Advanced Group Accounting (RIKA)

Block 6

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Exercise 1)

- Task:
  - Please name **five** key differences between an asset versus a share deal. You can use the table below to structure your answer.

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Solution 1)

Asset Deal	Share Deal
Acquirer interacts with Target‘s management	Acquirer interacts with Target‘s shareholders (hostile takeover possible)
Acquirer gets ownership of target’s assets.	Acquirer obtains control over target (typically, by acquiring the majority of voting rights).
Target typically ceases to exist as a separate legal entity after the transactions.	Target can continue to exist as a legal entity after the transaction.
No need for consolidation - all assets are already on Acquirer’s balance sheet	Need for consolidation - investment shown in Acquirer’s balance sheet does not reflect economic fundamentals of the business group
Stock financing uncommon	Stock financing possible to mitigate overpayment / undervaluation

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Exercise 2)

- Task:
  - Please explain the concept of “control” as in IFRS 10 and distinguish it from the concept of “power.” Further, name three factors to consider in assessing “power”.

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Solution 2)

- Control exists when an investor has all of the following three elements:
  - A) power over the investee
  - B) exposure, or rights, to variable returns from its involvement with the investee and
  - C) the ability to use its power over the investee to affect the amount of the investor's returns

- Model: Power-as-to-benefit model

- Factors to consider in assessing power:
  - (relative) size of voting rights
  - dispersion of other shareholdings
  - level of disorganization / apathy among other shareholders
  - attendance at annual general meetings
  - contractual arrangements

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Exercise 3)

- Facts
  - Taunus AG acquired 75% of the Main AG for a cost of 25,000 CU. All identifiable assets and liabilities were recorded at fair value in Main AG's unconsolidated financial statements, with the exception of land. Here, a hidden reserve of 3,000 CU exists. The tax rate is 30%. The non-controlling interests in Main AG have a fair value of 8,000 CU. At the acquisition date, the equity of Main AG consisted of:

Item	Balance in CU
Share capital	9,000
General reserve	7,000
Retained earnings	8,000

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Exercise 3)

- Tasks
  - a) Please shortly explain what is meant by the term “non-controlling interest”.
  - b) Please account for the non-controlling interest measured at **fair value** (full goodwill method) in comparison to measuring at **proportionate share in net assets** (partial goodwill method) using the table above.

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Solution 3)

- a) NCI is the term used for the ownership interest in a subsidiary other than the parent. It is defined in IFRS 10 as: the equity in a subsidiary not attributable, directly or indirectly, to a parent.

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Solution 3)

	Full Goodwill Method	Partial Goodwill Method
Purchase Price	25,000	25,000
Non-controlling interest at fair value	8,000	
Non-controlling interest at 25% of identifiable net assets		6,525
Total	33,000	31,525
Fair value of 100% identifiable net assets	26,100	26,100
Goodwill	6,900	5,425
Amount recognized of non-controlling interest	8,000	6,525

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Exercise 4)

- Facts:
  - In 20X1, Yoga AG acquired 90% of the capital of Relax AG for 300,000 CU in cash. The carrying amounts and fair values of the assets and liabilities recorded by Relax AG as of 31.12.20X1 were as follows:

	Carrying amount	Fair Value
Non-current assets	294,000	390,000
Liabilities	64,000	64,000

  - Yoga AG uses the **full** goodwill method. The tax rate is 30%.

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Exercise 4)

- Tasks:
  - a) Please provide the journal entries for the first-time consolidation on 31.12.20X1 and fill out the consolidated worksheet provided below.
  - b) Please explain the need to eliminate intra-group transactions in consolidated financial statements.
  - c) In 20X2, the following transactions occur:

    Yoga AG sold inventory costing (historical cost) 18,000 CU to Relax AG for 23,000 CU. One-third of this was sold for 9,500 CU to an external party and one-third for 9,000 CU to another external party.

  Please provide the journal entries to eliminate the intra-group transaction as of 31.12.20X2.
  - d) Please provide the necessary journal entries for the subsequent consolidation of the non-current assets as of 31.12.20X2. Assume that as of 01.01.20X2, the assets have a remaining useful life of 5 years and are depreciated on a straight-line basis.

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Solution 4a)

- 1. Revaluation

Dr. Non-current assets 96,000

Cr. Deferred tax liability 28,800

Cr. Equity 67,200

- 2. Pre-acquisition entries

Revalued Equity = 230,000 (equity)

+ 96,000 (1 – 30%) (non-current assets)

= 297,200

Consideration transferred = 300,000 + 33,333.33 = 333,333.33

Goodwill total = 333,333.33 – 297,200

= 36,133.33

Goodwill to NCI = 36,133.33 x 0.1 = 3,613.33

Goodwill of the parent = 333,333.33 – 297,200x0.9

= 32,520

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Solution 4a)

Dr. Equity	267,480	
Dr. Goodwill	32,520	
Cr. Investment in Relax		300,000

NCI share of equity:

Dr. Equity	29,720
Dr. Goodwill	3,613.33
Cr. NCI	33,333.33

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Solution 4a)

	Yoga AG		Relax AG		Revaluation		Sum balance		Consolidation		Consolidated Financial Statements	
					Dr.	Cr.			Dr.	Cr.		
Non-current assets	*21,000*		*294,000*		*96,000*		*411,000*				*411,000*	
Investment in Relax AG	*300,000*						*300,000*			*300,000*	*0*	
Goodwill									*32,520* *3,613.33*		*36,133.33*	
Current assets	*143,000*						*143,000*				*143,000*	
Deferred tax asset												
Equity		*394,000*		*230,000*		*67,200*		*691,200*	*267,480* *29,720*			*394,000*
Non-controlling interest										*33,333.33*		*33,333.33*
Debt		*70,000*		*64,000*				*134,000*				*134,000*
Deferred tax liability						*28,800*		*28,800*				*28,800*
Sum	*464,000*	*464,000*	*294,000*	*294,000*			*854,000*	*854,000*			*590,133.33*	*590,133.33*

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Solution 4b)

- Consolidated financial statements can only account for assets, liabilities and profits that are with external parties. Intra-group transactions need to be adjusted since these are within a group and do not include an external party.

→ entity concept of consolidation: the group is defined as net assets of the parent and the net assets of the subsidiary → leads to adjustment of intra-group transactions

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Solution 4c)

- Transaction in 20X2

Dr. sales revenue 23,000

Cr. COGS 21,333.33

Cr. Inventory 1,666.66

Dr. DTA 500

Cr. Deferred Tax Income 500

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Solution 4d)

- Depreciation:

Dr. Profit 19,200 Cr. Non-current assets 19,200

- Adjust NCI share of profit:

Dr. NCI 1,920 Cr. Profit 1,920

- Reversal of deferred tax liability:

Dr. DTL 5,760 Cr Profit 5,760

- Adjust NCI share of profit:

Dr. Profit 576 Cr NCI 576

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Exercise 5)

- **Facts**

Financial AG has purchased 30% of the shares of Managerial GmbH for 5,200 CU as of 01.01.20X1.

The equity of Managerial GmbH at the acquisition date was:

Item	Balance in CU
Share capital	4,000
Equity Reserve	3,000
Retained Earnings	2,100

Hidden reserves (remaining useful life: 10 years as of 01.01.20X1) have an amount of 800 CU.

The profit of Managerial GmbH is as follows:

Distribution of 20X0's profit	(300)
Profit generated in 20X1	500

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Exercise 5)

- Tasks
  - a) Please apply the equity method to account for the investment in Financial AG's consolidated financial statements in 20X1 using the information above.
  - b) Please give the appropriate journal entries to account for the investment in Financial AG's consolidated financial statements in 20X1.

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Solution 5)

- a) *Initial measurement and purchase price allocation:*

Investment BV = Purchase Price = 5,200

BV of Equity = 30% * (4,000+3,000+2,100) = 2,730

Hidden Reserves = 30% * 800 = 240

Goodwill = 2,230

- *Subsequent valuation:*

Investment BV as of 01.01.20X1 = 5,200

+ proportionate profit 20X1 = 30% * 500 = 150

- proportionate distribution = 30% * 300 = 90

- depreciation of hidden reserves = 240/10 = 24

Investment book value as of 31.12.20X1 = 5,236

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Solution 5)

- b) JE (3p):

1) Dr. Investment in Managerial GmbH 126

   Cr. Income from investment in Managerial GmbH 126

2) Dr. Cash 90

   Cr. Investment in Managerial GmbH 90

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Exercise 6)

- **Task**
  - Please define free cash flow (to equity-holders), state its formula and explain its importance.

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Solution 6)

- The free cash flow is the cash a company generates through its operations, minus the cost of expenditures on assets. In other words, free cash flow (FCF) is the cash left over after a company pays for its operating expenses and capital expenditures (CapEx).

- Formula: FCF = Operating Cash Flow - Capital Expenditures

- One of the critical measures in company's analysis, because it shows how efficient a company is at generating cash.
- Equity investors use FCF to assess whether a company has enough cash, after funding operations and capital expenditures, to reward shareholders through dividends and buybacks.
- Debt investors also use FCF to assess how much cash is left for the company to meet its debt obligations.

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Exercise 7)

- **Facts**

The exhibit below provides you with the financial statements of Goethe AG for the year 20X1. Goethe AG is a long-established German firm, which business model is to sell souvenirs and readings from Johann Wolfgang von Goethe.

Goethe AG's main geographic market is Europe.

To store excess liquidity, Goethe AG has made some equity investments, which are accounted for as associated entities. Goethe AG does not have a strategic interest in these entities.

Goethe AG derives all interest income from securities held for trading and associated entities.

Goethe AG's provisions relate to legal disputes concerning using rights of the readings.

Assume that Goethe AG's cash is classified as operating.

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Exercise 7)

Balance Sheet	20X1
Assets	
Non-current	
Intangibles	4,000
Goodwill	4,300
Property, Plant & Equipment	5,800
Investments in associates	800
Current	
Securities held for trading	1,300
Trade accounts receivable	1,100
Inventories	2,900
Cash and cash equivalents	3,100
TOTAL	23,300
Equity &Liabilities	
Common stock	5,600
Retained earnings	5,500
Total shareholders' equity	11,100
Non-current liabilities	
Provisions	500
Long-term debt	3,900
Current liabilities	
Accounts payable	3,500
Deferred revenue	4,300
TOTAL	23,300

Profit & Loss Statement	20X1
Sales	33,000
Cost of sales	-19,000
Gross profit	14,000
R&D expense	-2,100
SG&A expense	-3,200
Other operating income	4,100
Other operating expense	-150
Operating profit (EBIT)	12,650
Income from associates held at equity	150
Interest income	150
Interest expense	-1,000
Profit before tax	11,950
Tax expense	-2,988
Net income (available to group)	8,963

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Exercise 7)

- a) Please decompose Goethe AG's return on equity using the Advanced DuPont model.
- b) Assume that Goethe AG records an impairment of goodwill in the current year. How are the contemporaneous financial ratios of the Basic DuPont model affected by the impairment loss (i.e., decrease/increase/constant)? Please provide a brief explanation. (Verbal explanation only, no calculations required.)

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Solution 7a)

Analytical Financial Statements	Goethe AG
Net operating assets (NOA)	12,900
Net financial obligations (NFO)	1,800
Effective tax rate (ETR)	25.00%
Net operating income (NOI)	9,488
Net financing expense (NFE)	525
Equity direct	11,100
Equity (NOA - NFO)	11,100
Profit after tax direct	8,963
Profit after tax (NOI - NFE)	8,963
Advanced DuPont Analysis	Goethe AG
Return on net operating assets (RNOA)	73.55%
Net borrowing costs (NBC)	29.17%
Spread (RNOA - NBC)	44.38%
Leverage (NFO / Equity)	0.16
ROE (via advanced DuPont decomposition)	80.74%
ROE (direct)	80.74%

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Solution 7b)

- Net profit margin → decreases (lower income)
- Asset turnover → increases (lower assets)
- Leverage → increases

→ example:

Before impairment we have assets 100 and equity 80 = 1,25

After impairment we have assets 80 and equity 60 = 1,333

- RoE → decreases (lower income)

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Exercise 8)

- **Task**

“Goodwill impairment is a non-cash charge and should therefore not be considered in profitability/credit analysis.”

Please critically discuss the statement.

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Solution 8)

- Note that goodwill has been „paid for“ in terms of a purchase price that is now no longer be expected to be recovered!

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Good Luck for the final exam!

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