Increase add to profit
 Decrease subtract to profit

A

Increase subtract to profit
 Decrease add to profit

Noncash expenses	Depreciation expense (property and equipment) Amortization expense (intangible assets)	Add Add
Losses and gains	Losses including impairment losses Gains and reversal of impairment losses	Add Deduct
Changes in certain noncash current asset and current liability accounts	Increase in current asset account Decrease in current asset account Increase in current liability account Decrease in current liability account	Deduct Add Add Deduct

Example

COMPUTER SERVICES CORPORATION Statement of Cash Flows—Indirect Method (partial) Year Ended December 31, 2012		
Operating activities		
Profit		\$145,000
Adjustments to reconcile profit to net cash provided (used) by operating activities		
Depreciation expense	\$ 9,000	
Loss on sale of equipment	3,000	
Decrease in accounts receivable	10,000	
Increase in merchandise inventory	(5,000)	
Increase in prepaid expenses	(4,000)	
Increase in accounts payable	16,000	
Decrease in income tax payable	<u>(2,000)</u>	<u>27,000</u>
Net cash provided by operating activities		172,000

Example

The comparative statement of financial position for a company shows the following noncash current asset and liability accounts at March 31

	<u>2015</u>	<u>2014</u>
Accounts Receivable	60,000	40,000
Merchandise Inventory	75,000	70,000
Prepaid Expenses	6,000	4,000
Accounts Payable	35,000	40,000
Intrest Payable	5,000	7,500
Income Tax Payable	17,000	12,000

The companies incomes statement reported the following self red information for the year ended March 31, 2015: profit was 275,000 depreciation expense was 60,000 and a loss on the disposal of land was 15,000. The company uses a perpetual inventory system. Calculate net cash provided (used) by operating actives using the indirect method

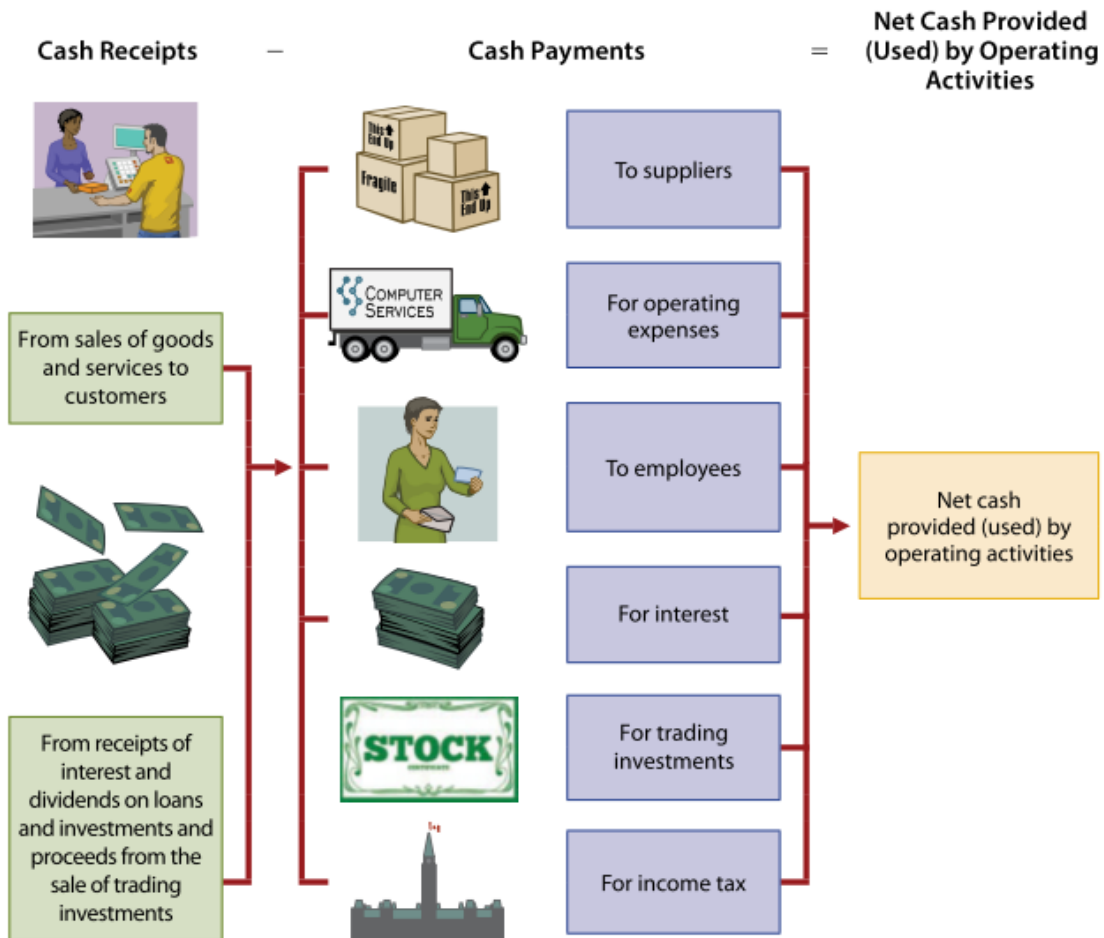
Statement of Cash Flows — Indirect Method

Operating Activities		
Profit		275,000
Adjustments to reconcile profit to net cash provided (used) by operating activities		
Depreciation expense	60,000	
Loss on disposal of land	15,000	
Accounts receivables increase	(20,000)	

Merchandise inventory increase	(5,000)	
Prepaid expense increase		(2,000)
Accounts arable decrease	(5,000)	
Intrest payable decrease		(2,500)
Income tax payable increase	5,000	
	<u>45,500</u>	

Net cash provided by operating activities 320,500

2. Direct Method



- Under the direct method, net cash provided (or used) by operating activities is calculated by adjusting each item in the income statement from the actual basis to the cash basis
- Analyze the items reported in the income statement in the order in which they are listed
- The cash receipts and cash payments related to these revenues and expenses are determined by adjusting for changes (increases or decreases) in the related current asset and current liability accounts

I. Cash Receipts

1. Cash Receipts from customers

Accounts Receivable	
Jan 1 Balance	
Sales on account	<u>Receipts from customers</u>
Dec 31 Balance	

Cash receipts from customers	=	Revenue	{	+ Decrease in accounts receivable or - Increase in accounts receivable
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2. Other Cash Receipts

- For example Interest and Dividends
- Must be adjusted for any receivable amounts as was done above

II. Cash Payments

1. Cash Payments to Suppliers

- Find purchases during the year
 - Adjust cost of goods sold for the change in inventory
 - The increase in inventory is added to the cost of goods sold
 - The decrease would be deducted from the cost of goods sold
- Determine cash payments to suppliers
 - Adjust purchases for the change in accounts payable
 - An increase in accounts payable is deducted from the cost of goods purchased to arrive at cash payments to suppliers
 - A decrease in accounts payable is added to the cost of goods purchased.

Cash payments to suppliers	=	Cost of goods sold	{	+ Increase in inventory or - Decrease in inventory	{	+ Decrease in accounts payable or - Increase in accounts payable
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2. Operating Expenses

must be adjusted for:

1. Prepaid expenses
 - Any increase must be added to operating expenses
 - Any decrease must be deducted from operating expenses
2. Accrued expenses payable
 - An increase in the accrued liability account is deducted from operating expenses.
 - A decrease is added to operating expenses.

Cash payments for operating expenses	=	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center; vertical-align: middle;">Operating expenses</td> <td style="font-size: 3em; vertical-align: middle;">{</td> <td style="text-align: center; vertical-align: middle;"> + Increase in prepaid expenses or - Decrease in prepaid expenses </td> <td style="font-size: 3em; vertical-align: middle;">}</td> <td style="text-align: center; vertical-align: middle;"> + Decrease in accrued expenses payable or - Increase in accrued expenses payable </td> </tr> </table>	Operating expenses	{	+ Increase in prepaid expenses or - Decrease in prepaid expenses	}	+ Decrease in accrued expenses payable or - Increase in accrued expenses payable
Operating expenses	{	+ Increase in prepaid expenses or - Decrease in prepaid expenses	}	+ Decrease in accrued expenses payable or - Increase in accrued expenses payable			

Cash payments to employees	=	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center; vertical-align: middle;">Salaries expense</td> <td style="font-size: 3em; vertical-align: middle;">{</td> <td style="text-align: center; vertical-align: middle;"> + Decrease in salaries payable or - Increase in salaries payable </td> <td style="font-size: 3em; vertical-align: middle;">}</td> </tr> </table>	Salaries expense	{	+ Decrease in salaries payable or - Increase in salaries payable	}
Salaries expense	{	+ Decrease in salaries payable or - Increase in salaries payable	}			

Cash payments for income tax	=	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center; vertical-align: middle;">Income tax expense</td> <td style="font-size: 3em; vertical-align: middle;">{</td> <td style="text-align: center; vertical-align: middle;"> + Decrease in income tax payable or - Increase in income tax payable </td> <td style="font-size: 3em; vertical-align: middle;">}</td> </tr> </table>	Income tax expense	{	+ Decrease in income tax payable or - Increase in income tax payable	}
Income tax expense	{	+ Decrease in income tax payable or - Increase in income tax payable	}			

Cash payments for interest	=	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center; vertical-align: middle;">Interest expense</td> <td style="font-size: 3em; vertical-align: middle;">{</td> <td style="text-align: center; vertical-align: middle;"> + Decrease in interest payable or - Increase in interest payable </td> <td style="font-size: 3em; vertical-align: middle;">}</td> </tr> </table>	Interest expense	{	+ Decrease in interest payable or - Increase in interest payable	}
Interest expense	{	+ Decrease in interest payable or - Increase in interest payable	}			

COMPUTER SERVICES CORPORATION
Statement of Cash Flows (partial)
Year Ended December 31, 2012

Operating activities			
Cash receipts from customers			\$517,000
Cash payments			
To suppliers	\$(139,000)		
For operating expenses	(145,000)		
For interest	(12,000)		
For income tax	<u>(49,000)</u>		<u>(345,000)</u>
Net cash provided by operating activities			172,000

Example

The following selected information is taken from the general ledger of a company

- A) Sales Revenue 160,000
Accounts receivable, January 1 16,000
Accounts receivable December 31 14,000

- B) Cost of Goods Sold 96,000
Merchandise Inventory, January 1 9,200
Merchandise Inventory, December 31 10,900
Accounts Payable, January 1 11,500
Accounts Payable, December 31 10,700

- C) Salaries Expense 35,000
Salaries Payable, January 1 500
Salaries Payable, December 31 675

- D) Operating Expense 50,000
Accrued Expenses Payable, January 1 4,200
Accrued Expenses Payable, December 31 3,900
Prepaid Expenses January 1 2,600
Prepaid Expenses December 31 2,150

Using the above information and the direct method, calculate (a) cash receipts from customers. (b) cash payments suppliers (c) cash payments to employees and, (d) cash payments for operating expenses

March 26, 2018

A)

Sales Revenue	160,000	
Add: Decrease in accounts receivable	2,000	
Cash receipts for customers		162,000

B)

Cost of Goods Sold	96,000	
Add: Increase in inventory	1,700	
Add: Decrease in accounts payable		800
Cash payments to suppliers	98,500	

C)

Salaries Expense	35,000	
Less: Increase in salaries payable	(175)	
Cash payments to employee		34,825

D)

Operating Expense		50,000
Add:		300
Less:		(450)
Cash payments for operating expense		49,850

The Investing Activities Section

- Regardless of whether the indirect or direct method is used to calculate operating activities, investing activities are measured and reported in the same way
- The individual inflows and outflows from investing activities are reported separately
- Determine the net cash provided (used) by investing activities by analyzing changes in non-current asset accounts
 - Assets acquisitions are uses of cash;
 - Disposals are sources of cash (for the proceeds of disposition)

Investing activities		
Purchase of building	\$(120,000)	
Purchase of equipment	(25,000)	
Sale of equipment	<u>4,000</u>	
Net cash used by investing activities		(141,000)

Example

A company reported the following information on December 31, 2015

	<u>2015</u>	<u>2014</u>
Long term Investments	450	100
Land	200	200
Buildings	300	300
Accum dep—Building	90	75
Equipment	500	400
Accum dep—Equipment	200	200

Additional Information:

1. Long term investments were purchased during the year, none were sold
2. Equipment was purchased during the year. In addition, equipment with a cost of 100 and a carrying amount of 50 was sold at a gain of 10

Prepare the investing activities section of the companies statement of cash flows for the year

Investing Activities

Purchase of long term investment
Disposal of equipment
Purchase of equipment
Net cash used by investing activities

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The Financing Activities Section

- Regardless of whether the indirect or direct method is used to calculate operating activities, financing activities are measured and reported in the same way
- The individual inflows and outflows from financing activities are reported separately
- Determine the net cash provided (used) by financing activities by analyzing changes in non-current liability and shareholders equity accounts

Financing activities		
Issue of common shares	\$ 20,000	
Payment of cash dividend	<u>(29,000)</u>	
Net cash used by financing activities		<u>(9,000)</u>

Example

A company reported the following information at December 31, 2015

	2015	2014
Dividends payable	15	10
Bank loan payable — current portion	200	200
Bank loa payable — non-current portion	400	300
Common Shares	600	400
Retained Earnings	700	500

Additional Information:

1. The bank loan was increased by additional borrowings of 300 to partially finance the purchase of new equipment that cost 500. The bank loan was decreased by repayments
2. Common shares were issued during the year. None were reacquired
3. Dividends were paid during the year
4. Profit for the year was 400

Prepare the financing activities section of the company's statement of cash flows for the year

Financing Activities

- Payment of cash dividends
- Repayment of cash dividends
- Issue of Common Shares
- Net cash used by financing activities

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COMPUTER SERVICES CORPORATION		
Statement of Cash Flows		
Year Ended December 31, 2012		
Operating activities		
Cash receipts from customers		\$517,000
Cash payments		
To suppliers	\$(139,000)	
For operating expenses	(145,000)	
For interest	(12,000)	
For income tax	(49,000)	(345,000)
Net cash provided by operating activities		172,000
Investing activities		
Purchase of building	\$(120,000)	
Purchase of equipment	(25,000)	
Sale of equipment	4,000	
Net cash used by investing activities		(141,000)
Financing activities		
Issue of common shares	\$ 20,000	
Payment of cash dividend	(29,000)	
Net cash used by financing activities		(9,000)
Net increase in cash		22,000
Cash, January 1		33,000
Cash, December 31		<u>\$ 55,000</u>
Note x: Significant noncash investing and financing activities		
Issue of bonds to purchase land		\$110,000

Using Cash Flows to Evaluate a Company

Liquidity

- Cash Current debt coverage ratio

$$\frac{\text{Cash provided (used) by operating activities}}{\text{Average current liabilities}}$$

- HIGHER IS BETTER
- The higher the cash current debt coverage ratio is, the better the company's liquidity
- Additional ratios such as the receivables turnover and inventory turnover must also be calculated in order to properly assess a company's liquidity

Solvency

1. Cash total debt coverage ratio

- Measures long-term debt paying ability (cash basis)

$$\frac{\text{Cash provided (used) by operating activities}}{\text{Average total liabilities}}$$

- HIGHER IS BETTER

2. Free cash flow

- Measures discretionary cash flow remaining from operating activities available to use to expand operations, reduce debt, go after new opportunities, or pay additional dividends, among other alternatives

$$\text{Net cash provided (used) by operating activities} - \text{net capital expenditures} - \text{dividends paid}$$

- Net capital expenditures = amounts paid for the acquisition of PPE — any recoveries from the sale of these assets (investing activities section)
- HIGHER IS BETTER

Example

Information for two companies in the same industry is presented:

	R	L
Net Cash provided by operating activities	200,000	200,000
Average cost liabilities	50,000	50,000
Average total liabilities	200,000	200,000
Net Capital expenditures	20,000	35,000
Dividends paid	24,000	18,000

- Calculate the cash current debt coverage ratio, cash total debt coverage ratio, and free flow cash ratio
- Compare Liquidity and Solvency

A)

R

CCDD : 4

CTDC: 1

FCF: 156,000

L

CCDD: 1.3

CTDC: 1

FCF: 147

B) R is better