ACCT7106 – Session #7: Reformulating the Financial Statements

PART 1 – Background

overarching objective: Assignment Project Exam Help

to conduct fundamental va imating the 'intrinsic value' of
a firm's common shares https://eduassistpro.github.io/

➡ requires an understanding of the firm's 'valu Add WeChat edu_assist_pro

➡ need to accumulate a 'tool kit' as the basis for developing the *pro forma Financial Statements*

$\Rightarrow$ **projected** $\left\{ \begin{array}{l} \text{Balance Sheet (B/S)} \\ \text{Income Statement (I/S)} \\ \text{Statement of Cash Flows (SCF)} \end{array} \right\}$

over the forecast horizon

➡ core inputs ➡ x g

Sessions #3 → #9

STEP 1
Understanding the past

1. Information collection
2. Understanding the business
3. Accounting analysis
4. Financial ratio analysis
5. Cash flow analysis

STEP 2
Forecasting the future

1. Structured forecasting

STEP 3
Valuation

1. Cost of capital
2. Valuation models – *AE, FCF, D*
3. Valuation ratios
4. Complications
   a. Negative values
   b. Value creation and destruction

Figure 1.1   Lundholm & Sloan, *Framework for Equity Valuation*

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Stages of the Analysis

Stage 1 – Understanding the Business

→ 'Strategy Analysis'

- product market
- competition
- regulatory constraints
- business strategies
- technology

Stage 2 – Analysing Information

Accounting Analysis & Financial Analysis

- quality of accounting information
- reformulating the F/S to uncover business activities
- ratio and cash flow analysis

Stage 3 – Prospective Analysis: Forecasting

⇨ *pro-forma*
- Income Statement
- Balance Sheet
- Statement of Cash Flows

Stage 4 – Prospective Analysis: Valuation

- Abnormal Earnings Model
- Alternative Valuation Models
- tatement of Cash Flows

Stage 5 – Prospective Analysis: Application

→ investment decision

investor – decision to buy, hold, sell

manager – decision to adopt strategy or not

external environment
- economic prospects
- macroeconomic factors
- socio-cultural forces
- political / regulatory

Analysis of Financial Statements

- understanding current F/S

- re-formulating the F/S

- accounting quality

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Industry dynamics
➜ **Porter's five forces**
(suppliers, buyers, new entrants,
substitutes, rivalry)

- analysts' reports
- management forecasts
- financial press
- ???

➢ Financial Statements – AASB 101:

- Balance Sheet
- Income Statement *and/or* Statement of Comprehensive Income
- Statement of Changes in Equity
- Statement of Cash Flows
- Notes to the financial statements

➢ building blocks → definitio

➢ accounting principles → AASB / IFRS rules ounting decisions/choices

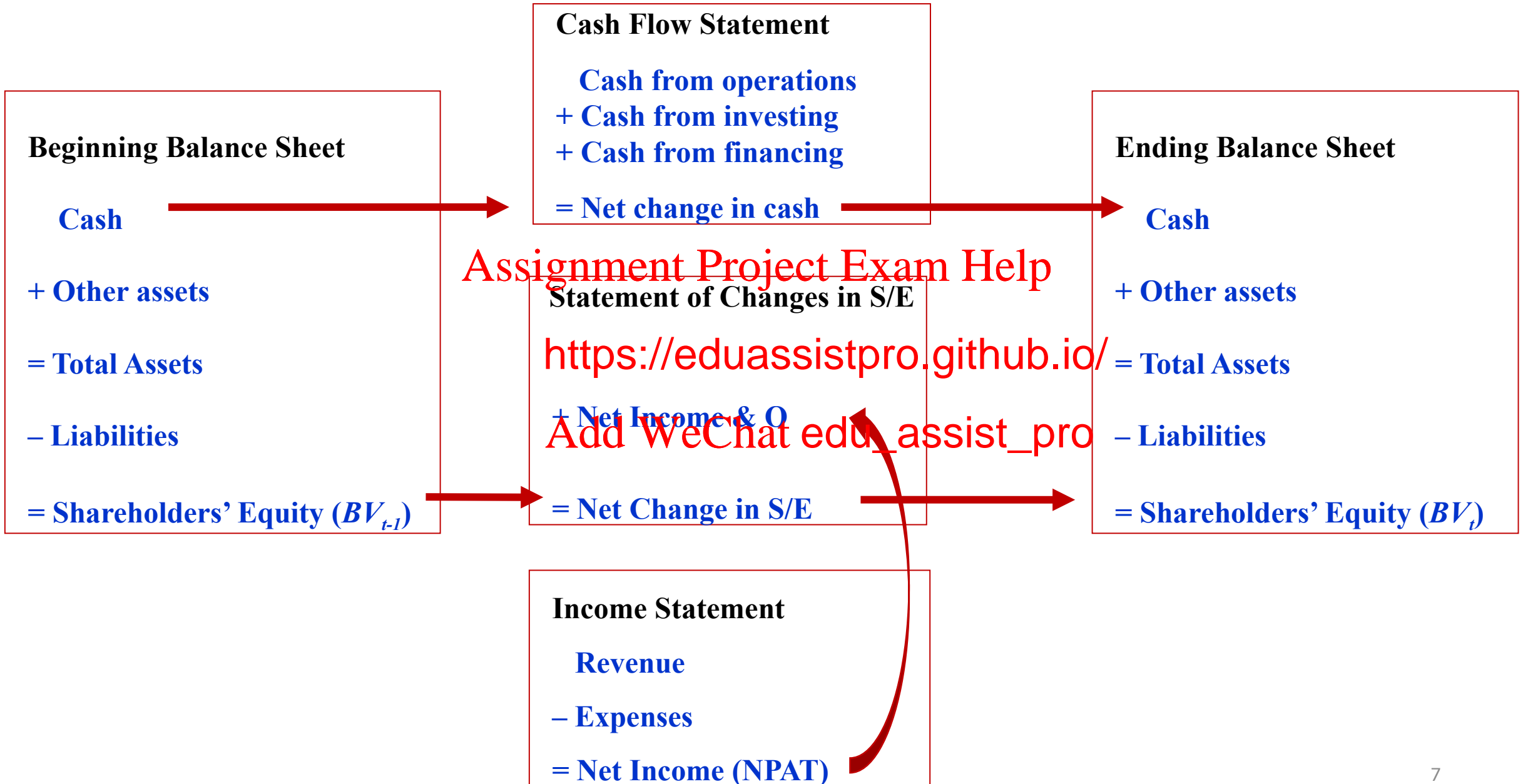➢ recognition (item to F/S) *versus* disclosure (n

➢ 'accountability' & 'stewardship'

- *'accountability'* → preservation by management of the resources entrusted to them
- *'stewardship'* → efficient use by management of resources entrusted to them (earning a return)

'articulation' ⇢ Financial Statements constitute an *'integrated system'*

Cash Flow Statement

   Cash from operations
+ Cash from investing
+ Cash from financing

= Net change in cash

Beginning Balance Sheet

   Cash

+ Other assets

= Total Assets

– Liabilities

= Shareholders' Equity (BV_{t-1})

Ending Balance Sheet

   Cash

+ Other assets

= Total Assets

– Liabilities

= Shareholders' Equity (BV_t)

Statement of Changes in S/E

+ Net Income & O

= Net Change in S/E

Income Statement

   Revenue

– Expenses

= Net Income (NPAT)

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pro forma Income Statement

	2019	2020	2021E	2022E	2023E
Sales	**38,176**	**37,408**	**± ?**	**± ?**	**± ?**
Other operating revenue	288	376			
Cost of sales	**(29,253)**	**(28,043)**	**± ?**	**± ?**	**± ?**
Other income	4??	4?8			
Administrative expenses			**± ?**	**± ?**	**± ?**
Other expenses					
Share – equity investments	5	(			
Financing costs	**(42)**	**(443)**	**± ?**	**± ?**	**± ?**
Income tax expense	**(347)**	**(341)**	**± ?**	**± ?**	**± ?**

caution – for 'clean surplus' and consistent estimates, the accounting system must reconcile

⇨   *'articulation'*: must concurrently develop the *pro forma* B/S and SCF

PART 2 – Reformulation

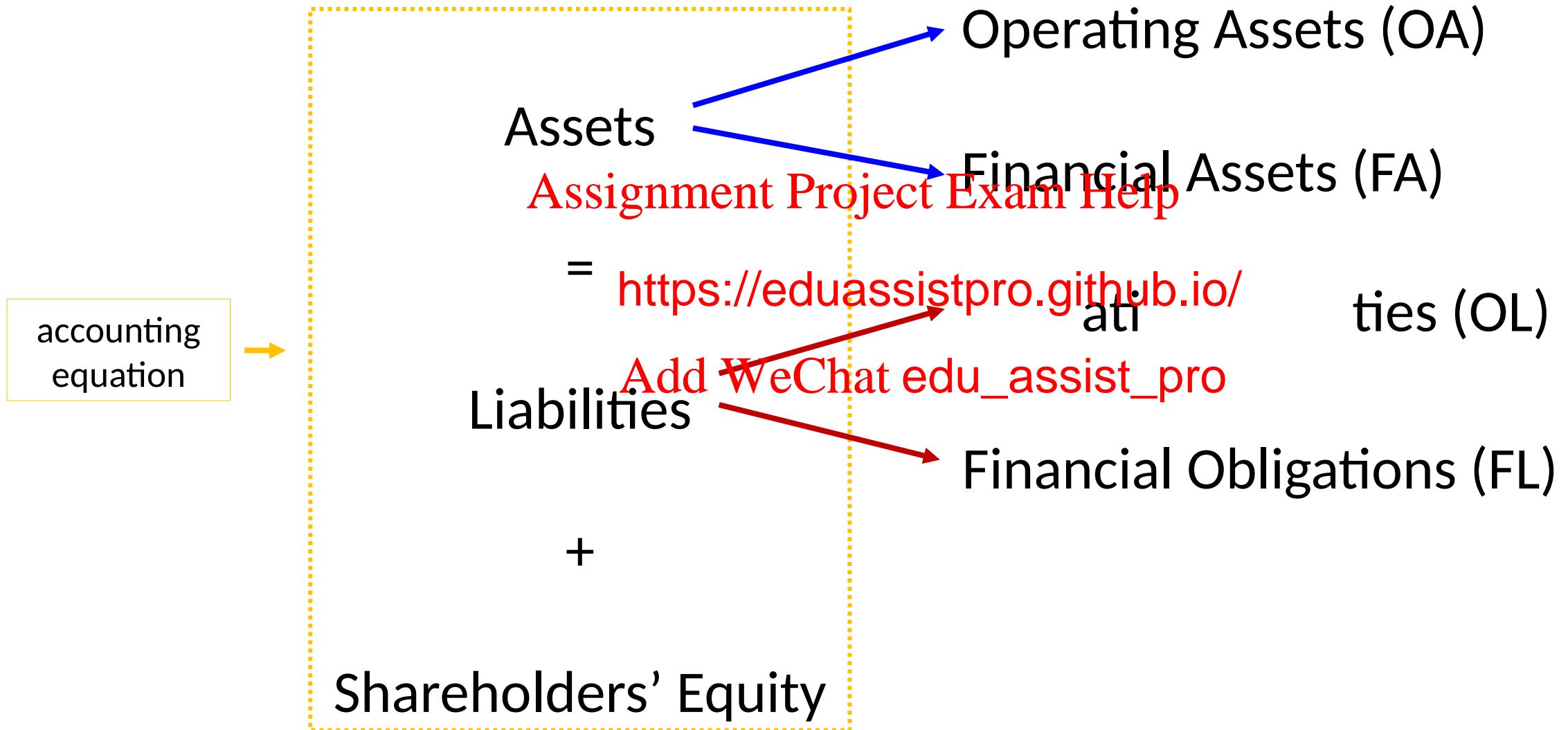- **Objectives:**

  - separate **operating** activities from **financing** activities

    - *Operations*: buying and selling goods and services

    - *Financing*: the company's use of debt and equity to finance its operations, as well as the company's investment in financial assets

  Why separate? industrial c   from their operations, <u>not</u> from their financial activities

  - alter several accounting classifications

  - for the Income Statement, separate revenues and expenses based on their *driver* (sales volume or other), and whether they are recurring or non-recurring

Balance Sheet Reformulation

Operating Assets (OA)

Assets

Financial Assets (FA)

=

ati   ties (OL)

Liabilities

Financial Obligations (FL)

+

Shareholders' Equity

accounting
equation

Assets (A)　=　Liabilities (L)　+　Shareholders' Equity (S/E)

↓　　　　　↓

[OA + FA]　=　[OL + FO]　+　S/E

⬇

reformulating

(OA − OL)　=　(FO − FA)　

⬇

net operating assets　=　net financial obligations　+　Shareholders' Equity

(OA − OL)　　(FO − FA)　　S/E

Step #1 – Operating Assets (OA) *versus* Financial Assets (FA)

- *Operating Assets (OA)* – assets used in selling goods and services (the company's business)

- *Financial Assets (FA)* – assets used to invest excess cash (investments not tied to the business)

  two broad criteria:
  - **nature** of the item itself
  - **function** of the item

- typical indicators of Financial ___ isive on their own):
  - the item is financial nature, such as investments in ___ curities
  - typically measured at fair value e.g., investments in debt or equity
  - typically earn interest or dividends for the company
  - the asset is not integrated into the company's operations

- separating operating cash (OA) and financial cash (FA) is a matter of judgement (e.g., 0.5% of sales revenue)

Step #2 – Operating Liabilities (OL) *versus* Financial Obligations (FO)

- *Operating Liabilities (OL)* – liabilities associated with selling goods and services (the company's business)

- *Financial Obligations (FO)* – sources of financing other than CSE (basically debt)

- typical indicators of Financial Obligations (FO):
  - the company pays interest on them and has an obligation to repay
  - most are measured at amortised
  - the liability is not integrated with the company's op

- items for reclassification
  - dividends payable – treat as part of S/E
  - preference shares – treat as a financial obligation (FO) and dividend as a financial expense
  - derivative securities – given the challenges of specifically confirming the nature of each contract, we will treat 'derivative financial assets' as FA and 'derivative financial liabilities' as FO
  - leases – under AASB16, all leases recognised as finance leases → lease assets treated as operating assets, lease obligations as financial obligations, and lease interest as a financial expense

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re: Coles

Assignment Project Exam Help → OA / FA (0.5%)

→ OA (after checking note)

https://eduassistpro.github.io/ → OA (after checking note)

→ FA

Add WeChat edu_assist_pro → OA (after checking note)

→ OA (after checking note)

	NOTES	28 JUNE 2020 $M	30 JUNE 2019 $M
Non-current assets			
Property, plant and equipment			→ OA (after checking note)
Right-of-use assets			→ OA (after checking note)
Intangible assets			→ OA (after checking note)
Deferred tax assets			→ OA (after checking note)
Equity accounted investments			→ OA (after checking note)
Other assets			→ OA (after checking note)
Total non-current assets			

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* Note 2.9 reveals that 2019 'provisions' include amounts for 'lease provisions' ≡ FO

	CONSOLIDATED	
	28 JUNE 2020	30 JUNE 2019
NOTES	$M	$M

Liabilities

Current liabilities

Trade and other payables → OL (after checking note)

Provisions → OL/FO (after checking note)

Lease liabilities → FO (after checking note)

Other → OL (assumed)

Total current liabilities

Non-current liabilities

Interest-bearing liabilities → FO (after checking note)

Provisions → OL/FO (after checking note)

Lease liabilities → FO (after checking note)

Other → OL (assumed)

Total non-current liabilities

Total liabilities

Reformulation Summary - Coles

	2020	2019			2020	2019
OA	17,502	9,028		FA	847	749
OL	5,297	6,308		FO	10,437	112
					9,590	(637)
				S	2,615	3,357
NOA	12,205	2,720		N	12,205	2,720

** The reported 2019 figures are *NOT* directly comparable with the reported 2020 figures because of the adoption of AASB 16 (leases) which brought lease commitments into the B/S as both 'right of use assets' and 'lease liabilities'

PART 3 – Income Statement Reformulation

overview – reformulation of the AASB/IFRS Income Statement *and* Statement of Comprehensive Income into a *Reformulated Income Statement* such that it:

1. divides Income Statement items into operating versus financing activity related

2. further divides operating inc   based on whether the items are recurring and driven by sales

3. reallocates income tax expense to remove th   of debt financing/financial assets

4. divides OCI into operating and financing aspects

Process (as per schema on the next slide) –

Step #1: divide every line item in the Income Statement between operating and financing

Step #2: divide operating items into:
- core operating income from sales
- core other operating income
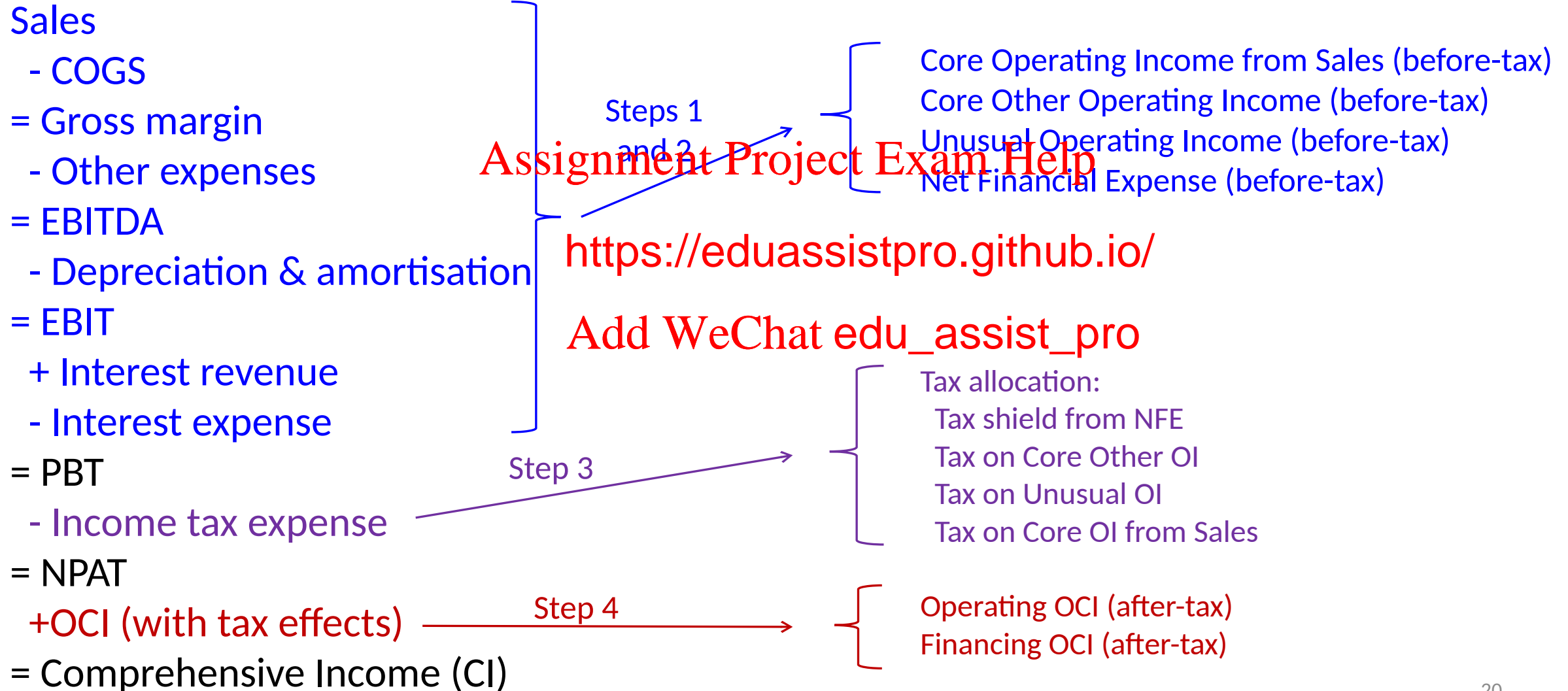- unusual operating income

Step #3: divide income tax exp
- core operating income from sales
- core other operating income
- unusual operating Income
- net financial expense (or net financial income)

Step #4: divide OCI items (after-tax) between operating and financing

**AASB/IFRS Income Statement &
Statement of Comprehensive Income**

Reformulated Income Statement

Sales
  - COGS
= Gross margin
  - Other expenses
= EBITDA
  - Depreciation & amortisation
= EBIT
  + Interest revenue
  - Interest expense
= PBT
  - Income tax expense
= NPAT
  +OCI (with tax effects)
= Comprehensive Income (CI)

Steps 1
and 2

Core Operating Income from Sales (before-tax)
Core Other Operating Income (before-tax)
Unusual Operating Income (before-tax)
Net Financial Expense (before-tax)

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Step 3

Tax allocation:
  Tax shield from NFE
  Tax on Core Other OI
  Tax on Unusual OI
  Tax on Core OI from Sales

Step 4

Operating OCI (after-tax)
Financing OCI (after-tax)

Step #1: divide every line item in the Income Statement between operating and financing

❑ *Operating items* – revenues/expenses (or gains/losses) related to the company's operations

❑ *Financing items* – revenues/expenses (or gains/losses) related to the company's financing activities

○ consider information in the notes and the company's operating model (judgement)
○ try to be consistent in how you reformulate the B/S and I/S

Step #2: divide 'operating items' into:

■ core operating income from sales ➜ recurring operating income related to the company's main operations (*driven by sales volume*) e.g., sales, COGS, wage expense

■ core other operating income ➜ recurring operating income that is not related to the company's main operations (*not driven by sales volume*)

■ unusual operating income ➜ non-recurring (one-time) operating income

Core OI from sales

Core other OI

Core OI from sales

Core other OI

Core OI from sales & Unusual OI*

Core financing expense (NFE)

Core other OI

Core financing expense (NFE)

Step #3

Unusual OI (also *Step #3* re: tax)

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* Note 1.4 indicates that 'Administrative expenses' include an 'impairment reversal' of $41 million in 2020 and an 'impairment expense' of $42 million in 2019 ⟶ 'Unusual OI'

Summary – **Coles reformulated Income Statement** (following Steps #1 & #2)

	2020	2019
Core OI from Sales (before tax)	1,243	934
Core Other OI (before tax)	478	721
Core OI (before tax)	**1,721**	**1,655**
Unusual OI (before tax)		315
Core NFE (before tax)		(188)

versus reported profit before tax from the I/S

* 2020 reconciles; 2019 does NOT ≡ 'profit from discontinued operations after tax' = 357

	2020	2019
Profit before tax	**1,319**	**1,425**

Step #3: divide income tax expense between:

- core operating income from sales

- core other operating income

- unusual operating Income

- net financial expense (or net financial income)

Note: Australia has a stated corporate tax rate   large companies)

   ⇒ *we will use the 30% rate for the disaggregation process above*

   (while the true tax rate is rarely exactly 30% for most companies, the staged approach
    that we adopt will accommodate the differences)

'Staged approach' ➡ allocation tax in the reverse order, with the tax expense deemed to be associated with core operating income from sales calculated as the residual amount i.e.,

1st – calculate the debt tax shield (extra tax) associated with NFE (NFI)
    = NFE x 30% (or NFI x 30%)

2nd – calculate tax expense/deduction associated with Unusual Operating Income
    = Unusual OI x 30%

3rd – calculate tax expense/deduction associated   ther Operating Income
    = Core Other OI x 30%

4th – calculate tax expense associated with Core Operating Income from Sales
    = Income tax expense + Tax shield from NFE (-Extra tax paid on NFI) - Tax expense
        (+deduction) from Unusual OI - Tax expense (+deduction) from Core Other OI

To illustrate, consider the following reformulated Income Statement:

Core Operating Income from Sales	300
Core Other Operating Income	200
Unusual Operating Income	100
Net Financial Expenses	(200)
Profit Before Tax	400
Tax Expense	(130)
Net Profit After Tax (NPAT)	

$\Rightarrow$ allocation of the tax expense –

1st	tax shield from Net Financial Expenses	= 0.30 * 200	= 60
2nd	tax on Unusual Operating Income	= 0.30 * 100	= 30
3rd	tax on Core Other Operating Income	= 0.30 * 200	= 60
➤ 4th	tax on Core Operating Income from Sales	= 130 + 60 – 30 – 60 = 100	

Aside – why is the tax allocation associated with Net Financial Expenses added back?

- interest expense is tax deductible whereas dividends are paid out of after-tax income
  - ➜ Net Financial Expenses provide a 'tax shield' (i.e., they reduce taxes)

to illustrate,   A – no debt   B – debt

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	A – no debt	B – debt
Operating Income	1,000	1,000
Net Financial Expenses		(400)
Profit Before Tax		600
Tax Expense @ 30%		(180)
Net Profit After Tax	700	420

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⟹ for B, debt provides a 'tax shield' of 120 (= 0.30*400)

→ the 'true' tax expense on Operating Income is 300 (= 180 + 120)

PART 4 – *further illustration*

Sales Revenue	2,000	Core Operating Income from Sales
Rental Income	20	Core Other Operating Income
Total Revenue	2,020	
Cost of Goods Sold	(1,000)	Core Operating Income from Sales
Wage Expense	(250)	Core Operating Income from Sales
Advertising Expense	(50)	Core Operating Income from Sales
Interest Income	20	Net Financial Expense
Share of profit from equity-accounted investments	10	Core Other Operating Income
Gain on sale of property		sual Operating Income
Restructuring charges		sual Operating Income
EBITDA	77	
Depreciation & Amortisation	(25	perating Income from Sales
EBIT	520	
Interest Expense	(100)	Net Financial Expense
Profit Before Tax (PBT)	420	
Tax Expense @ 30%	(126)	
Net Profit After Tax (NPAT)	294	

⇒ *reformulated*

Core Operating Income from Sales (before tax)

Sales	2,000	
COGS	(1,000)	
Wage expense	(250)	
Advertising expense	(50)	
Depreciation & Amortisation	(250)	450

Core Other Operating Income (bef

Rental income		

Share of profit from equity-accounted investments	__	30

Unusual Operating Income (before tax)

Gain on sale of property	30	
Restructuring charges	(10)	20

Net Financial Expenses (before tax)

Interest expense	(100)		
Interest income	20	(80)	420 = PBT

Tax Allocation:

    1st   tax shield from Net Financial Expenses   = 0.30 * 80   = 24

    2nd   tax on Unusual Operating Income   = 0.30 * 20   = 6

    3rd   tax on Core Other Operating Income   = 0.30 * 30   = 9

➡ 4th   tax on Core Operating Income from Sales   = 126 + 24 – 6 – 9 = 135

Core Operating Income from   13   =   315

Core Other Operating Income (after tax)   30 – 9   =   21

Unusual Operating Income (after tax)   20 – 6   =   14

Net Financial Expenses (after tax)   (80) + 24   =   <u>(56)</u>   294 = NPAT

Step #4: divide Other Comprehensive Income items (after-tax) between operating and financing

- typical operating OCI items:
  - FX translation gain/loss
  - actuarial gain/loss on defined benefit plans
  - revaluation of PPE

- typical financial OCI items:
  - gain/loss from fair value change on financial assets that go through OCI
  - gain/loss from cash flow he
  - gain/loss from fair value ch

Coles

note – tax effect on OCI item is provided

cash flow hedge
 → financial OCI

Returning to the *previous illustration*, now extended to include a series of OCI items

NPAT 294

Other Comprehensive Income

Asset revaluation 40 → operating

fair value gain on shares carried at FV 20

tax effect (6) → financing

loss on re-measurement of (10)

tax effect 3 → operating

Total OCI 47

Comprehensive Income 341

Core Operating Income from Sales (after tax)   450 – 135   =   315

Core Other Operating Income (after tax)   30 – 9   =   21

Unusual Operating Income (after tax)   20 – 6   =   14

Net Financial Expenses (after tax)   (80) + 24   =   (56)

Operating OCI (after tax)   0 + 3   =   33

Financing OCI (after tax)   =   14

➔   Total Operating Income (after tax) = 315 + 21 + 14 + 33   383

           Total Net Financial Expense = (56) + 14   (42)

           Comprehensive Income (after tax)   341

Coles reformulated Income Statement

	2020	2019
Core OI from Sales (before tax)	1,243	934
Core Other OI (before tax)	478	721
Unusual OI (before tax)	41	315**
Core NFE (before tax)		(188)
Tax expense		**347**
OCI – cash flow hedge	**(17)**	**(2)**
tax effect	**5**	**1**

315** ⇒ 357 'profit from discontinued operations *after tax*' – 42 'impairment expense'

re: discontinued note 5.3 ➜ profit before tax = 509; tax expense = 152

re: **2020**

1st	tax shield from Net Financial Expenses	= 0.30 * 443	= 132.9
2nd	tax on Unusual Operating Income	= 0.30 * 41	= 12.3
3rd	tax on Core Other Operating Income	= 0.30 * 478	= 143.4

➤ 4th   tax on Core Operating Income from Sales   = 341 + 132.9 – 12.3 – 143.4 = 318.2

Core Operating Income from Sales (after tax)   1,243 – 318.2 =   924.8

Core Other Operating Income   – 143.4 =   334.6

Unusual Operating Income (after tax)   2.3 =   28.7

Net Financial Expenses (after tax)   + 132.9 =   (310.1)

Financing OCI (after tax)   (17) + 5 =   (12)

➤   Total Operating Income (after tax) = 924.8 + 334.6 + 28.7   1,288.1
    Total Net Financial Expense (after tax) = (310.1) + (12)   (322.1)
    Comprehensive Income (after tax)   966

re: **2019**

1st   tax shield from Net Financial Expenses $= 0.30 * 188$ $= 56.4$

2nd   tax on Unusual Operating Income $= 0.30 * 42$ $= 12.6$

3rd   tax on Core Other Operating Income $= 0.30 * 721$ $= 216.3$

➡ 4th   tax on Core Operating Income from Sales $= 347 + 56.4 + 12.6 - 216.3 =$
199.7

Core Operating Income from Sales (after tax)   934 – 199.7 $=$ 734.3

Core Other Operating Income   – 216.3 $=$ 504.7

Unusual Operating Income (after tax)   12.6) + 357 $=$ 327.6

Net Financial Expenses (after tax)   + 56.4 $=$ (131.6)

Financing OCI (after tax)   (2) + 1 $=$ (1)

➡   Total Operating Income (after tax) = 924.8 + 334.6 + 28.7   1,566.6

    Total Net Financial Expense (after tax) = (131.6) + (1)   (132.6)

    Comprehensive Income (after tax)   1,434

PART 5 – Reformulation of the Statement of Cash Flows

The IFRS / AASB SCF (direct method) has the following basic structure –

Cash Flow from Operations (CFO)

☐

Cash Flow from Investing (CFI)

☐

Cash Flow from Financing (CFF)

=

Change in Cash & Cash Equivalents

The key objectives when reformulating the Statement of Cash Flows are:

- ❑ to separate operating activities (cash flows and investments to/from OAs and OLs) from financing activities (cash flows and investments to/from FAs and FOs)

- ❑ to calculate the firm's <u>free cash flow</u> (FCF), and show how it is generated and used (FCF is the cash that a company generates from its operations in excess of its cash used for investments in net operating assets)

- ❑ to separate equity and debt

note: unlike the I/S, we are not doing a 'full' ref   f the CF statement but rather just fixing several "*classification problems*"

why? the AASB/IFRS cash flow statement is also already formulated to separate financing cash flows from operating/investing cash flows

the SCF is not as important as the I/S and the B/S are for valuation

Reformulated Statement of Cash Flows

**Adjusted** Cash flow from operations	C
**Adjusted** Cash investment in operating assets	I
Free Cash Flow (FCF)	$C + I$

Generation of FCF from operating activities

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Equity financing flows
dividends & share repurchases

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share issuances $(XX$

Debt financing flows

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net purchase of financial assets (XX)
interest on financial assets (after tax) XX
net issue of debt XX
interest on debt (after tax) (XX) F
Total Financing cash flows $E + F$

'Uses' of FCF in financing activities

Generation of Free Cash Flow (FCF) = *C + I*

�![] cash generated by operations less cash used for investment in operating assets

- adjusted cash flow from operations (*C*): cash receipts/payments related to the company's operations (operating assets and operating liabilities)

- adjusted cash flow from investing (*I*): cash receipts/payments related to investments in long-term operating assets (e.g., ppsg, intangibles, acquisitions)

note: all of these cash flows ng assets (NOA)

FCF > 0 ⇒ the company has spare (or 'free') c paid out to shareholders and financial obligations, or invested in financial assets

FCF < 0 ⇒ the company's operations are not generating enough cash to fund its current investments in net operating assets

→ the company will need to raise capital from shareholders and financial obligations, or by selling financial assets

Uses of Free Cash Flow (FCF) = *E* + *F* :

- Equity financing cash flows (*E*): cash transactions with shareholders (dividends, share repurchases, and share issues)

- Debt financing cash flows (*F*):
  - cash receipts/payments related to financial obligations (FO) e.g., proceeds from borrowings/repayment of borrowing, and interest paid
  - cash receipts/payments ... s e.g., investment in financial cash, sale of short-term investments/p ... ents, and interest received

  note: all of these cash flows are related to net financial obligations (NFO) and shareholders' equity (S/E)

"classification problems" requiring adjustment –

- interest paid/received

- investments in financial assets

- separation of 'cash & cash equivalents' into 'investment in operating cash' and 'investment in financial cash'

re: net interest received / paid

- ○ should be classified as a debt financing use of cash (*F*) – interest received is clearly related to FAs and interest paid is clearly related to FOs

- ○ any reclassification must adjust for tax effects (i.e., remove tax shields)

re: investments in financial assets

- ○ under AASB / IFRS, these items typically appear under CFI

- ○ they are related to debt financing activities (not operating assets), and must be reclassified as debt uses of cash (*F*)

re: operating versus financial ca

- ○ in reformulating the B/S, 'cash & cash eq   ere separated into 'operating cash' (an operating asset, OA) and 'finan   financial asset, FA) – 'rule of thumb' ≡ 0.5% of sales revenue

- ○ given this separation
  - • the change in 'operating cash' should be included in *I*
  - • the change in 'financing cash' should be included in *F*

Cash Flow from Operations (CFO)

cash receipts from customers	2,400
payments to suppliers	(1,000)
payments to employees	(500)
rent paid	(100)
interest received	10
interest paid	(100)
income tax paid	(180)
Net CFO	**530**

Cash Flow from Investing (CFI)

...stments	(100)
payments for P...	(200)
Net CFI	**(300)**

Cash Flow from Financing

dividends paid	(150)
shares issued	50
proceeds from borrowings	200
Net CFF	**100**

Change in Cash & Cash Equivalents	**330**

Illustration – reformulate the following

AASB Statement of Cash Flows

assuming
- 30% tax rate
- split in 'cash * cash equivalents' of
  - 30   re: operating cash
  - 300   re: financing cash

Reformulated Cash Flow Statement

Free Cash Flow:

Adjusted CFO = C

reported CFO	530.0
interest received	(10.0)
interest paid	100.0
tax shield = (10 – 100) * 0.30	(27.0)
Adjusted CFO (C)	

Adjusted CFI = I:

reported CFI	(300.0)
purchase of short-term investments	100.0
investment in operating cash	(30.0)
Adjusted CFI (I)	(230.0)

FCF = C + I = 593 – 230   **363.0**

Uses of Free Cash Flow:

Debt financing cash flows = F

net interest paid (after tax)	(63.0)
proceeds from borrowings	200.0
purchase of short-term investments	(100.0)
investment in financing cash	(300.0)
net cash flows (F)	(263.0)

Equity financing cash flows = E

dividends paid	(150.0)
shares issued	50.0
Equity financing cash flows (E)	(100.0)

FCF = E + F   **(363.0)**

→ F
→ F
→ F

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→ 13 *E*; bal *I*

	2020	2019
cash & cash equivalents	992	940
Sales revenue	37,408	38,176
'operating cash' @ 0.5%	187	191
→ 'financing cash'	805	749

46

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Debt
(D)

Equity
(E)
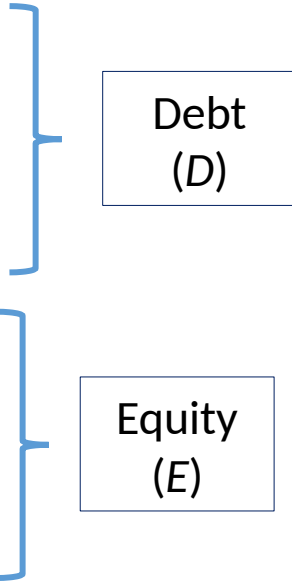
Reformulated _Coles 2020_ Cash Flow Statement

Free Cash Flow:

Adjusted CFO = _C_

reported CFO	2,552
interest received	(7)
interest paid	37
interest – lease payments	399
tax shield = (7 – 429) * 0.30	
Adjusted CFO (C)	2,852

Adjusted CFI = _I_:

reported CFI	(658)
investment in operating cash	4
share-based payment expense	(13)
Adjusted CFI (I)	(667)

FCF = _C_ + _I_   **2,185**

Uses of Free Cash Flow:

Debt financing cash flows = _F_

net interest paid (after tax)	(300)
proceeds from borrowings	5,120
repayment of borrowings	(5,226)
payment of lease principal	(846)
t in financing cash	(56)
ing cash flows (F)	(1,308)

g cash flows = _E_

dividends paid	(873)
share-based payment expense	13
shares purchased	(17)
Equity financing cash flows (E)	(877)

FCF = _E_ + _F_   **(2,185)**

PART 6 – Reformulation of the Statement of Changes in Owners' Equity

Basic objectives of the reformulation exercise

- separate transactions with shareholders (*E*) (equity financing) and comprehensive income (CI) (operating income and debt financing)

- fix some classification problems within accounting

aside: *basic reclassifications*

- preference shares – remove from S/E balance and add to financial obligations (FO)

- non-controlling interest – group with S/E (for our purposes)

- dividends payable / dividends declared – adjust S/E balances and remove from FO

note: the 'clean surplus' relation is based on Comprehensive Income (CI) and not NPAT

Accounting adjustment

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BV_{t-1}

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Comprehensive Income

NCC

Dividends

BV_t 50
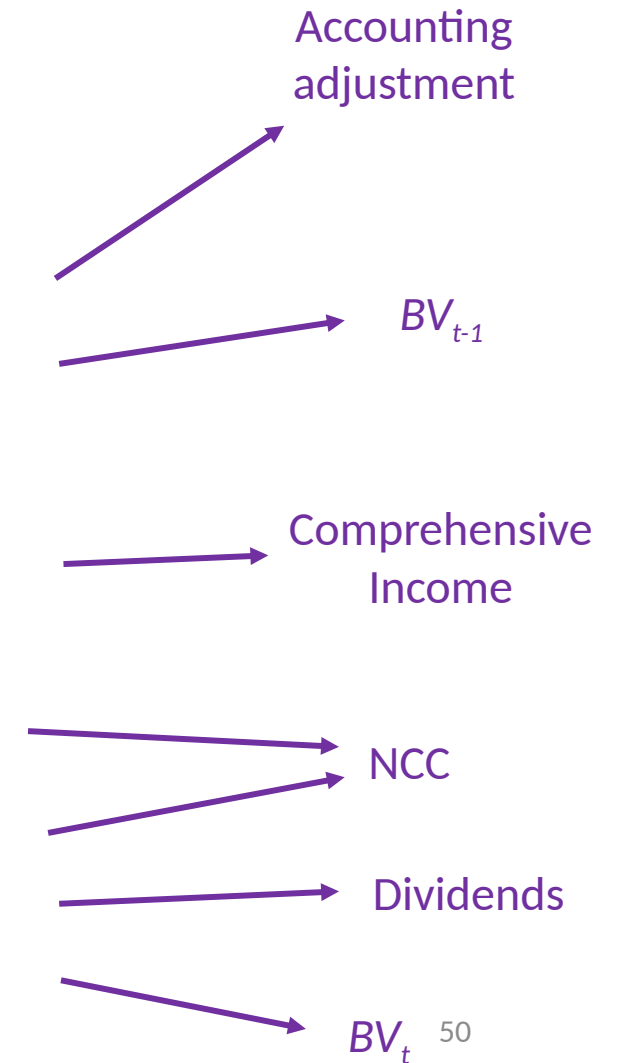
Reformulated Statement of Changes in Shareholders' Equity

Beginning Book Value of Common Equity BV_{t-1}

+ Net effect of Transactions with Common Shareholders

    + capital contributions (share issues)

    – share repurchases

    – cash dividends to common shareholders

    = Net cash contributions

+ Effect of operations and non-eq

    + Net Income (from the I/S)

    + Other Comprehensive Income (OCI)

    – preferred share dividends

    = Comprehensive income available to common shareholders

Ending Book Value of Common Equity BV_t

PART 7 – Reformulation Summary

'new' (reformulated) accounting relations:

- [ ] Balance Sheet: $\quad$ NOA = NFO + S/E

- [ ] Income Statement: $\quad$ CI = OI (after tax) + NFE (after tax)

- [ ] Cash Flow Statement:

- [ ] Equity Statement:

** *note*, within this formulation, NFE will be a negative number, and E will be a negative number if the only material net equity financing item is the payment of dividends

Now turn to consider the relations across the reformulated statements (insights provided)

○ from the reformulated B/S $NOA = NFO + S/E$ ➡ $\triangle NOA = \triangle NFO + \triangle S/E$

○ from the reformulated equity statement $\triangle S/E = CI + E$

     combining   ⇒ $\triangle NOA = \triangle NFO + \triangle S/E = \triangle NFO + CI + E$

○ assume from the reformulated SCF $F = NFE \text{ (after tax)} + \triangle NFO$ ➡ $\triangle NFO = F - NFE \text{ (after}$ tax)

  ⇒ $\triangle NOA = \triangle NFO$ x) + CI + E

○ from the reformulated I/S $CI = OI \text{ (after tax)} + NFE \text{ (after tax)}$

  ⇒ $\triangle NOA = F - NFE \text{ (after tax)} + CI + E = OI \text{ (after tax)} + (F + E)$

    ⇒ $\triangle NOA = OI \text{ (after tax)} + FCF$

     or rearranging $FCF = \triangle NOA - OI \text{ (after tax)}$

$\triangle$NOA = OI (after tax) + FCF

note – this relation creates an important *theoretical* link between the cash flow statement and the income statement/balance sheet

note, through a similar algebraic process, it is also possible to show: $\triangle$NFO = *FCF – NFE – E*

additionally, from the equity statement and the clean surplus relation, $\triangle$S/E = CI + E

and from the reformul   CI = OI + NFE

* *

Beginning Stock	Flows	Ending Stock
NOA_{t-1}	$\triangle$NOA = $[OI_t + FCF_t]$	NOA_t
$-$ NFO_{t-1}	$-$ $\triangle$NFO = $-[FCF_t - NFE_t - E_t]$	$-$ NFO_t
= S/E_{t-1}	= $OI_t + NFE_t + E_t$	= S/E_t

$\triangle$NOA = OI (after tax) - FCF

FCF = OI (after tax) – $\triangle$NOA

note – this relation creates an important *theoretical* link between the cash flow statement and the income statement/balance sheet

note, through a similar algebraic process, it is also possible to show: $\triangle$NFO = *FCF – NFE – E*

additionally, from the equity statement and the clean surplus relation, $\triangle$S/E = CI + E

and from the reformul

CI = OI – NFE

****

Beginning Stock	Flows	Ending Stock
NOA_{t-1}	$\triangle$NOA = $[OI_t + FCF_t]$	NOA_t
– NFO_{t-1}	– $\triangle$NFO = $-[FCF_t - NFE_t - E_t]$	– NFO_t
= S/E_{t-1}	= $OI_t + NFE_t + E_t$	= S/E_t

CI

$\triangle$S/E = CI + E

Reconciliation – _Coles 2020_

$NOA_{2019} = 13,102^*$ 　　　　　$\triangle NOA = [OI_t + FCF_t]$ 　　　　　$NOA_{2020} = 12,205$

　　　　　　　　　　　　　　　　　$= 1,288 - 2,185$

$NFO_{2019} = 10,576^{**}$ 　　　　　$\triangle NFO = [FCF - NFE - E]$ 　　　　　$NFO_{2020} = 9,590$

$S/E_{2019} = 2,526^{***}$ 　　　OI_t $S/E_{2020} = 2,615$

* 2019 reported NOA = 2,720　　　adoption of AASB 16 (leases) = + 10,832　　adjusted 2019 NOA = 13,102
** 2019 reported NFO = (637)　　　adoption of AASB 16 (leases) = + 11,213　　adjusted 2019 NFO = 10,576
*** 2019 reported S/E = 3,357　　adoption of AASB 16 (leases) = – 831　　adjusted 2019 S/E = 2,526

　　　　　　see Notes 1.6, 2.7, 2.9, 7.5

Note/recall – the overarching objective of the reformulation process is to
facilitate the forecasting exercise