SU1.

Analysing cashflow

Depreciation systematic charging of a portion of fix asset costs against annual revenue over time.

Wear & tear allowance → determine depreciation of assets for tax purposes.

Depreciable value of an asset → Cost + ~~out~~ lays for installation. Adjustment required for expected salvage value.
Land & Buildings not depreciable.

Depreciable life of an asset → Time period over which asset is depreciated.
Recovery period → Appropriate depreciable life of particular asset as determined by WTA.

Depreciation methods

for tax purposes, 1st 4 WTA property classes → straight-line method
faster write off → best cashflow effect.

Developing statement of cashflows

Cash equivalents & marketable securities = cash because of highly liquid nature. → Both represent reservoir of liquidity that is increased by inflows & decreased by outflows

Cash flows: ① Operating
② Investment
③ financing.

① Operating flows: Directly related to sales & production of products & services.

② Investment flows: associated with purchase & sale of fixed assets & equity investments in other firms. Purchase - outflow, Sale inflow.

③ Financing flows: result from debt & equity financing transactions, include incurrence & payment of debt, cash inflow from sale of stock, cash outflows to repurchase stock or pay cash dividents. Incurring debt → cash inflow. Repaying debt → outflow. Sale of shares → inflow. Repurchase → outflow.

Classifying flows:

① Decreases in asset → inflow
Increase in cash balance → outflow → additional cash tied up in cash balance.

② Depreciation (amortisation & depletion) non-cash charge → expense. & Lowers taxable income thereafter inflow.
Cashflow from operations = Net profit after taxes + depreciation & other non-cash charges.

SU1

Cash inflows, Net Profit after tax & depr. = +
Cash outflows, losses & div. pd = −

Operating cash flow. (OCF)
True cashflow excl. taxes & interest.
Net operating profits after taxes = NOPAT.
(Before interest & after taxes).
* NOPAT = EBIT × (1 − T)
to convert NOPAT TO OCF, add back depreciation.
* OCF = NOPAT + Depreciation.
or
* OCF = EBIT × (1 − T) + Depreciation.

Free cashflow FCF
amount of cashflow available to investors (creditors & owners) after operating needs have been met & paid for net fixed & current assets.

FCF = OCF − Net non current investment − net current asset investment
FCF = OCF − NNCI − NCAI.

NNCI = Δ in net non current + Dep.

Negative NNCI → cash inflow attributable to selling of more assets than it aquired.

Net current investment (NCAI) → investment made in firm in current (operating) assets.
Net → difference between current assets &

Sum of trade & other payables and accruals. Short term borrowings not included.

NCAI = Δ current assets − Δ in (trade & other payables + accruals)

Financial planning process

Provide roadmap for guiding, controlling & coordinating firm's actions to achieve goals

2 key aspects:
- Cash planning
- Profit planning

Financial planning process → begins with long-term or Strategic financial plans → guides formulation of short term / operating plans & budgets

Long term (strategic) financial plans → lay out a company's planned financial actions & anticipated impact of those actions over periods 2 to 10 years.
Long term plans → consider proposed outlays for non-current assets, R&D, marketing & prod. development actions, capital structure & major sources of financing.

Short term (operating) financial plans.

Short term financial plans & their impact. 1–2 yrs.
Key inputs: sales forecast, various forms of operating & other data.

Key outputs: operating budgets, cash budgets & proforma financial statements

STP begins with sales forecast → then develop production plans → estimate costs → proforma statement of comph. income & cash budgets. Then develop proforma statement of fin. position.

Cash planning: cash budgets.

Cash budged / cash forecast → statement of planned inflows & outflows of cash. that is used to estimate short-term cash requirements
Typically 1 yr period. Divided into smaller intervals.

Sales forecast → Prediction of sales over a period, based on internal &/ external input. ~~Also determined~~
Also determines level of non current assets required & amount of financing

External forecasts → sales forecasts based on relationships observed between firm's sales & certain key external economic indicators → GDP, consumer confidence, building plans approved etc.

Internal forecasts → sales forecasts based on a build up / concensus of sales forcasts thraugh the firm's own sales channels.

SU 2.

Preparing cash budget

Cash receipts → all of cash inflows during given financial period, most common- cash sales, collection of accounts receivable & other cash receipts

Cash disbursements → include all outlays of cash for a given period
Depreciation & other non cash charges NOT incl. in cash budget

Net cash flows, ending cash, financing & excess cash →
Netcashflow = cash receipts − cash disbursements
then + beginning cash to net cash flow to determine ending cash for each period.
Then
Ending cash − minimum cash balance = Required total financing / excess cash balance.

Required total financing → funds cash needed if ending cash is less than desired minimum cash balance. Typically represented by short term borrowings.

Excess cash balance → excess amount available for investment if ending cash is greater than desired minimum cash balance; assumed to be invested in marketable securities.

Required total financing figures reflect how much will be owed @ end of month. NOT monthly changes in borrowing.

Evaluating the cash budget:
Indicates if cash shortage/surplus expected
Cash budget → document may be required by potential creditors → tells them what money will be used for & when their loans will be repaid.
Assumption → liquidate marketable securities then short term borrowings.

Coping with uncertainty in cash budget:
① Prepare several cash budgets (Scenario analysis)
② Simulation. → develop probability of distribution.

Profit planning Pro forma statements.
Profit planning relies on accrual concepts to project profit & overall financial position.
Inputs needed for proforma statements
① Fin statements for preceeding year
② Sales forecasts for coming year.

SU3

Net working capital fundamentals

Short term financial management

Management of current assets & current liabilities.

Nb components in fin structure: ① level of investment in current assets & ② extend of current liability financing.

Goal → short term financing → achieve balance between profitability & risk

Net working capital

Working capital / current assets → portion of investment in that circulates from one form to another

Short term investments part of wcrting capital.

Current liabilities → short term financing, 1 yr.

Net working capital → diff between current assets & current liab.

Current assets > current liab. → Positive NWC.

Current liab > current assets → Negative Net WC.

More predictable cash inflows → less WC needed.

Trade off between profitability & risk.

Profitability → relationship between revenue & cost generated by using firms assets → current & fixed → in productive activities.

Can increase profit by

① increasing revenues

② decreasing cost.

SU3

Risk → context of short term fin management planning → inability to pay bills as they become due. → technically insolvent.
The greater net working capital → lower risk.

Risk of technical insolvency → Probability of not being able to pay bills as they become due.

Changes in current assets
Easier to turn receivables into cash than inventory
Profitability - risk trade off → use ratio of current assets to current liabilities → indicates percentage of total assets that is current.
Current assets ↑ → Profitability ↓
Current assets less profitable than non-current assets. Non current more profitable → add more value to product → products produced with non-current assets
Risk effect decrease as ratio of current assets to current liab increase. ↑ CA → ↑ NWC → reducing risk of tech insolvency.
Nearer asset is to cash. less risky

Changes in current liabilities
Current ratio shows % of total assets financed with current liabilities.
Ratio ↑ → Profitability ↑ Because

Cash conversion cycle

Can lower working cap if can speed up operating cycle

Calculating cash conversion cycle

OC → Time from beginning of production process to collection of cash from sale

Consists ① Inventory
② Trade receivables.

Measured by:

$$OC = AAI + ACP$$

OC - operating cycle
AAI - average age of inventory
ACP - average collection period.

AKA = ORA

$$CCC = OC - APP$$

CCC cash conversion cycle
OC operating cycle.
APP average payment period.

Algo

$$CCC = AAI + ACP + APP$$

Seasonal funding → Constant investment in operating assets resulting from constant sales over time.

Permanent funding requirement → Sales & inv. in operating assets constant.

Aggressive funding strategy → seasonal requirements funded by short-term debt & permanent req. by long term debt.

ST-funding → less expensive
LT-funding → Lock in cost of funds avoiding risk of increase in ST interest rates.

Conservative funding strategy → LT funding for seasonal & permanent requirements.

Strategies for managing cash conversion cycle:

Goal to minimise length of cash conversion cycle → which minimise negotiated Liabilities.

Strategies:

① Turn over inventory as quickly as possible without running out of inventory that could result in losses
② Collect trade receivables asap. without losing sales from high-pressure collection ~~tea~~ techniques.
③ Manage mail, processing & clearing-time
④ Pay trade & other payables as slowly as possible without damaging credit rating.

Inventory management

Common techniques for managing inventory

ABC System

Divides inventory into 3 groups, A / B / C in decsending order of importance & level of monitoring on basis of rand investment in each.

Economic order quantity (EOQ) model

Determine an item's optimal order size → which minimise total of order & carrying costs.

Order costs → Fixed clerical cost of placing & receiving order.

Carrying cost → Variable cost per unit of holding an item for a specific period of time

Order cost ↓ as order ↑

Carrying cost ↑ as order ↑

EOQ determine order quantity that minimises total inventory cost.

$$\text{Order cost} = O \times S / Q$$

O = order cost per order

S = usage in units per period

Q = order quantity in units

$$\text{Carrying cost} = C \times Q/2$$

C = carrying cost per unit per period.

$$\text{Average inventory} = Q/2$$

6

$$\text{Total cost} = (O \times S/Q) + (C \times Q/2)$$

$$EOQ = \sqrt{\frac{2 \times S \times O}{C}}$$

Re-order point → number of day lead time needed to place & receive order. & daily usage of inventory item.
Reorder point = days of lead time x daily usage.

Safety stock → extra inventory held to prevent running out of stock.

Inventory turnover = $\frac{\text{cost of goods sold}}{\text{average inventory}}$.

EOQ determines optimal inventory turnover rate given the specific costs of inventory.

JIT (Just in time)

minimises inventory investment by having materials at exactly the time they are needed. Uses no or very little safety stock.

Computerised systems for resource control

Manufacturing Resource Planning II → MRP II.

Integrates data from numerous areas (finance, accounting, marketing, engineering & manufacture) and generates manufacturing plans & financial & management reports. Models firm's processes

So that effects of changes on one area on other areas can be assessed & monitored

Materials requirement planning (MRP)

Applies EOQ concepts & a computer to compare production needs to available inventory balances & determine when orders should be placed for various items on a products bill of materials.

~~Enterprise resource~~

Enterprise resource planning ERP

MRP & MRP II focus on internal operations.
ERP expand focus to external environment → includes info on suppliers & customers.
Integrates external info with departmental data → info available on all resources → human & material → instantly available. → eliminate production delays & control costs.

International Inventory management.

Much more complicated. Flexibility important.
less concerned about ordering economically optimal quantity than about making sure sufficient quantities delivered when & where needed & in a condition to be used as planned.

SU 7.

Trade receivables management

Average collection period → 2 Parts
① Time from sale till customer mails payment
② Time from payment mailed till funds in bank account.
① Managing credit available
② Collecting & processing payments.

Objective → Collect trade receivables as quickly as possible without losing sales from high-pressure collection ~~tec~~ techniques!
Goal has 3 topics:
① Credit selection & standards
② Credit Terms
③ Credit monitoring.

Credit selection standards:

Firms minimum requirement for extending credit. Involves evaluating customer's credit worthiness & comparing it to firm's credit standards → its minimum requirements for extending credit.

5 C's of credit:

① Character → record of meeting past obligations
② Capacity → ability to repay requested credit. Judged in terms of financial statement analysis focused on cash flow avail. to repay ₺ debt obligations.

SU 7.

③ Capital → Debt relative to equity.
④ Collateral → amount of assets avail to use in securing credit.
⑤ Conditions → Current general & industry specific economic conditions & any unique conditions surrounding specific transaction.

① CHARACTER
② CAPACITY
③ CAPITAL
④ COLLATERAL
⑤ CONDITIONS.

Credit Scoring.

Selection method used with high volume, small rand credit requests. Relies on credit score determined by applying statistically derived weights to a credit applicant's scores on key financial & credit characteristics.

5 Main categories:.

① Payment history 35%.
② Amounts owed 30%.
③ Length of credit history 15%.
④ New credit 10%.
⑤ Type of credits used 10%.

Relaxing credit standards & terms increase risk. & may increase firm's return.
Average collection period & bad debts will increase with more lenient or standards &/ credit terms but increased revenue may produce profits that exceed these costs.

Changing credit standards.

Might want to change credit standards to improve returns.

Relaxation of credit terms:

Variable	Direction of change	Effect on profit
Sales volume	↑	+
Investment in trade d rec.	↑	−
Bad debt expense	↑	−

Making the credit standard decision.

To relax → compare additional profit contribution from sales to cost of marginal investment in trade & rec & marginal bad debts

Additional profit > marginal costs = Relax

Managing international credit

More complex. Expose firm to exchange rate risk. & dangers in delays involved in long distance shipping & crossing at least 2 international borders.

Credit insurance → protect companies trading on credit from non-payment locally & internationally.

Export sales, if carefully monitored and effectively hedged against exchange rate risk often prove to be very profitable.

Credit terms :

Terms of sale for customers who have been extended credit.

Cash discount → % deduction from purchase price available to credit customer who pays within a specified time.

ie 2/10 net 30 = customer can take 2% discount from invoice amount if payment made within 10 days of beginning of credit period / pay full amount of invoice within 30 days.

- Perishable products – short credit terms.
- Seasonal business – tailor terms to fit industry cycles.

Regular credit terms → conform to industry standards

Firms should compete on quality of products & services and price NOT on credit terms.

Regular credit terms must match industry standards BUT individual customer terms should reflect riskiness of customer.

Cash discount :

Speeds up collection without pressuring customer
Decreases investment in trade & receivables and per-unit profit. Also reduce bad-debts

and increase sales volume
Must perform benefit-cost analysis to see if extending cash discount is profitable.

Cash discount period:
# of days after beginning of credit period during which cash discount is available.
Difficulty lies in assessing impact of increase in cash discount period on investment in trade & receivables.

↑ cash discount period
→ Sales ↑ → profit ↑
→ bad debt ↓ → profit ↑
→ profit per unit ↓ → profit ↓

Credit Period:
# of days after beginning of credit period until full payment is due. → Affects profitability

↑ cr period → ↑ sales → profit ↑
→ ↑ inv in trade & receivables
→ ↑ bad debt → ↓ profit.

CREDIT MONITORING
Ongoing review of trade receivables to determine if customers are paying according to stated credit terms.

Average collection period → average # of days that cr sales are outstanding.

SU7.

2 Components:
① Time from sale till payment in mail
② Time to receive, process & collect payment once mailed.

$$\text{Average collection period} = \frac{\text{Trade receivables}}{\text{Average sales per day}}$$

Aging of trade receivables: → breaks down trade receivables into groups based on time of origin.
Purpose → enable firm to pinpoint problems
Aging schedule: credit monitoring technique → breaks down trade receivables into groups based on time of origin. Indicates % of total trade receivables balance that have been outstanding for specified periods of time.

Management of receipts & disbursements.

Float
Float → Funds sent by payer not yet usable to payee. Presence lengthens average collection period & average payment period.
Float should be:
- ↓ shorter average collection period
- ↑ lengthen average payment period.

Can be accomplished by managing float

Float components:

* Mail float → Time delay between payment placed in mail & payment received
* Processing float → Time between receipt of payment & deposit into account.
* Clearing float → Time between deposit & when spendable funds becomes available.

Speeding up collections

Reduce customer collection float time → reduce average collection period → reduce investment in cash conversion cycle

Methods: let someone else do the financing ie using bank credit cards & selling trade receivables to a 3rd party at a discount.

Change credit terms:

* Increase cash discount
* Shorten required payment period.

Slowing down payments.

Increase all 3 components of payment float

Controlled disbursing → Strategic use of mailing points & bank accounts to lengthen mail & clearing float. (May strain supplier relations)

Cash concentration.

Process used to bring lockbox and other deposits together into one bank, often called: concentration bank.

Advantages of cash concentration:

① Creates large pool of funds for use in making short term cash investments. Fixed cost component in transaction cost associated with such investments investing a single pool of funds reduces transaction costs. Larger investment pool also allows to choose from greater variety of short term investment vehicles

② Concentrating cash in one account improves tracking & internal control

③ Having one concentration bank enables firm to implement payment strategies that reduce idle cash balances.

Mechanisms → transfering cash from lockbox bank & other collecting banks to concentration bank:

DTC. ① * Depository transfer cheque → unsigned cheque drawn on one account & deposited in another. for cash concentration → DTC drawn on each account or lockbox → deposited in concentration bank account. Once DTC cleared → Transfer of funds completed.

② * ACH (automated clearinghause) transfer: → Pre-authorised electronic withdrawl from payer account. Computerised clearing facility (ACH) makes paperless transfer of funds between banks. ACH clears in 1 day.
for cash concentration → ACH transfer made

lockbox bank or other collecting bank to concentration bank.

③ * Electronic funds transfer → EFT eliminates mail & clearing float. & may reduce processing float.

Zero balance accounts

Disbursement account that always has zero balance at end of day. → money only deposited into account to cover cheques drawn on account as they are presented for payment.
Purpose → eliminate nonearning cash balances

Investing in short term investments

Short term investmenst → ST, interest earning money market instruments, can be converted into cash easily Part of liquid assets. Used to earn return on temporarily idle cash.
~~Secu~~ Security must have:
① Reddy market → minimise time to convert to cash.
② Safety of principal → Little / no loss in value over time.

2 Groups most commonly held securities
* Government issues → low yield, low risk.
* Nongovernment issues → slightly higher yield than Gov. issues, similar maturities because of higher risk associated with them.

SU 8

Spontaneous Liabilities.

Arise from normal course of business
2 Major sources of such liabilities.
* Trade & other payables
* Accruals.
Both forms of unsecured short term financing firm should take advantage of them.

Trade & other payables management.

Trade & other payables major source unsecured ST financing.

Role in cash conversion cycle:

Average payment period final component of cash conversion cycle.
① Time from purchase to mail of payment
② Payment float time.
Trade & payables management → Management by firm of time that elapses between purchase of raw material & its mailing payment to the supplier.
Goal → Pay slowly without damaging credit rating. Always maximum use of interest free loan.

Analysing credit terms.

Credit terms enables delay in payment for purchases. Analyse credit terms to determine best trade credit strategy
Taking cash discount → pay last day of discount period. No cost associated with taking

cash discount.

+ Give up cash discount → pay final day of credit period → Implicit cost → cost of giving up cash discount → is implied rate of interest paid to delay payment.

$$\text{Cost of giving up cash discount} = \frac{CD}{100\% - CD} \times \frac{365}{N}$$

CD - Stated cash discount in percentage terms.
N - Number of days payment can be delayed by giving up discount.

$$\text{Approximate cost of giving up cash disc} = CD \times \frac{365}{N}$$

$$\text{Annualised cost of giving up cash discount} = [CD\% \div (100 - CD\%)] \times (365 \times N)$$

Cash discount → NB source of additional profitability.

Effect of stretching Trade payables.
Paying bills as late as possible without damage to credit rating. Such strategy can reduce cost of giving up cash discount.

Accruals

Liabilities for services received for which payment is yet to be made → most common: Wages & Taxes.

Taxes – payment to gov → accrual cannot be manipulated.

Wages → Delay wages – receive interest free 'loan' from employees

Unsecured sources of ST loans.

Banks & sales of commercial paper. Loans – avail to all. Comm paper → only avail to large firms.

Bank loans:

Major type of loan: short-term, self liquidating loan → unsecured S/T loan in which the use to which the borrowed money is put provides the mechanism through which the loan is repaid. Intended to carry firms through seasonal peaks in financing needs that are due primarily to buildups of inventory & trade receivables.

3 ways to lend:

1. Single payment notes
2. Lines of credit
3. Revolving credit agreements

Loan interest rates.

Fixed / Floating.

Prime rate → lowest rate of interest charged by leading banks on business loans to their most important business borrowers.

Prime rate fluctuates with changing supply-and-demand relationships for short-term funds.

Banks add premium to prime rate to adjust for borrower's riskiness.

Fixed rate loan → interest rate at set increment above prime & remains unvarying until maturity.

Floating rate loan → Interest rate set at increment above prime & allowed to float / vary above prime as prime rate varies until maturity.

Increment above prime lower for floating than fixed

Method of computing interest:

Once nominal / stated annual rate established then method of computing interest established.

Interest paid on ~~next~~ maturity or in advance.

Paid on maturity → effective / true annual rate → actual rate of interest paid for 1 yr period

$$\frac{\text{Interest}}{\text{amount borrowed.}}$$

SU 8

Interest paid in advance → interest deducted from loan → receive less money than requested. called discount loans.
Effective annual rate for discount loan, 1 yr period

$$\frac{\text{Interest}}{\text{Amt borrowed} - \text{Interest}}.$$

Paying interest in advance raises effective annual rate above stated annual rate.

Single payment notes:

S/T, one time loan made to borrower who needs funds for a specific purpose for a short period.

~~Effective annual rate~~ :

Total interest cost = [Debt × (int rate × days / 365)]
Effective rate = Interest amount / Debt (loan)

Effective annual rate = $(1 + \text{Effective rate}/100)^{\text{periods}} - 1$
period = Days / 365.

Lines of credit / overdraft facility.

Agreement between bank & firm specifying amount of unsecured s/t borrowing bank will make avail over given period of time.
Not a guaranteed loan. amount of line of credit → maximum amount firm can owe bank at any moments. Normally floating int rate → prime + premium.
Operating change restrictions → Contractual restrictions bank may impose on firm's

financial ~~position~~ condition or operations as part of line of credit agreement.

Compensating balances → Required cheque account balance = to certain % of amount borrowed under a line-of-credit / revolving credit agreement. Force borrower to be a good customer & may raise interest costs to borrower.

Annual cleanups → Requirement that for a certain number of days during the year borrowers under credit-line carry a zero-line balance → this ensures s/t loans does not turn into l/t loans.

Revolving credit agreement:
Line of credit guaranteed to borrower by bank regardless of scarcity of money.
Commitment fee → fee normally charged on revolving credit agreement. Often applies to unused portion of credit line. Agreement period may be longer than 1 yr.

Commercial paper
Form of financing consisting of short-term, unsecured promissory notes issued by firms with high credit standing.

Interest on commercial paper :→ Sold at discount from par. Interest cost normally 2 - 4 % below prime.

SUB

International loans.

International transactions:

Payments often made / received in foreign currency.
Exposed to exchange rate risk.
Exchange rate risk can be hedged by using currency forwards, futures or options markets → is costly & not possible for all foreign currencies.
Int transactions large & have long maturities

Financing International trade:

Letter of credit: letter written by company's bank to company's foreign supplier → stating that bank guarantees payment of invoiced amount if all underlying agreements are met.

Transactions between subsidiaries: → Parent company can minimise foreign exchange fees & other transaction costs by 'netting' what affiliates owe eachother and paying only net amt. due.