ACC1701x
AY22/23 Sem 2
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01. Financial Statements

Consolidated Financial Statements - Financial information about the group of companies including parent and subsidiaries

How does a parent company control subsidiary?

- Own a controlling interest of subsidiary's share
- Remaining shares are **Non controlling interest** - Separated, under book value

Associate Companies - Interest in shares outside group that wields significant influence

- Includes one-line partial consolidation of associate company in book value
- Recorded using equity method

Consolidated Balance Sheet

Purpose

- Report net worth of group **at specific date**

Fundamental Accounting Equation

Assets = Liabilities + Equity

Assets Resource controlled by company (eg. cash, accounts receivable, inventory, land, equipment, buildings)

Liabilities Amount owed to others leading to outflow of resources (eg. accounts payable, expenses)

Equity Owner's claim on residual interest after deducting liabilities

Problems

1. Not market value
   - Does not tell what the equity is worth in market
   - Market value = market share price * outstanding shares
2. Mixed measurement model - Mathematically dubious calculation
   - Property measured using **cost less depreciation** - amount originally paid less depreciation, OR current market value

Motivation

1. Comparing
   - Compare companies using **Market-to-book ratio** - $\frac{Market\ value}{Total\ equity}$
   - Why are they not the same?
     - Market takes into account future prospects not captured by book value
2. Details
   - Provides useful information

Statement of Changes in Equity

Lists impact of events on changes in equity

Factors

1. Contributions from shareholders
2. Distributions to shareholders
3. Business income/expenses
4. **Capital maintenance adjustments** - Remeasurement of asset/liability value

Statement of Comprehensive Income

- **Comprehensive Income** - Reflects changes of equity from non-owner sources and traditional income
- Show all operating and financial events that affect non-owners' interest in business
- Includes unrealised gains and losses

Income Statement

Includes information about business income and expenses for **the year**

Statement of Cash Flows

Accrual Basis - Record values when exchange of goods and services **NOT cash flows**

Subsections

- Operating activities
- Investing activities
- **Financing activities** - Borrowing or issuing shares (eg. repayments, share buybacks)

Item Breakdown

Current assets/liabilities Likely to be converted to cash/settled within a year

PPE Property, plant and equipment used in business

Right-of-use assets Rented premises for business (Asset)

Lease liabilities Outstanding rental payments wrt ROU assets

Trade Receivables Outstanding dues from **credit** customers

Cost of Goods Sold(COGS) Amount paid to suppliers for goods sold to customers

Gross Profit = COGS - Sales

Interest Income and expense Profit from investing and financing activities

02. Ratios

- Comparing companies as investment opportunities
- Comparing previous years to measure progress
- Overcome difference in scale

Profitability Ratios

- Measures performance of company over the year

Profit Margin $\frac{Net\ Profits}{Net\ sales\ (revenue)}$

Return on total assets $\frac{Net\ Profit}{Average\ Total\ Assets}$

Return on ordinary shareholders' equity $\frac{Net\ Profit}{Average\ total\ equity}$

Earnings per share $\frac{Ordinary\ shareholders\ profits - Pref.\ Dividends}{Weighted\ average\ number\ of\ shares\ during\ year}$

Equity Categories

- **Share capital** - Amount collected when company originally issued shares
- **Retained earnings** - Accumulated profits - Amount paid as dividents

Liquidity and efficiency ratios

- Examine company capacity to meet short term debt obligation with current assets

Current ratio $\frac{Current\ assets}{Current\ liabilities}$

Acid Test ratio $\frac{Cash + Short\ term\ fin\ assets + Current\ receivables}{Current\ liabilities}$

Accounts receivable turnover $\frac{Net\ Sales}{Average\ accounts\ (Trade)\ receivables}$

- Receivables is **net** - Adjustment made for customers who may default

Inventory Turnover $\frac{Cost\ of\ goods\ sold}{Average\ inventory}$

Accounts payable turnover $\frac{Cost\ of\ goods\ sold}{Average\ accounts\ (trade)\ payable}$

Days' sales uncollected $\frac{Accounts\ (Trade)\ receivables,\ net}{Net\ sales} * 365$

Days' sales in inventory $\frac{Ending\ Inventory}{Cost\ of\ goods\ sold} * 365$

Days' purchases in accounts payable $\frac{Account\ (trade)\ payable}{Cost\ of\ goods\ sold} * 365$

Total Asset Turnover $\frac{Net\ sales}{Average\ total\ assets}$

Prepaid flows

- **Prepaid Expense** - Payments made for services not yet received (Assets)
- **Unearned Revenue** - Advanced payments received from customers (Liabilities)

Solvency Ratios

- Identify the company's risk of going bankrupt
- Gauge company chances of staying afloat

Debt Ratio $\frac{Total\ liabilities}{Total\ assets}$

Equity Ratio $\frac{Total\ equity}{Total\ assets}$

Times interest earned $\frac{Profit\ before\ interest\ expense/tax}{Interes\ expense}$

Debt to equity ratio $\frac{Total\ Liabilities}{Total\ equity}$

Market prospects ratio

- Help compare share price to other investments

Price-earnings ratio $\frac{Market\ price\ per\ ordinary\ share}{Earnings\ per\ share}$

Divident yield $\frac{Annual\ cash\ dividents\ per\ share}{Market\ price\ per\ share}$

03. Accounting Equation

Sole Proprietorship - Business owned by a single party $\triangle Capital = Capital\ contributed + Income - Expenses + Withdrawals$

Concepts

- **Accrual accounting** - Revenue and expenses recorded when goods and services change hands
- **Income** - Increase in equity net from any contributions
- **Expense** - Decrease in equity net from withdrawals

1. Income statementRecords revenues, expenses and net profit
2. Statements of changes in equity
   - Records changes in a month
   - Includes contributions from owners and withdrawals
3. Balance sheet
   - Refers to a specific date so must specify date
   - Breakdown assets and liabilities
4. Statements of cash flow

   Differentiate the types of cash flows

   Operating Day-to-day operations of company

   Investing Cash used to buy/receive from sales of long lived assets used in business

   Financing Borrowing/lending or cash flows from owner

04. Debit and Credit

Represented via a T-account

Account Title	
Debit	Credit

- Every transaction there will be equal amounts listed
- Debit: Asset increase (eg. Withdrawals, Expenses)
- Credit: Liability, equity increase (eg. Revenue)

Permanent vs temporary accounts

Temporary Track accounts only during current period

Permanent Capital accounts that track equity long-term

Trade debtors Customer that has not paid for goods and services

Trade creditor Supplier who has sent your business goods/services but haven't paid

Journal entries - Convenient format for recording transactions

05. Adjusting and closing

Adjusting entries

Record of transactions happening during period that were unrecorded (Why unrecorded)

1. Frequent or continuous transactions - impractical to record
2. Earning revenue/incurring expenses do not happen during cash payments (Prepayments/ accrued revenues and expenses)
3. **Depreciation** - Adjustment for age of a long-lived asset used in business

   Accumulated Depreciation - Contra asset storing negative adjustment
   Goes up on credit side and down on debit side

   Carrying value - Remaining value of asset (cost - accumulated depreciation)

Closing entries

Clear the temporary accounts
Capital(post-closing) = Capital(pre-closing) + Revenues - Expenses - Withdrawals

Steps

1. Close revenue accounts to income summary (Debit revenue, credit income summary)
2. Close expense accounts to income summary (Credit expense, debit income summary)
3. Close income summary to capital
   - Debit $>$ Credit: Debit balance $\rightarrow$ Net loss (Credit income summary balance, debit capital)
   - Credit $>$ Debit: Credit balance $\rightarrow$ Net profit (Debit income summary balance, credit capital)
4. Close withdrawals account directly to Capital (Credit withdrawals, debit capital)

06. Inventory

Sales and cost of goods sold

Transactions

1. Earned revenue (Sales revenue and cash/accounts receievable increase)
2. Goods sold (Inventory and COGS expense decrease)

Perpetual System

- Tracks on every sale
- vs **Periodic** - Compare beginning + purchases and ending inventory

Shrinkage

Inventory is less than beginning (Unaccounted damage, loss)

Min(Cost, NRV)

Cost - Cost to acquire and make inventory available for sale

- Purchase price, NET of discounts or allowance
- Shipping cost (**Freight-in** - borne by the buyer)
- Taxes on purchase transaction (as long as not recoverable)

Net Realizable Value - Value that inventory can be sold, net reasonable cost to sell

Cash flow assumption

- **Specific identification** - Unique items that have to be tracked and use actual original cost of item
- **Interchangeable goods** - Indistinguishable goods, typically in bulk
  1. FIFO
  2. Weighted average cost - Cost of each good are the same at the time of sale

Midterm

Debits

Assets Cash, Account receivables. Supplies/inventory, **PREPAID** insurance/rent, equipment, land, buildings

Decrease in equity withdrawals, expenses(cost of goods sold)

Credits

Increase in equity Capital, revenue

Increase in liabilities Accounts payable, accumulated depreciation, borrowing

07. Cash and A/R

- Cash at hand
- Cash in bank
- Cash equivalents (liquid, in safe financial instruments)

Petty cash

- Fixed amount that companies holds, usually to meet day-to-day spending needs
- Credit "cash at bank" and debit "petty cash account" only when fund amount changes OR during setup/tear down

Cash over and short

- Account representing the gap between expected amount from receipts and actual amount in petty cash box
- Accidental mistakes eg. petty cashier returning the wrong amount of change
- Debited as minor expense

Changing fund amount

- Record replenishment and amount to increase[debit]/decrease[credit] fund to petty cash

Bank reconciliation

- Updating cash at bank records and book records (deposits and withdrawals)

Causes

Deposits in transit Company received and recorded cheques and deposited in bank but bank has not cleared/recorded deposit **add to bank**

Outstanding cheques Payment made via cheques but payee has not deposited cheques/still being processed

- Bank has not deducted from account but book records payments when cheques were sent - **subtract from bank**

Non-sufficient funds(NSF) Receive cheques that recorded as cash receipt and deposited but bounced because not enough money in payer bank account

- Book incorrectly add amount **subtract from book**

Bank charges Expense from commission fees and penalties deducted from account - **subtract from books**

Interest received Commercial bank giving interest to account **add to book**

Collections on behalf Bank directly collect outstanding dues on behalf **add to book**

Bad debts

Accrual accounting at the end of the year

- Expected loss from customers not paying when selling goods on credit
- Recorded as *loss allowance* or *allowance for bad debts*
- Contra-asset representing a negative adjustment to trade receivables
- Goes up on credit side and down on debit side
- Coupled with *expected credit loss* or *bad debt expense*

When customer defaults

- Reduce allowance to "write off" trade receivable amount
- Can reverse write off (customer pays up despite giving up hope)
  - Credit allowance and debit trade receivables

Dr Loss allowance	xxx
Cr Trade receivables	xxx

08. Notes and Warranty

- Current liability
  - Notes payable
  - Warranty liability

Notes payable/receivable

- Formal document where a borrower promises to pay a fixed sum of money (principal) after a fixed period from date note is signed (issue date)
- Current asset (less than a year)
- Stronger than accounts payable/receivables
- **Maturity/settlement date** - Note due date
- **Interest** - Additional amount borrower must return on top of principal (accrued interest + principal lumpsum)
- Note that interest is recorded in a separate account with adjusting journal entries

Calculations

- Months
  - Taken from the same day of the month
  - eg. Borrowing on 2/1/2023 + 3 months = 2/4/2023
- Days
  - Taken from the day after issue date
  - eg. Borrow on 2/1/2023 + 30 days = 1/2/2023
- Record non-payments against an established allowance

Provisions liabilities

- Liabilities where timing and amount are uncertain and needs to be estimated
- eg. **embedded warranty** - Warranty automatically gotten when purchasing goods(included in sale price)
- vs **extended warranty** - Extra charge for additional warranty counted under unearned revenue
- **Warranty expense** - Balancing figure when creating/increasing provision
- **Warranty liability** - Anticipated future claims decrease when actual warranty claim occurs (cash/asset goes down concurrently)

Contingent liabilities

- Possible uncertain liabilities that do not satisfy the criteria to be stated as provisions

09.PPE

- Tangible long-lived assets used in business to generate profits
- Life is more than a year (non-current asset)

Accounting

- Initially recorded at acquisition cost

1. Cost approach
   - Asset recorded at **carrying amount** - cost less accumulated depreciation
   - Recorded by 2 accounts (PPE at cost and accumulated depreciation on PPE)
2. Revaluation approach
   - Periodically revalued to current market value
   - Record the difference in value as accumulated depreciation

Acquisition cost

- Includes all cost necessary to acquire asset, bring to location of use and install it
- Additional cost accrued as initial acquisition cost of asset
- Includes future cost of dismantling/clean-up of assets
- All related liability is non-current

Capital vs Revenue expenditure

Cost incurred after installation

Capital expenditure

- Addition or improvement of assets
- Provides additional functionality and extends life
- Increase in asset at cost amount

Revenue expenditure

- Routine repair, maintenance/cleaning cost to maintain in proper working conditions
- Recorded as expense

Depreciation

- Estimate of the wear and tear that assets suffers during life

Straight-line depreciation

$$\frac{Acquisition\ cost - Residual\ value\ if\ any}{life\ in\ years}$$

Partial-year depreciation

- Acquired during a year so depreciation is prorated at a fraction of a year (rounded to nearest month)
- **15-day rule** - Before 15 start counting from that month, after 15th start counting from next month

Revising assumptions

Estimate of depreciation changes

- Revised estimates **prospectively** over the remaining recalculated life of asset
- Not **retrospectively** - Changing past estimates
- Revised depreciation expense =
- $$\frac{carrying\ amount\ at\ beginning\ of\ year - Revised\ residual\ value}{Revised\ remaining\ life\ from\ start\ of\ year}$$

PPE disposal

Selling PPE

Steps:

1. Credit PPE asset **at cost** to 0
2. Debit accumulated depreciation of PPE asset to make it 0
3. Debit proceeds from sale to cash/receivable
4. Gain [Credit] or loss[debit] on disposal
   - Proceeds from sale of PPE - carrying amount of PPE at sale date

10. Corporations

- Ownership is divided into a number of shares of the net worth - entitles holder to ownership of a fraction of the company
- **Share capital** - Value of the investment made in the company by share investors when shares are issued by company
- **Retained earnings** - Value of accumulated net profits earned by the company so far in life (less accumulated dividents paid/commited to pay
- Equity - original investment made by shareholders when shares are issued + amount added to net worth by accumulated net profit that has not been paid back

Cash dividends

Important dates

Declaration date Date company records the dividend (as direct debit to retained earnings)

Date of record Cutoff date for the recipient of the dividend (no entry on the day)

Payment date Date where the dividend is paid

Other Comprehensive Income

- Represents movements in equity not recorded in income statement since they are remeasurement of assets/liabilities rather than actual income/expenses
- Recorded separately from net profit which sums to form 'Comprehensive Income'
- Accumulated in a permanent equity account (reserve) and contra-asset (accumulated OCI of the particular type)
- eg. Property revaluation, retained earnings

Preference Shares

- No voting rights
- Pay fixed dividends calculated using standard dividend rate per annum based on fixed nominal value per share
- Dividends are non compulsory, but rank higher than ordinary shares (company have to pay preference before ordinary dividends)
- May be :

Cumulative Includes value from last year

Convertible Can be converted to ordinary shares

Redeemable Company promises to buy them back at a fixed price

Treasury Shares

- Shares bought back by company but not cancelled (held in treasury)
- Cannot vote or receive dividends but can be reissued
- Recorded as a negative adjustment to equity inside the equity section (contra-equity account, debit)
- Recorded at cost - Price paid by company when bought back

Bonus Shares

- Free shares given to existing shareholders (purely cosmetic)
- There is usually no entry to record bonus issue
- However, can be used to transfer some amount from retained earnings to share capital
  - To meet legal or contractual requirements
  - Bonus issues stated to be at some notional issue price

11. Statement of Cash Flows (SCF)

- Used to determine cash flows analytically by deriving from accrual-basis financial statements
- Cash + other assets = Liabilities + equity
- Interest received and dividends paid could be operating/financing section
- Net change in cash/cash equivalents (sum of cash flows in 3 sections) = difference between opening and closing balance in balance sheet
- Combined with other liquid short-term assets called cash equivalents like fixed D or overdraft

Operating Activities

- Business operations of the enterprise
- Reflect most changes in retained earnings, non-cashg current assets arising from operations and current liabilities

Investing Activities

- From investing or divesting in non-current assets company uses for business/side-investment
- Records changes in non-current assets, cash in/outflow from acquiring investment shld be shown separately not netted (from sale of investment)
- Significant non-cash transactions shld be disclosed separately in notes

Financing Activities

- Transactions with suppliers of financing ie lenders and shareholders
- Derived from changes in borrowing (short/long term and changes in share capital)
- In/outflows should be recorded non netted like investing (same w non-cash transactions)

Cash Flow From Operating activities (CFFO)

Simplified algorithm to derive via indirect method:

+ Profit before interest and tax
+ Non-cash expense item amounts (eg. depreciation expense)
- Non cash income item amounts (eg. share on profits of associates)

± Gain/loss on PPE disposal (investing section)

- Change in operating current assets

+ Change in operating current liabilities

Direct method

Cash collected from customers

+ Net Sales
- Change in net trade receivables

+ Change in unearned sales revenue

- Expected credit loss expense

Cash paid to suppliers of merchandise

1. Estimate purchases of merchandise (Purchases = COGS + △Inventory)
2. Compute cash paid via change in trade payables (Cash paid = Purchases - △Trade payables)

Income tax paid

+ Income tax expense
- Change current income tax payable
- Change deferred income tax liabilities

+ Change deferred income tax assets

12. Financial Statement Analysis

Maunfacturing Companies

- Inventory accounting using "cost accounting"
- Types of inventory:
  - Raw materials
  - Work In Process/product item that are in process of being manufactured
  - Finished goods ready for sale
- Cost accumulated in WIP and finished goods must include material cost and other production cost (Conversion costs)
- Changes
  1. Debit Raw materials when purchasing raw material and credit when using raw material (debit into WIP)
  2. WIP goes up by amount of raw materials used in production + conversion cost (goes down once completed)
  3. WIP go down = Finished goods go up as Cost of Goods Manufactured (COGM)
  4. When sold, finished goods go up on COGM and down on COGS

Bank accounting

- Bank is in the business of lending and borrowing cash so large proportion of interest charges are operating activities
- Only Interest paid on subordinate debt (tier 2) are financing, the rest should be operating section

Return on Equity

- Contain preference shares so preference dividends must be calculated
- Calculation for group
$$\frac{Net\ profit - NCI\ share\ profit - Pref\ dividends}{AVG(Equi - NCI\ share\ equi - Pref\ share\ capital)}$$
- Note: Denominator must not include accumulated unpaid preference share dividend from cumulative preference share
  - Not considered part of the preference share portion of equity

Bank-specific ratios

Net interest margin (NMI) Spread between interest income earned and interest expense incurred as proportion of total assets

$$\frac{Interest\ income - Interest\ expense}{Average\ total\ assets}$$

Capital Adequacy ratio Regulatory ratio that banks have to maintain minimum of

Common Equity Tier 1 (CET1)

$$\frac{Common\ equity\ tier\ 1\ capital}{Risk - weighted\ assets}$$

Tier 1 Capital Adequacy Ratio (CAR1)

$$\frac{Tier\ 1\ capital}{Risk - weighted\ assets}$$

Total Capital Adequacy ratio (Total CAR)

$$\frac{Tier\ 1\ Capital + Tier\ 2\ Capital}{Risk - weighted\ assets}$$

- Helps assess bank's ability to withstand bank run
- Protection that the depositors have against bank running out of funds and being unable to return deposits
- Dependent on the source of funds raised eg. Ordinary shares and accumulated reserves (Common Equity tier 1)
- Slightly less protective are instruments like Pref shares (Tier 1 Capital)
- Even lower are Low ranking subordinate debt (tier 2 capital)
- Compare with company assets (Loans or investments in financial instruments)
- Requires assessment of risks

Credit Risk Risk borrower will not repay what is owed

Market Risk Risk that investment suffers decline in market value

Operational Risk Asset used in operation suffers operational crisis (computer network being hacked)

Non-Performing Loans (NPL) Loans on which payment is overdue by more than 90 days

$$\frac{Non - performing\ loans}{Gross\ loans}$$

Financial Instruments

- Financial assets and liabilities

Receivables Loans (assets), borrowings (liabilities), investment in shares or equity of other companies (assets)

Derivatives Financial contracts that can be assets (+) or liabilities (-) depending on market value

Financial asset classifications

Fair value through profit and loss (FVPL) Default category

- Recorded at balance-sheet date market value (fair value)
- Changes in fair value recorded as gains or losses in income statement

Fair value through OCI (FVOCI) Record loans/investment in shares at fair value whose changes recorded in OCI (rather than income statement)

- Accumulated in separate reserves called FVOCI revaluation reserve

Amortized cost Used for financial liabilities mostly (except derivatives - recorded at FVPL)

- Loans held to maturity and never sold
- Company recorded at cost less repayments and plus accrued interest