

ACTG 3110: Chapter 12 – Liabilities

LIABILITY DEFINITION

Liability: (a) expected future sacrifice of assets/services (b) present obligation (c) result past transaction/event [that is identifiable as an **obligating event** – that creates legal/constructive obligation]

Legal vs. Constructive obligation

Legal obligation: liabilities arise from contract/legislation [trade payables; borrowings]

Constructive obligation: result pattern past practice/established policy [public statement creates valid expectation]

2 Categories Liabilities

- 1. Financial Liability:** any *contract* gives rise to financial liability one party; financial asset another
= Financial instrument: any *contract* gives rise to financial asset one party; financial liability (*or equity instrument*) another
[Payables, bank loan, bond, derivative instrument (Ch14)]
- 2. Non-financial Liability:** opposite; no offsetting financial asset on books other party
= Provision (major category); Contingent liability [E.g.: unearned revenue; warranty liability]

NON-FINANCIAL LIABILITIES: PROVISIONS

Provision: liability of uncertain timing or amount; arise legal/constructive obligations

Recognition: liability + payment probable

Measurement:

- Record at best estimate (a) (b): amount would rationally paid settle obligation at reporting date
If [small population/one-off events]: (a) **Most likely outcome:** highest probability alternative
With judgment considering (1) expected value (2) cumulative probabilities [1 – highest probability]
[i.e.: if most likely outcome = 40%, cumulative = 60%; accrue cumulative]
If range outcomes [large population]: (b) probability-weighted **Expected value**
If: Each point equally probable → accrue midpoint [ASPE: **minimum (lower range) accrued**]
If: Expenditure required settle provision expected reimbursed another party: Recognize as separate asset [not reduction required provision, only if virtually certain received]
- Re-estimate annually: Changes expensed (positive expense) or recovery (negative expense)
If outflow no longer probable: reverse provision
- Discounted using current market interest rates reflect risk level specific liability + interest expense accrued
Exception: Amount + timing CF highly uncertain → record on undiscounted basis

Contingent liability:

- Possible obligation; depending on whether some uncertain future event occurs
- Present obligation; payment not probable
- Present obligation; cannot be measured reliably [rare]

Provision vs. Contingent liability

Provision: probable obligation as result past event; record @ best estimate

Contingent liability: possible obligation; disclosed only [not required disclose if not probable]

Certainty [payout probable?] + Measurable	Classification
Certain	Financial liability record [stated amount; discount if required]
Probable ["more likely than not" > 50%]	Provision record
Possible	Contingency disclosed

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EXAMPLES PROVISIONS [Summary, p694]

LAWSUITS

Record if: certain + measurable

Certainty [payout probable?] (based lawyer)	Measurable	Not Measurable
Probable (certain)	Provision (recorded)	Contingency (disclosed)(rare)
Not probable (not certain)	Contingency (disclosed)	Contingency (disclosed)

Constructive obligation: may present; when announce settlement being sought

EXECUTORY CONTRACTS NOT liabilities until executed by one party/other[until performed some service or act in contract]

[E.g.: employee contracts future; contract future delivery goods; unfilled purchase orders]

ONEROUS CONTRACTS unavoidable costs meeting contract exceed economic benefits [E.g.: supplier contract inventory]

Record: provision for expected net loss

Dr. Loss on purchase commitment [expense]

Cr. Provision for loss on purchase commitment [liability provision]

Contract redeemable [i.e.: inventory purchased]: adjust any partial loss, reverse liability provision

Dr. Inventory

Dr. Provision for loss on purchase commitment [liability provision]

Cr. Loss recovery on purchase commitment

RESTRUCTURING 2 Criteria: (1) Program planned/controlled mgmt (2) Significantly alters manner/scope business

Record estimate future if: detailed formal plan + has started implement or announced specifics

WARRANTY outflows expected arise future but related current transactions

Record: expense is total of all expected future claims at time recognize revenue [obligated event occurred]; adjust estimate each year

Warranty recorded

Dr. Warranty expense

Cr. Warranty liability

Warranty claimed

Dr. Warranty liability

Cr. Cash/parts

Current liability [one year or less] vs. Split current + long-term [one year or more]

RESTORATION AND ENVIRONMENTAL OBLIGATIONS [AROS] obligation to clean up or restoration

Record if: legal or constructive obligation exists

If legislative requirements pending: accrue only if virtual certainty [95%] legislation will enacted

Measure at: management estimate; PV discount rate reflects risk

Initial entry

Dr. Related capital asset

Cr. Decommissioning Liability

Each period

Dr. Depreciation expense

Cr. Accumulated depreciation

Dr. Interest expense

Cr. Decommissioning liability

Adjust liability any changes estimate; Review discount rate each period

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COUPONS, REFUNDS AND GIFT CARDS

COUPONS

Record if: economic benefits transferred

(a) Cash reimbursement for coupons (b) Product sold at loss [i.e.: “free product”]

No record if: (a) No transfer economic benefit: Product still sold @ profit after coupon

(b) Right cancel coupon anytime [cancellable] = no enforceable obligation

Measurement: **Breakage** (unused) rate [for estimate redeemed] estimated based past history/other valid evidence

Initial entry

Dr. Sales discounts

Cr. Provision for coupon refund [$\$refund \times \%breakage \times \#coupons$]

Coupons honored, remainder expire → adjust difference estimate redeemed vs. actual redeemed

Dr. Provision for coupon refund

Cr. Cash

Cr. (Recovery of) sales discounts (remainder)

GIFT CARDS: Unearned revenue liability; usually unlimited life

Provision if: History some become unused + ability estimate breakage

CASH REFUNDS: for returns [arise constructive or legal obligation]: Estimate based experience

LOYALTY PROGRAMS Customer awarded loyalty points, redeemable for free (discounted) g/s

Multiple revenue: Allocation of original revenue

Record: Unearned revenue (aka provision for rewards); Upon initial sale

Measurement: Based fair value reward [account for estimated **breakage**]

Dr. Cash

Cr. Revenue

Cr. Provision for loyalty program rewards

Subsequent: Provision reduced as loyalty points redeemed

REPAIRS AND MAINTENANCE NO record provision: Normally expenses when incurred; no provision

Record if: Obligating event (under contract) takes place

SELF-INSURANCE for known risks [fire; theft]; no external insurance

Record: for estimated losses (a) Experienced + (b) Expected losses where incident occurred [but are not yet known – undiscovered damage]

NOT record: losses expected

CONTINGENT ASSET (i) arise from past events (ii) whose existence must be confirmed by future event that is not wholly in control of management

Record if: **Virtually certain** [>95%] amount will be paid

LOAN GUARANTEE Guarantor pays loan principal + interest if borrower defaults

Record: [if certainty payout >0%] FV of estimated payout [FV x payout probability]

PROVISION PROHIBITED PRACTICES

1. Smooth earnings through creation + reversal of provisions; Thus: Disclosure: For reversal any provision
2. Use provision set up for one purpose to offset expenditures for another

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FINANCIAL LIABILITIES [IAS 32]

Initial measurement: FV consideration received [acquisition cost of investment – transaction value]

Subsequent measurement: Depends on classification

3 Types Financial Liabilities

1) “Other” Financial Liabilities [focus]

Classification: Most financial liabilities; all except FVTPL

Initial measurement: FV

Transaction costs: capitalized [reduce liability]

Subsequent measurement: Amortized cost, using effective interest method

Long-term payments: PV future cash payments discounted @ market interest rate aka **incremental borrowing rate**

(IBR): borrower’s interest rate for debt similar term + risk

Premium/discount amortized: Using effective interest method

2) Fair value through profit or loss (FVTPL) [rare]

Classification: 2 criteria, but can elect

(a) Liability will be sold in short term; and;

(b) Management wishes to avoid accounting mismatch (related/hedged financial instruments)

Initial measurement: FV

Transaction costs: expensed [no affect liability]

Subsequent measurement: FV

FV changes → net income

Loan guarantee: Financial liability of guarantor; Guarantor pays loan principal + interest if borrower defaults;

Record: FV of estimated payout [if certainty payout >0%] [FV x payout probability]

Disclosure: Extensive [maximum potential future payment/identity other party/collateral (if any)]

DERECOGNITION – remove financial liability only when extinguished [(i) discharge paying normally cash; (ii) Debtor released by law or by creditor]

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LONG-TERM DEBT

DISCOUNT RATE: Effective vs. Nominal Interest Rates

Nominal (contract/stated/coupon) **interest rate**: rate in loan agreement

Effective (market) **interest rate** aka **yield**: rate for debt of similar term, security + risk; *true cost of borrowing*
= Interest expense / Carrying value

BONDS (debenture): formal promise by issuing company [borrower] to pay principal + periodic interest

- **Face (par) value**: principal amount payable at maturity
- **Maturity date**: due date for face value
- **Nominal interest rate = Coupon rate**; stated; contractual rate: rate determines periodic interest payments
- **Interest payment dates**: dates periodic interest payments due [semi-annual; annual; quarterly]
- **Bond date** (authorization date): planned issuance date of bond issue

PROCEEDS FROM ISSUANCE BONDS [LIABILITY]

Amount issuer receives from sale of bond; Represents current market price of bond

Borrower may receive more or less than face value → determined by effective interest rate

When discount rate increase, the PV decreases. Thus, decreasing value of bond to issuer.

PRICING OF BONDS

PV (proceeds) = PV of CF to investor discounted @ effective interest rate

= (1) PV interest payments + (2) PV principal repayment

= (1) [(Face value x s) x (P/A, i, n)] + [(Face value) x (P/F, i, n)]

Number of payment periods (n)

Effective interest rate [discount rate] (i) → = rate/frequency of payments e.g.- semi-annually: 10%/2 = 5%

Stated (nominal) interest rate (s)

(1) Interest payment each period (PMT)

PMT = Face value x Coupon rate x Payment frequency

Payment frequency: quarterly 4x (0.25), semi-annually 2x (0.5), if annually (1)

PV interest payments (*annuity formula*)

PV of interest payments: $PV_{n,r} = \frac{1}{r} \times 1 - \frac{1}{(1+r)^n} \times PMT$

Number of payment periods (n) e.g.- semi-annually: 7*2=14

Discount rate (r) → = rate/frequency of payments e.g.- semi-annually: 10%/2 = 5%

Interest payment each period (P)

(2) PV of principal repayment (*investment formula*)

PV of principal repayment: $PV_{n,r} = \frac{1}{(1+r)^n} \times I$

Number of payment periods (n)

Discount rate (r) → = rate/frequency of payments e.g.- semi-annually: 10%/2 = 5%

Face value amount to be received (I)

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ACCOUNTING FOR BONDS

Scenario 1 Bonds issued at **PAR**: Market = coupon rate

Proceeds to bond issuer = bond face value

Scenario 2 Bonds issued at **DISCOUNT**: Market > coupon rate

Proceeds to bond issuer < bond face value (PV less than face value)

Scenario 3 Bonds issued at **PREMIUM**: Market < coupon rate

Proceeds to bond issuer > bond face value (PV more than face value) (company offering more than elsewhere)

$$\text{DISCOUNT/PREMIUM} = \text{Face value} - \text{proceeds}$$

$$\text{Net bonds payable [carrying amount liability} - \text{amortized cost]} = \text{Face value} + \text{Bond discount} - \text{Bond premium amortization}$$

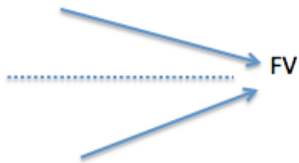
Netted on B/S [Cr. Bond payable; Dr. Discount] [Cr. Bond payable; Cr. Premium]

2 Methods **AMORTIZING** Discount & Premium

Discount/premium amortized to interest expense [reduced to 0] over life bond so that by maturity, the liability = FV

PREMIUM: liability decrease

Proceeds (PV)



Proceeds (PV)

DISCOUNT: liability increase

Method 1: Effective Interest Method [IFRS required]

Measures interest as constant %; Better measure cost of debt

“Plug”: Amortization of discount/premium

$$\text{Interest expense} = \text{Net bond liability closing} \times \text{Market interest rate}$$

$$\text{Premium/discount amortization} = \text{Cash paid} - \text{Interest expense}$$

$$\text{Net bond liability closing} = \text{Opening balance} + \text{Discount amortization} - \text{Premium amortization}$$

Period (i.e.: annual; semi-annual)	Cash interest paid (PMT)	Interest expense	Discount/premium amortization	Net Bond Liability Closing
Opening				PV (proceeds)
1	FV x coupon x frequency <i>*NE liability</i>	Net liability closing x market interest rate <i>*NE liability</i>	Cash interest paid – Interest expense	Opening balance – premium amortization + discount amortization

Method 2: Straight-Line Method [ASPE option] [IFRS: use only when difference methods immaterial]

Measures interest as constant \$

“Plug”: Interest expense

$$\text{Premium/discount amortization} = \text{Amortization (discount or premium amount)} / \text{\# of payment periods}$$

$$\text{Interest expense} = \text{Cash paid} + \text{Discount amortization} - \text{Premium amortization}$$

$$\text{Net bond liability closing} = \text{Opening balance} + \text{Discount amortization} - \text{Premium amortization}$$

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REFINANCING ARRANGEMENTS Maturing long-term liability replaced with new

Reclassify loan as current liability; unless contractual commitment replacement completed:

By reporting date [IFRS]; Before balance sheet completed [ASPE]

Keep classification non-current liability

DEBT ISSUE COSTS Legal; accounting; underwriting; commission; printing; registration; promotion costs

Deduct from net proceeds debt [paid by issuer]

Amortized using effective-interest method [straight line in practice (relatively small amount)]

Include debt issue costs in either [Dr.]: (i) Interest expense (ii) Other financing expense

UPFRONT FEES Administrative fees charged bank to process loan

Loan not granted: Expense

Loan extended: Include in loan; increases effective interest rate [**recalculate, solve for r – p708; 12-17**]

Inception loan

Dr. Cash	
Dr. Financing cost	[\$upfront fee]
Cr. Loan payable	[FV loan]

Interest expense

Dr. Interest expense	
Cr. Deferred financing cost	[Proceeds x new effective interest rate]
Cr. Cash	[FV x effective interest rate]

BORROWING COSTS

Borrowing costs: interest [measured effective interest method] + any other cost incur connection borrowing fund [debt issue costs; upfront fees; foreign currency adjustments; NOT capitalize **imputed interest** on equity]

Capitalize directly attributable costs to the acquisition/construction/production of a qualifying asset form part of the cost of that asset: meet criteria **Qualifying asset** = substantial amount time to complete [i.e.: time delay for acquisition; construction; production] [inventory; intangible asset; PPE; NOT capitalized for financial assets (investments)]

a) Specific borrowings

b) Portion general borrowings – determined using **capitalization rate** considering weighted average cost of borrowings [based on general loans, excluding (i) specific loans; (ii) cost capital for equity financing]

Capitalization

START (1) Interest incurred (2) Payment made on asset (3) Activities begin make asset intended use/sale

CEASE: active construction temporary stop [unplanned work stoppage]

STOP: *substantially* all activities necessary prep asset intended use/sale complete

(1) When asset put in use (2) Ready for intended use

Capitalization limited: **Fair market value cap**, max valuation = FMV; if capitalized cost > FMV → operating loss

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DEBT RETIREMENT

DERECOGNITION: Remove liability from accounts when paid [extinguished]

At Maturity: Carrying value = Face value; no gains/losses to record

E.g.: Dr. Bond payable, Cr. Cash

EARLY EXTINGUISHMENT [retire debt before maturity]

Redeemable bond: borrower may pay back loan using **call option** [sets specific price (**call price** – exceeds face value by certain %) @specific time prior to maturity]

Retractable bond: investor can force repayment bond

WHY retire before maturity? Improves debt-to-equity ratio; facilitate future debt issuances; eliminate debt covenants

Interest rate increase → FV bond decline (below book value) → Retire at GAIN [BV – FV = (+)]

Interest rate decrease → Retire at LOSS [BV – FV = (-)]

Change FV only recorded if repaid [retired at FV based current market rate]

HOW record debt retirement prior maturity: [E.g.: Exhibit 12-4, p713; 12-21]

1. Update interest expense [to retirement date]; record interest payable and any discount/premium

2. Remove liability [including unamortized discount/premium]

Calculate: (1) BV, PV bond of periods remaining [recalculate PMT, FV for amount retired]

(2) Unamortized discount/premium

[Dr. bonds payable – amount retired, Dr. premium, Cr. Discount]

3. Record transfer cash/other resources/issuance new debt securities

Calculate: Purchase price = PV (proceeds) with new market rate

4. Record gain/loss [reduced by brokerage fees + other costs]

Classify gain/loss: (i) Ordinary gains/loss; or; (ii) Unusual items [depend frequency + circumstances]

DEFEASANCE Arrangement whereby debtor irrevocably places investments in trust fund for sole purpose using those resources to pay interest + principal on specified debt; engineer derecognition bond liability w/o formally repaying

HOW: Requires creditor consent = legal release → issuer bonds transfer cash into irrevocable, trustee fund [trustee responsible interest + principal payment] → liability no longer exists = defeased

Record: Bond liability removed; record gain/loss

Dr. Bond payable [FV]

Dr. Premium (Cr. discount) on bonds payable [remaining]

Cr. Cash/investments [PV]

Cr. Gain (or dr. loss) [BV – payment required]

Offset “legally enforceable right..corporation must intend to settle on net basis”

IAS 32 also prescribes rules for the offsetting of financial assets and financial liabilities. It specifies that a financial asset and a financial liability should be offset and the net amount reported when, and only when, an entity: [IAS 32.42]

- has a legally enforceable right to set off the amounts; and
- intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously. [IAS 32.48]

In-substance defeasance: Trust established without creditor permission/knowledge

→ liability still exists = not defeased [no legal transfer]

Record: Separate investment account [if funds transferred to trustee] + continue report liability

ACTG 3110: Chapter 12 – Liabilities

SUBSTITUTION OR MODIFICATION DEBT exchange existing loan [repay + reborrow in 1 transaction prior due date]
If exchange substantial different [$> 10\%$ difference PV new loan, including fees + transaction costs] \rightarrow 2 transactions

(1) Record extinguishment (loan retired at gain or loss)

(2) Record new loan

Remaining transaction costs old debt \rightarrow expense

If exchange not substantial different [$< 10\%$ difference PV new loan]

Remaining transaction costs old debt + additional fees \rightarrow amortized over remaining term modified debt

FOREIGN EXCHANGE

Foreign currency monetary liabilities [borrow foreign lenders]

Record at: Spot rate [equivalent amount of reporting currency] on reporting date

Every reporting period: Remeasure loan @ spot rate

Unrealized gain/loss exchange rate \rightarrow net income

Exception: hedge [reduce risk exchange rate – involve arranging equal and offsetting CF in desired currency]

DISCLOSURE

PROVISION:

Separate category from payables/accruals

Continuity schedule [reconciliation: opening balance to closing balance] explaining movement each class of provisions

LONG-TERM LIABILITIES

Most liabilities = financial instruments

Disclose: credit/liquidity/market risk; accounting policies; FV each class financial liability + method establish FV [discounted CF]

ASPE

CONSTRUCTIVE LIABILITY: Not recorded \rightarrow only legal liabilities recognized

PROVISION: Term “provision” not used \rightarrow “estimated liability”

CONTINGENT LIABILITY: result in outflow resources only *if* another event happens \rightarrow record OR disclose [IFRS – disclose, not record]

If obligation:

- Likely + measurable: Record – accrue at the best estimate. If there is a range of estimated, where no amount is more likely than another, take the minimum
- Likely + cannot measure: Disclose
- Not Likely: Not record or disclose; unless material

CONTINGENT ASSET: Never accrued

LONG-TERM LIABILITIES

Amortized cost

STRAIGHT LINE METHOD: option OR Effective Interest Method

REFINANCING ARRANGEMENTS: Before balance sheet completed

BORROWING COSTS: May capitalize [not must – IFRS] Only specific borrowings capitalized [not portion general]

ACTG 3110: Chapter 13 – Shareholders' Equity

EQUITY DEFINITION "net assets" = residual difference when [Liabilities – Assets]

TYPES OF ORGANIZATIONS

- (1) **Proprietorship** (2) **Partnership**: not incorporated; no shareholder's equity
ASPE → not required IFRS unless publicly traded
- (3) **Private corporation**: shares not publicly-traded; limited # shareholders;
Shareholders' agreement: describes rights + responsibilities shareholders; transfer of shares
Choice: IFRS vs. ASPE
- (4) **Public corporation**: securities [debt or equity] publicly traded stock exchange
Required: IFRS

SHARES

SHARE CAPITAL direct investments by shareholders; represents ownership in corporation
No impact NI; impact R/E & contributed surplus & AOCI; cost based actg [not MV]

Class of share: different rights privileges [dividend entitlements; voting rights]; at least one class common

(1) Common shares:

Right vote; entitled to declared dividends; assets upon liquidation: right receive residual interest net assets

(2) Preferred shares: [Class A shares]

Non-voting; dividend priority [satisfied b/f common]; specified dividend rate [payment]; assets upon liquidation: priority

- **Cumulative dividends**: right receive unpaid past dividends current yr b/f common paid
- **Participating dividends**: right share additional dividends w/common shares, once annual dividend paid to preferred + common receive base return
- **Convertible**: right convert to common/another class preferred shares w/different entitlements
- **Guarantee**: right to guaranteed return of invested principal through redemption/retraction provisions

RESTRICTED OR SPECIAL SHARES

Restricted shares: no or limited voting rights

Special shares: multi-voting shares

PAR vs. NO-PAR VALUE SHARES

Par value shares: dollar amount assigned per common/preferred shares [CBCA prohibited; some provincial permit]

Sold < par: Issued at **discount**

Sold > par: Issued at **premium**

- Selling price of share split between:
 1. Share capital
 2. Contributed surplus [excess par value: discount/premium]

No-par shares: no dollar amount assigned per common/preferred shares → Share capital

TERMS

Authorized share capital: maximum shares legally issue [state in articles of incorporation]

Issued share capital: issued to shareholders [> outstanding if treasury shares outstanding]

Outstanding share capital: issued and owned by shareholders

Repurchased or retired shares: NOT issued or outstanding

Treasury shares: shares reacquired by corporation, held for pending resale; issued not outstanding

Subscribed share capital: shares issued on credit [not cash]; shares not issued until fully paid

Stock subscription [contractual agreements prospective shareholders purchase specified # shares, w/payment due future date(s)]

ACTG 3110: Chapter 13 – Shareholders' Equity

ISSUANCE SHARES

Accounting for shareholder's equity: emphasis = Source

One class share → Share capital account

One + class share → Segregate account titles [common shares; class A shares; preferred shares \$5]

AUTHORIZATION [from articles of incorporation]: memo entry [no numerical entry (dr/cr) required]

Memo: Common shares – no par value (authorized: unlimited shares)

SHARES ISSUED FOR CASH

NO-PAR

Dr. Cash

Cr. Common shares

PAR

Dr. Cash

Cr. Common shares

Cr. Contributed capital: premium/discount on common shares

SHARES ISSUED ON SUBSCRIPTION BASIS shares issued on credit [not cash]; shares not issued (no votes + no dividends) until fully paid [WHY? Start-up companies attract investments]

Shares issued

Dr. Stock subscriptions receivable [(1) Asset – current/non-current] [(2 – preferred) Contra-equity, netted common shares subscribed (reflecting paid amounts)]

Cr. Common shares subscribed [shareholder's equity section]

Record collection payment

Dr. Cash

Cr. Stock subscriptions receivable

Record issuance CS

Dr. Common shares subscribed

Cr. Common shares

DEFAULT on SUBSCRIPTIONS

OPTIONS [depend shareholder agreement]

- Return cash paid to subscriber
- Issue shares equivalent # paid, in full
- Company keeps cash received, no shares issued [not common]

NON-CASH ISSUANCE OF SHARES

 [aka **Share-based payments**]

Shares issued for non-cash assets/services; settle debt [reduce A/P pay g/s w/shares; acquire long-term assets]

Record: Determinable: FV assets received; Not determinable [IFRS rare]: FV shares

Dr. Asset [e.g. Land]

Cr. Share capital

BASKET SALES SHARES sell 2+ classes shares for lump sum

Method 1: Proportional Method

Proceeds received allocated proportionately classes based relative fair values of class

1. Add up total FV of all classes
2. Calculate % of total FV for each class
3. Multiply % to proceeds to determine amount allocated each class

Method 2: Incremental Method

When: 1+ FV not determinable

Proceeds received allocated one class as basis, remainder to other class

ACTG 3110: Chapter 13 – Shareholders' Equity

Method 3: Arbitrary allocation [not common]

When: all FV not determinable [no established market all classes shares
BOD assigns temporary value; corrected when FV established

SHARE ISSUE COSTS expenditures issues shares [registration fees; printing; underwriting; commission]

(a) Share issue planned, but abandoned: Expense

(b) Share issue successful: Reduce equity

Method 1: Offset Method [in practice: more common method]

Reduction of amount received from sale related share capital → Dr. Share capital, Cr. Cash

Method 2: Retained Earnings Method

Direct reduction retained earnings → Dr. Retained earnings, Cr. Cash

RETIREMENT SHARES Share repurchases by company

Terms shareholder agreement

Retractable preferred shares: option shareholder; @ contractually agreed price, company required buy back shares

Redeemable (callable) preferred shares: option company

WHY?

(a) Increase earnings per share (EPS) = earnings/outstanding shares [reduces denominator]

EPS: indication earning performance + future prospects → subsequent increase market price/share

(b) Provide CF to shareholders in lieu of dividends: tax advantages shareholders [pay tax on capital gains (not dividend income)]

(c) Acquire shares when they appear to be undervalued: to benefit remaining shareholders; or make market (provide buyer) for shares

(d) Buy out one or more particular shareholders, and thwart takeover bids

(e) Reduce future dividend payments by reducing the shares outstanding

HOW ACCOUNT FOR RETIREMENT? [no-par] No IFRS policy; Practice

No NI effect buying back own shares [to avoid manipulation]

Impact: contributed surplus [separate account per class share] OR retained earnings

Case 1: Retirement price SAME average paid-in value per issued share to date [average issuance price per date - $[\$share\ capital / \#outstanding]$]

Dr. Share capital
Cr. Cash

Case 2: Retirement price LOWER average paid-in value per issued share to date

Dr. Share capital [@ average paid-in value per issued share]
Cr. Contributed surplus, common share retirement
Cr. Cash

Case 3: Reacquisition cost HIGHER average paid-in value per issued share to date

Dr. Share capital [@ average paid-in value per issued share]
Dr. Contributed surplus, common share retirement
[current balance brought 0] [that was created by earlier cancellation or resale transactions in same class of shares]
Dr. Retained earnings [remainder]
Cr. Cash [repurchase price]

CONVERSION OF SHARES Conversion one class shares into another [convertible shares – provision]

Accounted for @ book value

ACTG 3110: Chapter 13 – Shareholders' Equity

TREASURY STOCK No votes; no dividends; buy own shares back + temporarily hold for eventual resale

[Canada – not permitted] → must immediately retire shares

[Not Canada]: reacquired shares may be reissued: to raise additional capital

Faster issuance treasury stock than new share issue = more flexibility

Shelf registration [standing approval from securities commissions to issue more shares as needed] = reduce importance flexibility

BOOK KEEPING [Only tested concept; not tested bookkeeping]

No IFRS policy; In practice; **single-transaction method** of accounting for treasury stock [same as share retirement]

Purchase

Dr. Treasury stock [deduction – end shareholder equity section]

Cr. Cash

Reissue = Resold

Impact: “gain/loss” → contributed surplus [separate account per class share] OR retained earnings

Case 1: Resale price SAME average price per share

Dr. Cash

Cr. Treasury stock [average cost]

Case 2: Resale price HIGHER average price per share (above cost)

Dr. Cash [@ resale price]

Cr. Treasury stock [@ average price per share]

Cr. Contributed capital, treasury stock transactions

Case 3: Resale price LOWER average price per share (below cost)

Dr. Cash [@ resale price]

Dr. Contributed capital, treasury stock transactions [if any current balance]

Dr. Retained earnings [remainder]

Cr. Treasury stock [@ average price per share]

RETEAINED EARNINGS indirect investments by shareholders; profits reinvested into corporation

Represents: accumulated net earnings (loss); error corrections; retrospective changes accounting policy

Less: accumulated cash dividends; property dividends; stock dividends; other amounts transferred contributed capital

Deficit = Dr. balance R/E

Decreases (debits)

- Cash and other dividends
- Spinoff of investment to shareholders
- Stock dividends
- Share retirement and treasury stock transactions
- Share issue stocks
- Adjustments related complex financial instruments [hybrid financial instruments] [Ch14]
- Error correction (may also be credit) [Ch20]
- Effect of change accounting policy applied retrospectively (may also be credit) [Ch20]

Increases (credits)

- Earnings (including discontinued operations) (debt if net loss)
- Removal of deficient in financial reorganization

Statement Retained Earnings

- Beginning balance
- Restatement errors, retroactive
- Net income/loss
- Dividends declared
- Appropriates/restrictions
- Ending balance

ACTG 3110: Chapter 13 – Shareholders' Equity

APPROPRIATIONS and RESTRICTIONS of R/E constrain + divide specified portion R/E for specified reason [**RESERVE**]

WHY?: Reduce amount R/E f/s readers would otherwise consider available support dividend declaration [signal insufficient funds dividends]

APPROPRIATED retained earnings: result discretionary mgmt action

RESTRICTED retained earnings: result legal contract/corporate law

RECORD: transfer (debit) amount from retained earnings → (crediting) appropriated retained earnings account
NE: assets/liabilities/shareholders' equity

REVERSE [when need no longer exists]

DIVIDENDS distribution earnings to shareholders [Summary p776]

RECORD: Dr. Retained earnings, Cr. Cash/non-cash asset/share capital

LIMITATIONS

(1) Require (a) disbursement assets (b) reduction retained earnings → must have sufficient to declare/distribute

(2) Dividends NOT paid out from share capital: can't reduce R/E to negative balance by paying dividends

(3) Liquidity test must met: Not declared/paid if result corp unable meet liabilities as come due OR if dividend result in realizable value assets < liabilities + stated capital

DATES FOR DIVIDENDS

4 Important Dates:

1) Declaration date: dividends declared BOD: liability until paid [binding contract]

Dr. Retained earnings

Cr. Dividends payable

2) Record date: list of shareholders of record prepared [who receive; establish name cheques]: no entry

3) Ex-dividend date: 3-4 days prior date record

- Investor holds share prior date → receive dividend

- Investor holds share on/after date → no dividend receive

4) Payment date: dividends paid BOD [date specified upon declaration]; 4-6 weeks after declaration

Dr. Dividends payable

Cr. Cash

TYPES DIVIDENDS

CASH DIVIDEND

Declaration date: *record classes separately*

Dr. Common dividends declared*

Dr. Preferred dividends declared*

Cr. Cash dividends payable, preferred

Cr. Cash dividends payable, common

**Alternative to directly debited retained earnings; later closed to R/E*

Payment date

Dr. Cash dividends payable, preferred

Dr. Cash dividends payable, common

Cr. Cash

ACTG 3110: Chapter 13 – Shareholders' Equity

PREFERRED SHARES [13.12]

CUMULATIVE DIVIDEND ON PREFERRED SHARES

Cumulative preferred shares: accumulated dividends not declared given year [passed, called **dividends in arrears** – not liability since cannot force BOD declare; disclosed notes] must paid full if and when declared later year, before dividends can paid common shares [receive (i) dividends in arrears + (ii) current dividend b/f common shares receive]

Non-cumulative preferred shares: receive (i) dividends current yr, regardless dividends missed previous years

PARTICIPATING DIVIDENDS ON PREFERRED SHARES

Participating preferred shares: preferred shareholders participate above stated preferential rate on pro rate basis in dividend declarations with common shareholders

(1) Preferred shareholders: receive preference rate dividend

(2) Common shareholders: receive specified matching dividend [if amount declared is high enough]

(3) If total declared dividend > (1) + (2) → Remainder divided pro rata basis between 2 share classes

Pro rata distribution based: respective # shares outstanding; total base level dividends; total capital balances

PARTIALLY VS. FULLY PARTICIPATING SHARES:

Partially participating shares: may participate dividend declarations in excess preference rate; preferred participation capped certain level; dividends above level → accrue solely to common shareholders

Fully participating shares: share full extent dividend declarations

PROPERTY DIVIDEND pay dividend with non-cash assets

Property examples: investments in securities other companies held by corp; real estate; merchandise

Record @ current FV assets transferred

Gain/loss = difference book value & FV asset

OTHER DIVIDENDS

LIQUIDATING DIVIDEND

Distributions made during partial/full liquidation → “return of shareholder investment”; not profit to them [mining]

APPROPRIATE WHEN: no intention/opportunity conserve resources for asset replacement [mining]

NOT paid out of R/E [can be paid when R/E negative]

RECORD: Dr. Equity account [not R/E] [contributed capital/share capital], Cr. Cash

SCRIP DIVIDEND aka **LIABILITY DIVIDEND** declares dividend in promissory note

WHY: temporary cash shortage to maintain continuing dividend policy

ACTG 3110: Chapter 13 – Shareholders' Equity

STOCK DIVIDENDS proportional distribution to shareholders of additional shares of corp [instead cash]

No impact: A/L/total SE [just composition share capital/R/E]; proportionate ownership remains same

Impact: # outstanding shares increase → market value (price) per share falls [value co. spread over larger # shares]

Earnings per share (EPS) = earnings/outstanding shares decreases

REASONS ISSUE STOCK DIVIDEND

- Signal firms plan to retain portion of earnings: raises contributed capital/reduce retained earning
- Increase # of shares → market price decrease → increase trading of shares in market
- Continue dividend distribution with no cash impact
- Allow shareholders to get additional shares w/o transaction costs

3 METHODS MEASUREMENT [depends jurisdiction stock exchange]

Method 1: Fair Value Method [required CBCA]: issue shares @ FV, date declaration

Value (\$) of shares distributed:

1. # of shares distributed: Total common shares outstanding * % stock dividend

2. **Value (\$) of shares distributed:** # of shares distributed * **FV per share**

Method 2: Stated Value Method: stated amount per share [average paid in per share to date]

[\$share capital/#outstanding]

Method 3: Memo Entry Method: memo entry [no dr/cr] treated as stock split

Record # new shares issued/outstanding/subscribed; no change capital account

RECORD

Dr. Retained earnings [or stock dividends]

Cr. Share capital [common or preferred]

TIMING OF RECOGNITION

Stock dividend: can be revoked prior to issuance date [unlike cash dividend]

In practice: record dividend upon issuance date [not declaration]; note disclosure either alternative

Alternative #1: Originating Entry @ Declaration

Declaration

Dr. Retained earnings [or stock dividends]

Cr. Stock dividends distributable [equity account – obligation to issue equity; not liability – no future transfer asset]

Issuance

Dr. Stock dividends distributable

Cr. Common shares

Alternative #2: Originating Entry @ Issuance

Declaration

No entry

Issuance

Dr. Retained earnings

Cr. Common shares

SPECIAL STOCK DIVIDENDS

Ordinary stock dividend: stock dividend same class as held by recipients [common shares issued owners of common]

Special stock dividend: stock dividend other class as held by recipients [preferred shares issued owners common]

Record @ FV class issued

ACTG 3110: Chapter 13 – Shareholders' Equity

FRACTIONAL SHARE RIGHTS issued when shareholder would receive a portion of a share as result of stock dividend

Alternative #1: Issue fractional share rights: shareholders buy/sell until have enough for share

Issue stock dividends + fractional share rights

Dr. Retained earnings

Cr. Common shares

Cr. Common share fractional share rights

Subsequent:

(a) Turned in for whole shares; or;

(b) Lapse → creating share capital

[Dr. Common share fractional share rights, Cr. Contributed capital, lapse of share rights]

Alternative #2: Cash payment in lieu of fractional shares

Dr. Retained earnings

Cr. Cash

STOCK SPLITS change # shares outstanding, w/o change total S/E; changes value per share

Stock split: "Big stock dividend" divides shares into larger # units, each with smaller value per share

REASONS: (1) Shares selling too high price (2) Reduce MV shares to facilitate trading

Outstanding shares increase → market value (price) per share decrease → EPS decreases

E.g. – 2 for 1 stock split [2 new shares for 1 old] – shareholders previously had 1,000 shares now have 2,000

Earnings per share 1/2 of what it was before split

Reverse stock split proportionate reduction # shares outstanding, each with larger value per share

REASON: danger being delisted on stock exchange since dollar value going down [negative sign business]

Outstanding shares decrease → market value (price) per share increase → EPS increases

E.g. – 2 for 1 reverse stock split – shareholders previously had 1,000 shares now have 500

Earnings per share 2x of what it was before split

ACCOUNTING: No journal entry [no consideration received corp]; No impact total S/E

Memo entry recorded: Record new # of shares

ADJUSTMENTS REQUIRED FOR STOCK SPLITS: Since per-share values change:

- Prior years' per-share amounts recalculated
- EPS and dividends per share restated
- Conversion rights for senior securities adjusted [i.e.: convertible shares]

IMPLEMENTATION:

(1) Calling in all old shares and concurrently issuing split shares

(2) Issuing additional split shares with notification to shareholders of change in outstanding shares [common]

STOCK SPLIT VS. STOCK DIVIDEND

Shareholder: left same position [market price per share proportionately change # shares held]

Total SE: unchanged [Stock dividend – change composition (share capital + RE); Stock split – NE (no journal entry)]

ACTG 3110: Chapter 13 – Shareholders' Equity

CONTRIBUTED SURPLUS (CAPITAL) shareholder transactions, excluded from NI

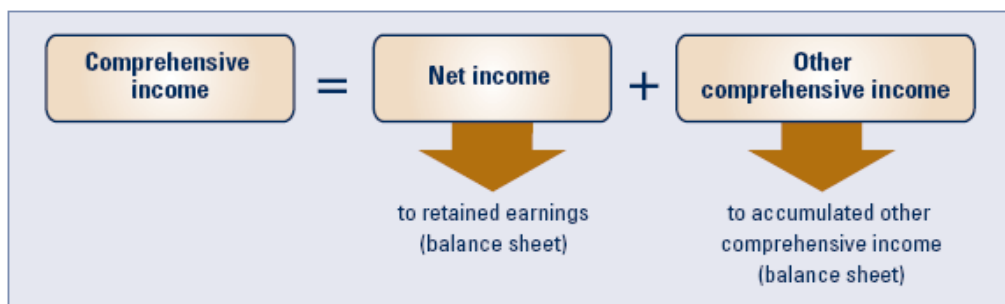
1. Receipt of donated assets from owners [donated capital]
2. Retirement shares – gains and losses
3. Treasury stock transactions
4. Financial restructuring
5. Stock option transactions [Ch14]
6. Issue of par-value shares @ price or assigned value higher than par

Donated shares: retired, no cash consideration

COMPREHENSIVE INCOME

Comprehensive income (CI) = Net income (NI) + Other comprehensive income (OCI)

CI – all-inclusive measure of performance



OCI: non-shareholder transactions, excluded from NI

2 Sections: (1) Items may be reclassified (2) Items never reclassified

- Changes revaluation surplus caused by revaluing PPE and intangibles to FV [Ch10]
- Gains/losses on FVTOCI financial instruments [Ch11]
- Gains/losses on certain hedging instruments (CF hedges) [Ch 12/14]
- Certain actuarial gains/losses defined benefit plans
- Gains/losses translation foreign operations
 - **Cumulative foreign currency translation account:** functional vs. presentation currency

AOCI (loss) aka Reserve: equity account that accumulates OCI from CI

Reserves: Caused by unrealized gains/losses part of OCI, but not earnings (NI)

Reflects cumulative amounts items added/subtracted from earnings to arrive at CI

SHAREHOLDER'S EQUITY DISCLOSURE

SFP: possible so w single line for equity w/break-down in notes or statement changes equity

SCE: columns for each account within equity [opening balances, changes, ending balances]

Other: disclose each class share capital [legal rights/preferences/restrictions]; # shares issued/repurchased/retired; objectives/policies/processes for managing capital

ACTG 3110: Chapter 13 – Shareholders' Equity

Share capital	<u>Direct investments</u> by shareholders [Common shares + preferred shares]
Contributed surplus	<u>Shareholder transactions, excluded from NI</u>
Retained earnings	<u>Indirect investments</u> by shareholders – accumulated earnings <u>not distributed</u>
AOCI	<u>Non-shareholder transactions, excluded from NI</u> Accumulates OCI

Shareholder's equity section

ASPE

NON-CASH ISSUANCE SHARES

Record: Fair value more reliable [fair value assets received OR shares]

NO OCI

NO STATEMENT OF CHANGES IN EQUITY [only Statement of R/E]

ACTG 3110: Chapter 20 – Accounting Changes

3 TYPES OF ACCOUNTING CHANGES

- 1) Change in accounting estimate
- 2) Change in accounting policy
- 3) Correction of an error in prior years' f/s

1) CHANGES IN ACCOUNTING ESTIMATES

Change assumption in actg measurements in light new info/circumstances

(1) Voluntary option management; (2) Involuntary to comply CICA Handbook

HOW changes occur:

- New, reliable info available; Experience provided insights into operating factors; Economic environment changed; Probabilities underlying accounting estimates change; Shift nature business operations

EXAMPLES:

- Uncollectible A/R; Inventory obsolescence; FV financial assets; Judgment concerning 1+ criteria capitalizing development costs; Depreciation policy estimates: useful life; depreciation method; pattern of asset usage

ACCOUNTING APPROACH

Prospective application: change applied current + future periods; prior f/s not restated

- Cumulative adjustment not computed/reported
- Prior years' results unchanged

DISCLOSURE

Minimal: to understand the effects of change in estimate [nature + amount]

2) CHANGES IN ACCOUNTING POLICY

Method change or measurement change

2 Types

1) Mandatory change: IASB issues new/revised standard [“transitional provisions” dictate how to implement]

2) Voluntary change: mgmt change an acceptable method to another

2 Criteria required explanation: new policy results info that both (1) reliable (2) more relevant for f/s users

2 New Policies “Not change”: [no restatement possible]

(1) Adopting actg policy for events differ in substance than previously

(2) Adopting new actg policy for events that did not occur previously or were immaterial [e.g.: previously expense all development costs since immaterial]

HOW Changes Occur:

- Change reporting objectives [public/private; ownership]; change way doing business; desire conform industry practices

DISCLOSURE REQUIREMENTS

- Nature change
- Amount adjustment for current + prior period for each financial line item affected by change
- Amount adjustments for periods prior to those presented in comparative statements to extent practicable
- Retrospective restatement not applied or applied fully
- Reason(s) retrospective application wholly/partially impracticable

MANDATORY: due to new/revised actg standard [not effective yet] → title standard + transition provisions + impact

VOLUNTARY: why new policy provides better + more useful [reliable + more relevant] info for f/s users

ACTG 3110: Chapter 20 – Accounting Changes

ACCOUNTING APPROACH

Retrospective application unless

(1) Impractical determine effect 1+ periods (2) Permitted by new actg standard [Adoption primary source GAAP]

A) Complete info available [prior years]

RETROSPECTIVE APPLICATION W/FULL RESTATEMENT restatement past f/s as if new policy always in effect

Purpose: current + future financial info comparable + consistent [inter-year comparability]

How:

- Opening R/E retrospectively restated in all affected prior periods
- Comparative prior years' results + statistical series restated

Involves:

- New actg policy applied from date origin each event/transaction
- Comparative f/s restated
- Opening R/E (or equity account) each comparative period adjusted cumulative prior income effect
- Summary financial info restated [NI; total assets; EPS, etc.]

B) Complete info not available [impracticable], but available for prior year

RETROSPECTIVE APPLICATION W/PARTIAL RESTATEMENT

Impracticable if: : *Not feasible to restate all prior years – sufficiently-detailed info not available*

- Not possible determine effects new policy on previous period
- Application would require assumptions management intent in prior periods; or
- Impossible reliably know appropriate measurements and valuations would have been prior period

How:

- Restate as far back practicable (possible), often only the previous year
- One or more recent years restated; earlier years + statistical summaries unchanged

C) (1) Prior-period info not available [impracticable] OR (2) Permitted by new actg standard

PROSPECTIVE APPLICATION W/O RESTATEMENT restatement opening R/E balance, if practicable

How:

- Current year's opening R/E adjusted for cumulative effect of change, if known; if effect not known, then no adjustment
- Prior years' results remain unchanged; new policy applied only to current + future events and transactions

ACTG 3110: Chapter 20 – Accounting Changes

3) CORRECTION OF PRIOR-PERIOD ERROR

Prior-period error: omissions/mistakes made in application of actg policies in 1+ earlier periods

CRITERIA: related to info that (1) Was available when prior-period's f/s were prepared (2) Could reasonably be expected to have been obtained + taken into account in prep + presentation of those f/s

HOW errors occur:

- Mathematical mistakes; Misapplication of actg policy; Failure to do accruals; Misclassification account; Fraud

EXAMPLES

- Management discovery portion inventory miscounted; Failed accrue commission liabilities; Routine repairs capitalized instead expensed

ACCOUNTING APPROACH

A) Complete info available [prior years]

Retrospective application w/full restatement

- Opening R/E restated [if error has not self-corrected]
- Prior years' results restated to correct error

B) (1) Complete info not available, but available for prior year OR (2) impracticable to apply retrospectively

Retrospective application w/partial restatement [correct error prospectively from earliest date practicable]

- Restated as far back as practicable, usually only the previous year
- One or more recent years restated; earlier years + statistical summaries unchanged

DISCLOSURE

Understand effect

REPORTING ACCOUNTING CHANGES

RETROSPECTIVE APPLICATION

GUIDELINES [Illustration p1171]

Recording entity's accounts

1. Calculate *cumulative* impact changes *beginning* balances current year [j/e]
Calculate *cumulative* Prior year NI [adjustment beginning balance R/E]

Financial statement presentation

2. Info necessary make change in current + prior periods obtained from actg records
3. Account balances affect prior years' comparative f/s recalculated [including all affected b/s + i/s accounts]
Comparative statements restated
4. Summary comparative info [EPS/total assets/SE] presented publicly restated
5. Opening RE restated to remove effect actg change from prior earnings [shown as subtotal] for all comparative years

PROSPECTIVE APPLICATION

WHEN: (1) Retrospective application impracticable; (2) Permitted by new actg standard

Involves:

- Cumulative effect of the change on all relevant beginning balances for current year is recorded including change R/E
- Cumulative effect of change reported in f/s as an adjustment to opening R/E for current year
- Prior years f/s and summary financial information unchanged

Disclosure:

1. Fact that change has not been applied retrospectively
2. Effect of change on current + future f/s
3. Reasons retrospective application cannot be done

ACTG 3110: Chapter 20 – Accounting Changes

CHANGE IN POLICY OR ESTIMATE?

Unclear: change treated as change in estimate

E.g.: change in depreciation policy: if due to change in expected pattern use → change estimate; not policy

EARLY ADOPTION

Company applies new/revised standard prior to mandatory effective date [permitted OR prohibited by standard]

Reasons prohibiting early adoption

1. Promote comparability → all companies make change same yr
2. Give time to collect data → remove excuse for not restating

COUNTERBALANCING ERRORS

If + when impact of change has “washed through” RE, no entry for change needed

CASH FLOW STATEMENT

Estimate changes not affect classification CF [since prospectively]

Policy changes don't typically affect underlying CF, but amounts/classification reported

Correction prior-period errors may affect amounts prior-period CF

ASPE

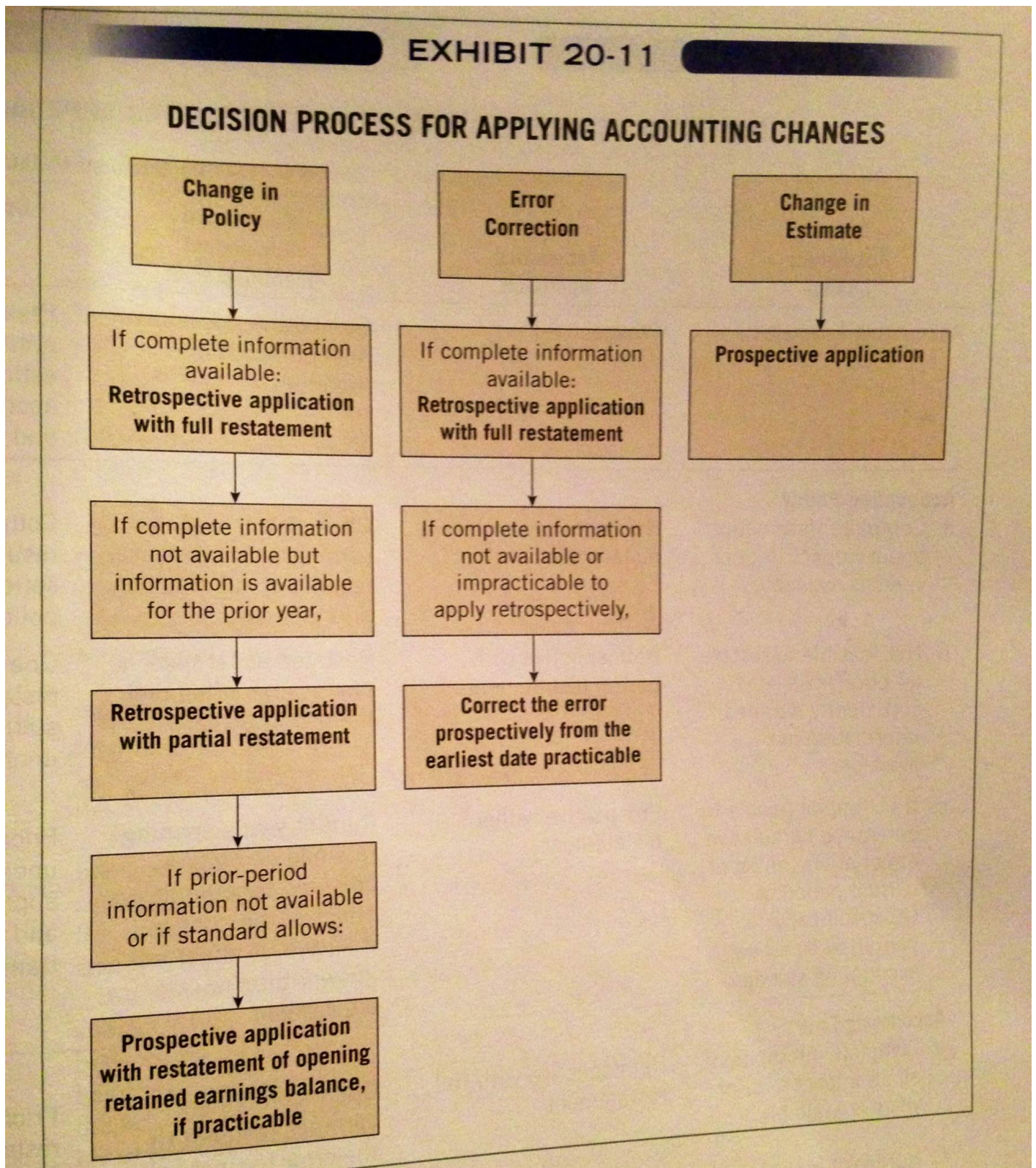
CHANGES IN POLICY

Only actual changes recognized/disclosed; not recognize future changes [standard issued/not effective yet]

Policy CHOICE NOT CHANGE [Unique compared IFRS]

- To consolidate subsidiaries, to account for them using the equity method or in accordance with Section 3856, *Financial Instruments* [Ch11]
- To account for investments subject to significant influence using the equity method or in accordance with Section 3856, *Financial Instruments* [Ch11]
- To account for interests in joint ventures using the proportional consolidation method, the equity method or in accordance with, Section 3856, *Financial Instruments* [Ch11]
- To capitalize or expense expenditures on internally generated intangible assets during the development phase [Ch9]
- To account for defined benefit plans in accordance with the immediate recognition approach or in accordance with the deferral and amortization approach
- To account for income taxes using the taxes payable method or the future income taxes method; and
- To initially measure the equity component of a financial instrument that contains both a liability and an equity component at zero

ACTG 3110: Chapter 20 – Accounting Changes



ACTG 3110: Chapter 20 – Accounting Changes

CHAPTER 20 Accounting Changes

EXHIBIT 20-12

SUMMARY OF ACCOUNTING CHANGES AND REPORTING APPROACHES

Restatement Methodology

Type of Accounting Change	Accounting Approach	Restatement Methodology	
		Cumulative Adjustment Identified With	Comparative Statements and Results of Prior Years
Accounting Estimate	Prospective	Cumulative adjustment not computed or reported	Prior years' results remain unchanged. New estimates applied only to accounting for current and future periods.
Accounting Policy			
a. Complete information about impact in prior years is available	Retrospective with full restatement	Opening retained earnings retrospectively restated in all affected prior periods	Comparative prior years' results and statistical series restated to new policy
b. Not feasible to restate all prior years—sufficiently detailed information not available	Retrospective with partial restatement	Restated as far back as practicable, often only the previous year	One or more recent years restated; earlier years and statistical summaries unchanged
c. If (1) impracticable to determine cumulative effect at beginning of current period or (2) specifically permitted by a new accounting standard	Prospective without restatement	Current year's opening retained earnings adjusted for cumulative effect of the change, if known; if effect not known, then no adjustment	Prior years' results remain unchanged; new policy applied only to current and future events and transactions
Accounting Error			
a. Complete information about impact in prior years is available	Retrospective with full restatement	Opening retained earnings restated (if the error has not self-corrected)	Prior years' results restated to correct the error
b. Not feasible to restate all prior years—sufficiently detailed information not available	Retrospective with partial restatement	Restated as far back as practicable, usually only the previous year	One or more recent years restated; earlier years and statistical summaries unchanged

ACTG 3110: Chapter 20 – Accounting Changes

Key Points About Accounting Changes

-Must look at the reason for the change:

-Generally if due to economic circumstances – estimate

-Fraud is always the correction of an error

-Need to ensure that an actg policy change meets the requirements

-If it makes the f/s more reliable AND relevant [i.e.: if you choose revaluation method, you will not be able to change back to cost, b/c the statements will not be more relevant]

-Retrospective restatements

-This is NOT a restatement of every f/s ever issued

-The PV comparatives are restated line by line

-All effects from the change b/f the prior year reflected in the opening balances

-Exemptions

-Both IFRS + ASPE offer an exemption to retrospective restatement of an actg policy change if it is “impracticable” to determine PV effects of the change or involves use of hindsight or the assumption of management’s decision in prior periods

-ONLY IFRS offers an exemption to retrospective restatement of an error correction if it is “impracticable” to determine PV effects (NO exemption under ASPE!)

-Impracticable – have exhausted all efforts to determine the effects

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

FINANCIAL INSTRUMENTS

SUBSTANCE OVER FORM Financial instruments: classified accordance w/substance of contractual agreement
 Classification financial instruments as (1) debt (liability); or (2) equity; depends nature/characteristics of instrument [substance], not legal name/label [form]

Hybrid financial instruments aka compound financial instruments: elements of debt and equity; component parts classified separately

Impact Classification Debt. Vs. Equity

Event	Liability	Equity [no income effect]
Issuance	Inc. LT Liabilities	Inc. Equity
Payment	Inc. Interest expense	Dec. RE
Higher BV upon retirement	Loss Income	Dec. Equity
Repayment	Dec. LT Liabilities	Dec. Equity

Tax classification impact: not affected by actg classification

CLASSIFICATION INSTRUMENTS

DEBT: company obligated pay interest and principal repayment; can be forced repayment

- “**Retractable**” “**Mandatory redeemable**” “**Callable**” → investor requires full repayment in cash
- Redeemable at option of investor
- Annual return/principal settled in own shares → share price variable [based market value]
 [risks + rewards changing share prices stays with company; investor no downside risk or upside potential]

EQUITY: residual interest; investors cannot force payment [voluntary]

- Redeemable at company's option
- Annual return/principal settled in own shares → share price fixed
 [risk price fluctuation passed to investor; thus participating in residual interest]
- Issuer has unconditional right to defer payments forever
- Cash payment dependent outcome uncertain event [abnormal; highly likely; uncontrollable] = element not have to be repaid [e.g.: repaid on dissolution company]

FINANCIAL INSTRUMENT CLASSIFICATION

RETRACTABLE PREFERRED SHARES

Classify **DEBT** if:

- Redemption [repayment obligation] contractually required
 [term preferred shares: must redeemed before specified date]
- Redemption at option investor (shareholder) [**retractable shares**]
- Redemption terms [**escalation clause** (increase dividend price based certain event)]: dividend escalation will eventually force redemption → “mandatory redeemable” [e.g.: “triple dividend after 5 years”]

Dividend payments on shares classified as debt: treat as interest expense, however remains called “dividend”
 Reduce earnings [I/S]

Classify **EQUITY** if:

- Redeemable at company's option; cannot be forced pay cash [voluntary]
- Convertible into common shares

Required redemption at Premium: If preferred must redeemed value higher BV, redemption premium → accrued over life shares, effective-interest method

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

MUTUAL FUNDS

Classify **DEBT**: redeemable in cash option of investor

PERPETUAL DEBT [not tested bookkeeping]

Compound instrument; lender contractual right to receive stated cash interest; but principal either (1) never has to be repaid; or = unlikely to be repaid: (2) only in indefinite future (3) in highly unlikely situations [liquidation]

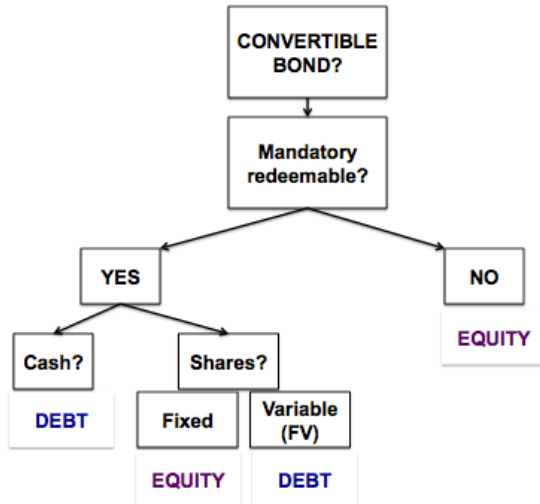
DEBT [interest payments – obligation must paid at fixed dates], portion valued = entire [PV stream of future interest payments]

EQUITY [principal – obligation due only uncertain events] portion exists, valued = 0 [PV]

CONVERTIBLE DEBT

3 OPTIONS CLASSIFICATION

- DEBT**
- EQUITY**
- Principal component **EQUITY**; Interest component **DEBT**



Compound instrument; bonds issued can be convertible by investor [on/before maturity] into shares (usually common) at fixed conversion price/share or conversion ratio [# of shares per bond]

WHY issue?: Convince/expect investor eventual purchase shares by providing safety net debt [guaranteed interest payments]; thus company would not require repayment principal

WHEN conversion attractive investor: market price share > conversion price; thus profit if sell thereafter

Classify portion **DEBT** and **EQUITY**

Variable conversion price/share: # shares issued on conversion based market value (FV) shares on conversion date [Risks + rewards changing share prices stays with company; investor no downside risk or upside potential]

Classify **DEBT** entirely

Fixed conversion price/share: # shares issued on conversion specified price or conversion ratio [# of shares per bond] [Risk price fluctuation passed to investor; thus participating in residual interest]

Classify **EQUITY** entirely

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

FV HIEARARCHY for convertible bonds, used estimate FV debt component [market interest rate]

If financial instrument, actively traded

Level 1: quoted market prices for exact financial instrument in active markets; result is objectively verifiable

If financial instrument, not actively traded

Level 2: observable fair values from similar financial instruments; adjusted differences to infer value

Level 3: observable fair values; multiple significant adjustments to infer fair value; less reliable

MEASUREMENT CONVERTIBLE BONDS

Incremental method of valuation:

Liability portion valued at: PV using appropriate market interest rate [which reflects similar term/security/credit risk]

Market discount rate establish using FV hierarchy [Level 2 approximation of FV]

Reference to financial markets + observable prices for comparable rates of non-convertible bond

Equity portion [conversion rights] valued at: residual [issuance proceeds minus PV liability component]

CONVERTIBLE DEBT: CONVERSION AT INVESTOR'S OPTION @ fixed conversion price

[NOTE: if not identified, assume convertible at investor option (not company option)]

2 elements: (1) promise to pay interest/principal (2) investor option to buy shares

INITIAL RECOGNITION: proceeds issuance **part equity/part debt**

Incremental method of valuation

1) Measure PV bond [debt]

2) Remainder to common share conversion rights [equity – value investor option to convert “extra willing to pay”]

Dr. Cash [Proceeds received]

Dr. Discount on bonds payable [Face value – PV]

Cr. Bonds payable [Face value]

Cr. Common share conversion rights [contributed surplus account] [Cash – PV]

Bond payable and discount netted

Subsequent initial recognition: equity account [common share conversion rights] transfer to:

(a) Conversion rights [option] exercised → share capital [common share] account

(b) Conversion rights lapse [not exercised] → stay contributed surplus

A) CONVERSION RIGHTS EXERCISED

(1) Adjustments: update accounts relating to bond premium/discount

+ update any accrued interest; foreign exchange gains/losses on foreign-currency denominated debt

(2) Record: book value method

Equity account [common share conversion rights] transferred → share equity [common shares]

= BV debt [liability minus unamortized discount/plus premium] + option value [equity]

Dr. Bonds payable [Face value]

Dr. Common share conversion rights [original amount]

Cr. Discount on bonds payable [unamortized]

Cr. Common shares [share equity]

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

B) CONVERSION RIGHTS LAPSE (EXPIRE): REPAYMENT DEBT AT MATURITY

Equity account transferred → stay contributed surplus; account classification

Dr. Bonds payable

Dr. Cash

No discount/premium since at maturity = 0

Dr. Common share conversion rights

Cr. Common share conversion right: lapse of rights

C) REPAYMENT DEBT PRIOR TO MATURITY

Incremental method of valuation

Amount paid early retirement → allocated between **debt/equity** components

Gain/loss debt retirement → NI

Dr. Bonds payable [Face value]

Dr. Common share conversion rights [original amount]

Dr. Loss on retirement of bonds

Cr. Discount on bonds payable [unamortized]

Cr. Retirement of common share conversion rights [?]

Cr. Cash [proceeds retired for]

Impact on earnings (NI)

Interest expense: from discount/premium – amortized over life bond using effective interest method

→ decrease earnings [greater equity option = higher discount]

Common share conversion rights [contributed surplus account]

→ NE earnings [either share equity OR contributed surplus]

**Note: anything related equity NE on NI*

CONVERTIBLE DEBT, CONVERSION MANDATORY

Conversion mandatory: debt must be converted to equity on/before maturity

Compound financial instrument if

(a) pays interest in cash; and; (b) principal: repaid fixed # shares (or cash option) = not forced pay cash

DEBT [interest component] and **EQUITY** [principal component]

A) INITIAL RECOGNITION

Incremental method

Dr. Cash [Issuance proceeds]

Cr. Interest liability on bond [PV interest]

Cr. Share equity – bond [residual]

B) INTEREST PAYMENT & AMORTIZATION over life of bond

(a) Interest liability amortized [reduced to 0] to interest expense over life of bond; effective interest method

(b) Cash interest paid

Dr. Interest expense

Cr. Interest liability on bond

Dr. Interest liability on bond [\$PMT]

Cr. Cash

C) MATURITY: balance equity portion transferred → share capital [common shares]

Dr. Share equity - bond

Cr. Common shares

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

STOCK OPTIONS aka stock rights IFRS 2

Financial instruments give holder right [but not obligation] to buy shares at a fixed price at a certain point in time, called **exercise date**; form of derivative [derive value from equity shares they can be used to buy]

Exercise price: option price specified upon issuance option; equal or higher than market price

- Market price > exercise price → option **intrinsic value** ["in-the-money"]
- Market price < exercise price → option **under water** ["out-of-the-money"]

Expiry date: when options must be exercised (bought to acquire additional shares from corp) by or they expire

- Option exercised when: Market price > exercise price
- If market price < exercise price → rights expire unexercised

Fair value based method [must use measure issuance stock option]

FV option: risk-adjusted PV of any positive difference between market value and option price on day rights exercised

FV established: using option pricing model: price option based factors [share price of option contract; length option; current market value of stock; volatility of stock price; expected dividends; risk-free interest rate]

Level 2 [or 3] approximation of FV [since not separately traded active market]

Option pricing models [methods measuring FV]

1. Black-Scholes

- Most common model
- Designed to value options traded in open market
- Overstates value of options since ignores fact cannot sell or trade until exercised → thus most companies use modified black-scholes account for fact stock options not tradable market

2. Option pricing

3. Binomial tree model

4. Coca Cola – average investment bankers estimate

Problems with models: Choice of which model to select flexible therefore no consistency or comparability; Mathematical estimates; Hard to predict share prices

Key assumptions with models [affect expense amount]: Expected life of option; Expected risk free interest rate; Expected volatility of share price [hard justify]

Minimize expense: Shorter expected option life; Low share price volatility; Low risk free interest rate

NON-EMPLOYEE STOCK OPTION

4 Important Dates

1. Announcement date: memo entry

stock rights approved, allowing purchase of # shares at \$ in # years

2. Issuance date

Dr. Cash [FV option]

Cr. Contributed surplus [FV option]

3. Exercise date

Dr. Cash [@ exercise price]

Dr. Contributed surplus [FV option]

Cr. Common shares

4. Expiry date: stays in contributed surplus

Dr. Contributed surplus

Cr. Common shares, lapse of stock rights

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

WARRANTS Stock options that are issued as a detachable contract with another security (usually bonds)
 Trade separately from security attached to [bought and sold on own]
Level 1 approximation of FV [separate active market]

3 Characteristics

1. Detachable – can be traded separate from debt attached to
2. Can exercised w/o having trade in or redeem debt
3. Exercise of warrants results in cash paid for shares [note: difference convertible bonds]

3 Important Dates

1. Issuance date

Proportionate method: Portion bond price allocated to warrants

(1) FVs (2) % of FVs (3) Multiply % by {V proceeds

FV debt: based on PV using market interest rate

FV warrant: based on trading values

Dr. Cash [proceeds]
 Cr. Bonds payable [FV debt]
 Cr. Contributed surplus [FV warrant]

2. Exercise date: options must be exercised (bought to acquire additional shares from corp) by or they expire

Dr. Cash [@ exercise price]
 Dr. Contributed surplus [FV warrant]
 Cr. Common shares

Contributed surplus transfer → common share

3. Expiry date: stays in contributed surplus

Dr. Contributed surplus
 Cr. Common shares, lapse of stock warrants

Contributed surplus transfer → remains contributed surplus w/diff description

SHARE-BASED PAYMENTS

Result from transactions where entity:

- (a) Receives g/s for shares [**equity-settled plans** – recipient receives shares]; or
- (b) Referenced to (based on) price shares [**cash-settled plans** – recipient receives cash based on value of shares]

TO NON-EMPLOYEES

a) Equity-based, recognize share capital when: g/s received; valued at FV g/s received
 [rare: FV not measurable, use FV share rights granted]

Example: share-based payment to compensate suppliers

Dr. Rent expense
 Cr. Common shares

b) Cash-settled plan: recognized liability when g/s receive

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

(SHARE-BASED PAYMENTS) TO EMPLOYEES

EMPLOYEE STOCK OPTIONS form of long-term compensation; **equity-settled** OR **cash-settled**

Vesting: minimum period employed b/f employee entitled to compensation

Forfeit: leave before vest, giving up options

3 Plan Classifications

Classification	Amount	Re-measure for	Elements recognize	Comment
Equity-settled plan	FV valued using option pricing model on date granted, adjusted for forfeitures	Forfeitures	1. Expense [compensation] 2. Equity [contributed surplus]	<ul style="list-style-type: none"> Recognized over vesting period; FV not re-estimated; Forfeitures remeasured annually, "trued up by maturity" [brought correct final amount]
Cash-settled plan	Cash to be paid estimated at FV [using valuation model] each year-end, adjusted for forfeitures	1. FV 2. Forfeitures	1. Expense [compensation] 2. Liability [l-t compensation]	<ul style="list-style-type: none"> Recognized over vesting period FV + Forfeitures remeasured annually, "trued up by maturity"
Compound plan (instrument) <i>Allows employees choose between equity/cash @ exercise date</i>	Initial recognition of both liability and equity component	1. Liability – FV + forfeitures 2. Equity – forfeitures only	1. Expense [compensation] 2. Liability [l-t compensation] 3. Equity [contributed surplus]	<ul style="list-style-type: none"> Liability element measured as above Equity element measured as above

1. Equity-settled plan

A) Vest Immediately: employees can exercise options whether employment continues or not

Recognition: FV recognize in full [using FV model]

1. Vesting/granting date

Dr. Compensation expense
Cr. Contributed surplus

2. Exercise date

Dr. Cash
Dr. Contributed surplus
Cr. Common shares

**If options lapse (expire): remain contributed surplus*

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

B) Vesting spans > 1 year after granted

Recognition: FV recognized [i.e.: amortized] over vesting period

1. Annual entry

a) If *no risk forfeiting options*: amortize proportion FV each year

Dr. Compensation expense
 Cr. Contributed surplus

b) If *risk forfeiting options*: forfeiture rate estimated annually;

Annual accrual [*increase equity; results expense*] adjusted based expected take-up [retention] on cumulative [annual] basis

Dr. Compensation expense [*forfeiture expense calculation*]
 Cr. Contributed surplus

FORFEITURE: Annual estimation:

Time period	1	2
FV		
x Cumulative vested fraction	¼	2/4
x Estimate of retention [forfeiture rate]	80%	70%
= Required balance in equity account @ yr.end	\$9600	
- Opening balance	0	\$9600
Expense for period [Dr .expense, Cr. Contributed capital]	9600	7200

2. Exercise date

2. Cash-settled plan

1. Annual entry

Dr. Compensation expense [*forfeiture expense calculation*]
 Cr. Long-term compensation liability

Example: Yr 2 Adjustment example

Dr. Long-term compensation liability [*forfeiture expense + FV corrected*]
 Cr. Compensation expense [recovery]

Cumulative compensation expense must > 0

IF: FV falls to 0 → liability account balance = 0 → compensation expense to-date reversed

2. Employees paid cash

Dr. Long-term compensation liability [# employees x intrinsic value/share (market value-reference) x # units]
 Cr. Cash

3. Compound plan (instrument)

Compound financial instrument: represents both (1) financial liability (2) option on shares

Initial recognition: liability recorded; residual value assigned equity portion

Annual entry: “tuned up by maturity”

Dr, Compensation expense
 Cr. Contributed surplus [equity portion FV *cumulative vested fraction*estimate retention]
 Cr. Long-term compensation liability [liability portion FV *cumulative vested fraction*estimate retention]

(1) Employee receives shares

Dr, Contributed surplus
Dr. Long-term compensation liability
 Cr. Common shares

OR (2) Employee receives cash

Dr, Contributed surplus
 Cr. Contributed surplus: share options expired
Dr. Long-term compensation liability
 Cr. Cash

Contributed surplus either (1) transfer common shares (issuance); (2) remain (lapse)

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

DERIVATES

Financial instrument: 'derive" their value from the underlying equity/debt instruments [that they can be used to buy]

Purpose: transfer risk by setting conditions of exchange of financial instruments at a particular time at fixed terms

3 Characteristics

1. Value changes in response to underlying instrument/index [e.g.: gold future]
2. Requires no or little net investment
3. Settled at future date

3 Types

1. OPTIONS: right to buy or sell something in future

Call option: right to buy at given price in future

Put option: right to sell at given price in future

Used for: commodities or financial instruments [stock option]

2. FORWARD CONTRACTS: obligation to buy or sell something in future; time period and price specified [no way to avoid transaction]

Example: agree to sell # shares at \$/share in # days, w/no ability to avoid transaction

3. FUTURE CONTRACTS: obligation to buy or sell something in future; time period and price specified [no way to avoid transaction]

Difference forward contract: traded on stock market → Brokers act as collection + delivery agents; company usually has put money upfront, which is collateral in form of **margin**

Example: agree buy US \$ for CAD \$ in # days through financial instrument that requires initial \$ payment

Embedded derivatives: compound financial instruments include both **host contract** and **embedded derivative** contract

Not related to economic risks/characteristics of host; Changes CF of contract

Cannot be detached from host contract; separated on initial recognition

Accounting recognition

Recognize: at FV on SFP when company becomes a party to the contract [when derivative acquired]

Initially not recorded [usually zero FV]

Classification: **FVTPL** [IFRS]; **FV** [ASPE]

Subsequent measurement (carrying value): FV

Each reporting date remeasure at FV

Gains/losses holding [value changes as underlying instrument changes] or at settlement → NI, current period

Example: p840

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

HEDGES

Derivatives often used as **hedges**: way to offset risk to which company would otherwise be exposed

Hedged risks examples: changes in exchange rates; interest rates; securities; commodities

Purpose: company protected from gains/losses on the risk being hedged

1) Eligible for hedge accounting

3 Criteria for hedge accounting:

F/s element [i.e.: derivative] designated as hedge when company has:

1. Established strategy for risk management that involves hedging
2. Formal designation and documentation of specific hedging relationship
3. Expectation that hedge will be highly effective; and the hedge is assessed each period.

This includes the requirement that the FV of the hedge can be reliably measured

2) Option Elect hedge accounting [voluntary]

a) Elect

Recognize: at FV on SFP when company becomes a party to the contract [when derivative acquired]

Classification: **CF hedge; FV hedge**

Subsequent measurement (carrying value): FV

Gains/losses holding or at settlement → OCI [CF hedge]; NI [FV hedge]

Accounting implications: creates offset to ensure counterbalancing gains/losses recognized NI same period [that would otherwise be recognized in NI diff periods]

Upon designation hedge → gain/loss hedge recorded NI same time gain/loss item being hedged recognized

b) **No elect**: FVTPL investment; gain/loss every reporting date → NI

3) Identify type hedge

2 Types: actg treatment dictated by classification

1. Cash flow hedge
2. Fair value hedge;

Gains losses holding or at settlement:

1. CF hedge → OCI
2. FV hedge → NI in current period

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

ASPE

REDEEMABLE PREFERRED SHARES

As part of tax-planning strategy must be recognized in equity until demand for payment then shares in debt

COMPOUND FINANCIAL INSTRUMENTS: both debt and equity

May calculate same way IFRS, however option to:

- 1) Measure equity component at zero value; or
- 2) Measure most measurable component first then allocate residual to other component
Debt: bond OR equity: conversion rights (normally bond)

FORFEITURE

Account for forfeitures when they occur; no estimates when making accruals

STOCK OPTIONS

Calculated value method for measuring stock price volatility

Uses price index for industry

→ If no industry index use general price index

DERIVATIVES – PART HEDGE

Critical match of key terms

No impact on NI until hedge over [ignore gain/loss until hedge terminates; then record I/S]

No OCI

ACTG 3110: Chapter 14 – Complex Debt and Equity Instruments

3 OPTIONS CLASSIFICATION

Principal	
Bond Terms	Classification
If # shares (price per share) required settle obligation <u>varies with changes FV</u>	FINANCIAL LIABILITY <i>[bond = Ch12 straightforward bond liability]</i>
If # shares (price per share) <u>fixed</u>	EQUITY
Interest	
Must be paid in cash	DEBT
Company has option of paying in <u>fixed # of shares</u> , or by using <u>fixed price per share</u> <i>-Conversion price of share is fixed</i> <i>-If issue shares for interest + principal</i> <i>-Risk with bond holder depends on market value of shares [since price fixed]</i>	EQUITY
Company has option of paying in <u>variable # of shares</u> , varies with changes current FV [market prices] to establish value <i>-Seen as equivalent issuing new shares in market & using proceeds to pay principal</i> <i>-Risks and rewards changing prices stay with company [since price not fixed]</i> <i>"floating conversion price per share"</i>	DEBT
Dual	
One component fixed in dollars (or equivalent) and one fixed in # of shares <i>PV PRINCIPAL EQUITY AND PV INTEREST DEBT</i>	EQUITY DEBT

ACTG 3110: Chapter 15 – Accounting for Corporate Income Tax

TERMINOLOGY

Income tax expense: debit; **Income tax recovery** (benefit): credit

“**Provision for income tax**”: may use in practice; avoid switching label expense/recovery

Future (deferred) income tax:

(i) based on temporary differences; which will effectively reverse over time; (ii) permanent differences not considered

2 METHODS ALLOCATIONS

1. INTRAPERIOD tax allocation: allocation taxes payable between lines within f/s so that some items stated net of tax

Example: Discontinued operations shown net of tax [since not contributing future NI]

2. INTERPERIOD tax allocation: amount of taxes payable over multiple periods

INTERPERIOD TAX ALLOCATION

TAXABLE VS. ACCOUNTING INCOME

Permanent difference: arises when I/S element used calculation of taxable income OR accounting income; not both

Differences never reverse → do not create **future income tax**

- Golf club dues [not tax deductible]
- Investment income [not tax deductible]
- Capital gains – 50% taxable
- Dividends received Can corps from other Can corps [intercorporate]
- Equity in earnings significantly influenced associate companies
- 50% meal and entertainment expenses
- Interest and penalties on taxes
- Political contributions

Temporary difference: arise when tax basis asset/liability differs from accounting carrying value

Used in both calculations taxable/actg income but in timing recognition different periods

Temporary difference = difference carrying amount/tax basis → eventually reverse over time

Creates **future (deferred) income tax**

a) Originates: when first enters computation of either taxable or accounting income [difference arises]

b) Reverses: in subsequent period, when item enters computation of the other measure; accumulated temporary differences are *reduced* by the “catch-up” recognition for tax + accounting

Accounting	Tax
<u>Depreciation</u>	CCA
Amortization capitalized development costs	Immediate deduction
Amortization capitalized interest	Deduct when paid
Writedown of asset [inventories/investments/tangible capital assets]	Loss when realized
Bad debt expense time sale	Tax deductible when uncollectible
Fair value increases investment properties; biological assets	Gain taxable when sold
<u>Warranty</u> cost accrued period of sale	Deductible when paid
Amortization of bond discount/premium	Taxable expense/revenue upon maturity
Gains/losses on inventories valued NRV	Taxable when realized
Installment sales income recognized time of sale	When cash received
Capital assets written up under revaluation method	No taxable gain until asset class closed

ACTG 3110: Chapter 15 – Accounting for Corporate Income Tax

ISSUES

1. EXTENT OF ALLOCATION

2 METHODS ALLOCATION

1. Taxes payable method [no allocation] [Choice ASPE; no IFRS] [Step 1: B/S Approach]

Report actual current taxes payable as liability and expense [Dr. Tax expense; Cr. Taxes payable] No future income taxes b/c temporary differences ignored; Correspond to actual cash flows

2. Liability (comprehensive tax allocation) method [full allocation] [IFRS]

Future taxes - based on temporary differences; reverse eventually over time

- Tax "saved" this year via early tax deduction will have to "paid" in future year when expense recognized for actg but cannot be deducted for tax

Violation matching concept unless use this method

2. MEASUREMENT METHOD

2 METHODS MEASUREMENT (TAX) RATE USED

1. Deferral method: [old method] recognize future tax impact using tax rate year temporary difference originates

Effect of tax rate change: NE

2. Liability method: recognize future tax impact using tax rate year temporary difference reverses

Tax rate year reversal: Based on (a) current year tax rate [typically] or (b) (substantially) enacted tax rate

Every reporting period:

Adjustment DITA/DITL [offset: income tax expense] (a) balance (b) tax rate change

3. NO DISCOUNTING FITA/FITL → discounting not applied to interperiod allocation [IAS 12]

WHY? Problems estimates involved [interest rate – no market; timing reversals – not estimable]

ACTG 3110: Chapter 15 – Accounting for Corporate Income Tax

BALANCE SHEET APPROACH: INCOME TAX QUESTIONS 3 STEPS

STEP 1: CALCULATE TAXABLE INCOME AND INCOME TAX PAYABLE

1. **Taxable income:** start w/ pre-tax accounting NI
 2. Reconcile for permanent + temporary differences
 - Permanent: 1 adjustment per difference actg/tax
 - Temporary: 2 adjustments per difference actg/tax
3. **Income tax payable** = taxable income x tax rate

Adjustments for permanent/temporary differences [given in data]

- Expense current; not taxable until paid → added [amortization; fines]
- Revenue current; not taxable until received → subtracted [dividend revenue]
- Expense [not on I/S]; taxable → subtracted [CCA]
- Revenue [not on I/S]; taxable → added [collections A/R taxable this year but were I/S revenue prior year]

Accounting NI, pre-tax	
Permanent differences	
Temporary differences	
Taxable income	
x Tax rate	
Income tax payable	

STEP 2: DETERMINE CHANGE IN DEFERRED INCOME TAX [DITL/DITA]

- 1) Prepare tax B/S and compare GAAP B/S
- 2) Calculate DITA/DITL, year-end balance for each source temporary difference
- 3) Compare required ending balance to existing beginning balance → adjustment
 Adjustment [change deferred income tax] result 2 factors:
 - (a) tax rate changes
 - (b) changes in current year temporary differences'

	Tax Basis [carrying]	– Accounting Basis [carrying]	= Year-end temporary difference	x Tax rate	DITA/DITL, year-end balance	– Beginning Balance	= Adjustment
ITEM	[1]	[2]	[3]		[4]	[5]	[6]
2013							
2014							
2015							

ACTG 3110: Chapter 15 – Accounting for Corporate Income Tax

ACCOUNTING BASIS – CARRYING VALUE

Source of Temporary Difference	Related SFP Account
Depreciation and amortization	NBV capital assets
Inventory write downs OR FV increases	Inventory
Revenue	A/R or unearned revenue
Warranty	Warranty liability
Bond discount/premium amortization	Net bond liability
Revaluation surplus	Capital assets

TAX BASIS – CARRYING VALUE

Determined with respect to both past + future impacts on taxable income

Assets

Tax basis = carrying value – previously recognized amounts

Think about CCA, tax basis = cost – previous CCA claims

Depreciation expense vs. CCA

ACTG: Opening NBV – depreciation expense = Ending NBV

TAX: Opening UCC (unclaimed capital cost) – CCA (capital cost allowance) = Ending UCC

Liabilities

Tax basis = carrying value – deductions to be recognized in future

Think about warranties, you may not deduct warranty costs until you have incurred them, so your tax basis will be CV = 100 – 100 of future deductions = 0)

Tax basis often 0 for b/s items other than capital assets

Whenever CF identical to tax treatment [deduction/pay taxes] → Tax basis = 0

SFP ELEMENTS

DEFERRED INCOME TAX ASSETS (DITA)

DEDUCTIBLE temporary differences = Assets (**DITA**)

Recognized: for deductible temporary differences limited to **probable/more likely than not criteria**

Probable [IFRS] realization – that temporary difference will reverse in foreseeable future + sufficient taxable profit will be available against which the temporary difference will be utilized

More likely than not [ASPE] realization

DITA

Actg income < taxable income

Less tax deductions this year → more deductions future years = LESS tax payable (prepaid) in future → DEDUCTIBLE DIFFERENCE, DITA

DEFERRED INCOME TAX LIABILITIES (DITL)

TAXABLE temporary differences = Liabilities (**DITL**)

Recognized: for all taxable temporary differences; probability of payment NOT considered; **ALWAYS recorded**

DITL

Actg income > taxable income

More tax deductions this year → less deductions future years = MORE tax payable (owe) in future → TAXABLE DIFFERENCE, DITL

ACTG 3110: Chapter 15 – Accounting for Corporate Income Tax

STEP 3: JOURNAL ENTRY

COMBINE INCOME TAX PAYABLE W/CHANGE IN DEFERRED INCOME TAX TO DETERMINE TAX EXPENSE FOR YEAR

1. Cr. **tax payable** [Step 1 – based on taxable income]
2. Dr./Cr. **deferred income tax asset/liability** [Step 2]
3. Dr. **tax expense** [to balance; residual “plug”]

Temporary difference reverses

DITA/DITL that relates to temporary difference is *drawn down*

Income tax expense = residual

Dr. Income tax expense
 Dr. Deferred income tax liability
 Cr. Income tax payable

REMEASUREMENT

DITA/DITL Balance affected by

- 1) Temp difference changes
- 2) Tax rate changes

Every reporting date:

- 1) REASSESS more likely than not provision: If drops above/below 50%, recognize/write down
- 2) REMEASURE tax rate

F/S PRESENTATION

SFP

Income tax payable → current liability

DITA/DITL → non-current always [ASPE: split current/non-current depending underlying asset/liability]

Netting DITA and DITL: only if *same taxable company and same taxable authority*

Exception: parent + sub – may show both DITA/DITL

1 “actg” entity but for tax purposes they are separate entities, and losses of one may not be applied to gains in another

I/S

Income before tax	
Income tax expense	
Current	xx [Income tax payable]
Deferred	xx “plug”
TOTAL	xx [Income tax expense from journal entry]
Net income	

DISCLOSURE

GENERAL

Income tax expense (benefit):

- Continued operations: recorded separately I/S
- Disclose amount attributable to (1) current income taxes (2) deferred income taxes
- Disclose amounts income tax expense: Discontinued operations + each component OCI [although reported net of income tax] + capital transactions
- Disclose change in deferred income taxes due to (1) changes temporary differences (2) tax rate changes [or imposition new taxes]

ACTG 3110: Chapter 15 – Accounting for Corporate Income Tax

SOURCES OF TEMPORARY DIFFERENCES

IFRS: for each type temporary difference, disclose amount of deferred tax recognized in deferred tax balance SFP

RECONCILIATION OF EFFECTIVE TAX RATES

IFRS: reconciliation between statutory tax rate and company's effective tax [% or \$ terms]

ASPE

METHOD ALLOCATION

Taxes payable method = option [or use Liability method]

B/S PRESENTATION

DITA/DITL → split current/non-current depending underlying asset/liability that created taxes

NETTING

No netting allowed current/long-term DITA/DITL

			Future income tax balance
Tax basis of an asset	>	Accounting basis of an asset	Asset
Tax basis of an asset	<	Accounting basis of an asset	Liability
Tax basis of a liability	>	Accounting basis of an liability	Liability
Tax basis of a liability	<	Accounting basis of an liability	Asset

ACTG 3110: Chapter 16 – Accounting for Tax Losses

RECOGNITION: TAX BENEFITS OF A LOSS

Tax loss: final number of taxable loss on tax return [gross]

Corporation entitled to offset loss against past/future taxable income

1) Loss **Carried back** for 3 years [past] [future uncertain, thus where possible want c/b loss]

2) Remaining loss **Carried forward** for 20 years [future]

Tax benefit: total present and future benefit company able to realize from tax loss through reduction income taxes paid to government [= tax loss x tax rate] [tax savings]

TAX LOSS CARRYBACKS

Tax loss carryback: entitles corporation to recover taxes previously paid 3 years

Measurement: loss carried back to preceding 3 years to recover tax previously paid

Timing: loss carried back to earliest (oldest) year first, then applied sequentially to succeeding years until loss used up

WHY? Applying carryback non-sequentially allowed [maximizing carryback to years w/highest tax rate]

RISK if future losses – reduces allowable carryback period

Tax rate: tax recovered at rate originally paid [tax rate year loss = irrelevant]

C/B Tax benefit=Carryback x tax rate [each year]

Year	Carryback	x Tax rate	Tax recovery
Year 2000 (earliest year)	240	40%	96
Year 2001 (sequential)	160	35	56
Year 2002 (latest year)	100	37	37
Total	500 [tax loss carryback]		189 [carryback benefit]

Tax benefit of loss carryback: recognized and realized [through applied carryback] year of loss

a) Taxes recovered: 1/S as tax recovery in loss year

b) Income tax receivable: SFP as current asset

Interperiod allocation: if any part tax loss attributable discontinued operations → recovery allocated to relevant components income

Dr. Income tax receivable – c/b benefit

Cr. Income tax expense (recovery)

TEMPORARY AND PERMANENT DIFFERENCES IN LOSS YEAR

Tax loss no impact on recognition for temporary/permanent differences [continue to originate/reverse regardless]

DITA/DITL	Tax loss carryback	Combined
Dr. Income tax expense	Dr. Income tax receivable	Dr. Income tax expense
Cr. DITA/DITL	Cr. Income tax expense (recovery)	Dr. Income tax receivable
		Cr. DITA/DITL

TAX STRATEGIES

1. If no taxable income previous 3 years against loss can be offset: not permit company to realize any tax benefit
 THUS since CCA is optional deduction [no minimum] reduce amount CCA deducts current loss year → increases taxable income above loss

2. Maximize carryback by applying carryback non-sequentially [maximizing carryback to years w/highest tax rate]

ACTG 3110: Chapter 16 – Accounting for Tax Losses

TAX LOSS CARRYFORWARDS

Tax loss carryforward: entitles corporation to reduce taxes future period 20 years

Tax benefit of loss carryforward

REALIZED: future years, when carryforward applied against otherwise taxable income

RECOGNITION:

Probable [IFRS] or more likely than not [ASPE] probability criterion considered [meaning same probable/more likely not]

If [$>50\%$, i.e.: 51%] probability carryforward will be realized, tax benefit is recognized

[company must have enough taxable income during carryforward period to use up the loss carryforward]

Thus, Recognize DITA [future tax asset]

If realization unlikely – tax benefit not recognized → thus not record DITA

-In future years however: (i) reduce any taxable income in future by amount of remaining loss (ii) consider setting up DITA if probable/more likely than not provision met

Evidence of probability: use professional judgment

[IAS 12 guidelines] [Disclosure: nature of evidence supporting recognition]

a) Favorable evidence support recognition:

- Strong earnings history, interrupted only by unusual event that caused loss
- Enough accumulated temporary differences to absorb unrealized losses as they reverse
- Tax planning opportunities that will create taxable profit in carryforward period

Existence of contracts/back orders that are likely to generate more than enough taxable income to absorb loss carryforward

b) Unfavourable evidence not support recognition:

- History of tax losses expiring before being used
- Expectation of losses in carryforward period
- Unsettled circumstances that could adversely impact future operations [e.g.: patent infringement lawsuit]

TAX STRATEGIES increase likelihood realizing tax benefits of carryforward

KEY: need to use loss within time limit – do not want loss to expire [i.e.: 20 years c/f]

1. Eliminate taxable loss by not claiming CCA in carryforward years [current + future] until after loss used up

Not claiming CCA → increases taxable income → against carryforward can be used

After carryforward benefits realized → resume deducting full CCA

2. Amend prior years tax returns to reduce/eliminate CCA

Reduce CCA 3 previous years [which carryback applies] → increases taxable income → more carryback can be used

[potential reduce prior year's CCA enough to completely use up loss as carryback]

ACTG 3110: Chapter 16 – Accounting for Tax Losses

RECOGNITION [DIRECT RECOGNITION - DITA]

PROBABILITY of realization >50%

Measurement: recognize c/f tax benefit as DITA

C/F Tax benefit=Carryforward x tax rate

Dr. Income tax receivable – c/b benefit → recognized + realized current year
 Dr. DITA – carryforward benefit –c/f benefit → recognized only current year
 Cr. Income tax expense (recovery) [residual, also = tax loss x tax rate]

REASSESSMENT OF LOSS CARRYFORWARD

Every reporting period [within carryforward period] until carryforward expires review:

Probable [IFRS] or **more likely than not** [ASPE] probability criterion

a) Criteria not met anymore [<50%]

Loss carryforward benefit [DITA] wholly/partially removed [written down - decreased]

Dr. Income tax expense
 Cr. DITA – carryforward benefit –c/f benefit

b) Criteria met [subsequent to loss year, prior to actually realizing benefits]

Loss carryforward benefit [DITA] wholly/partially recognized [increased]

[No restatement f/s]

RECOGNITION [VALUATION ALLOWANCE – n/e #s [not actg policy] OPTIONAL USE – NOT TESTED

Valuation allowance: instead changing balance DITA directly [direct recognition]

WHY use: keeps track full tax loss carryforward benefits [consistent w/recognizing A/R; inventory LCM]; required US

1. Loss year: Full amount **c/f tax benefit** recognized

Dr. DITA – carryforward benefit –c/f benefit
 Cr. Income tax expense (recovery)

2. Subsequent:

Valuation account [contra-DITA] used to adjust for probability of realization

→ offsets DITA; netted on B/S [Tax benefit – valuation allowance]

a) Criteria not met anymore: recognize valuation allowance

Dr. Income tax expense (recovery)
 Cr. Valuation allowance – DITA

Write-off of expired carryforward benefits: end carryforward period for tax loss, remaining DITA + valuation allowance account written off: Dr. Valuation account – DITA, Cr. DITA – c/f benefit

TAX RATE & CHANGES

IFRS: DITA/DITL recognized at rate expected to be in effect when: (i) temporary differences reverse; or; (ii) tax carryforward benefits are realized

(a) current yr. tax rate [enacted] [normally]; (b) substantially enacted rate for when benefits expected to be realized

Reporting date: **REMEASURE tax rate** [change tax rate * c/f benefit]

a) Tax rate goes down: Dr. Income tax expense, Cr. DITA –c/f benefit
 b) Tax rate goes up: Dr. DITA – c/f benefit, Cr. Income tax expense (recovery)

ACTG 3110: Chapter 16 – Accounting for Tax Losses

SUMMARY STEPS CALCULATE TAX LOSS & BENEFIT [Extended Illustration, p940]

STEP 1 CALCULATE TAXABLE LOSS ACCORDING TO TAX ACT [Ch15]

- 1) Begin w/ net loss f/s
- 2) And add/deduct reconciling items → existence loss NE temporary differences
-Depreciation added back – CCA optional deduction

STEP 2 TAKE TAXABLE LOSS AND CARRYBACK UP TO 3 YEARS TO RECOVER TAXES PREVIOUSLY PAID

STEP 3 Multiply loss by tax paid in previous 3 years to arrive at income tax expense (recovery)

Dr. Income tax receivable – c/b benefit
Cr. Income tax expense (recovery)

STEP 4 CARRY ANY REMAINING LOSS CARRYFORWARD TO FUTURE TAX BENEFITS

Apply probable or more likely than not criteria

Tax planning

Dr. DITA – carryforward benefit –c/f benefit → recognized only current year
Cr. Income tax expense (recovery) [residual, also = tax loss x tax rate]

STEP 5 PREPARE TAX B/S AND COMPRE TO ACTG B/S [Ch15]

DITA subject to review every b/s date

ASPE

TAXES PAYABLE METHOD

- No future tax assets (DITA) – the benefit would be recognized when the tax savings are realized
- Term difference – “more likely than not” instead of probable

ACTG 3110: Chapter 17 – Leases

LEASES

Lease: contract that gives right to use tangible asset, for a specified period of time, in return for rent PMT

Lessor: owner of property; **Lessee:** renter of property

Leased assets:

(a) *Real property:* real estate [land/buildings];

(b) *Personal property:* any not real property; includes tangible [machinery; equip.; cars] + certain intangibles [patents]

LEASING

Lease term: length of lease; as lengthens [in relation to asset's economic life]

→ more risks [obsolescence/deterioration] + rewards [value using asset] ownership pass from lessor to lessee

2 Dates for Leases:

1) *Inception of lease:* date lessor/lessee commit to provisions lease [usually when contract signed] or earlier [memorandum of agreement]; classify lease upon inception; no entries until lease commences

2) *Commencement of lease term:* date upon lessee entitled to use asset; entries begin

2 Classifications of Leases: based substance over form

1) **Operating lease:** lessor *does not* transfer substantially all risks/rewards ownership to lessee

2) **Financing (capital) lease:** lessor *transfers* substantially all risks/rewards of ownership to lessee

1) OPERATING LEASES

LESSEE temporary use asset w/o buying [no long-term need; business volatile]; no asset/liability

CLASSIFICATION

Lessor does not transfer substantially all risks/rewards ownership to lessee

Lease term relatively small proportion of amount asset economic life *left*

Longer lease term = lower per-period rental cost

Lease not meet criteria finance lease

RECOGNITION expense recognition by the lessee (over lease term, straight-line basis), w/asset remaining + recognized by the lessor

LESSEE recognize periodic lease payment as rent expense; asset not appear on books

Dr. Rent expense

Cr. Cash

LESSOR recognize periodic recipients of rent revenue; asset appears books as "*asset available for lease*"

Dr. Cash

Cr. Rent (lease) revenue *(or other income if leasing not company's mainstream business activities)*

EXECUTORY COSTS lessee pays specified costs relating to leased asset during lease term; expensed as incurred

Examples: delivery, insurance, construction, maintenance; taxes [represent costs acquiring (using) asset]

LESSEE: part of cost renting asset; recognize rent expense

Dr. Rent expense

Cr. Cash

LESSOR payment is reimbursement; recognize contra-account to offset costs incurred

Dr. Cash

Cr. Delivery expenses *[contra to costs incurred]*

ACTG 3110: Chapter 17 – Leases

UNEVEN PAYMENTS

RECOGNITION PMTs **deferred + amortized over initial lease term** [pd. time lessee required make lease PMTs] on straight-line basis

1) LUMP SUM UPFRONT PMT beginning (inception) lease

LESSEE: recognize advance PMT not yet incurred as prepaid asset; amortized to rent expense over lease term on a straight-line basis

Dr. Prepaid rent expense [current asset]
Cr. Cash

LESSOR: recognize advance PMT received as unearned rent income; amortized to rent income over lease term on a straight-line basis

Dr. Cash
Cr. Deferred rent income [current liability]

2) FORGIVE (FREE) LEASE PMTS limited time offer; PMTS not begin until # months after lease starts; [to entice lessor]

LESSEE

i) Beginning lease over forgiven period: defer PMTs [since no cash outflow] @ effective rental rate/month

Dr. Rent expense [$\$ \text{effective rental rate} = \text{total PMTs (w/o forgiven)} / \text{lease term}$]
Cr. Deferred rent liability [current liability]

ii) Periodic lease + amortization payments: forgiven PMT amortized to rent expense over initial lease term on straight-line basis, thereby reducing rent expense from cash outflow [per contract] to average annual expense

Dr. Rent expense [$\$ \text{effective rental rate}$]
Dr. Deferred rent liability
Cr. Cash [PMT per contract]

ACTG 3110: Chapter 17 – Leases

2) FINANCE (CAPITAL) LEASE

LESSEE: long-term use asset w/o having to buy it

LESSOR: legal title to asset; objective = provide financing to lessee to permit acquire asset w/o buying it; in return for CF enable recover investment asset + earn rate of return

CLASSIFICATION

Lessor transfers substantially all risks/rewards of ownership to lessee [transfer at least 1 criterion satisfied]

Lease term relatively substantial proportion of amount asset economic life *left*

IFRS CRITERIA FINANCE LEASE: at least 1 criterion satisfied

1. **Transfer of title:** reasonable certainty lease transfers ownership asset to lessee end of lease term either by:
 - a. Automatic transfer title end lease
 - b. Lessee has bargain purchase option: option purchase asset price expected significantly lower FV date option becomes exercisable [at inception lease – reasonable certain option will be exercised]
2. **Lease term vs. economic term:** lease term is major part of economic life of asset
 - Lessee *receive substantially all economic benefits* (risk + rewards) expected derived through use of leased asset
3. **PV of minimum lease PMTs vs. FV leased asset**
Inception of lease, PV of lease PMTs amounts to substantially all of FV asset
 - $PV/FV = \% \text{ risks/rewards transferred lessee}$
 - Lessor assured *recover substantially all investment* in leased asset + *return* over lease term
4. **Specialized asset:** lease asset specialized nature such that only lessee can use them w/o major modifications made asset

OTHER CONDITIONS: indication finance lease

- If lessee entitled to cancel lease → lessor's losses w/cancellation of lease by lessee are born by lessee [penalty cancellation]
- Gains/losses from changes FV asset accrue to lessee end of lease [e.g.: by means of rebate of lease PMTs]
- Lessee able to extend lease for another period at rent substantially less than market value

INFORMAL GUIDELINE: nature of lessor

- a) *If lessor is the leasing subsidiary of bank:* financial institutions have financial assets; will not assume risks of owning asset = finance lease
- b) *If lessor derives > 90% revenues from lease transactions* = financial intermediary = finance lease [even if criteria not met]

ASPE CRITERIA FINANCE LEASE: at least 1 criterion satisfied

1. **Transfer of title:** reasonable certainty lease transfers ownership asset to lessee end of lease term either by:
 - a. Automatic transfer title end lease
 - b. Lessee has bargain purchase option: option purchase asset price expected significantly lower FV date option becomes exercisable [at inception lease – reasonable certain option will be exercised]
2. **Lease term vs. economic term:** lease term is **75% or more** of economic life of asset [major portion]
3. **PV of minimum lease PMTs vs. FV leased asset**
Inception of lease, PV of lease PMTs amounts to **at least 90%** all of FV asset

ACTG 3110: Chapter 17 – Leases

DEFINITIONS

Bargain purchase option (BPO): lessee option purchase asset end lease stated price significantly lower expected FV at exercise date; assumption lessee will exercise [even don't want asset; advantageous exercise + resell]; Criteria 1

Bargain renewal term: lessee option extend lease PMTs substantially less than market expected for asset that age/type; entice lessee to renew

Lease term: includes:

- i) Initial lease term: all terms prior to exercise date of bargain purchase option
- ii) Bargain renewal term
- iii) All renewal terms at *lessor's option*

RESIDUAL VALUE estimated value of asset to lessor at end of lease term

a) Guaranteed residual value: amount lessee guarantees lessor will recover (receive) specified residual value when asset reverts back lessor at end lease term; determined inception lease; protection/reduce risk lessor

- Additional lease PMT → included component calculation: *minimum lease PMTS*
Affects amount leased asset/liability
 - High amount: reduce periodic lease PMTS; increases PV minimum lease PMTS [may cause PV > FV]
- Asset end lease worth/sells for < guaranteed residual value → lessee owes difference to lessor

b) Unguaranteed residual value: lessee does not guarantee residual value; lessee not obligated make any PMTs other than periodic rent

Minimum lease PMT:

All PMTs lessee required make over lease term [include bargain renewal PMTs]

- (-) net of estimated executory/operating costs
- + Bargain purchase option price
- + Guaranteed residual value

Not include: **contingent lease payments**: additional lease PMTs based on subsequent events
[e.g.: PMTs % of lessee's revenue; fee per KM driven]

Initial direct costs: costs incurred when negotiating/arranging lease [commissions/legal fees] → capitalized + amortized over lease period [may also include lessor negotiation costs w/vendor/manufacturer for asset]

INTEREST RATE for discounting minimum lease PMT:

1) Lessor's implicit lease interest rate if known by lessee (rare): interest rate that equates (1) minimum net lease PMTS, initial direct costs + residual value (guaranteed or not) to (2) FV of leased property at beginning of lease; calculated from lessor's point of view [estimated CF over minimum lease term]; **OR**

2) Lessee's Incremental borrowing rate (IBR): interest rate lessee would need pay to obtain financing through another source [bank]; determinable w/reasonable assurance

FAIR VALUE CAP: maximum value [upper limit] to record asset is FV

If FV capped: PV lease payments > FV asset

→ Lessee calculate implicit interest rate that equates minimum lease PMTs to FV

E.g.: Solve for i : $300,000$ (FV - asset PV on calculator) = $100,000$ (PMT) \times (P/A, i , 4), $i=12.6\%$

ECONOMIC LIFE VS. USEFUL LIFE

Economic life: maximum # of years economically productive

Useful life: # years in use; shorter economic life

ACTG 3110: Chapter 17 – Leases

ACCOUNTING FOR FINANCE LEASES: LESSEE [as if purchased by debt] ["lease capitalization]

PAYMENT @ BEGINNING YEAR

STEP 1: COMMENCEMENT OF LEASE: Initial entry

Record asset + liability at lower of FV asset and PV minimum lease PMTs over lease term discounted at interest rate implicit in lease or IBR

MEASUREMENT: PV minimum lease PMTs discounted to PV using interest rate implicit in lease or IBR

PV minimum lease payments

= \$PMT net executory/operating costs (P/AD, %, n) *BEG: P/AD = annuity due; *END: P/A = annuity
 + Bargain renewal PMTs (P/AD, %, n) (P/F, %, n)
 + *guaranteed residual value* \$ (P/F, %, n)
 + *bargain purchase option price* \$ (P/F, %, n)

Fair Value Cap and Implicit Interest Rate:

If PV > FV; lessee calculate implicit interest rate that equates minimum lease PMTs to FV

INITIAL RECOGNITION

Dr. Asset under finance lease [PV ; max FV]
 Cr. Lease liability [long w/current portion]

SUBSEQUENT: no connection between lease asset + liability; remeasured individually

Liability: reduced by lease PMTs; amortized effective interest method [Step2/3]

Asset: depreciated [Step4]

STEP 2: RECOGNIZE LEASE PAYMENTS

RECOGNITION: periodic lease payment as reduction outstanding lease liability

Dr. Lease liability [PMT]
 Cr. Cash

Executory/operating costs: lessee required pay specified costs relating to using leased assets over lessee term

Often included part of lease PMT

Examples: delivery, insurance, construction, maintenance; taxes

Measurement: estimated cost at commencement lease used to determine minimum lease PMT

If lease agreement requires lessor refund difference [actual/estimated]: Cr. refund to executory cost account

RECOGNITION: upon lease PMT recognition, executory cost portion expensed to related expense accounts; remainder portion as periodic lease PMT [reduction outstanding liability]

Dr. Expense [executory cost]
 Dr. Lease liability [PMT less executory costs]
 Cr. Cash [PMT]

STEP 3: ACCRUE INTEREST

RECOGNITION: lease liability amortized [reduced 0] to interest expense over lease term; *effective interest method*

Reduction outstanding lease liability; constant rate of interest

Dr. Interest expense
 Cr. Lease liability

ACTG 3110: Chapter 17 – Leases

Effective Interest Method [IFRS required]

AMORTIZATION TABLE:

Net lease liability closing = PV less first PMT beg year

Period (i.e.: annual; semi-annual)	Cash interest paid (PMT)	Interest expense	Reduction outstanding lease liability (principal)	Net Lease Liability Closing
Opening				Opening PV min lease PMT
1	PMT	--- (since beg year)	PMT periodic	Opening PV – PMT beg year
1	PMT	Net liability closing x discount rate	Cash interest paid – Interest expense	PV – decrease in balance

LEASE TERM DIFFERENT FROM FISCAL YEAR [NOT ON EXAM]

1) End fiscal year: adjusting entry: accrue interest expense

Dr. Interest expense [x months/year]

Cr. Lease liability

2) Subsequent lease year: recognize remaining interest expense:

Dr. Interest expense [remaining months/year]

Cr. Lease liability

STEP 4: DEPRECIATE LEASED ASSET

Depreciation policy: consistent with current policy for given type asset

Depreciation period:

Asset depreciated over shorter of:

1. Useful life asset;
2. Lease term

Cannot exceed lease term unless reasonable certainty lessee will obtain ownership end lease [automatic; exercise bargain purchase option → then depreciated over useful life]

MEASURE: depreciation based: PV asset minus guaranteed residual value

RECOGNITION: depreciate over depreciation period

Dr. Depreciation expense

Cr. Accumulated depreciation – asset under lease

STEP 5: END LEASE TERM

RECOGNITION: asset reverts back to lessor, lessee writes off fully depreciated asset

Dr. Accumulated depreciation – asset under lease

Cr. Asset under finance lease

GUARANTEED RESIDUAL VALUE:

End lease term: lessor sells asset [proceeds sale] less < guaranteed residual value → difference owed to lessor

RECOGNITION: lessee recognizes difference as gain on lease termination [I/S]

Dr. Lease liability [guaranteed residual value]

Cr. Cash [difference proceeds asset + residual value]

Cr. Gain on lease termination

ACTG 3110: Chapter 17 – Leases

STEPS: PAYMENT @ END YEAR

STEP 1: INITIAL ENTRY

STEP 2: ACCRUE INTEREST

Difference: no PMT BEG year; amortization schedule – no reduction PV liability by first PMT

STEP 3: AMORTIZE ASSET

STEP 4: RECOGNIZE LEASE PAYMENTS

F/S IMPACTS: LESSEE

SFP (B/S)

- Asset and accumulated depreciation: optional netted [w/note disclosure for separate amounts]
- Lease liability: long-term; portion current for amount year-end liability balance paid within next year

I/S: Depreciation expense; interest expense: long-term

SCF: Indirect approach: depreciation expense added back; lease payment [financing outflow]

DISCLOSURE: disclosure for future finance lease payments [in total and individually] for each of the next 5 years

CALCULATING LEASE LIABILITY BALANCE: SHORT-CUT METHOD 7.14 (3)

Lease liability balance = PV remaining lease PMTs + accrued interest, if any

Determine PV remaining lease PMTs [between 2 periods, where n=remaining lease PMTs; difference = PV]

ACTG 3110: Chapter 17 – Leases

SALE AND LEASEBACK

SALE AND LEASEBACK: arrangement where owner asset sells an asset to another party and immediately leases back the asset; changes asset from *owned* to *leased*; common for buildings

- Advantage: immediate cash inflow to seller

SELLER:

1) SALE PORTION: difference net proceeds (selling price) from sale and asset NBV → creates gain/loss

RECOGNITION: gain/loss on sale and leaseback: deferred over lease term [prevent income manipulation]

Dr. Cash [proceeds]

Dr. Accumulated depreciation [reverse – remove]

Cr. Asset [reverse - remove]

Cr. Deferred gain (on sale and leaseback) [proceeds – NBV] [liability]

2) LEASE PORTION:

1. CLASSIFICATION + RECOGNITION: operating/finance lease

Finance: (1) initial entry; (2) lease payments; (3) accrue interest; (4) amortize asset

2. TREATMENT GAIN/LOSS [differs based classification]

FINANCE lease: gain/loss deferred and amortized over lease term [IFRS + ASPE]

Recognition: gain/loss amortized evenly over lease term [offsetting depreciation expense]

Dr. Deferred gain (on sale + leaseback) [deferred gain /lease term]

Cr. Depreciation expense

[ASPE]: recognize gain/loss *in proportion to depreciation of leased assets* [deferred gain/useful life]

OPERATING lease:

[IFRS] gain/loss treatment depends on relationship between sales price asset & FV @ sale date

- Sale price = asset FV → gain/loss *recognized immediately*
- Sale price > asset FV → gain/loss *deferred + amortized over lease term*
- Sale price < asset FV → gain/loss *recognized immediately unless lease PMTs are less than market lease terms, in which case, gain/loss deferred + amortized over lease term*

[ASPE]: recognize gain/loss *in proportion lease payments* [evenly over lease term]

3 steps 1. Gain/loss 2. Classification 3. What to do with gain loss

Evenly over lease term for both IFRS and ASPE

HELP

1. Finance lease:

IFRS: recognize evenly over lease term

ASPE: recognize in proportion to depreciation of leased asset

2. Operating lease: if sale price > FV gain/loss

IFRS: recognize evenly over lease term

ASPE: recognize in proportion to lease PMTs (i.e.: evenly over lease term)

ACTG 3110: Chapter 17 – Leases

OTHER ISSUES

LEASES FOR LAND AND BUILDINGS [not tested entries]

Lease includes both building and land elements

1) Minimum lease PMTs

Allocated between land/building elements

- [IFRS] in proportion to *relative FV leasehold interests (rights) at inception of lease*
 - FV leasehold interest = FVs of each asset's benefits that are being transferred to the lessee
 - Land: no need compensate lessor [no obsolescence/deterioration – unless pollution]
 - Building: lessor compensated for losses economic value [obsolescence/deterioration]
- [ASPE] in proportion to *FV properties*

If land element immaterial: land + buildings treated as single unit for lease classification [recognized as whole finance/operating lease]

2) Classify each element separately

1. **Land**: usually **operating**
WHY? Indefinite economic life [thus lease term not cover major part life]
2. **Building**: **operating** or **finance lease**

CONTINGENT RENT

CONTINGENT RENT: rent payments that depend on specified future events

Examples: in addition to basic rent → % retail sales; asset's volume of use [fee per KM driven]

Use: business decision analysis [i.e.: poor performance – terminate lease]

Recognition: excluded from accounting lease calculations [lessor/lessee]

→ recognize as operating expenses year incurred

DEFERRED INCOME TAXES

Tax deduction: amount lease payment made during tax year

Temporary difference: many leases reported by lessee as finance lease may be taxed by CRA as operating lease

ESTIMATION METHODS FOR INTEREST EXPENSE

Finance leases: allocating interest expense → effective-interest method

IFRS permit lessee alternatively use "some form of approximation" for allocating interest expense [not common]

- 1) **Straight-line allocation**: divides total lease interest expense by # reporting periods + allocates proportionate part of interest to each period; appropriate when: aggregate amount of finance leases is relatively immaterial to reporting entity as a whole
- 2) **Sum-of-digits**: sums digits of reporting period (years) then allocates total lease interest expense on basis of the declining fraction

LESSEE DISCLOSURE [Example: p1000]

Leases are financial instruments → must conform disclosure requirements [Ch12]

Disclosure for future minimum lease payments [in total and individually] for each of the next 5 years

Hire purchase contract: contract for renting an asset that contains a clause giving renter option to acquire title to asset upon fulfillment of certain agreed-upon conditions = **finance lease**

ACTG 3110: Chapter 17 – Leases

3 METHODS AVOIDING LEASE CAPITALIZATION → FINANCE LEASE

Finance lease criteria satisfied = whole lease capitalized [finance]; not satisfied = none lease capitalized [operating]

1. **Use contingent rent:** make large part of lease PMT a contingent rent → lower PV minimum lease PMTS [since not included]
 - Finance lease criterion: *PV of minimum lease payments amount to substantially all of the asset's FV*
2. **Insert 3rd Party** between lessee + lessor
 - Example: lessee form separate company enters in year-by-year operating lease, renewal at lessee's option
 - Will not work IFRS if intermediate company is subsidiary of operating company since required consolidate leasing subsidiary
 - Will work IFRS w/companies under common ownership [have same owners e.g.: shareholders/partners]: f/s not consolidated → lessee no need report asset/liability
3. **Shorten lease term**, but impose substantial penalty for non-renewal
 - (a) Year-by-year renewal at lessee's option; or (b) Lease terms considerably shorter economic life asset
 - Finance lease criterion: *lease term substantial amount economic term*

LEASES: ADVANTAGES + DISADVANTAGES

1. **Lessee: off-balance-sheet financing**
 - **PRO: Operating leases preferred:** (a) allow lessee make full use of assets w/o recording asset + liability on B/S (b) lower debt-to-equity ratio, thereby help avoid violating covenants
 - **CON:** shorter lease term, higher periodic PMTS
2. **100% financing**
 - **PRO:** lease provide full financing; no substantial down PMT [vs. banks]
 - **CON:** exists only for assets readily transferable if lessee defaults + lessees w/high credit ratings
3. **Protection against obsolescence**
 - **PRO:** shorter lease term, easier for lessee stay up to date w/latest technology → lessee can refuse renew existing lease + move to newer product instead
 - **CON:** risk of obsolescence falls on lessor – compensate for added risk by charging higher lease PMTs
4. **Protection against interest rate changes**
 - **PRO:** lease PMTs based on fixed interest rates – protect lessee from interest rate fluctuations
 - **CON:** if lessee business fluctuates in response economic conditions; may be better use variable-rate loans banks to finance assets
5. **Tax benefits: transfer benefits** from lessee to lessor [finance leases driven by this]
 - Legal owner of asset: can deduct CCA; but may not be able to use full CCA deduction → CCA more valuable to lessor
 - Lessors: calculate ROI on after-tax basis + lease industry competition forces lessor pass benefit of any tax reduction on lessee in form of lower lease payments → thus asset can often be leased for PV less than amount lessee would pay to buy asset

ACTG 3110: Chapter 17 – Leases

LESSOR ACCOUNTING

Lessors: A Specialized Industry [Basics; NOT TESTED J/E]

Key Differences between Lessee's and Lessor's Net Cash Flows

- 1) **Initial cost of asset:** may often be less since lessor may buy in bulk
- 2) **Residual value:** lessor may expect high residual value to lease continuously
- 3) **Tax shield:** lessor can have significant tax shield from early tax savings from CCA

OPERATING LEASE

- Leased asset: on lessor f/s + depreciated o
- Initial direct costs and lump sum PMTS: deferred and amortized over initial lease term
- Lease revenue: recognized as PMTs received

FINANCE (CAPITAL) LEASE

[IFRS]: Criteria same as lessee

Interest rate for discounting: **lessor's interest rate implicit in lease** [since known, not IBR]

- Interest rate that equates (1) minimum net lease payments + initial direct costs + residual value (guaranteed or not) to (2) FV of leased property at beginning of lease

Minimum lease term: includes bargains at lessor option

[ASPE]: Criteria same as lessee PLUS additional 2 must be satisfied: [if not → operating]

1. Lessor's credit risk relating to lease + lessee is normal
2. Lessor's amount of any unreimbursable costs can be reasonably estimated [future costs – e.g.: maintenance]

Problem when: Lessee [meets criteria = finance lease]; Lessor [doesn't meet additional 2 = operating lease] → asset appears on both lessee + lessor books

If criteria finance met: lessor must classify lease as either (1) direct financing lease (2) sales-type lease

1. **DIRECT FINANCING LEASE:** lessor = financial intermediary – purchases an asset which is immediately leased to lessee [essentially same as IFRS finance lease]
 - Profit comes from lease interest revenue
2. **SALES-TYPE LEASE:** lessor leases property to lessee from inventory manufacturers/dealers;
 - 2 Profit components:
 - (1) Sale of product: recognize revenue component
 - (2) Interest revenue from lease financing: recognized evenly over lease term

FUTURE

NEW STANDARD: will eliminate distinction finance/capital vs. operating leases

WHY CHANGE: ISSUE W/CURRENT STANDARDS: Prevent devising leases that were finance in substance but avoided capitalization through devised methods

NEW STANDARD Discount all future lease PMT commitments [regardless term]; report all leases on B/S at PV as "right to use property"

HOW SOLVE ISSUE: no more operating leases → lessee must recognize asset/liability B/S

Lessee: right-of-use asset on B/S → depreciate systematic basis; liability on B/S – effective interest method

Lessor: recognize (a) right to lease PMTS [lease receivable]; (b) lease liability
→ standard *currently held up* b/c disagreements lessor perspective

ACTG 3110: Chapter 17 – Leases

ASPE

CAPITAL LEASE: termed “capital” not “finance” lease

INTEREST RATE for discounting: Lower of (1) Lessor’s rate implicit in lease; (2) Lessee’s IBR

****LEASES OF LAND + BUILDINGS:** minimum lease PMTs allocated in proportion to FV underlying properties [not FV leasehold rights]

****LESSEE: CRITERIA CAPITALIZATION** [involves quantitative]

CRITERIA FINANCE LEASE: at least 1 criterion satisfied

1. **Transfer of title:** reasonable certainty lease transfers ownership asset to lessee end of lease term either by:
 - a. Automatic transfer title end lease
 - b. Lessee has bargain purchase option: option purchase asset price expected significantly lower FV date option becomes exercisable [at inception lease – reasonable certain option will be exercised]
2. **Lease term vs. economic term:** lease term is 75% or more of economic life of asset [major portion]
3. **PV of minimum lease PMTs vs. FV leased asset**
Inception of lease, PV of lease PMTs amounts to at least 90% all of FV asset

****LESSOR: CRITERIA FOR CAPITALIZATION**

Criteria same as lessee PLUS additional 2 must be satisfied: [if not → operating]

1. Lessor’s credit risk relating to lease + lessee is normal
2. Lessor’s amount of any unreimbursable costs can be reasonably estimated [future costs – e.g.: maintenance]

If criteria finance met: lessor must classify lease as either (1) direct financing lease (2) sales-type lease

****SALE & LEASEBACK**

- FV < carrying value at time of sale → loss recognized immediately b/c asset impaired date of sale
- Capital lease [gain/loss capitalized + amortized proportionate to depreciation on leased asset [not over term of lease]

LESSOR: INITIAL DIRECT COSTS:

Finance lease: expensed – for both direct financing + sales-type lease [IFRS: capitalized + amortized over lease period]; equivalent amount of unearned lease income recognized [thereby, no difference in impact NI]

Operating lease: deferred + amortized over lease term

ACTG 3110: Chapter 18 – Post-employment Benefits

TYPES OF PENSION PLANS

- 1) **Defined CONTRIBUTION plan:** employers pay fixed contribution to plan each period, which is invested by trustee
- Employee not guaranteed (fixed) payout: pension employee receives is function of trustee's investment success (market); employer not obligated make further PMTs if fund does not have sufficient assets
 - If return on fund better than expected: employee's benefit
- 2) **Defined BENEFIT plan:** employee entitled to specified pension benefits
- Employer variable contributions: determined by actuarial **funding & actg valuation** [actuary: expert calculates statistical risks; life expectancy; payout probabilities, etc.]
 - If trustee unsuccessful investing [pension plan investments decline in value]: company obligated pay for difference
 - If trustee successful investing [pension plan investment returns larger than expected]: reduce employer's necessary contributions to plan

Type of Plan	Contributions	Benefits	Risk
Defined contribution	Fixed	Variable	<i>Employee</i> risk of low pension benefits
Defined benefit	Variable	Fixed	<i>Employer</i> risk of high pension contributions

CLASSIFICATION: substance over form

PENSION VARIABLES

CONTRIBUTORY pension plan: employee makes contributions to plan in addition employer [often defined contribution]

NON-CONTRIBUTORY pension plan: only employer makes contributions to plan; *no contributions by employee*

VESTED: when employee entitled receive pension plan benefits; even if leaves b/f retirement

Contributions made by employee: automatically vested [since it is their money; returned to them when leave]

Vesting period varies province/country:

- Ontario: vesting after 2 years [short period]
- Many provinces: vesting if worked for employer 10 years + 45 years old

TRUSTEED pension plan: control of pension assets to third party

Trustee: receives pension contributions from employer (and employee, if applicable); invests contributions; pays out benefits to pensioner

- Pension assets/liability: not appear employer f/s [beyond control; still responsible ensure plan solvent]
- Trusteeship required for plan to be **registered**

REGISTERED pension plan: with pension commissioner in province of jurisdiction

Registered: benefit = tax-deductible for employer at time contribution

Employer ability *deduct pension contributions* (cash put in plan for period) from taxable income

Not registered: employer *cannot deduct pension contributions*

ACTG 3110: Chapter 18 – Post-employment Benefits

DEFINED CONTRIBUTION PLAN

Popular: employer has low financial risk [amount contribution known]

Simple actg: companies moving employees this plan [less note disclosure]

4 COMPONENTS PENSION EXPENSE: most companies only use first; others rare

1. CURRENT SERVICE COST: employer's required contribution into pension plan for employee services (work) done during current year

Contribution [employer annual cash outflow]: **determined pension plan terms = Pension expense**

a) Full PMT current service cost: pension expense recognized equal to current service cost for period

Dr. Pension expense [\$current service cost]

Cr. Cash

b) Delayed PMT current service cost: PMTs related current service made in future, after year-end

Measurement: current service cost [pension expense] = current year PMT + PV future PMTs

- Discount rate: market interest rate for high-quality debt instrument

Recognition: difference PV of year's contribution [pension expense] and amount paid [cash] recognized as **accrued pension liability** [relates to obligated future PMTs related to current service]

Dr. Pension expense [\$current year PMT + PV future PMT]

Cr. Cash [\$current service cost]

Cr. Accrued pension liability

2. VESTING: if plan not fully vested [employee not entitled], **forfeitures** [employee leave b/f vest, gives up pension benefits] reverting back to employer recognized reduction of pension expense in year forfeit

Impact: forfeiture rate reduce future contributions

3. PREPAID PENSION: record **prepaid pension asset** [expense account] if there is a prepayment [pay contribution early] that will lead to a reduction in future PMT or cash refund

Example: employer over contribute given period; if excess \$ can be obtained as cash refund or reduction future PMT → record prepaid pension asset

4. PLAN EARNINGS (RETURNS): defined contribution plan assets normally entirely committed for paying benefits to employees

Pension plan investment returns larger than expected:

- Rare circumstance: **unassigned surplus** of assets in plan that would accrue to employer [not employee – most cases] → *reduces pension expense*

ACTG 3110: Chapter 18 – Post-employment Benefits

DEFINED BENEFIT PLAN

STRUCTURE

1) Pension plan assets (PPA): contributions to plan

- Increase: (i) employer/employee makes contributions; (ii) assets generate return
- Decrease: (i) plan generates negative return; (ii) benefits paid to pensioners

2) Defined benefit obligation (DBO): cumulative PV of pension benefits earned to date

Measured as: expected PV of PMTs to be made to members when retire [amount owe for all future costs pay out]

- Increase: (i) employee works and earns more pension; (ii) interest accrued
- Decrease: benefits paid to retirees
- Increase or decrease: (i) experience to date is different than original estimate; (ii) future estimates change [morality; future salary levels, etc.]

BASIS FOR PENSION BENEFIT examples:

- **Final pay pension plan:** pension based specific % of final year's salary
- **Flat benefit** per year of service, w/no entitlement related to salary
- **Career average pay:** average of employee's earnings over entire time spent w/employer
- **Best year's earnings** [permits employees phase out toward end careers]
- **Average of last 3 (or 5) years' earnings**

FUNDING VS. ACTG

FUNDING: employers cash contribution to plan

Actuary provides estimate for funding

ACTG: how much need to recognize for pension expense on I/S based on GAAP

Company may use different assumptions for actg than funding

FUNDING VALUATION: *calculate cash contribution*

Required under Pension Benefits Act

Actuary uses 1) Actuarial cost method; and; 2) Key actuarial assumptions

1) Actuarial Cost Methods (3): used to estimate annual cash contributions for funding valuation

All methods acceptable for funding valuation

Difference methods: *pattern of PMTs made to trustee* over employee's working life

Overall pension funding requirement: calculated for employee group in company

1. **Accumulated benefit method:** lowest funding; based actual years service to date and current salary
2. **Projected unit credit method:** based actual years service to date and projected estimate employee's salary retirement date
3. **Level contribution method:** equal cash requirements each year; based both projected final salary and total years service, then allocates cost evenly over years service

2) Key Actuarial Assumptions:

PROBABILITY FACTORS are assumptions used for valuations [some assumptions flexible/not flexible]:

1. **Investment earnings/expected rate of return on plan assets*:** lower = more contributions; heavily criticized [companies overestimate this – which lowers pension expense]
2. **Future salary increase & inflation rates*:** higher = increase pension expense
3. **Employee turnover:** vesting may not occur immediately
4. **Mortality rates:** a) death benefits; b) survivor benefits
5. **Life expectancy after retirement:** longer = more paid out in pension
6. **Discount rates*:** market interest rate for high-quality debt instrument
Used to calculate interest cost on DBO

* ACTG measurement significant impact

ACTG 3110: Chapter 18 – Post-employment Benefits

ACTG VALUATION *calculate pension expense*

Actg standard (GAAP) defines rules for valuation

- Valuation requires: mgmt best assumptions for demographic + financial assumptions
- Auditor looks to see if: mgmt's best estimates are internally consistent (reasonable)

GAAP:

- 1) Requires **pension expense** be calculated using **projected unit credit (benefits) method**
 - Mgmt's best estimates assumptions
- 2) **IFRS: Funding** can use 1 of 3 methods

ASPE: Allows option **immediate recognition method**

DIFFERENCES ACTG EXPENSE & CASH CONTRIBUTED (FUNDING)

1) EQUAL: cumulative pension expense [ACTG] and cumulative cash contributed [Funding]

Recognize: *current service cost* pension expense [ACTG] and current service contribution [Funding]

Dr. Pension expense
Cr. Cash

2) DIFFERENCE: cumulative pension expense [ACTG] and cumulative cash contributed [Funding]

Cause: (a) Different actuarial cost method used for funding and actg valuation (projected unit credit method);

(b) Assumptions used by actuary funding are more conservative than "best estimate" assumptions actg

Recognize: **deferred (accrued) pension liability/asset** for cumulative difference

ACTG pension expense > Funding cash contributed → **deferred pension liability**

ACTG pension expense < Funding cash contributed → **deferred pension asset**

Interpretation accrued pension liability: company does not "owe" the pension plan [it is not underfunded]

Interpretation accrued pension asst: fund plan faster than record pension expense

Dr. Pension expense [actg]
Dr. Accrued pension asset
Cr. Cash [fund]
Cr. Accrued pension liability (OR)

RECORDING: NET PENSION PLAN STATUS

Companies must record **net pension asset or liability** on B/S

Net pension asst/liability elements:

Defined benefit obligation (DBO) (credit)

Minus: Pension plan assets (debit)

Equals: Accrued benefit asset or liability

[ACTG] **1) Recognize:** pension expense [GAAP]

Dr. Employee benefit expense
Cr. Defined benefit liability

[Funding] **2) Recognize:** cash contribution into pension plan

Dr. Defined benefit liability
Cr. Cash

ACTG 3110: Chapter 18 – Post-employment Benefits

DEFINED BENEFIT PLAN

PENSION EXPENSE COMPONENTS

Pension expense defined benefit plan: sum of 8 components

A) CONTINUING COMPONENTS: either always/usually exist every year

1. Current service cost
2. Plus: interest costs on defined benefit obligation (DBO)
3. Minus: Expected return on pension plan assets
4. Plus: Amortization past service cost
5. Plus (or minus): Amortization of net actuarial gain or loss

B) SPECIAL COMPONENTS: certain, unique circumstances

1. Gain (loss) on plan settlement or curtailment
2. Limit on accrued pension asset
3. Termination benefits

A) CONTINUING COMPONENTS

1) CURRENT SERVICE COST: value of benefits to employee's service [work] during period

Determined by actuary: **measure using projected unit credit (benefit) method** → expected PV of pension entitlement earned by employee group in given year

Based on managements best estimates

Total current service cost is *reduced* by amounts contributed by employees [contributory plan]

+ 2) INTEREST COST ON DEFINED BENEFIT OBLIGATION (DBO): ADDED current period pension expense

DBO: cumulative PV of pension benefits earned to date

Interest on DBO: the increase in the PV of the obligation as a result of moving one period closer to settlement

Imputed interest cost – not actually paying; as part of pension expense

Interest expense = **discount rate * opening DBO OR interest calculated by actuary**

Discount rate:

IFRS: market interest rate based on LT high quality debt rates, at measurement date [year-end date]

- 3) EXPECTED RETURN ON PENSION PLAN ASSETS (PPA): REDUCES current period pension expense

Expected earnings/return on PPA: expected return on PPA based earnings projections

Based on mgmt's best estimate of long-term rate of return

= **Expect earnings rate PPA * opening balance PPA**

Value PPA:

- a) FV plan assets
- b) Market related value that is based on FVs but is not current FV
E.g.: FVs not current – e.g.: 5 years average

Earnings rate: based on coherent; defensible methodology; can use actual rate

Most controversial component: companies play around w/#

OFFSETTING: interest cost on DBO and expected rate return PPA, tend offset if:

- Discount rate = earnings rate
- Same actuarial method accounting and funding
- Assumptions accounting and funding same
- Pension amounts fully funded

ACTG 3110: Chapter 18 – Post-employment Benefits

+ 4) AMORTIZATION PAST SERVICE COST: ADDED current period pension expense

Past service cost (PSC): caused by 1) pension entitlements given for service b/f plan was in force OR 2) when plans are improved after inception

Incentive for existing workers in current + future periods

1) Prior initiation plan: new employees given pension entitlements prior initiation plan; DBO may start out w/DBO from past service rendered by current employees

Older employees given credit since worked longer + didn't get benefit of adjustment

2) Amendment plan: plan amended to increase (or decrease benefits); when amended to change benefits based on years of service to date – change in DBO that relates to prior service

RECOGNITION:

Benefits vest immediately: PSC recognize (expensed) immediately

Benefits don't vest immediately: recognized in future when employees provide benefit

[IFRS] Amortize PSC from initiation + amendments: on straight-line basis over vesting period

[ASPE]

1) Initiation plan: Amortize PSC from initiation on straight-line basis over employee group expected period to full eligibility (EPFE) for pension benefits [length time employees must work b/f eligible pension benefits] [avg. remaining life of employee group]

Difference IFRS: longer-term period than IFRS vesting period

2) Amendment plan:

(1) Amortize PSC from amendments on same basis as PSC from initiation plan [over expected period to full eligibility benefits]; or

(2) Amortize PSC from amendments over period to next expected plan amendment

ACTG 3110: Chapter 18 – Post-employment Benefits

+ (-) 5) AMORTIZATION NET ACTUARIAL GAIN OR LOSS

Actuarial gains and losses: change value DBO arise from 2 sources

1) Experience gains and losses: difference between actual + expected estimates/assumptions

Example: expected vs. actual return on PPA

Relate to: DBO or PPA, or both

Based on past

2) Changes in assumptions: changes DBO that arise from altering 1+ assumptions about future

Examples: discount rate; salary levels; employee turnover; early retirements

Relate to: DBO

Forward looking

Actuarial revaluation: pension legislation requires employer conduct at least once every three years; actuary will restate DBO accordingly

DBO increase = loss

DBO decrease = gain

AMORTIZATION net actuarial gains/losses

IFRS: 4 OPTIONS [first 3 affect I/S – pension expense; last affect OCI]

1. Corridor method [ASPE most popular]
2. Systematic approach faster than corridor
3. Immediate recognition
4. OCI [IFRS most popular] → *not option ASPE*

Policy must be applied consistently for both actuarial gain/losses; must be applied all pension plans

EXAM: ONLY QUANTITATIVE QUESTION TESTABLE

OPTION 1) CORRIDOR METHOD [ASPE: most popular – minimal impact pension expense]

Sets minimum amount amortization actuarial gains/losses

Amortization recalculated each year b/c [(i) corridor change b/c DBO & PPA change; (ii) new actuarial gains/losses]

Company required amortize net actuarial gains/losses:

Only to extent net accumulated actuarial gains/losses exceeds 10% greater of:

1. DBO [beginning year]
2. Value of PPA [beginning year]

a) If net actuarial gain/loss < corridor: no amortization required; recalculated each year

b) If net actuarial gain/loss > corridor:

Only excess above corridor → amortized straight-line basis over **average remaining service period (ARSP)** of employee group *to pension expense*

ARSP: length of time, on average, current employee group expected to stay on job b/f retirement (ARSP calculated periodically, changes depend composition workforce)]

Sets minimum amount amortize year; recalculated each year

Example:

Actuarial gain/loss (*opening – accumulated closing balance prior year) = xx

10% greater of (1) DBO (*opening) (2) PPA (*opening) = xx

Amortization g/l → xx

Amortized over ARSP [current] = xx

Amortization = xx

ACTG 3110: Chapter 18 – Post-employment Benefits

OPTION 2) SYSTEMATIC APPROACH FASTER THAN CORRIDOR

Corridor method: sets *minimum amortization*

VS. Approach faster corridor: company may choose amortize larger amount using *faster amortization method* to pension expense

Any systematic method results in faster recognition of actuarial gains/losses permitted, as long same basis applied both gains/losses + basis used consistently from period-to-period

2 OPTIONS:

- Amortize excess above corridor using faster method or recognize excess in full; OR
- Amortize full amount of opening balance, w/no reference to corridor, over ARSP or a shorter period

OPTION 3) IMMEDIATE RECOGNITION THROUGH EARNINGS (NI)

Entire amount actuarial gains/losses recognized in pension expense immediately

Impact: Pension expense, thus *earnings, volatile*; since gains/losses can swing significantly

OPTION 4) IMMEDIATE RECOGNITION THROUGH OCI [Not option ASPE] [IFRS: most popular – bypass earnings]

Recognize actuarial gains/losses immediately to OCI

Advantage: bypass both a) pension expense and thus; b) earnings [no impact fluctuations]

Recognition: equity reserve, included in OCI

Dr. Equity reserve [OCI]

Cr. Accrued pension liability

PAYMENT OF BENEFITS TO RETIRED EX-EMPLOYEES

Responsibility of trustee to make benefit PMTs

Impact:

- 1) Reduces (a) PPA; (b) DBO;
- 2) No impact pension expense [*driven GAAP rules*]

ACTG 3110: Chapter 18 – Post-employment Benefits

B) SPECIAL COMPONENTS

1) GAIN (LOSS) PLAN'S SETTLEMENTS OR CURTAILMENTS

Pension plan SETTLEMENT: plan STOPPED (ended) → (a) end liability existing plan; or; (b) end portion benefits plan
Obligation to pensionable group settled by transferring assets to trustee; any deficiencies in funding remedied

Pension plan CURTAILMENT: CUT BACK plan → (a) reduce # employees covered by plan; or (b) element future service no longer qualify benefits

RECOGNITION: gains/losses arise from settlements/curtailments recognized immediately; not amortized

Gains on settlements/curtailments → decrease pension expense

CLASSIFICATION: if settlements/curtailments gain/losses arises from:

- 1) Part of *continuing operations* → gain/loss included in pension expense
- 2) Part of *discontinued operations or restructuring* → gain/loss included separately w/line item
[i.e.: discontinued operations OR restructuring]

2) LIMIT ON ACCRUED PENSION ASSET

Company may fund plan faster than records pension expense if:

- (1) plan funded by level contribution method; actg uses projected unit credit method
- (2) assumptions used by actuary funding are more conservative than “best estimate” assumptions actg
→ results accrued pension asset

Accrued pension asset: limited by asset ceiling: to amount that can be *recovered in future*

If limited asset ceiling: additional pension expense recorded in period; yearly valuations

May result in **pension holiday:** employer in overfunded plan permitted to temporarily reduce/eliminate PMTs for current service funding requirements “skip PMT”

3) TERMINATION BENEFITS

Termination benefits: employer offer special incentives induce employees retire or take early retirement

Examples: lump-sum PMTs; continuation salary; enhanced pension benefits [not been included actuarial calculations]

Costs of special termination benefits: accrued as expense + liability; estimate provision severance costs

Must distinguish 1) voluntary 2) involuntary

VOLUNTARY: employee has choice leave early + receive termination benefits

Recognition:

[IFRS]: record when can estimate

[ASPE]: record when employee accepts package and amount can be estimated

INVOLUNTARY: employee forced leave + receive termination benefits

Recognition: *similar to restructuring guidelines:* formal + detailed plan

-Package approved

-Communicated to employees

-Plan includes target # and levels

-Period of time to complete indicates changes not likely

ACTG 3110: Chapter 18 – Post-employment Benefits

OTHER POST EMPLOYMENT BENEFITS

Other post employment benefits (OPEB): other than pensions

Examples: supplementary health care; prescription drug plans; dental benefits

Other countries than Canada: larger benefits (since don't cover health care)

Historically in past: cost of OPEB accounted on *pay-as-you-go basis* [when benefits actually paid out] → cost estimation difficult

Current treatment: same as pensions; annual expense sum of 5 components

	Pensions	Other post-employment benefits
<i>Use</i>	Regular PMTs	<i>Sporadic use</i> from employee to employee
<i>Beneficiary</i>	Retired employee	<i>Often retired employee</i>
<i>Funding</i>	Plans typically <i>registered</i>	Plans typically <i>unregistered</i>
<i>Revaluations</i>	Periodic required legislation	Likely frequent

CRITICISMS Pension Actg

1) SFP: Accrued pension asset or liability

Only show difference actg view and funding view → doesn't show if good/bad shape [not useful from info POV]; result difference valuations funding/actg

How does new standard fix this – doesn't fix it

2) I/S: Pension expense

Current standard: no line saying pension expense - doesn't say which item to put pension expense; no consistency companies [can be anywhere – i.e.: salaries; COGS; other] [disclosed in: policy notes]

New standard: what line item include – in operating expense

NEW STANDARD IFRS

Exposure draft issued: April 2010

New standard issued: June 2011; Effective fiscal year-ends on or after: Jan 1, 2013

Recognize all changes in PPA assets + DBO from remeasurements immediately when occur;

- New – changes OCI [not earnings]

A) Continuing Components

- Current service cost
 - **New operating expense I/S** [prior line item not specified]
- Interest costs DBO
 - **New separate financing section I/S;** [not part pension expense]
- Expected rate return PPA
 - Must use actual rate [not expected]
 - **New financing section I/S;** [not part pension expense]
- Amortization past service cost
 - New not amortized
 - **New OCI** [not part pension expense]
- Amortization net actuarial gain/losses
 - **New OCI** [not part pension expense]
 - Corridor approach eliminated

ACTG 3110: Chapter 18 – Post-employment Benefits

B) SPECIAL COMPONENTS

3. Termination benefits: **Voluntary – IFRS will be same ASPE**

- New record when employee accepts package and amount can be estimated [instead record when can estimate]
- Criticism: Current IFRS: avoid cookie jar approach – overestimate provision + get gain

Profit and loss

- Service cost
- Finance cost

OCI – transfer to RE

- Remeasurements
- Other changes
- Gain/loss on settlement
- Impact of asset ceiling

BENEFITS: transparent; simple; actual

ASPE [see CK notes]

DEFINED BENEFIT PLAN

Option 1) immediate recognition approach OR 2) deferral and amortization approach [to be eliminated]

Immediate recognition approach [exposure draft stage]

- All costs recognized as an expense or capitalized as part of an asset e.g. inventory
- B/S – difference a) DBO and b) FV pension plan assets; and changes remeasuring
→ expense on I/S as arise [transparent – see value assets vs. obligation]
- DBO: can use funding valuation for actg
- Actual not expected rate of return
- No amortization
- Plan obligations + assets → measured at B/S date [not up to 3 months b/f that date]
- Administrative costs managing plan assets → reduce value plan assets
- Amounts remeasurements need to be disclosed unless presented separately on I/S to explain increased volatility

Projected unit credit (benefit) approach

4. Amortization past service cost

1) Initiation plan: Amortize PSC from initiation on straight-line basis over employee group **expected period to full eligibility (EPFE) for pension benefits** [length time employees must work b/f eligible pension benefits]
Difference IFRS: longer-term period than IFRS vesting period

2) Amendment plan:

(1) Amortize PSC from amendments on same basis as PSC from initiation plan [over expected period to full eligibility benefits]; or (2) Amortize PSC from amendments over period to next expected plan amendment

5. Amortization net actuarial gain or loss

3 Options – no option OCI [all options impact I/S]

ACTG 3110: Chapter 18 – Post-employment Benefits

PENSION QUESTIONS

1. Impact assumptions on pension expense

Increase following:

1. **Expected rate of return on plan assets:** value assets (return) increase [less into plan – employer benefit] – decrease pension expense
2. **Future salary increase:** increase pension expense [since based future salary – need fund bigger amount]
3. **Employee turnover:** depends increase [higher level ppl leaving]/decrease [lower level ppl leaving]
4. **Mortality rates:** decrease - dying sooner – pay benefits shorter amount time
5. **Life expectancy after retirement:** increase
6. **Discount rates:** increase

Gains on settlements/curtailments → decrease pension expense

Decrease pension expense: expected return on plan assets

Sometimes: amortization of actuarial gains; gains on settlements/curtailments; gains on PSC

2. What does the amount on the Balance sheet for pensions represent?

Accrued pension asset or liability: difference actg view and funding view → doesn't show if good/bad shape [not useful from info POV]; result difference valuations funding/actg

How does new standard fix this – doesn't fix it

3. How does the immediate recognition method impact the balance sheet and the income statement?

o Do I have this new option in IFRS in IAS 19? NO

Save money/cost (admin) w/immediate recognition method

- o All costs recognized as an expense or capitalized as part of an asset e.g. inventory
- o B/S – difference a) DBO and b) FV pension plan assets; and changes remeasuring → expense on I/S as arise [transparent – see value assets vs. obligation]
- o DBO: can use funding valuation for actg
- o Actual not expected rate of return
- o No amortization
- o Plan obligations + assets → measured at B/S date [not up to 3 months b/f that date]
- o Administrative costs managing plan assets → reduce value plan assets
- o Amounts remeasurements need to be disclosed unless presented separately on I/S to explain increased volatility
- o **Answer is: Difference expense/asset → I/S, B/S have asset and expense**

4. Problem w/corridor rule: since take minimum amortization – understate loss/gain – range taken by company not known – thus eliminates comparability

5. Does a net actuarial loss mean the company has been playing games with their actuarial assumptions? No nature of it – 2 ways comes about

6. Why would the company have both types of plans? Minimize risks [refer CK article – trends towards DCP]

7. What is a plan amendment and what are the choices for amortization? Why is this amount amortized compared to a curtailment which is recognized as an expense immediately?

Vesting – not entitled to it yet; Curtailment – cutting expense

8. Why the pension plan creates a deferred tax asset?

Explain how there would be a temporary difference for pensions (accrued benefit obligations).

REGISTERED pension plan

Registered: benefit = tax-deductible for employer at time contribution

Employer ability *deduct pension contributions* (cash put in plan for period) from taxable income

tax basis = 0 – tax deduction when cash contribution made

actg basis – difference actg valuation/funding creates basis

Diff treatments tax/actg basis

ACTG 3110: Chapter 18 – Earnings per Share (EPS)

EPS FIGURES

EPS: indicate each share's proportionate amount of company's earnings

Most widely used Indicator [only ratio w/handbook section – for consistency]; reported on statement of CI

REQUIRED

- EPS *before, at and after discontinued operations*
- Only for public companies – Part 1 [private companies under IFRS not required; not standard Part 2]
- IFRS common shares is termed "ordinary shares"

INTERPRETATION: Meaningful only as part of series of company's historic/projected EPS

BASIC VS. DILUTED EPS

BASIC EPS:

- Historical amount: Indication past performance used to predict future performance
- Indicate each share's proportion amount of company's earnings
- Reflects actual outstanding common shares

DILUTED EPS:

- Reflects maximum dilution to EPS for worse case scenario – if all instruments contingently issued by company were exercised to increase # common shares [e.g.: options; convertible bonds/shares]
- Long-term impact: Used to analyze worst case for future prospects
- **Ant-dilutive:** anti-dilutive securities that increases EPS [whereby # common shares decrease] not included EPS calculation; assume not exercised [since worst case scenario figure]; **Dilutive:** assume exercised
 - Diluted EPS can only be equal or lower than Basic EPS

BASIC EPS

<p>Basic EPS = $\frac{\text{Net income available to common shareholders}}{\text{Weighted-average \# of common shares outstanding (WANS)}}$</p>

ORDINARY SHARES = COMMON SHARES: equity instruments subordinate to all other classes equity instruments; residual claim on dividends

[NUMERATOR]:

NET INCOME AVAILABLE TO COMMON SHARES net earnings company

LESS: NUMERATOR DEDUCTED FOR

1) Dividends on preferred shares: maximum deduction is one year's dividend – not in arrears

a) Cumulative preferred shares: annual dividend subtracted earnings regardless declared

- *Dividends in arrears:* if dividends not paid given year – still deduct annual dividend entitlement; when paid future year – only current year dividend deducted [not previous – since already deducted]

b) Non-cumulative preferred shares: only deduct dividends declared

Preferred shares classified as debt: interest expense already deducted NI; don't deduct avoid double counting

2) Loss when retire preferred shares: if price paid higher than average issuance price to date [Ch13]

3) Capital charge on convertible bond that is recorded as direct deduction from R/E

ACTG 3110: Chapter 18 – Earnings per Share (EPS)

[DENOMINATOR]:

WEIGHTED AVERAGE # COMMON SHARES OUTSTANDING (WANS)

Average # of common shares outstanding during year, weighted by: proportion of year that shares are outstanding

STOCK SPLITS & STOCK DIVIDENDS

Change in # shares outstanding w/o change share equity; shareholder proportionate ownership remains same

- Not weight-averaged; *treated as though always been outstanding* [adjusted if took place/occur beg. year]
- Occur after year-end + before audit report signed → include in current year EPS

Retroactive adjustment: prior years EPS restated to reflect splits and dividends [up to given years info]

- **Stock split:** divides shares into larger # units, each with smaller value per share
 - E.g.: 2-for-1 stock split → shares outstanding double (x2) → denominator doubles → EPS halved
- **Reverse stock split:** proportionate reduction # shares outstanding, each with larger value per share
 - E.g.: 2-for-1 reverse stock split → shares outstanding half (/2) → denominator half → EPS doubles
- **Stock dividend:** proportional distribution to shareholders of additional shares of corp [instead cash]
 - **Stock dividend % = annual dividend per share / stock's price per share OR Dividends Paid/Earnings**
 - E.g.: 10% stock dividend [may need determine %] → shares outstanding (x1.1)

CONTINGENTLY ISSUABLE COMMON SHARES: issuable for little/no cash upon satisfaction specific conditions in contingent share agreement [e.g.: common shares issued if license for new product granted]

Included as outstanding in WANS from date conditions have been met

MULTIPLE CLASSES OF COMMON SHARES [not tested quantitative]

Used to voting rights between classes to prevent controlling shareholders from losing control to hostile investors

Evaluate dividend entitlements each class share:

- 2+ classes share dividends equally** → no change calculation
- 2+ classes share dividends unequally** → more than one EPS calculated [e.g.: multi-voting shares]
- 2+ classes have base dividend; participate differently** in remaining dividends declared:

Do base EPS then look impact additional shares

- 1. Earnings assigned to classes according to base dividend
- 2. Remaining profit allocated classes according to sharing arrangement
 - Allocation based on ratio [outstanding shares each class relative to dividend entitlement]
- 3. Determine per share amounts: resulting earning pools divided by # shares outstanding each pool
- 4. EPS each pool: sum of base dividend + entitlement to undistributed earnings [Step 3]

ACTG 3110: Chapter 18 – Earnings per Share (EPS)

BASIC EPS: STEPS TO CALCULATE

Before; at; after *discontinued operations*

STEP 1: NUMERATOR: Earnings to Common Shareholder

1. Earnings, **continuing operations**

Less: preferred dividend entitlement/declared [cumulative vs. noncumulative]

Earnings available to common, *continuing operations*

2. Earnings, **discontinued operations** *No deduction preferred dividend

Earnings available to common, *discontinued operations*

3. **Net earnings**

Less: preferred dividend entitlement/declared [cumulative vs. noncumulative diff treatment]

Earnings available to common, *net earnings [continued + discontinued]*

STEP 2: DENOMINATOR: Weighted Average Outstanding # Common Shares (WANS)

Date	# Shares	x Stock split	x Stock dividend	x WA Factor	= WANS
Jan 1	30	2	1.1	12/12	xx
April 1	6	2	1.1	9/12	xx
June 1 – stock dividend 10%					
July 1 – retire shares	(1)			6/12	(xx) retired shares subtract
Aug 5 – stock split 2 for 1					

WA Factor: # months remaining in year/12 months

Adjust for anything above line [previous years] →

STEP 3: EPS

1. **Earnings from continuing operations** = [NI – Pref dividends]/WANS

2. **Discontinued operations** = [NI – Pref dividends]/WANS

3. **Net earnings** = [NI – Pref dividends]/WANS

STEP 4: DISCLOSURE

Basic + diluted EPS figures: disclose f/s [SCI] + notes

Discounted operations EPS: f/s [SCI] or notes

ACTG 3110: Chapter 18 – Earnings per Share (EPS)

DILUTED EPS [not tested quantitative]

EARNINGS DILUTION: additional shares issued w/o sufficient proportionate increase earnings; EPS decline [diluted]

DILUTED EPS: reflects maximum potential dilution to EPS for worse case scenario – if all instruments contingently issued by company were exercised to increase # common shares future [e.g.: options; convertible bonds/shares]

- Long-term impact: Used to analyze worst case for future prospects
- Conservative figure; looking for lowest EPS

DILUTIVE VS. ANTI-DILUTIVE

Dilutive elements: decrease EPS [through increase common shares]

Anti-dilutive elements: increase EPS [through decrease common shares]

- Excluded calculation diluted EPS; assumed investors holding anti-dilutive elements would not convert/exercise to common shares in those circumstances
- Diluted EPS can only be equal or lower than Basic EPS

DILUTED EPS CALCULATION

Calculate Basic EPS → adjustments resulting from potential share transactions

1. Dilutive **options to purchase shares** are exercised *if in money*
 - a. Shares issued as share options issued during beginning of year
2. Dilutive **contingently issuable common shares** are issued
3. Dilutive **convertible senior shares** [debt + preferred shares] convert into common shares during period/future
 - a. Convertible debt/preferred shares that actually converted did so at beginning year

ADJUSTMENTS TO BASIC EPS

1. Adjustment for Dilutive **OPTIONS:** *affect denominator*

Stock option give holder right to acquire share at stated price [e.g.: stock rights; warrants; employee stock options]

If any options **exercised** during period, adjustments if options **in-the-money** [exercise price lower than MV common shares], thus dilutive

Use **Treasury Stock Method:** convention for option adjustments impact on diluted EPS

- Proceeds from exercising existing options [exercise price x shares outstanding] assumed [pretend] to use cash received to repurchase + retire common shares at average market price during period
 - **reduce denominator** by shares retired @ average market price
 - **increase denominator** by shares issued
- Dilutive if # shares issued greater than # shares retired [only when options are in-the-money]

ACTG 3110: Chapter 18 – Earnings per Share (EPS)

2. Adjustment for CONTINGENTLY ISSUABLE COMMON SHARES: *affect denominator*

Contingently issuable shares: issuable for little/no cash upon satisfaction specific conditions in contingent share agreement

- a) If contingency resolved during period + shares become issuable → shares included in WANS for basic EPS from date conditions have been met
- b) If conditions not met → include shares calculation diluted EPS, if unmet conditions not expired
 - o **Shares included in denominator**, as of later of: (a) beginning reporting period; (b) date contingent share agreement

3. Adjustment for Dilutive Senior Shares [CONVERTIBLE DEBT + PREFERRED SHARES] *affect numerator+denominator*

Bonds and preferred share adjustments based on **if-converted method** – numerator + denominator EPS adjusted to reflect what would have been if securities were converted at beginning of the period [or date of issue, if later]

NUMERATOR:

- 1) **CONVERTIBLE BONDS:** numerator increase by *after-tax interest saved + avoided* [not have to pay] if converted
- 2) **CONVERTIBLE PREFERRED SHARES:** numerator increase by *dividend claim saved + avoided* [not have to pay] if converted

DENOMINATOR: increase by shares issued

SUMMARY DILUTED EPS ADJUSTMENTS

	Numerator	Denominator
1. Options <i>Treasury stock method</i>	None	1. <i>Increase</i> by shares issued 2. <i>Decrease</i> by shares retired
2. Contingently issuable common shares	None	<i>Increase</i> by shares issued
3. Convertible bonds <i>If-convertible method</i>	<i>Increase</i> by after-tax interest avoided	<i>Increase</i> by shares issued
4. Convertible preferred shares <i>If-convertible method</i>	<i>Increase</i> by dividend claim avoided	<i>Increase</i> by shares issued

DILUTED EPS CASCADE

Diluted EPS calculation: cascade of adjustments ranked from most to least dilutive

- Circular/repetitive calculation; repeated when new instrument added until item anti-dilutive – excluded

Options in-the-money + contingently issuable common shares → always dilutive; no increase numerator

Options w/lowest exercise price = most dilutive → done first in diluted EPS calculation

Convertible securities w/lowest individual EPS effect = next most dilutive

TREND ANALYSIS: BASIC + DILUTED EPS

BASIC: Based mgmt's projects of income, continued ops; ignore discontinued not reflective future operation; won't continue; Income same; # shares increase = bad. Income increase; # shares increase = good common shareholders as their ownership % may increase in future

DILUTIVE: calculate % of basic – if % [dilutive] decrease – additional dilutive instruments were issued in year = red flag common shareholders as their ownership % may decrease in future