

# ACC1701X

AY23/24 SEM 2 (Gavin)

## Balance Sheet Items and Formulas

- Separate Entity Concept, Time-Period Assumption, Arm's Length Transaction Assumption, Cost Principle, Fair Value Principle, Monetary Measurement concept, Going Concern Assumption

- $Assets = Liabilities + Equity$
- $Assets = Current Asset + Non-Current Assets$
- $Liabilities = Current Liabilities + Non-Current Liabilities$
- $Retained Earnings(begin) + Net Income - Dividends = Retained Earnings(end)$
- $Equity(begin) + Increase in Capital Stock + Net Income - Dividends + Other Comprehensive Income = Equity(end)$

## SCI Items and Formulas

- $Expenses = Operating expense + Non-Operating Expense$
- $Revenue - Expenses = Net Income$
- $Net Income + Other Comprehensive Income = Comprehensive Income$
- $Revenue - COGS = Gross Profit$

## Sales Discount

**DR Accounts Receivable – CR Sales Revenue** (Revenue made, credit payment)

**DR Cash, Sales Discount – Accounts Receivable**

## Sales Returns and Allowances

**DR Accounts Receivable – CR Sales Revenue**

**DR COGS – Inventory**

If return required:

**DR Sales Returns and Allowances – CR Accounts Receivable**

**DR Inventory – CR COGS**

$Net Sales = Sales Revenue - Sales Discount - Sales Returns and Allowances$

## Treatment of Bad Debt

ECL is an estimated expense in the SCI. Loss Allowance is a contra-asset account to Accounts Receivable in the balance sheet.

**DR Expected Credit Loss – CR Loss Allowance**

If specific customer identified specifically as uncollectible, write off:

**DR Loss Allowance – CR Accounts Receivable**

If written off subsequently pays the outstanding balance, reinstate:

**DR Accounts Receivable – CR Loss Allowance**

**DR Cash – CR Accounts Receivable**

- Loss Allowance (End) = Loss Allowance (Begin) + ECL - Unadjusted Balance

- If there is an existing **credit** balance in loss allowance. Top up less by  $ECL - Unadjusted Balance$

- If there is an existing **debit** balance in loss allowance. Top up more by  $ECL + Unadjusted Balance$

$Accounts Receivable(net) = Accounts Receivable(begin) - Loss Allowance(end)$

## Notes Receivable

**DR Notes Receivable – CR Accounts Receivable** (issuing note)

**DR Cash – CR Notes Receivable, Interest Revenue** (accepting payment)

If note is dishonoured (convert into AR):

**DR Accounts Receivable – CR Notes Receivable, Interest Revenue**

## Purchase Discounts/Returns & Bank Reconciliation & IC

**DR Inventory – CR Accounts Payable**

**DR Accounts Payable – CR Cash, Inventory**(discount amount)

- Returns:

**DR Accounts Payable – CR Inventory**

Balances are reconciled when both the adjusted balances are equal. Adjusted balance will be reported as "Cash" on balance sheet.		Control Environment	Control Activities (Procedures)
Unadjusted Bank balance	Unadjusted Book balance	1. Management philosophy and operating style	1. Segregation of duties (preventative control)
+ Deposits in transit	+ Interest paid	2. Organizational structure	2. Proper procedures for authorization (preventative control)
- Outstanding checks	+ Direct deposits	3. Physical control over assets and records (preventative control)	3. Physical control over assets and records (preventative control)
+/- Bank errors	- Service charges	4. Audit committee	4. Adequate documents and records (detective control)
	- NSF checks		5. Independent checks on performance (detective control)
	- Bank transfer		
	+/- Accounting errors		
Adjusted Bank Balance	Adjusted Book Balance		

## Perpetual vs Periodic Inventory System

- Periodic: No COGS recorded until end of period. Temporary accounts are used to record the **purchases, freight-in, purchases returns and purchases discounts**.

- **DR: Inventory(Net Purchases), Purchase Returns, Purchase Discounts – CR: Freight In, Purchases** (Adjust into Inventory Acc)  
 $COGS = Inventory(begin) + Net Purchases - Inventory(end)$

$Cost of goods available for sale = Beginning Inv Balance + Net Purchases$

- One entry: **DR COGS – CR Inventory**

- When inventory price rises. Gross margin, net income, inventory(end) is highest with FIFO. WA and LIFO understate inventory(end).

## Net Realizable Value, NRV

If  $NRV < Cost$ , write down item by item:

**DR COGS – CR Allowance for Inventory Write Down (Contra-Inventory, BL)**

If  $NRV \geq Cost$ , no adjustments needed.

## Liabilities

### Payroll and Payroll Related Liabilities

- Employers withhold payroll taxes, pensions, insurances, and other deductions to government and agencies.

**DR Salaries Expense – CR Salaries Payable; Various Payables...**

**DR Salaries Payable – CR Cash**

- Employers contribute to insurance premium and pensions for employees.

**DR Various Expenses... – CR Various Payables...;**

- Employers pay amount withheld for employees and its own contributions.

**DR Various Payables... – CR Cash**

- For this course: 17% CPF for employer, 20% CPF for employees. (applied on gross salary)

**DR Salaries Expense – CR Employees's CPF Payable; Salaries Payable;**

**DR Employer's CPF Expense – CR Employers CPF Payable**

- Employer making payment to CPF Board and Employees.

**DR Salaries Payable – CR Cash;**

**DR Employers CPF Payable; Employees's CPF Payable – CR Cash**

## Sales Tax Payable

- Sales taxes are paid by customers to the seller, who in turn pays the taxes to the government agency.

**DR Cash – CR Sales Revenue; Sales Tax Payable**

## GST and VAT

Supplier  $\xrightarrow{\text{Input Tax}}$  Seller  $\xrightarrow{\text{Output Tax}}$  Customer

**DR Inventory/Purchases – CR Cash; GST Input Tax**

**[Purchasing inventory]**

**DR Cash – CR Sales Revenue; GST Output Tax [Making a sale]**

**DR GST Output Tax – CR GST Input Tax; GST Tax Payable**

**(Calculated Net GST Payable)**

**DR GST Tax Payable – CR Cash**

- For VAT: Swap out "GST Tax Payable" with "Business Tax Payable"

## Property and Income Tax Payable

Property Tax:

**DR Prepaid Property Taxes – CR Cash**

**DR Property Tax Expense – CR Prepaid Property Taxes**

(Remember to adjust according to months of prepaid used-up)

Income Tax:

Applied on income before tax in SCI. (Tax rate is 17% in SG)

**DR Income Tax Expense – CR Income Tax Payable**

## Provisions and Contingent Liabilities

- Provision is reported as an estimated liability on the balance sheet. It is recognised when the loss is probable and a reliable estimate can be made.

- Contingent liabilities should be disclosed in notes to financial statements if certain conditions are met. NOT reported on the balance sheet.

- When probability of losses 10-50%, disclose in notes.
- When probability of losses 50% or more, recognise as provision.
- When probability of losses less than 10%, no need to disclose.

**DR Lawsuit Loss – CR Lawsuit Provision**

## Provision for Product Warranty

**DR Product Warranty Expense – Product Warranty Provision**

**DR Product Warranty Provision – CR Supplies; Wages Payable; Cash etc...**

- The balance of warranty liability/provision account does not affect warranty expense.

## Other Revenue and Expenses in SCI

- Other Revenue and Expenses (or non-operating income and expenses) are items that incurred or earned from activities outside of, or peripheral to, the normal operations of a firm.

- Dividend Revenue, Gain on sale of land, Interest expense etc.

## Property, Plant and Equipment (PPE)

-  $PPE Acquisition Cost = Purchase Price + All Costs to get it ready for use$ .

- If PPE is acquired by purchase of two or more assets acquired together at a single price. Fair market value is used to calculate the apportionment of lump-sum cost (used in JE).

## Depreciation, DEPR

- **Depreciation amount** = Cost – Residual Value

- Recognised in income statement as operating expense.

- Residual value  $\rightarrow$  value of asset at end of its useful life.

- Useful life  $\rightarrow$  period over which asset is expected to be used/ number of productions.

**DR Depreciation Expense – CR Accumulated Depreciation, "PPE"**

- Accumulated Depreciation is a contra-asset account to "PPE" account in BL.

- **Carrying amount** = Cost – Accumulate Depreciation

- Change in depreciation estimates only affect future years

## Straight Line Method of Depreciation

-  $Annual DEPR Expense = \frac{Cost - Residual Value}{Estimated Useful Life (Years)}$

- Note: It should be broken into months for end of fiscal year reporting. (Partial Year DEPR)

## Unit of Production Method of Depreciation

-  $Annual DEPR Expense = \frac{Cost - Residual Value}{Estimated Useful Life (Units)} \times Units produced$

- Note: If units used in final year do not add up to useful life, carry over.

- Used for natural resources (Depletion). dollar per ton

- **DR Depletion Expense – CR Accumulated Depletion, "PPE"**

## Declining-Balance Method of Depreciation

- Double Declining Balance (DDB) Method:

-  $Depreciation Rate (DDB) = \frac{1}{Estimated Life (Years)} \times 2$

- Note: Change 2 to 1.5 for 150% DDB.

- **Annual DEPR Expense =**

Depreciation Rate  $\times$  Remaining Carrying Amount

- Note: If depreciation amount reduces carrying amount below residual value, reduce to residual value.

## Impairment of PPE

- **Net fair value** = Fair value - cost of disposal.
- **Recoverable amount** = max{Net fair value, Value in use}
- If recoverable amount < carrying amount, recognise impairment loss.
- Impairment loss = Carrying amount - Recoverable amount.
- Impairment loss is recognised in income statement as non-operating expense.
- **DR Impairment Loss – CR Accumulated Impairment Losses, "PPE"**
- Accumulated Impairment Losses is a contra-asset account to "PPE" account in BL.
- Carrying amount in BL = Cost - Accumulated Depreciation - Accumulated Impairment Losses.

## Disposal or Sale of PPE

- At disposal, remove 3 accounts: PPE, Accumulated Depreciation, Accumulated Impairment
- Gain/Loss = Sales Proceeds - Cost of Disposal - Carrying Amount.
- Gain/Loss of disposal is recognised in income statement as non-operating income/expense.
- If Gain, credit side. If Loss, debit side.
- **DR Accumulated Depreciation; Accumulated Impairment Loss; Cash – CR PPE; Gain on Disposal**
- **DR Accumulated Depreciation; Accumulated Impairment Loss; Loss on Disposal – CR PPE; Cash**
- **DR Accumulated Depreciation; Accumulated Impairment Loss; Cash – CR PPE**

## Intangible Assets, IA

- Patents, trademarks, copyrights, franchises, licences, goodwill.
- Internally generated IA are not recognised in BL.
- Goodwill: Purchase price - fair market value of net assets acquired.
- **DR Inventory; Long-term operating assets...; Goodwill – CR Liabilities; Cash**

## Amortisation of IA

- Straight-line Amortisation =  $\frac{\text{Cost}}{\text{Estimated Useful Life}}$
- Intangibles with indefinite useful life are not amortised (goodwill/broadcast licence)
- **DR Amortisation Expense, "IA" – CR Accumulated Amortisation, "IA"**

## Capitalise vs Expense

- Maintenance, repairs, and minor improvements which does not increase productivity are expensed.
- **DR Maintenance Expense – CR Cash**
- Major improvements, extensions, and replacements are capitalised.
- **DR PPE – CR Cash**
- For long term assets, capitalisation can be permanent or limited.
- Limited capitalisation is capitalised in separate account and depreciated over useful life.
- Freehold land: Not depreciated. Leasehold land: Depreciated over lease term.
- R&D: Research (expensed)  $\xrightarrow{\text{Tech Feasibility}}$  Development (capitalised)
- Targeted advertising: Capitalised if it increases future benefits.
- General advertising is expensed.

## Equity

### Issuance of Shares

- Par Value: Legal capital per share. No correlation to Market Value of share
- Premium: Amount received above par value. AKA Paid-in capital in Excess of Par
- **DR Cash (Market) – CR Ordinary Shares (Par); Paid-in Capital in Excess of Par, Ordinary Shares**
- **DR Cash (Market) – CR Preference Shares (Par); Paid-in Capital in Excess of Par, Preference Shares**
- Total Contributed Capital = OS + PS + Paid-in Capital in Excess of Par, OS and PS

- If no par value is stated, entire proceeds is credited to shares account.
- **DR Cash – CR Ordinary Shares**
- Non-cash Basis: Use fair value of asset received. If not available, use fair market value of shares issued.
- **DR "Asset" – CR Ordinary Shares; Paid-in Capital in Excess of Par, Ordinary Shares**

### Treasury Shares

- Corporation buy back shares. Treasury Shares account is a contra-equity account. Normally has debit balance.
- No dividends will be payable for Treasury shares.
- Market price spent to acquire of treasury shares is recorded in Treasury Shares account.
- **DR Treasury Shares – CR Cash**
- Reissuing treasuring share above acquisition cost: - **DR Cash (Issued Price) – CR Treasury Shares (Cost); Paid-in Capital, Treasury Shares (Diff)**
- Reissuing treasuring share below acquisition cost (PIC, Treasury Share sufficient balance):
- **DR Cash (Issued Price); Paid-in Capital, Treasury Shares (Diff) – CR Treasury Shares (Cost)**
- Reissuing treasuring share below acquisition cost (PIC, Treasury Share insufficient balance):
- **DR Cash (Issued Price); Paid-in Capital, Treasury Shares (Bal); Retained Earnings (Overflow) – CR Treasury Shares (Cost)**
- Treasury shares amount is deducted from contributed capital + RE in BL, based on acquisition cost.
- Paid-in capital, Treasure Shares is ADDED to contributed capital in BL.

### Cash Dividends

- **DR Cash Dividends – CR Cash Dividends Payable** [Declare]
- **DR Retained Earnings– CR Cash Dividends** [Close]
- **DR Cash Dividends Payable – CR Cash** [Pay]
- Cash Dividends for Preference Shares: Non-cumulative and Cumulative
- Preference Shares: Fixed dividend rate, paid before ordinary shares, use par value.
- Non-cumulative: Only current year dividend is paid.
- Cumulative: Current year dividend + any unpaid dividend in arrears.
- PS and OS dividends are capped by Total dividends declared.
- **DR PS Dividends; OS Dividends – CR Dividends Payable**
- **DR Dividends Payable – CR Cash**

### Share Dividends

- Small share dividends are assigned at market value. (Division: 20-25% of Total Issued Shares)
- **DR Share Dividends (Market) – CR Share Dividends Distributable (Par); Paid-in Capital in Excess of Par (Diff)**
- Large share dividends are assigned at par value.
- **DR Share Dividends (Par) – CR Share Dividends Distributable (Par)**
- Closing for both:
- **DR Retained Earnings– CR Share Dividends**
- **DR Share Dividends Distributable – CR Ordinary Shares**

### Misc

- **Share split:**
- Par value is reduced by ratio, number of shares outstanding increased by same ratio.
- **Other Comprehensive Income:**
- Exchange differences arising on translation of the equity of foreign subsidiaries, unrealised gains/losses of FVTOCI financial assets
- Accumulated other Comprehensive Income is added to total contributed capital plus retained earnings.

## Statement of Cash Flows

- Operating activities: Cash i/o primary business activities.
- Investing activities: Cash i/o purchase/sale of long-term assets.

- Financing activities: Cash i/o issuance/repurchase of shares, loans, payment of dividends.
- Cash received from dividend and interest: OA or IA
- Cash paid for interest and dividends: OA or FA
- Cash paid for income tax: OA
- Cash (begin) + OA + IA + FA = Cash (end)
- Ignore non-cash items e.g., depreciation, amortisation and estimated credit loss.
- SCF: Operating Act: Net; Investing Act: Net; Financing Act: Net; Net Increase in Cash; Beginning cash balance; End Cash Balance

## Financial Statement Analysis

- Limitations: Lack of Comparability: differences in accounting classification, accounting estimates and methods. Do not contain all relevant information: customer satisfaction, operational data. Historical Data.
- Vertical Analysis: Compare financial data within a single period.
- Horizontal Analysis: Compare financial data over time.
- **Percentage of Change** =  $\frac{\text{Current period amount} - \text{Base period amount}}{\text{Base period amount}} \times 100\%$
- **Trend Percent** =  $\frac{\text{Current period amount}}{\text{Base period amount}} \times 100\%$

## Liquidity Ratios

- Use Year End Figures.
- **Current Ratio** =  $\frac{\text{Current Asset}}{\text{Current Liability}}$
- **Acid-Test (Quick) Ratio** =  $\frac{\text{Current asset} - \text{Inventories} - \text{Prepayments}}{\text{Current Liabilities}}$

## Efficiency Ratios

- **Fixed asset (PPE) turnover** =  $\frac{\text{Net Sales}}{\text{Avg Net PPE}}$
- **Operating Cycle days** =  
# Days Sales in Inventory + Avg Collection Period [shorter better]
- **Purchases Turnover** =  $\frac{\text{Net Purchases}}{\text{Avg Accounts Payable}}$
- **Num of Days Purchases in Acc Payable** =  $\frac{365}{\text{Purchases Turnover}}$
- **Accounts Receivable Turnover** =  $\frac{\text{Net Sales}}{\text{Average AR}}$
- **Average Collection Period** =  $\frac{365}{\text{Accounts Receivable Turnover}}$
- **Inventory Turnover** =  $\frac{\text{COGS}}{\text{Average Inventory}}$  [higher, better]
- **Num of Days Sales in Inventory** =  $\frac{365}{\text{Inventory Turnover}}$  [shorter, better]

## Solvency Ratios

- **Debt Ratio** =  $\frac{\text{Total Liability}}{\text{Total Asset}}$
- **Debt-to-Equity Ratio** =  $\frac{\text{Total Liability}}{\text{Total Equity}}$
- **Time Interest Earned** =  $\frac{\text{Income bfr interest and taxes (Operating Profit)}}{\text{Annual Interest Expense}}$  [higher better]

## Profitability Ratios

- **Profit Margin (Return on Sales)** =  $\frac{\text{Net Income}}{\text{Net Sales}}$
- **Return of Assets** =  $\frac{\text{Net Income}}{\text{Avg Total Assets}}$
- **Asset Turnover** =  $\frac{\text{Net Sales}}{\text{Avg Total Assets}}$
- **Earnings per share (EPS)** =  $\frac{\text{Net Income} - \text{Preference Dividends}}{\text{Avg Num of Outstanding Ordinary Shares}}$
- **Price-Earnings (PE) Ratio** =  $\frac{\text{Market Value of Shares}}{\text{Net Income}} = \frac{\text{Price per share}}{\text{Earnings per share}}$

## Cash Flow Ratios

- **Cash flow to Net Income Ratio** =  $\frac{\text{Cash Flow from Operations}}{\text{Net Income}}$
- **Cash flow Adequacy Ratio** =  $\frac{\text{Cash Flow from Operations}}{\text{Cash Paid for Capital Expenditure}}$

## DuPont Framework

- *Profitability*  $\times$  *Efficiency*  $\times$  *Leverage*
- **Return of Equity**
- = Return on Sales  $\times$  Asset Turnover  $\times$  Assets-to-equity Ratio
- =  $\frac{\text{Net Income}}{\text{Net Sales}} \times \frac{\text{Net Sales}}{\text{Avg Total Assets}} \times \frac{\text{Avg Total Assets}}{\text{Avg Total Equity}}$
- =  $\frac{\text{Net Income}}{\text{Avg Total Equity}}$