DTA and DTL Example

Balance sheet approach

Year three：

- Tax base = cost – accumulated tax allowable depreciation =0
- Carrying value = cost – accumulated accounting depreciation =0
- Difference（0-0）*40%=0
- At three year end, accounting base and tax base is no difference.

Another Example

Accounting Base & Tax Base – Assets

Assets with and original Cost of $1,000,000

Accounting depreciation (depreciation expense) = $100,000 p.a .

Tax depreciation = $ 200,000 p.a.

	Accounting base	-	Tax base	=	Temporary difference	×	Tax rate	=	DTL in B/S
Year 1	900,000	-	800,000	=	100,000		30%	=	30,000
Year 2	800,000	-	600,000	=	200,000		30%	=	60,000

Income tax expense		B/S DTL	
Year 1	Year 2	Year 1	Year 2
30,000	30,000	30,000	60,000

Summary

- **Importance:** ☆☆
- **Content:**
  - Calculation of tax base and accounting base.
  - Balance Sheet and Income Statement approach.
- **Exam tips:**
  - 计算资产和负债的税基。
  - 使用资产负债表法计算当期的存量递延税。

Calculation for Income Tax Expense

Tasks:

- Describe the situations that will create DTA or DTL.
- Calculate income tax expense.

Accounting Base & Tax Base – Assets

Depreciable assets

- Accounting base → Original cost – accumulated accounting depreciation
- Tax base → Original cost – accumulated tax depreciation

R&D

- Accounting base (Expensed as incurred) → Zero
- Tax base (Capitalized) → Original cost – accumulated amortization

Account receivable

- Accounting base → Invoiced amount – allowance for bad debt
- Tax base → Invoiced amount (do not recognize allowance)

Accounting Base & Tax Base – Liabilities

Customer advance

- Accounting base (accrual accounting) → Unearned revenue treat as a liability
- Tax base (cash accounting) → Revenue is recognized no liability arise → Zero

Warranty liability

- Accounting base (accrual accounting) → A liability is recognized for future obligation
- Tax base (cash accounting) → Recognize a expense when a cash outflow incurred → Zero

Measurement of income tax expense

Income tax expense = Current tax expense + △DTL - △DTA

↓

Taxable income × Current tax rate

The ending balance of DTL or DTA is calculated at the end of each fiscal year, the net △ amount during current fiscal year.

- Calculate DTL and DTA should use future tax rate.
- Current tax expense should use the current tax rate.

Tax rate changes

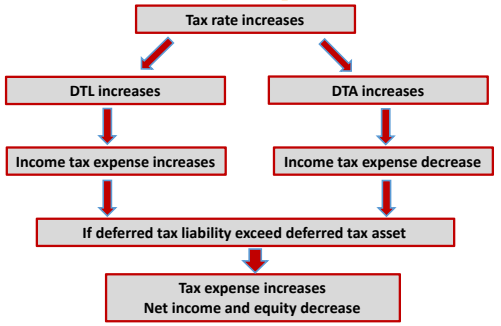
When the tax rate changes

New DTA or DTL = Old DTA or DTL × (New tax rate/Old tax rate)

A change in accounting estimate

- The change in DTA and DTL due to the tax rate changes will be part of the current year △DTA and △DTL

Tax rate changes



Summary

- **Importance:** ☆☆☆
- **Content:**
  - Situations that will create DTA or DTL.
  - Calculation of income tax expense.
  - Describe the effect on income tax expense when tax rate changes.
- **Exam tips:**
  - 辨析产生递延税的各类场景。（资产端和负债端）
  - 计算所得税费用以及辨析当税率发生改变后如何影响所得税费用和净利润。

Temporary/Permanent Differences & Valuation Allowance

Tasks:

- Distinguish between temporary and permanent differences in pre-tax accounting income and taxable income.
- Describe the valuation allowance for deferred tax assets.

Permanent Differences

Permanent differences

- Differences in tax and financial reporting that will not reverse in the future
- Don't cause deferred tax
  - Income or expense items not allowed by tax legislation
  - Tax credits for some expenditures

Income tax expense ÷ Pretax income

Result effective tax rate ≠ Statutory rate

Reversal of temporary difference

Treatment of DTL

- If unlikely to be reversed
  - Treated as equity
- If to be reversed
  - Treated as true liability
- If non-reversal/ reversal is uncertain
  - Ignored

Treatment of DTA

- If <50% probability to be reversed
  - Valuation allowance is created

Valuation Allowance

A valuation allowance reduces a deferred tax asset

Net DTA = DTA – Valuation allowance

Is based on the likelihood that the asset will not be realized (e.g., no taxable income expected)

Can be used to manipulate income: increasing the valuation allowance will decrease income, decreasing the allowance will increase income. (*Earnings prospects*)

Effective Tax Rate Reconciliation

Some firms' reported income tax expense differs from the amount based on the statutory income tax rate.

- Different tax rates in different tax jurisdictions (countries).
- Permanent tax differences: tax credits, tax-exempt income, nondeductible expenses, and tax differences between capital gains and operating income.
- Changes in tax rates and legislation.

Differences in IFRS & GAAP

Recognition (Revaluation of DTA / DTL)

- GAAP: Not applicable as revaluation is prohibited.
- IFRS: DTA or DTL (recognized in equity)

Measurement (Recognition of deferred tax assets)

- GAAP: DTA is recognized in full but is then reduced by **revaluation allowance.**
- **IFRS: Recognized only for loss carried forward.**

Classification (Current or Non current)

- GAAP: Either current or non current, base on the classification of the related non taxed assets or liabilities.
- IFRS: Non current

Summary

- **Importance:** ☆☆
- **Content:**
  - Temporary and permanent differences.
  - Valuation allowance for deferred tax assets.
- **Exam tips:**
  - 辨析暂时性差异和永久性差异。
  - 了解Valuation Allowance是如何产生，以及备抵递延所得税资产的。

Accounting for Bond Issuance

Tasks:

- Determine the initial measurement and subsequent measurement of bonds.
- Describe the effective interest method and calculate interest expense.

Bond Terminology

Face value

- Known as the maturity value or par value, is the amount of principal that will be paid to the bondholder at maturity.

Coupon rate

- The interest rate stated in the bond that is used to calculate the coupon payments.

Coupon payments

- periodic interest payments to the bondholders and are calculated by multiplying the face value by the coupon rate.

Effective rate of interest

- The interest rate that equates the present value of the future cash flows of the bond and the issue price.

Bond Terminology

Interest expense

- Reported in the income statement is calculated by multiplying the book value of the bond liability at the beginning of the period by the market rate of interest of the bond when it was issued.

Bond liability

- Liability of a bond is equal to the present value of its remaining cash flows (coupon payments and face value), discounted at the market rate of interest at issuance.

Issuance of bond

At the date of issuance, the market rate of interest may be equal to, less than, or greater than the coupon rate.

- When the market rate is equal to the coupon rate, the bond is a par bond (*priced at face value*).
- When the market rate is greater than the coupon rate, the bond is a discount bond (*priced below par*).
- When the market rate is less than the coupon rate, the bond is a premium bond (*priced above par*).

Issuance of bond

Bonds Issued at Par

- On the balance sheet
  - Assets and liabilities increase by the bond proceeds (face value). The book value of the bond liability will not change over the term of the bond.
- On the income statement
  - Interest expense for the period is equal to the coupon payment because the yield at issuance and the coupon rate are the same.

Issuance of bond

Bonds Issued at Par

- On the cash flow statement
  - The issue proceeds are reported as a cash inflow from *financing activities* and the coupon payments are reported as *cash outflows from operating activities* under *GAAP*, they may be reported as *CFO or CFF under IFRS*.

Issuance of bond

Bonds Issued at Discount or Premium

- If the coupon rate is less than the bond's yield
  - the proceeds received will be *less than the face value*.
- If the coupon rate is greater than the bond's yield
  - the bond price and the *proceeds received will be greater than face value*

Cash flow of bond

Two types of cash flows

- Periodic payment of Interest/ Coupon
  - ***CFO*** *(Cash outflow* from operating activities*)*
- Principal
  - ***CFF***
  - Amount received at issuance
    - ✓ *Cash inflow* from financing activities
  - Principal repayment at maturity
    - ✓ *Cash outflow* from financing activities

Cash flow of bond

A zero coupon bond issued on 1 January 2010 with 4 years to maturity and a redemption price of $600,000, the market interest rate at the time of issuance is 8%.

	Beginning BV (Jan 1st)	Interest expense (8%)	Coupon payment	Ending BV (Dec 31st)
Year 2010	441,018	35,281	0	476,299
Year 2011	476,299	38,014	0	514,403
Year 2012	514,403	41,153	0	555,556
Year 2013	555,556	44,444	0	600,000

Cash flow of bond

On 31 Dec 2002, a company issued a three – year 10% annual coupon bond with a face value of $1000

- Market interest rate at issuance is 10%
- Market interest rate at issuance is 8%
- Market interest rate at issuance is 12%

What is the effect on B/S, I/S, CFS?

Cash flow of bond

Market interest rate at issuance is 10% = Coupon rate

- ***Issue at par***

	BV 1st Jan	Interest expense (10%)	Coupon	BV 31st Dec
2003	1000	100	(100)	1000
2004	1000	100	(100)	1000
2005	1000	100	(100)	1000

- **B/S**: The bond liability *remains at face value* over the life of the bond
- **I/S**: Interest expense = Coupon payment = $100
- **CFS:** CFO cash outflow $100 p.a. = Coupon payment
  CFF cash in/outflow at beginning and maturity

Cash flow of bond

Market interest rate at issuance is 8% < Coupon rate 10%

- ***Issue at premium***

	BV 1st Jan	Interest expense (8%)	Coupon	BV 31st Dec
2003	1051.54	84.12	(100)	1035.66
2004	1035.66	82.85	(100)	1018.52
2005	1018.52	81.48	(100)	1000

- **B/S**: The bond liability will *decrease towards the face value* over the life of the bond
- **I/S**: Interest expense < Coupon payment
  - The amortization of premium will *reduce the interest expense* shown on I/S

Cash flow of bond

CFS: CFO outflow = Coupon payment ($100 p.a.)

- ***For analysis purpose***, the interest expense and the amortization of the premium should be separated

Cash outflow in 2003	Original CFO		CFO for F/A		CFF for F/A
	100	=	84.12	+	15.88

- Without adjustment
  - CFO is ***understated*** and CFF is ***overstated.***

Cash flow of bond

Market interest rate at issuance is 12% > Coupon rate 10%

- ***Issue at discount***

CFS: CFO Cash outflow = Coupon payment ($100 p.a.)

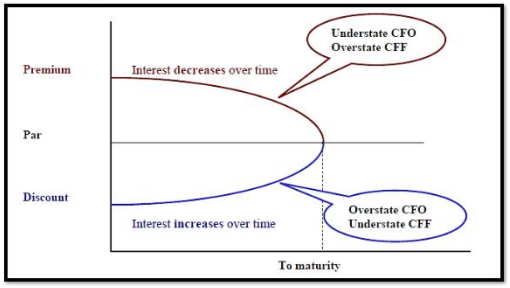
- ***For analysis purpose***, the interest expense and the amortization of the premium should be separated

Cash outflow in 2003	Original CFO		CFO for F/A		CFF for F/A
	100	=	114.24	-	14.24

- Without adjustment
  - CFO is ***overstated*** and CFF is ***understated.***

Summary

Carrying value of bond on balance sheet



Summary

Premium or discount bond

- Premium (Coupon rate > Market rate)
  - Decrease over time

  Interest exp = Coupon - Prem. Amortization
- Discount (Coupon rate < Market rate)
  - Increase over time

  Interest exp = Coupon + disc. Amortization

CFS : ***No change*** for accounting /Adjust for F/A purpose

Summary

- **Importance: ☆☆☆**
- **Content:**
  - Initial measurement and subsequent measurement of bonds.
  - Calculate interest expense.
- **Exam tips:**
  - 了解公司发行公司债券时应该如何记账。（重点掌握负债端的摊销过程。）
  - 计算每年会产生的财务费用。（计算题）

Issuance Costs & Derecognition of Debt

Tasks:

- Account for Issuance Cost of Debt.
- Explain the derecognition of debt.
- Describe the role of debt covenants in protecting creditors.

Issuance Costs

Issuing a bond involves legal and accounting fees, printing costs, sales commissions, and other fees.

- Under U.S. GAAP, issuance costs are capitalized as an asset (deferred charge) and allocated to the income statement as an expense over the term of the bond.
- Under IFRS, the initial bond liability on the balance sheet is reduced by the amount of issuance costs, increasing the bond's effective interest rate. In effect, issuance costs are treated as unamortized discount.

Issuance Costs

Company C issued a $1 million bond for $990,000 with an issuance cost of $10,000.

U.S. GAAP	IFRS
Assets: Cash $980,000 *Issuance cost $10,000*	Assets: Cash $980,000
Liabilities: Bond payable $990,000	Liabilities: Bond payable $980,000

Derecognition of Debt

A firm may choose to redeem bonds before maturity

- Interest rates reduction
- Firm has generated surplus cash through operation
- Funds from the issuance on the equity market is available
- A gain or loss is recognized in I/S

Derecognition of Debt

A firm reacquires $1 million face value bonds at 102% of par when the carrying value of the bond liability is $995,000

Answer:

- Losses = $1,020,000 - $995,000 = $25,000 recognize in I/S
- Under U.S. GAAP, any unamortized issuance costs must be written off and included in the gain or loss calculation
- G/L on repurchase = B/S carrying value – Cash paid
  - Unamortized issuance costs

Covenants

Debt covenants are restrictions imposed by the lender on the borrower to protect the lender's position.

- **Affirmative covenants**
  - Make timely payments of principal and interest.
  - Maintain certain ratios (such as the current, debt-to-equity, interest coverage ratios) in accordance with specified levels.
  - Maintain collateral, if any, in working order.
- **Negative covenants**
  - Increasing dividends or repurchasing shares.
  - Issuing more debt.
  - Engaging in mergers and acquisitions.

Summary

- **Importance:** ☆☆
- **Content:**
  - Derecognition of debt.
  - Role of debt covenants in protecting creditors.
  - Measurement of issuance cost in GAAP and IFRS.
- **Exam tips:**
  - 了解回购债券时发生损益的会计处理。
  - 了解债券发行的条款特征。
  - 辨析美国和国际准则对于债券发行成本的会计处理。

Classification of Leases

Tasks:

- Explain motivations for leasing assets instead of purchasing.
- Distinguish between a finance lease and an operating lease in U.S. GAAP and IFRS.

Reasons to Lease

Alternative to borrowing and purchasing asset.

- Short period of use
- Cheaper financing (potentially)
- No down payments
- Fixed rates
- May have less covenants
- Less risk of obsolescence
- Potential financial reporting advantage (operate lease)
- Tax advantages

Reasons to Lease

A lease is a contractual arrangement where by the lessor , the owner of the asset , allows the lessee to use the asset for a specified period of time (lease term) in return for periodic lease payment.

Two partied involved in leases

- Lessee： use the asset
- Lessor： owner of the asset

Reasons to Lease

Two types of leases (Classification)

- **Operating lease**
  - An operating lease is essentially a rental arrangement.
  - *No asset or liability is reported* by the lessee
  - Periodic *lease payments are simply recognized as rental expense in the income statement*.

Reasons to Lease

Two types of leases (Classification)

- **Finance lease / Capital lease (U.S.)**
  - A finance lease is, in substance, a purchase of an asset that is financed with debt.
  - The lessee will add equal amounts to *both assets and liabilities on the balance sheet*.
  - Over the term of the lease, the lessee will *recognize depreciation expense on the asset and interest expense on the liability.*

Classification of leases – IFRS

Finance lease / Capital lease

- Title transfer
- Bargain purchase option
- The lease term is for the major part of the economic life of the asset.
- At the inception of the lease the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset.
- A specialized nature.

Operating lease

- A lease other than finance lease.

Classification of leases – U.S.GAAP

Finance lease / Capital lease

- Title transfer
- Bargain purchase option
- The lease period is at least ***75%*** of the asset's economic life.
- The present value of the lease payments is equal to or greater than ***90%*** of the fair value of the leased asset.

Operating lease

- A lease not meeting any criteria above.

Summary

- **Importance:** ☆☆
- **Content:**
  - Classification of lease.
  - Difference between a finance lease and an operating lease in U.S. GAAP and IFRS.
- **Exam tips:**
  - 了解经营性租赁和融资性租赁。
  - 辨析美国准则和国际准则中针对融资性租赁的界定规则。

Accounting for Lease
（Lessee perspective）

Tasks:

- Determine the initial recognition, initial measurement, and subsequent measurement of finance leases.
- Distinguish between a finance lease and an operating lease from perspectives of lessee.

Accounting for lease - Lessee

Statements	Finance lease	Operating lease
B/S Inception	Leased asset = Leased liability = PV of lease payments	No effect
B/S Periodic	Leased asset: Depreciation over the lease term. Lease liability: Amortized cost (Beginning lease liability + Interest expense – lease payment = Ending lease liability)	
I/S Periodic payments	Recognize *interest expense and depreciation expense* in income statement .	Recognized as rental expense
Cash flow	Interest expense: *CFO* Principle repayment: *CFF*	*CFO*

Accounting for lease - Lessee

GF leases a machine for its own use for 4 years with annual payments of 1000 paid in arrears ; The appropriate interest rate on the lease is 10%.

Calculate the impact of the lease on GF' balance sheet and income statement for each of the 4 years, including the immediate impact. Assuming GF depreciates all assets on SL basis.

Accounting for lease - Lessee

B/S is affected by Finance lease only

At the inception of the lease

- Leased asset = lease liability =3169.8654=3170
- N=4, I/Y=10, PMT=1000, FV=0, CPT PV -3168.8654 ≈ 3170

Over the lease term

- Leased asset ⟶ annual depreciation (SL) i.e. 3170 / 4years
- Lease liability ⟶ separate Interest expense & Lease payment.

Accounting for lease - Lessee

N=4	PMT=1000	Int.=10%	FV=0	PV=3170
	Beg	Int.	PMT	End
Year 1	3170	317	1000	2487
Year2	2487	249	1000	1736
Year3	1736	173	1000	909
Year4	909	91	1000	0

Comparison between finance and operating lease

Capital lease			Operating lease
Depreciation expense	Interest expense	Total expense	Lease expense
792.5	317	1109.5	1000
792.5	249	1041.5	1000
792.5	174	966.5	1000
792.5	91	883.5	1000
3170	830 (4000-3170)	4000	4000

Comparison of CF between finance and operating

	Operating lease	Capital lease		
Years	CFO	CFO	CFF	Total CF
1	1,000	317	683	1,000
2	1,000	249	751	1,000
3	1,000	174	826	1,000
4	1,000	91	910	1,000
Total	4,000	*Interest expense*	*Lease payment – Interest expense*	4,000

Effect on Financial statements

Statements	Items	Capital lease	Operate lease
Balance Sheet	Assets	Higher	Lower
	Liabilities	Higher	Lower
Income Statement	EBIT	Higher	Lower
	Net income in *early* years	Lower	Higher
	Net income in *later* years	Higher	Lower
	Total net income	Same	Same
Cash flow Statement	CFO	Higher	Lower
	CFF	Lower	Higher
	Total cash flow	Same	Same

Effect on ratios

Items	Capital lease	Operate lease
Current ratio (Current ratio ↑)	Lower	Higher
Working capital (Current ratio ↑)	Lower	Higher
Asset turnover (Asset ↑)	Lower	Higher
ROA in early years (Net income ↑)	Lower	Higher
ROE	Lower	Higher
Debt / Asset (Current ratio ↑)	Higher	Lower
Debt / Equity (Current ratio ↑)	Higher	Lower

Summary

- **Importance:** ☆☆☆
- **Content:**
  - Initial recognition, initial measurement, and subsequent measurement of finance leases.
  - Difference between a finance lease and an operating lease from perspectives of lessee.
- **Exam tips:**
  - 以承租人的立场理解两种租赁方法对于三张报表的影响。
  - 对比融资性租赁和经营性租赁是如何影响财务比率的。

Accounting for Lease & Pension
（Lessor perspective）

Tasks:

- Distinguish between a finance lease and an operating lease from perspectives of lessor.
- Compare the presentation and disclosure of defined contribution and defined benefit pension plans.

Classification of lease - Lessor

Two conditions to be satisfied:

- Cost certain
  - There are no significant uncertainties about the amount of reimbursable costs yet to be incurred by the lessor.
- Assurance of receiving amount of lease
  - The collectivity of lease payments is predictable.

Lessee	Lessor	
Operating lease	→ Operating lease	
Finance lease	Two conditions are not satisfied	→ Operating lease
	Two conditions are satisfied	Capital lease • If manufacturer: *Sales type lease* • If for financing: *Direct financing lease*

Accounting for lease - Lessor

Statements	Sale – type lease	Direct – financing lease
At inception of I/S	Gross profit = Sales – COGS Sales = PV of lease payments COGS = Cost of asset – PV of salvage value	No gross profit is recognized
At inception of B/S	Lease receivable = PV of lease payments + PV of salvage value	Lease receivable = Cost of the assets
Periodic I/S	Interest income (Implicit interest rate ×Beginning lease receivable)	
At inception of CFS	No effect	
Periodic CFS	CFO: Cash inflow CFI: Cash inflow	

Operating lease - Lessor

Operating lease

- If the lease is treated as an operating lease, the lessor simply recognizes the lease payment as rental income.
- The lessor will keep the leased asset on its balance sheet and depreciate it over its useful life.

Total income over the life of the lease is the same for an operating lease and a direct financing lease.

- In the *early years of the lease*, the income reported from the *direct financing lease is higher* than the income reported from the operating lease.

Operating lease - Lessor

A company purchases an asset for $69,302 to lease to B company for four years with an annual lease payment of $20,000 at the end of each year. The implied interest rate in the lease is 6%.

Direct financing lease		Operating lease		
Year	Interest income	Rental income	Depreciation expense	Operating lease income
1	4158	20000	17325.5	2674.5
2	3208	20000	17325.5	2674.5
3	2200	20000	17325.5	2674.5
4	1132	20000	17325.5	2674.5
Total	$10698			$10698

Operating lease - Lessor

Total cash flow is the same for an operating lease and a direct financing lease. However, cash flow from operations is higher with the operating lease.

Year	Direct finance lease		Operating lease
	CFO	CFI	CFO
1	4,158	15,842	20,000
2	3,208	16,792	20,000
3	2,200	17,800	20,000
4	1,132	18,868	20,000

Framework for Pension plans

Defined contribution plan	Defined benefit plan
The *employee* take all investment risk	The *employer* take all investment risk

Employer

Employer paid the contribution during the employee service period

Pension fund

Employees receive benefit after retirement

Employee

Summary

- **Importance:** ☆☆
- **Content:**
  - Finance lease and an operating lease from perspectives of lessee.
  - Difference between DC and DB plan.
- **Exam tips:**
  - 以出租人的立场理解两种租赁方法对于利润以及现金流的影响。
  - 辨析DC和DB两种养老金计划，了解选择不同计划对于财务报表的影响。

Quality of Financial Reporting

Tasks:

- Describe quality of earnings, cash flow, and balance sheet items.
- Distinguish between conservative and aggressive accounting.
- Describe accounting methods that could be used to manage earnings, cash flow, and balance sheet items.

Quality of financial reporting

Financial report quality

- High quality financial reporting must be ***decision useful***.
  - *Relevance* and *faithful representation*
    - ✓ Relevance: *material* information
    - ✓ Faithful representation: *completeness, neutrality* and absence of errors.

Quality of earnings

- Can be judged based on the *sustainability* of the earnings.

Spectrum for assessing financial reporting quality

From best to worst

- Reporting is compliant with GAAP and decision useful; earnings are sustainable and adequate.
- Reporting is compliant with GAAP and decision useful, but earnings quality is low.
- Reporting is compliant with GAAP and decision useful, but earnings quality is low and reporting choices and estimates are biased.
- Reporting is compliant with GAAP, but the amount of earnings is actively managed to increase, decrease, or smooth reported.
- Reporting is compliant with GAAP, although the numbers presented are based on company's actual economic activities.
- Reporting is not compliant and includes fraud numbers.

Conservative and aggressive accounting

Aggressive	Conservative
Capitalizing current period costs	Expensing current period costs
Longer estimates of the lives of depreciable assets	Shorter estimates of the lives of depreciable assets
Higher estimates of salvage values	Lower estimates of salvage values
Straight-line depreciation	Accelerated depreciation
Delayed recognition of impairments	Early recognition of impairments
Less accrual of reserves for bad debt	More accrual of reserves for bad debt
Smaller valuation allowances on DTA	Larger valuation allowances on DTA

Motivation for manipulation

Manipulate earnings for:

Overstate net income	Understate net income
Meet earning expectation	Obtain trade relief
Compliance with debt covenants	Negotiate favorable repayment term from creditors
Receive higher incentive compensation	Negotiate favorable labor union contracts

Conditions relate to low- quality reporting

Circumstances in which a low - quality financial report occurs

- The company has weak internal controls.
- The board of directors provides inadequate oversight.
- Accounting standards that provide scope for divergent choices or minimal consequences for an inappropriate choice.

Discipline financial reporting quality

Regulatory bodies

- Securities and Exchange Commission (SEC)----U.S.A.
- Financial Conduct Authority (FCA)----U.K.
- International Organization of Securities Commissions (IOSCO)

Enforcement actions

- Fines, suspending or permanently barring market participants, and bringing criminal prosecutions.
- Regulatory authorities paly a central role in encouraging high quality financial reporting.

Warning signs for low- quality reporting

Items can be used to manage earnings

- Changes in revenue recognition method (not consistency)
- Decreases over rime in turnover ratios (receivables, inventory, total asset).
- Bill-and-hold, barter, or related-party transactions.
- Net income not supported by operating cash flows.
- Capitalization decisions, depreciation methods, useful lives, salvage values out of line with comparable firms.
- Fourth-quarter earnings patterns not caused by seasonality.
- Frequent appearance of nonrecurring items.
- Emphasis on non-GAAP measures.

Summary

- **Importance:** ☆
- **Content:**
  - Quality of earnings, cash flow, and balance sheet items.
  - Conservative and aggressive accounting.
  - Accounting warning signs and methods for detecting manipulation
- **Exam tips:**
  - 了解如何评估利润的质量。（结合利润表和现金流量表）
  - 辨析激进和保守的会计处理方式。

Credit Scoring & Analyst Adjustments

Tasks:

- Forecast a company's future net income and cash flow.
- Describe the role of financial statement analysis in assessing the credit quality of a potential debt investment.
- Explain appropriate analyst adjustments to a company's financial statements to facilitate comparison with another company.

Forecast net income and cash flow in the future

Example for financial forecast

- Sales expected to be $100 mil in year 1 and increase 5% per year.
- COGS = 20% of sales
- SG&A = 40% of sales
- Interest expense = 10% of sales
- Tax rate = 30% No dividends

How to predict net income next year?

Forecast net income and cash flow in the future

Pro – forma financial statement

Items	Year 1	Year 2
Sales	100	105
- COGS	20	21
- SG&A	40	42
- Interest exp.	10	10.5
Earning before tax	30	31.5
- Tax exp.	9	9.45
Net income	21	22.05

Credit risk

Credit risk analysis

- Ability of issuer to meet interest and principal repayment on schedule (capacity).
- Cash flow forecast focus.
- Variability of cash flows

Four C

- **Capacity**
- **Collateral**
- **Covenants**
- **Character**

Credit scoring

Scale and diversification

- Size, product diversification, geographical diversification.

Operational efficiency

- Such items as operating ROA, operating margins, and EBITDA margins fall into this category, along with degree of vertical integration.

Margin stability

- Stability of profitability margins indicates a higher probability of repayment .

Leverage

- Coverage ratios of operating earnings, EBITDA, or some measure of free cash flow to interest expense or debt.

FSA & Equity investment

Comparing ratios to min/max values

- ***Growth investors***
  - Focus on earnings growth.
- ***Value investors***
  - Focus on low share price in relation to earnings or assets.
- ***Market oriented***
  - Neither value or growth focused.

Analyst adjustments -1

Ensure accounts are comparable before calculating ratios.

- ***Investments***
  - Held-to-maturity
  - Available - for- sale securities
  - Trading securities
- ***Inventory***
  - FIFO / LIFO / AVCO

Analyst adjustments -2

Ensure accounts are comparable before calculating ratios.

- ***Property, Plant and Equipment***
  - Depreciation method
  - Estimated lives & Salvage value
  - Revaluation (IFRS only)
- ***Goodwill***
  - Internally generated (not capitalized)
  - Purchased (capitalized)

Analyst adjustments -3

Ensure accounts are comparable before calculating ratios.

- ***Off balance sheet finance***
  - Capital lease V.S. Operating lease
  - Securitizing of A/R
  - SPEs

Summary

- **Importance:** ☆
- **Content:**
  - Pro – forma financial statement..
  - The role of financial statement analysis in assessing the credit quality.
  - Appropriate analyst adjustments.
- **Exam tips:**
  - 了解预测报表的编制过程。（定性了解即可）
  - 了解信用分析中财务数据的应用。（定性了解，4C）
  - 了解几类常见的分析师针对财务数据的调整。