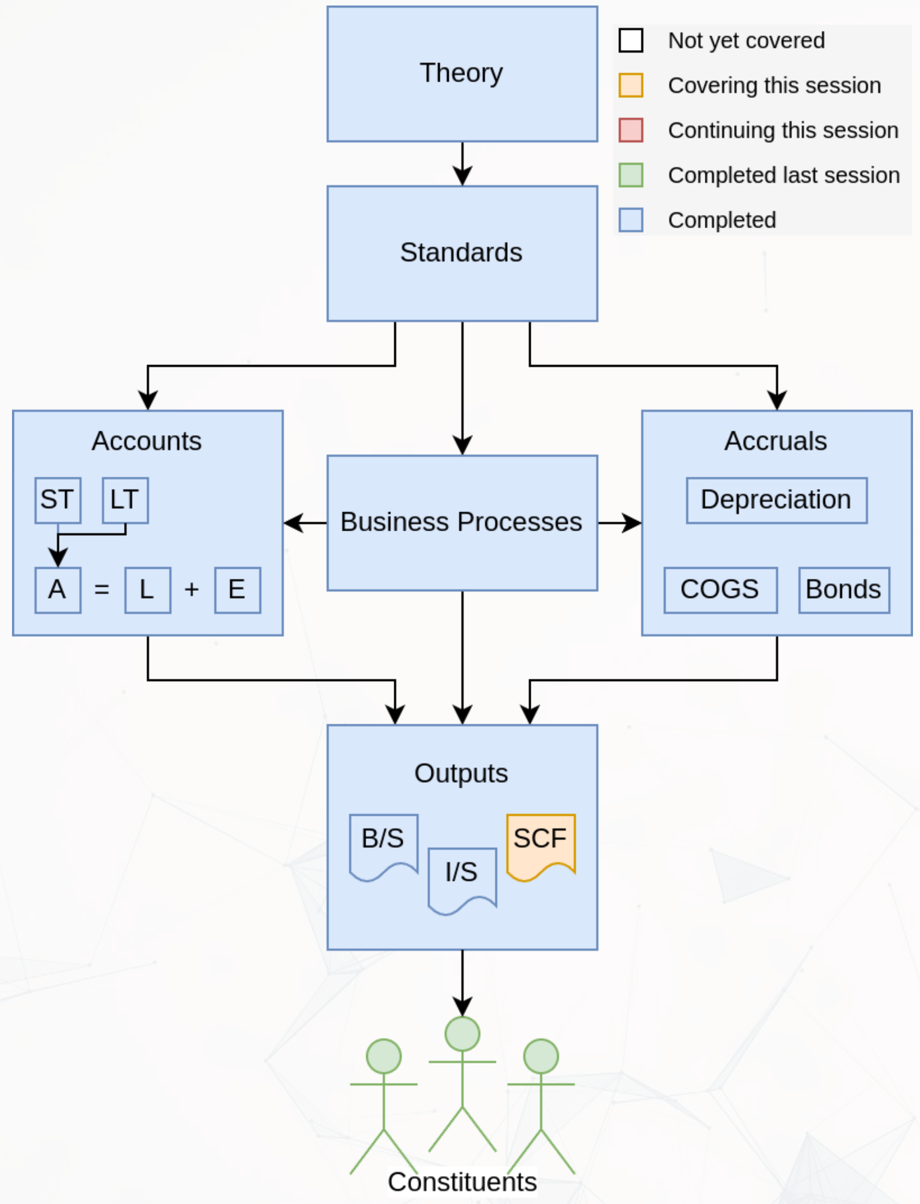
ACCT 101, Session 10: Cash Flows

Dr. Richard M. Crowley
rcrowley@smu.edu.sg
https://rmc.link/

Front matter

Learning objectives

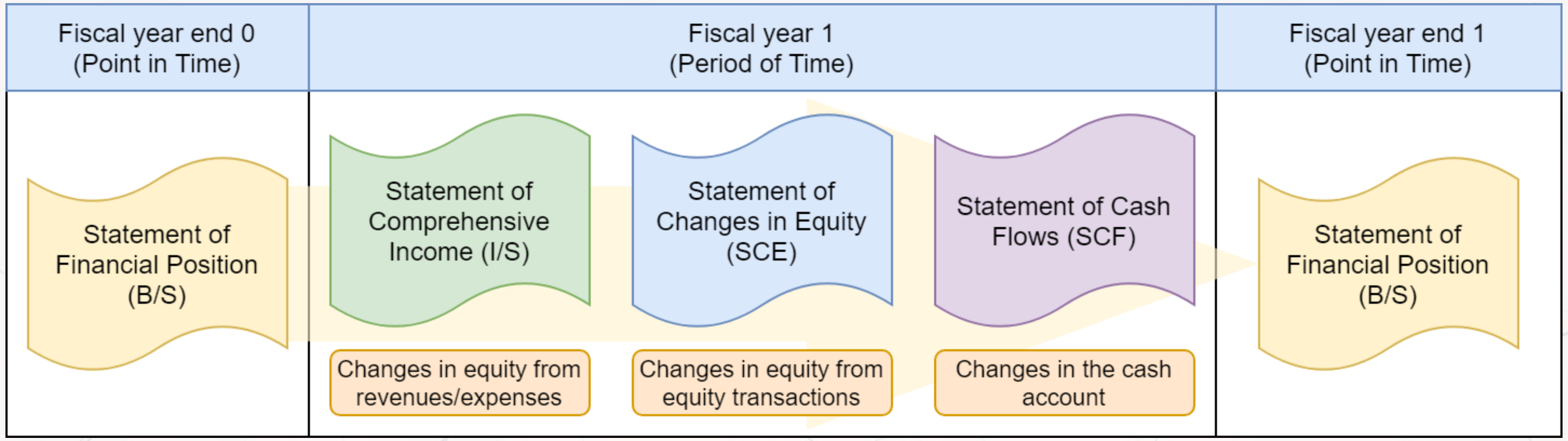


1. Understand why we have a Statement of Cash Flows
2. Identify cash flows from:
   - Operations
   - Investing
   - Financing
3. Identify significant non-cash activities
4. Apply the *indirect method*

Statement of Cash Flows

What is the SCF?

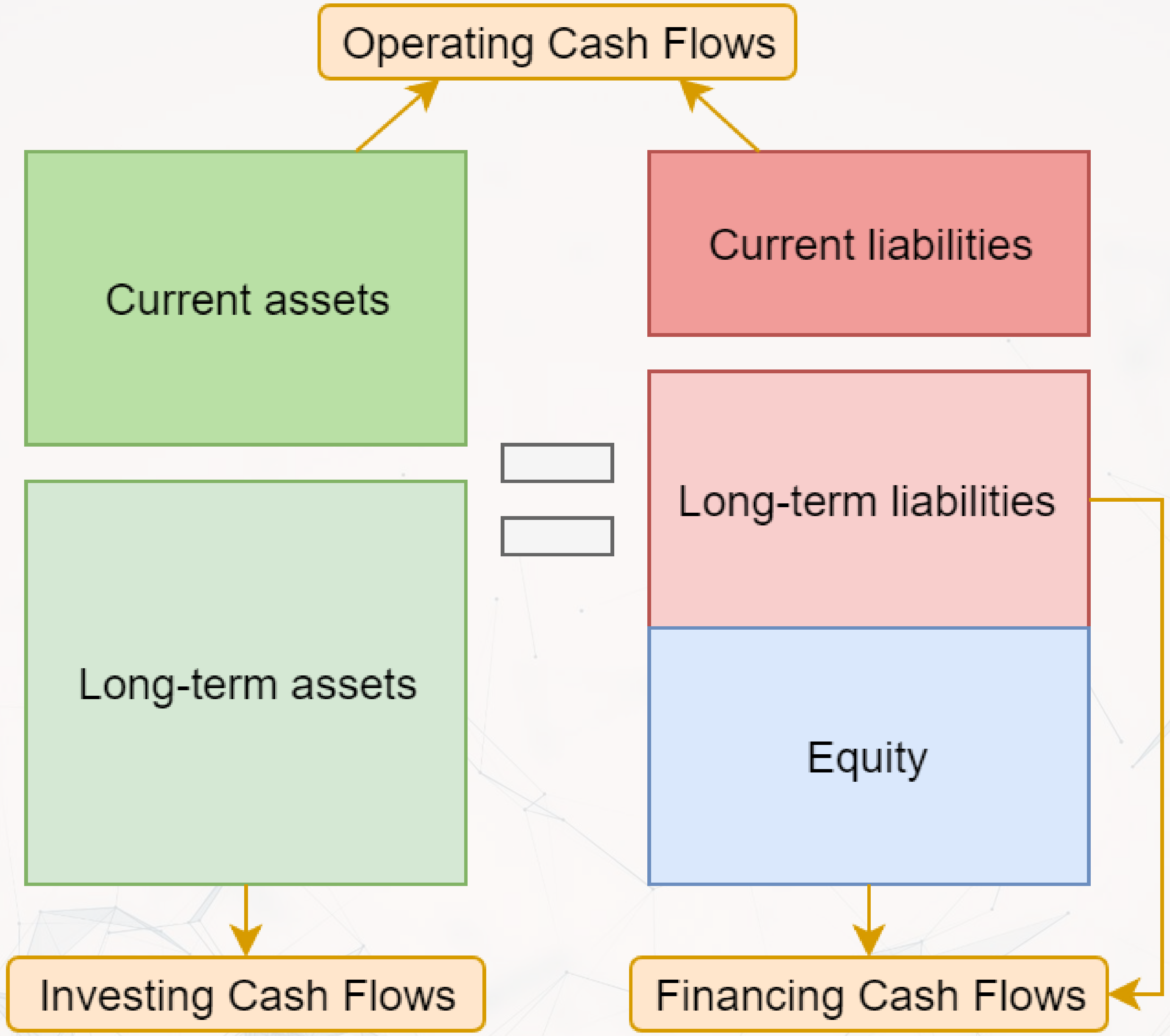
- Categorizes and presents all *cash* receipts and *cash* payments
  - Cash *inflows*: where cash came in from
  - Cash *outflows*: where cash went out to
- Describes cash changes over a period



Why use an SCF?

- Helpful in assessing companies'…
  - Ability to generate future cash flows
  - Ability to pay dividends
  - Difference between net income and change in cash
  - Investing and financing activities during the period
  - Value using DCF models (finance)
- Provides information on three types of cash flows, accounting for all cash flows of the company
  - Operating activities
  - Investing activities
  - Financing activities

SCF and the balance sheet



Special cases: Interest and dividends

- IFRS, under IAS 7.31
  - *Pick any categorization*
    - Dividends paid/received can be any cash flow type
    - Interest paid/received can be any cash flow type
    - Keep it the same year-after-year
- US GAAP specifies where to put these – follow this if you don't have a strong opinion on where to put interest and dividends
  - Inflows from dividends or interest: operating activities
  - Interest payments: operating activity
  - Dividend payments: financing activity

Operating activities

- Cash from standard business transactions
- Useful in:
  - Identifying *sustainable* cash flows
  - Management of current assets and current liabilities
    - I.e., working capital
  - Identifying liquidity issues
    - Important for loans!

Operating activities

Inflows

- Sales
- Short term investments (selling)
- Other revenues

Outflows

- Short term investments (buying)
- Business expenses
  - Paying suppliers and employees
  - Taxes
  - Maintenance expense

> Focus on changes in current assets, changes in current liabilities, and the income statement

Investing activities

- Cash transactions that increase or decrease long-term assets
- Useful in:
  - Identifying one-time or non-recurring cash inflows and outflows

Investing activities

Inflows

- PP&E disposal
- Selling investments in other firms
- Collection of principal on loans made

Outflows

- Purchasing PP&E
- Purchasing investments in other firms
- Making loans

> Focus on PP&E

Financing activities

- Cash-based increases and decreases in long-term liabilities and shareholders' equity
- Useful in:
  - Predicting future claims on cash
  - Identifying how a company is financed
    - Internally vs. externally

Financing activities

Inflows

- Receiving loans
- Issuing stock
- Selling treasury shares

Outflows

- Paying back loans
- Buying treasury shares

> Focus on long term liabilities and shareholders' equity

Significant non-cash activities

- Includes:
  - Issuing common stock in exchange for PP&E
  - Bond conversion (Bond equity)
  - Debt issuance for PP&E
  - PP&E exchange
- Useful in:
  - Determining other future claims on cash
  - Getting a more complete picture of financing and investments
- Reported at the bottom of SCF or in supplementary schedule

Practice: Identifying cash flows

> What type of cash flows are each of the following?
> [Operating / Investing / Financing / Non-cash / None]
>
> If it is a cash flow, is it an inflow or outflow?

1. Reissue treasury shares for a warehouse
2. Pay off a note payable
3. Pay interest on a bond
4. Issue new shares for $10 each
5. Pay accounts payable
6. Record $10,000 depreciation on PP&E
7. Sell machinery at a loss
8. Sell land
9. Pay a dividend
10. Buy a warehouse
11. Sell goods for cash

Operating cash flows

Operating cash flows

Two equivalent methods:

Indirect method

- Backs out operating cash flow by starting with net income and adjusting out accruals
- Most commonly used
- Easiest to do

Direct method

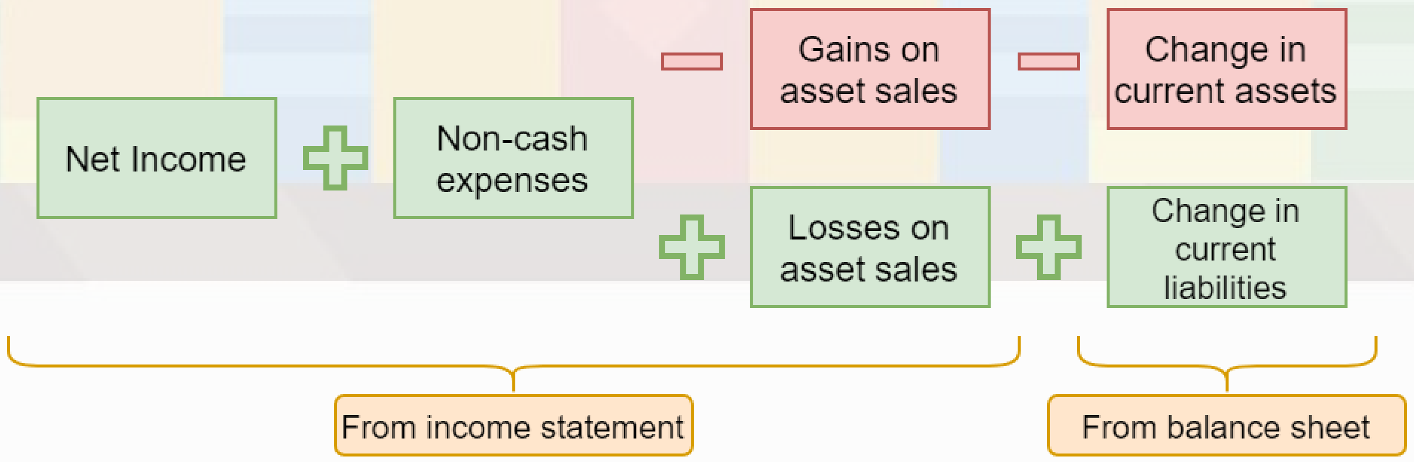
- Tracks and reports exactly where operating cash flows came from
- Preferred by IFRS
- Most useful for investors

- Both methods will get you to the same operating cash flow amount

> We will cover the direct method next week when we construct an SCF

Indirect method

1. Start with net income
2. Add back non-cash expenses (i.e., pure accruals)
    - Depreciation, depletion, amortization
    - Bond discount amortization
    - Bad debt expense, warranty expense
3. Subtract out any gains from asset sales included in net income
4. Add back any losses from asset sales included in net income
5. Subtract changes in current assets, **except cash**
6. Add changes in current liabilities



Indirect method: Calculation

- Steps 1 through 4 are available in the income statement
- Steps 5 and 6 can be calculated by comparing balance sheets
  - Current year versus prior year balance sheets
  - Compare change in accounts such as…
    - A/R
    - Inventory
    - Prepaid expenses
    - Accounts Payable
    - Unearned revenue

Example: Indirect method

Statement of Comprehensive Income Coffee Corp	Dec 31, 20X9	Dec 31, 20X8
Revenue	72,000	54,000
COGS	38,000	30,000
Gross profit	34,000	24,000
Depreciation expense	8,000	7,500
Operating expenses	15,000	14,500
Net income before tax	11,000	2,000
Other revenues	6,000	0
Tax expense	2,000	200
Net income	15,000	1,800

Statement of Financial Position Coffee Corp	Dec 31, 20X9	Dec 31, 20X8
Cash	32,000	25,000
A/R	6,000	4,000
Inventory	10,000	12,000
Accounts payable	8,000	7,000
Utilities Payable	2,000	1,500
Salaries Payable	3,000	2,500

There was a 6,000 gain on asset sale during the year 20X9

To get the amount of operating cash flow for Kopi Corp, add all numbers highlighted in green and subtract all numbers highlighted in red

OCF =
(1) NI
(2) + Depreciation
(3) - Gain on asset sale
(4) + Loss on asset sale
(5) - ΔA/R - ΔInventory
(6) + ΔA/P + ΔUtilities Pay. + ΔSalaries Pay.

OCF =
(1) 15,000
(2) + 8,000
(3) - 6,000
(4) + 0 [none in this problem]
(5) - 2,000 - (-2,000)
(6) + 1,000 + 500 + 500
= 19,000

Practice: Indirect method

> You find the following information in Kopi Corp's 20X9 and 20X8 financial statements. Based on this information, what is their operating cash flow for 20X9?

Statement of Comprehensive Income
Kopi Corp

	Dec 31, 20X9	Dec 31, 20X8
Revenue	33,000	64,500
COGS	4,500	6,000
Gross profit	28,500	58,500
Depreciation expense	15,000	15,000
Operating expenses	20,000	13,000
Net income before tax	(6,500)	30,500
Tax expense	0	3,000
Net income	(6,500)	27,500

Furthermore, there was a 3,000 loss on asset sale during the year 20X9

Statement of Financial Position
Kopi Corp

	Dec 31, 20X9	Dec 31, 20X8
Cash	45,000	40,000
A/R	4,000	10,000
Inventory	6,000	4,500
Accounts payable	2,000	10,000
Utilities Payable	1,000	5,000
Salaries Payable	2,000	2,000

End matter

Wrap up

- For next week
  1. Recap the reading for this week
  2. Read the pages for next week
     - Cash flows (Chapter 11)
  3. Practice on eLearn
     - Practice on Cash flows
     - Automatic feedback provided
- Survey on the class session at rmc.link/101survey2

Packages used for these slides

- kableExtra
- knitr
- revealjs