

FINANCIAL ACCOUNTING AND FINANCIAL STATEMENT ANALYSIS

INCOME STATEMENT AND FOREIGN CURRENCY TRANSACTIONS

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1. Income recognition

1.1 Criteria for revenue recognition

Accounting for revenues raises two main questions:

- When should revenue be recognised?
- For what amount?

According to the accrual principle, revenue must be recognised at the time of the transaction, not at the time of payment. Nevertheless, identifying the transaction date is not always easy, as shown in the following paragraphs.

1.1.1 Sale of goods

According to IAS 18, revenue from the sale of goods is recognised when the seller has transferred to the buyer the significant risks and rewards of ownership of the goods. In most cases, this date coincides with the delivery of goods to the buyer. But sometimes assessing whether the transfer of risks and rewards has taken place is less easy and requires an examination of the circumstances of the transaction.

An example of a situation in which no revenue is recognised is when the buyer has the right to cancel the purchase for a reason specified in the sales contract and the probability of cancellation cannot be reliably estimated.

But when the seller, based on previous experience, can reliably estimate the probability of returns, the corresponding revenue is recognised at the time of sale and the seller makes a provision. An example of such a situation is retail sales that give the buyer the right to return items purchased if not satisfied.

Example 1:

In year N, a mail-order company sold goods for CU 1'000'000. The sale contract stipulates that customers are entitled to return items purchased if they are not satisfied. Based on statistics, the return rate can be estimated at 5%. Returned items are generally reconditioned and resold at 70% of normal price.

In year N, the company should simultaneously recognise:

- revenues (sales) of CU 1'000'000
- and an expense (provision) of $1'000'000 \cdot 5\% \cdot 30\% = 15'000$ CU.

1.1.2 Provision of services

Revenues from services are recognised when those services are provided.

For services provided over more than one period, two situations must be distinguished:

- If the outcome of the transaction can be reliably estimated, revenue is recognised by reference to the stage of completion of the transaction at the balance sheet date.
- If the outcome of the transaction cannot be reliably estimated, revenue is recognised only to the extent of expenses that are recoverable.

These rules are identical to those applicable to construction contracts. They will be detailed in section 2.

1.1.3 Measurement of revenue

Revenues must be measured at the fair value of the consideration received or receivable, i.e. after deduction of any trade discount or volume rebate.

For cash sales, the amount of revenue is the amount of cash received.

However, when payment is deferred by several months or years, the fair value of the consideration is less than the amount of cash that will be received. Cash inflows must then be discounted and the amount of revenue is the present value of future payments. The difference between the fair value and the nominal value of payments received is recognised as interest revenue in the periods concerned.

Example 2:

On 31/12/N, Company S sold goods to Company C for CU 100'000. This amount will be paid in 3 instalments:

- CU 40'000 on delivery,
- CU 30'000 one year later,
- CU 30'000 two years later.

The cost of sales is CU 80'000 and the interest rate applicable to borrowings of Company C is 6%. The present value of cash inflows at the date of the transaction is:

$$40'000 + \frac{30'000}{1.06} + \frac{30'000}{(1.06)^2} = 95'000 \text{ CU}$$

The transaction will thus be recorded as follows:

Statement of comprehensive income		N	N+1	N+2
Revenues	Sales	95'000		
	Interest		3'300	1'700
Expenses	Cost of sales	80'000		
Profit for the year		15'000	3'300	1'700
Total comprehensive income		15'000	3'300	1'700

Explanations:

$$3'300 = (95'000 - 40'000) \cdot 6\%$$

$$1'700 = (95'000 + 3'300 - 40'000 - 30'000) \cdot 6\%$$

1.1.4 Joint contracts

Sales contracts sometimes include additional services as, for example, when goods are sold combined with maintenance services. In such joint contracts, each component must be accounted for separately and recognised at its present value.

Example 3:

On 30.06.N, a company sells equipment for CU 100'000. The price includes a 2-year maintenance contract. For the seller, the cost of maintenance is estimated at CU 5'000 per annum and the gross profit rate on such services is 20%. The seller bought equipment for CU 80'000. The interest rate applicable to the company's borrowings is 6%.

On 30.06.N, the present value of maintenance services is:

$$\frac{5'000 \cdot 1.2}{1.06} + \frac{5'000 \cdot 1.2}{(1.06)^2} = 11'000 \text{ CU}$$

Revenues will thus be recognised as follows:

Statement of comprehensive income		N	N+1	N+2
Revenues	Sales	89'000		
	Provision of services		6'000	6'000
Expenses	Cost of sales	80'000	5'000	5'000
	Interests		660	340
Profit for the year		9'000	340	660
Total comprehensive income		9'000	340	660

Explanations:

$$89'000 = 100'000 - 11'000$$

$$\text{Interests N+1: } 6\% (11'000) = 660$$

$$\text{Interests N+2: } 6\% (11'000 + 660 - 6'000) = 340$$

1.2 Long-term construction contracts

As mentioned earlier, the general criteria for revenue recognition are completion of the sales process, certainty of the amount, and certainty of collection.

Under the matching principle, in long-term construction contracts, there are two main methods, namely the percentage-of-completion method and the completed-contract method.

Under the **percentage of completion method**, income is recognised in a particular period's statement of comprehensive income in proportion to the percentage of work completed. It may be noted that this recognition is independent of the billings or amounts collected or collectible. If the value of the work completed is more than the billings, then the difference is shown as receivable from the contract and if the billings are more than the work completed, then the difference is shown as advance payments received and shown in the current liabilities.

Generally, the percentage of completion is estimated by the percentage of cost spent to the total estimated cost. There are other methods, which may use some other means for estimating the cost to be matched. In this method the percentage of revenue to be recognised is given by the formula:

$$\text{Current revenue recognized} = \frac{\text{Cost to date} \cdot \text{contract price}}{\text{Cumulative costs incurred and estimated future costs}} - \text{Revenue previously recognized}$$

The same formula can be modified to suit gross profit also, by replacing the contract price with the gross profit.

The **completed contract method** recognises income only when the contract is complete or substantially complete.

Under this method, the revenues and costs are recognised only when the project is complete. Note that the choice of method does not affect the cash flows.

Example 4:

ABC bids for the construction of a bridge for CU 1'000'000 to be completed in 3 years. The estimated costs for the bridge are CU 800'000. ABC will receive the contract value in four instalments of CU 250'000. The first instalment will be given with the order and others at the end of each year. Let us say that the bridge was constructed in the time stipulated. Costs incurred are as follows: CU 300'000 in the first year, CU 250'000 in the second year and CU 250'000 in the third year. Prepare the statements of comprehensive income and the balance sheets for the three years.

	Year 1	Year 2	Year 3
Cumulative cost incurred to date	300'000	550'000	800'000
Estimated costs to be incurred in future	500'000	250'000	
Progress billings made during the year	500'000	750'000	1'000'000

PERCENTAGE OF COMPLETION METHOD

STATEMENT OF COMPREHENSIVE INCOME	Year 1	Year 2	Year 3
Contract revenue earned	375'000 (1)	312'500 (2)	312'500 (3)
Costs recognised	-300'000	-250'000	-250'000
Gross Profit	75'000	62'500	62'500

$$(1) (300'000 / 800'000) \cdot 1'000'000 = 375'000$$

$$(2) (550'000 / 800'000) \cdot 1'000'000 - 375'000 = 312'500$$

$$(3) (800'000 / 800'000) \cdot 1'000'000 - 375'000 - 312'500 = 312'500$$

BALANCE SHEET		Year 1	Year 2	Year 3
Assets	Cash	200'000	200'000	200'000
	Construction in progress	375'000	687'500	0
Liabilities	Advance billings	500'000	750'000	0
Equity	Retained earnings	75'000	137'500	200'000

or (other presentation) :

BALANCE SHEET		Year 1	Year 2	Year 3
Assets	Cash	200'000	200'000	200'000
Liabilities	Billings in excess of revenue	125'000	62'500	0
Equity	Retained earnings	75'000	137'500	200'000

COMPLETED CONTRACT METHOD

STATEMENT OF COMPREHENSIVE INCOME	Year 1	Year 2	Year 3
Contract revenues earned	300'000	250'000	450'000
Cost of contract	-300'000	-250'000	-250'000
Gross profit	0	0	200'000

BALANCE SHEET		Year 1	Year 2	Year 3
Assets	Cash	200'000	200'000	200'000
	Construction in progress	300'000	550'000	
Liabilities	Advance billings	500'000	750'000	0
Equity	Retained earnings	0	0	200'000

or (other presentation):

BALANCE SHEET		Year 1	Year 2	Year 3
Assets	Cash	200'000	200'000	200'000
Liabilities	Billings in excess of costs	200'000	200'000	0
Equity	Retained earnings	0	0	200'000

Here we assume that all other transactions are in cash.

According to IAS 11, the percentage-of-completion method must be used for all construction contracts whose outcome can be reliably estimated.

When the outcome of the contract cannot be estimated reliably, revenue is recognized only to the extent of contract costs incurred. This method, sometimes called the "zero-profit method", is equivalent to the completed contract method.

In any event, when the expected outcome of the construction contract is a loss, this loss must be recognised as an expense in full and immediately.

The following extracts from annual reports provide examples of how companies account for long-term contracts.

ABB (Sweden/Switzerland)

Sales under long-term fixed price contracts are recognised using the percentage-of-completion method of accounting. The Company mainly uses the cost-to-cost or delivery events methods to measure progress towards completion on contracts. Management determines the method to be used for each contract based on its judgment as to which method best measures actual progress towards completion.

Bouygues (France)

Accounting method for long-term contracts

- *Building & Civil Works and Roads*

Long-term contracts relating to the Group's Building & Civil Works and Roads activities are accounted for using the percentage of completion method.

- *Property*

The rules remain unchanged.

-Individual property transactions: sales and profit continue to be recognised on delivery of the property.

-Long-term bulk property transactions: in order to give a fair picture of activity during the year, sales and profits are recognised on a percentage of completion basis when planning permission is final, a binding sale agreement has been concluded, a contract has been signed with the contractor and the order to proceed with the works has been given.

Provisions for the cost of completing property development programmes on this type of contract are based on the state of completion.

RWE (Germany)

Long-term construction contracts are recognised under the percentage of completion method; the amount to be capitalised is shown under accounts receivable and sales revenues. The stage of completion is determined through measurements and according to the costs incurred (cost-to-cost method). Any contract losses to be expected are covered by valuation allowances or provisions; they are determined taking the identifiable risks into account. The revenue from contracts and contract supplements that have been confirmed by the client in writing are stated as contract revenue.

1.3 Criteria for expense recognition

Accounting standards do not generally devote long sections to expense recognition. The reason is that, under the matching principle, criteria for expense recognition are directly linked to those for revenue recognition.

The guiding principle is that revenues and expenses that relate to the same transaction must be recognised simultaneously. In other words, if revenues are recognised in a given period, all expenses necessary to obtain those revenues must be recognised in the same period.

1.4 Accounting for stock options and similar benefits

In recent years stock options have become more and more popular, to the point that they are now a common form of compensation for directors, senior executives and many other employees.

Nevertheless, accounting for stock options is still controversial in respect of whether and how they should be recognised in income statements.

- For many people, stock options should not be recorded as an expense because they do not give rise to a decrease in the firm's wealth. Granting stock options generally gives rise to a dilution of shareholders' rights, but it is not the value of the company as a whole that is affected, it is only the rights of current shareholders. The granting of stock options should in fact be analysed as a wealth transfer from current to prospective shareholders, with no effect on the firm's value.
- The disadvantage of not recording stock options in the statement of comprehensive income is that a significant part of employee costs would not appear, especially in start-up companies whose employees are often paid in the form of stock options. This solution might also obscure a large proportion of top managers' compensation, which would be contrary to the principles of corporate governance. This is probably why the IASB has finally decided to issue a standard (IFRS 2) that requires stock options be recognised as expenses. This standard is not restricted to stock options; its scope includes all transactions with payments based on the price of the company's shares.

1.4.1 Classification of share-based payments

IFRS 2 classifies share-based payment transactions into 3 categories:

- *equity-settled share-based payment transactions*, in which the firm receives goods or services in exchange for its equity instruments (including shares or stock-options);
- *cash-settled share-based payment transactions*, in which the company acquires goods or services by incurring liabilities that are based on the price of the company's shares;
- transactions in which the firm receives goods or services, and in which the terms of the arrangement provide either the firm or the supplier with a choice of whether the firm settles the transaction in cash or by issuing equity instruments.

The recognition principle is that transactions with share-based payments are recorded when the company obtains the corresponding goods or services.

In return, the company recognises:

- an increase in equity if the payment takes the form of shares or stock-options (equity-settled share based payment),
- a liability if the payment is cash-settled share-based.

If the goods or services received do not meet the conditions for asset recognition, they are recognised as expenses. This is obviously the case for services provided by employees.

1.4.2 Equity-settled share-based payment transactions

These transactions are recorded at the fair value of goods or services received. If this amount cannot be reliably estimated, it is replaced by the fair value of the equity instruments granted, measured at the date of granting.

IFRS 2 specifies that it is not usually possible to measure directly the services received for particular components of an employee's remuneration package. So services provided by employees are generally recognised at the fair value of the shares or stock options given in payment.

If no conditions are applied to the granting of the shares or stock options their recognition as expenses is immediate.

Example 5:

On 10.01.N, a company grants 10'000 shares to its employees. These shares (par value = CU 100) were bought at CU 250 in November N-1. On 10.01.N, their market price is CU 280.

In N, the company records an expense (employee costs) of CU 2'800'000.

Grants of shares or stock options are often conditional upon satisfying conditions, such as remaining in the company for a specified period of time. There might be also performance conditions, such as the company achieving a specified growth in profits or increase in its share price. In such cases the cost of goods or services received must be amortised over the period remaining until those conditions have been met. The following paragraphs illustrate various situations of this type.

1.4.2.1 Rights conditional on the employee's presence in the company

If the rights do not come into force until the employee completes a specified period of service, the number of shares or share options recognised is adjusted each year, based on the probability that the employee leaves the company during the qualifying period.

Nevertheless, changes in the fair value of these instruments are not reflected in the cost of services provided.

Example 6:

At the beginning of year N, Company X entered into a contract giving each of its 1'000 employees the right to receive 10 shares at the end of year N+2 if they remained in its employment. At granting date the market value of shares was CU 100 and the estimated percentage of employees who should still be employed 2 years later was 90%.

This percentage and the market value of share X evolved as follows during the qualifying period:

	1.01.N	31.12.N	31.12.N+1	31.12.N+2
Percentage/number of employees completing the required 2-year period of service	90% (estimate)	80% (estimate)	75% (estimate)	780 employees
Market price of share X	100	95	110	125

The share rights should be accounted for as follows:

Statement of comprehensive income ('000 CU)		N	N+1	N+2
Expenses	Employee costs	267	233	280
	Profit for the year	-267	-233	-280
	Total comprehensive income	-267	-233	-280
Balance sheet ('000 CU)		31.12.N	31.12:N+1	31.12:N+2
Equity	Outstanding share rights	267	500	
	Retained earnings	-267	-500	-780

Explanations:

$$267 = 1/3 (1'000 \cdot 10 \cdot 0.1 \cdot 80\%)$$

$$233 = [2/3 (1'000 \cdot 10 \cdot 0.1 \cdot 75\%) - 267]$$

$$500 = 267 + 233$$

$$280 = (780 \cdot 10 \cdot 0.1) - 500$$

1.4.2.2 Rights conditional on a non-market condition

If the employee rights are conditional upon the achievement of a non-market performance condition, the company must estimate the length of the expected qualifying period at the date of granting, and revise it if subsequent information indicates that its actual length will differ from previous estimates.

Example 7:

At the beginning of year N, Company X decided to grant 1'000 shares to its CEO as soon as its operating income was 30% up on its level in N-1. The market value of share X at the date of granting is CU 100 and the estimated length of the period necessary to achieve this performance is 3 years.

In subsequent years, the operating income of Company X, the estimated length of the qualifying period and the market value of share X evolved as follows:

	1.01.N	31.12.N	31.12.N+1	31.12.N+2
Increase in operating income (with regard to year N-1)		+5%	+25%	+32%
Expected completion of the qualifying period	31.12.N+2	31.12.N+3	31.12.N+2	
Market price of share X	100	95	110	125

Below are the statement of comprehensive income and the balance sheet of Company X during the vesting period:

Statement of comprehensive income ('000 CU)		N	N+1	N+2
Expenses	Employee costs	25	42	33
	Profit for the year	-25	-42	-33
	Total comprehensive income	-25	-42	-33
Balance sheet ('000 CU)		31.12.N	31.12:N+1	31.12:N+2
Equity	Outstanding share rights	25	67	
	Retained earnings	-25	-67	-100

Explanations:

$$25 = 1/4 (1'000 \cdot 0.1)$$

$$42 = 2/3 (1'000 \cdot 0.1) - 25$$

$$33 = (1'000 \cdot 0.1) - 67$$

1.4.2.3 Rights conditional on a market condition

If the performance condition is a market condition (i.e. a condition related to the market price of the shares) the rules are the same, except that the estimated length of the qualifying period is not subsequently revised.

Example 8:

On 1.01.N, Company X grants 10'000 stock options with an 8-year life to each of its 10 senior executives. Each option gives its holder the right to acquire 1 share X for CU 160. The option cannot be exercised until two conditions are met:

- the market price of share X is higher than CU 170
- the employee is still in service at that time.

At the date of granting the market price of share X is CU 120 and the Company estimates that the fair value of the stock option is CU 3. From the option-pricing model it appears that the most probable length of the qualifying period is 4 years.

On 31.12.N, the market price of share X and the fair value of the stock option are CU 130 and CU 4 respectively. At that time Company X estimates that the market price of its share will not reach CU 170 before the end of year N+3. It also expects that 1 senior executive will leave the Company before that date.

In subsequent years the data evolved as follows:

	1.01.N	31.12.N	31.12.N+1	31.12.N+2	31.12.N+3
Market price of share X	120	130	150	180	185
Fair value of stock option	3	4	6	10	15
Expected completion of the qualifying period	31.12.N+3	31.12.N+3	31.12.N+2		
Expected number of beneficiaries	9	9	8		

At the end of year N+2, the qualifying conditions are met. The 10 senior executives are still in service. They can exercise their options during the following 5 years.

The stock options will have the following impact on the financial statements (assuming that no option will be exercised in N+3):

Statement of comprehensive income ('000 CU)		N	N+1	N+2	N+3
Expenses	Employee costs	67.5	52.5	180	0
Profit for the year		-67.5	-52.5	-180	0
Total comprehensive income		-67.5	-52.5	-180	0
Balance sheet ('000 CU)		31.12.N	31.12:N+1	31.12:N+2	
Equity	Stock options	67.5	120	300	300
	Retained earnings	-67.5	-120	-300	-300

Explanations:

$$67.5 = 1/4(10'000 \cdot 0.003 \cdot 9)$$

$$52.5 = 2/4(10'000 \cdot 0.003 \cdot 8) - 67.5$$

$$120 = 67.5 + 52.5$$

$$180 = (10'000 \cdot 0.003 \cdot 10) - 120$$

Note that no cost is recognised in N+3 because the conditions were met before the beginning of the period.

1.4.3 Cash-settled share-based payment transactions

For these transactions, the company measures the goods or services acquired at the fair value of the liability incurred. Until this liability is settled, its fair value is re-measured at each reporting date, with any change recognised in the statement of comprehensive income.

A typical example of such a transaction is a contract giving employees a bonus, the size of which depends on the evolution of the market price of the company's shares.

If these rights are not subject to conditions, the bonus is recognised as an expense immediately.

Example 9:

At the end of year N, Company X grants its employees a bonus representing 20% of the increase of the market price of share X in year N. During this period, the market value of Company X has gone up from CU 20 million to CU 23 million.

An additional cost of CU 600'000 will be recognised in the statement of comprehensive income of year N.

If the rights are conditional, the cost is amortised over the qualifying period.

Example 10:

At the beginning of year N, Company X enters into a contract that gives each of its 1'000 employees the right to receive a payment equal to 10 times the increase in the market value of share X between 1.01.N and the date of exercising the right. This right will be exercisable from 1.01.N+2 to 31.12.N+3, on condition that the employee will still be in service on 31.12.N+1.

At the date of granting, the market price of share X is CU 100 and the fair value of the bonus right, determined with an option pricing model, is CU 220. Moreover, 5% of employees are expected to leave the company by the end of N+1.

In the subsequent years, the evolution is as follows:

	31.12.N	31.12.N+1	31.12.N+2	31.12.N+3
Market price of share X at year end	CU 120	CU 130	CU 145	CU 125
Market price of share X at exercise date			CU 140	CU 135
Fair value of bonus right at year end	CU 250	CU 300		
Number of employees on 31.12.N+1	950 (estimation)	960		
Number of employees who exercised their right during the period			400	560

Impact on financial statements:

Statement of comprehensive income ('000 CU)		N	N+1	N+2	N+3
Expenses	Employee costs	119	169	40	28
	Profit for the year	-119	-169	-40	-28
	Total comprehensive income	-119	-169	-40	-28
Balance sheet ('000 CU)					
Assets	Cash			-160	-356
Liabilities	Bonus plan	119	288	168	0
Equity	Retained earnings	-119	-288	-328	-356

Explanations:

$$119 = 1/2 (950 \cdot 0.25)$$

$$169 = (960 \cdot 0.3) - 119$$

$$288 = 119 + 169$$

$$160 = 400 \cdot 10 \cdot (0.14 - 0.1)$$

$$168 = 288 \cdot 560/960$$

$$40 = 160 - (288 - 168) = 160 - [288 \cdot (400/960)]$$

$$328 = 288 + 40$$

$$356 = 160 + [560 \cdot 10 \cdot (0.135 - 0.1)]$$

$$28 = 196 - 168$$

$$196 = 356 - 160$$

2. Foreign currency transactions

2.1 Foreign currency transactions

Globalisation has recently become a buzzword in relation to many business entities. It has also brought about changes in accounting. You may recall that so far we have used a single currency for preparing the financial statements. Once we start having transactions in different currencies, then reporting these transactions becomes an issue. Apart from transactions in different currencies, many enterprises have foreign operations. They have subsidiaries or substantial investments in corporations, in different countries. The performances of such investments have to be incorporated into the financial statements of the parent company. This has resulted in three main problems for accountants. They are:

- problems owing to differences in accounting principles and policies in different countries;
- transactions involving payments and receivables, sales and expenses denominated in foreign currency but measured in the currency of the country of the enterprise;
- translation of assets, liabilities and other balance sheet items and incorporating them into the financial statements.

These problems are addressed by IAS 21, which applies to:

- accounting for foreign currency transactions which are denominated in a currency other than the functional currency;
- translation of foreign currency financial statements of branches, divisions, subsidiaries etc.

IAS 21 is centred on the concept of **functional currency**, defined as "*the currency of the primary economic environment in which the entity operates*". IAS 21 notes that the primary economic environment is normally the one in which the firm primarily generates and expends cash. To determine its functional currency, an entity must consider a variety of factors, especially:

- the currency that mainly influences its sales prices for goods and services and
- the currency that mainly influences labour, material and other costs.

In most cases, the functional currency is also the **presentation currency**, i.e. the currency in which the financial statements are presented. Nevertheless, for some enterprises, especially for foreign subsidiaries or branches, the functional and presentation currencies may be different. For example for a US branch of a French company:

- the functional currency will probably be the US \$ because most of its revenues and expenses are expressed in dollars,
- the presentation currency is the Euro because financial statements are presented in that currency.

2.1.1 Accounting for foreign currency transactions

On initial recognition, any foreign currency transaction (sale, purchase, payment...) is recorded at the spot exchange rate between the functional currency and the foreign currency at the date of the transaction.

At each reporting date:

- foreign currency monetary items are reported at closing rate;
- non-monetary items which are carried at historical cost are reported using the exchange rate at the date of the transaction;
- non-monetary items which are carried at fair value are translated at the exchange rate which existed when the value was determined.

Example 11:

On 10.01.N, a non-US company sold goods for USD 10'000.

At the balance sheet date (30.06.N), the amount is still due from the client.

The spot exchange rate was:

- on January, 10: 1 CU = 0.6092 USD
- on June, 30: 1 CU = 0.6190 USD.

On 10.01.N, the firm recognizes revenues for CU = $\frac{10'000}{0.6092} = 16'414.97$

However, the balance sheet as at June 30, N, will carry the accounts receivable not at CU 16'414.97 but at the rates as of June 30, N. Thus, the balance sheet figure will be

$$\frac{10'000}{0.6190} = 16'155.08$$

This difference of $(16'414.97 - 16'155.08) = 259.89$ CU is a holding loss. This loss is not due to a drop in sale prices but to a change in the exchange rate between the USD and CU. Here the reporting currency had appreciated and so for the same USD amount one gets less units of CU.

Say the payment is received on July 31, N and the exchange rate on that date is 1 CU = 0.6080 USD. Calculate the exchange gain or loss.

For the purpose of reporting in the financial statements for the period, July 1, N to June 30, N+1:

- The amount received in CU is $10'000 / 0.6080 = 16'447.36$
- The exchange gain will be $16'447.36 - 16'155.08 = 292.28$
- The actual gain from the transaction date to the settlement date is $16'447.36 - 16'414.97 = 32.39$

However, this amount has been recognized in two phases as a loss of CU 259.89 in year ending June 30, N and a gain of CU 292.28 for the year ending June 30, N+1.

2.1.2 Recognition of exchange differences

For the IASB, all exchange differences (gains or losses) arising on the settlement of monetary items must be recognized as income or as expenses in the period in which they arise. That is why the exchange loss of CU 259.89 was recorded in the period ending in June N, and the gain of CU 292.28 recognized in the period ending in June N+1.

The main exception is for exchange differences arising on monetary items forming part of the net investment in a foreign entity. Such differences should be classified as equity until the disposal of the net investment.

2.2 The translation of financial statements into a foreign currency

Transactions in foreign currency, though large in number, do not affect the year-end financial statements to a great extent. The analyst faces a real problem, though, when the financial statements of foreign subsidiaries or branches have to be incorporated into the parent company's accounts. In this section we will examine the accounting treatment to be given in such cases.

The financial statements of a foreign entity are translated into a different presentation currency using the following exchange rates:

- assets and liabilities: the closing date rate,
- revenues and expenses: the exchange rate at the date of the transaction (or a periodic average rate).

All resulting exchange differences are recognized as a separate component of equity. Exchange rate volatility has thus an impact on comprehensive income but no effect on profit or loss. Only when the firm is sold or liquidated is the cumulative translation adjustment recognised as a loss or gain.

This method is known as the "*current rate method*" or the "*closing rate method*".

To put these principles into practice, let us consider an example.

Example 12:

Below are the financial statements of a US subsidiary (in thousands USD).

Balance sheet of the US subsidiary as of December 31, N:

<i>Assets</i>	
Property, plant and equipment	500'000
Inventories	120'000
Receivables	300'000
Cash	30'000
Total assets	950'000
<i>Liabilities</i>	
	500'000
<i>Equity</i>	
Capital	100'000
Retained earnings	350'000
	450'000

Statement of comprehensive income of the US subsidiary for year N:

Sales	600'000
Cost of goods sold	- 460'000
Gross margin	140'000
Depreciation	- 50'000
Other expenses	- 60'000
Profit for the year	30'000
Other comprehensive income	0
Total comprehensive income	30'000

On December 31, N-1, shareholders' equity was as follows, after translation into CU:

Capital	100'000
Retained earnings	400'000
Cumulative exchange differences	<u>32'000</u>
	532'000

Exchange rate on December 31, N: 1 USD = 1.25 CU

To simplify, let us assume that all transactions in year N are converted at the following average rate: 1 USD = 1.30 CU.

Revenues and expenses are converted first and the resulting income is transferred to the balance sheet.

STATEMENT OF COMPREHENSIVE INCOME	'000 US \$	Translation rate	'000 CU
Sales	600'000	1.30	780'000
Cost of goods sold:	<u>- 460'000</u>	1.30	<u>- 598'000</u>
Gross margin	140'000		182'000
Depreciation	- 50'000	1.30	- 65'000
Other expenses	<u>- 60'000</u>	1.30	<u>- 78'000</u>
Profit for the year	30'000		39'000
Other comprehensive income (change in cumulative exchange differences)			<u>- 8'500*</u>
Total comprehensive income	<u>30'000</u>		<u>30'500</u>

BALANCE SHEET	'000 US \$	Translation rate	'000 CU
<i>Assets</i>			
Property, plant and equipment	500'000	1.25	625'000
Inventory	120'000	1.25	150'000
Receivables	300'000	1.25	375'000
Cash	<u>30'000</u>	1.25	<u>37'500</u>
	950'000		1'187'500
<i>Liabilities</i>			
	500'000	1.25	625'000
<i>Shareholders' equity</i>			
Share capital (as shown on previous balance sheet)	100'000		100'000
Retained earnings [439'000 = 400'000 + 39'000]	350'000		439'000
Cumulative exchange differences (by deduction)			<u>23'500</u>
	<u>450'000</u>		<u>562'500</u>

* - 8'500 = 23'500 - 32'000

30'500 = 562'500 - 532'000

Below are extracts that show how companies translate the financial statements of foreign subsidiaries.

Canon (Japan)

Foreign currency financial statements have been translated in accordance with Statement of Financial Accounting Standards No. 52 ("SFAS 52"), "Foreign Currency Translation". Under SFAS 52, assets and liabilities of the Company's subsidiaries located outside Japan are translated into Japanese yen at the rates of exchange in effect at the balance sheet date. Income and expense items are translated at the average exchange rates prevailing during the year. Gains and losses resulting from translation of financial statements, including gains and losses from hedging and intercompany transactions, net of related taxes, are included in other comprehensive income (loss) and are accumulated in stockholders' equity as foreign currency translation adjustments.

LVMH (France)

The financial statements of the foreign subsidiaries are translated as follows:

- *Balance sheet at year-end exchange rates,*
- *Income statement at average exchange rates prevailing during the year.*

The resulting translation adjustments are recorded in stockholders' equity, on the line "Cumulative translation adjustment".

SKF (Sweden)

The current rate method is used for translating the income statements and balance sheets of the majority of the foreign subsidiaries into Swedish kronor. All balance-sheet items in foreign subsidiaries have been translated into Swedish kronor based on the year-end exchange rates. Income statement items are translated at average exchange rates. The translation adjustments that arise as a result of the current rate method are transferred directly to shareholders' equity.

2.3 Hyperinflationary economies

The financial statements of a foreign entity that reports in the currency of a hyperinflationary economy should be restated before they are translated into the currency of the parent company.

In the balance sheet, monetary items are not restated since they are already expressed in the monetary unit current at the balance sheet date. In contrast, non-monetary items are revalued by applying a general price index.

In the statement of comprehensive income, depreciation and amortization are revalued in the same way as the corresponding assets. All other expenses and revenues are restated by applying the change in the general price index from the dates these items were initially recorded.

The resulting gain or loss on the net monetary position should be included in profit or loss.

IAS 29 does not provide an absolute rate at which hyperinflation is deemed to arise. It only gives some characteristics of a hyperinflationary economy. They are:

- the local population prefers to keep its wealth in non-monetary assets or in a stable foreign currency,
- prices are expressed not in the local currency but in a stable foreign currency,

- sales on credit take place at prices that compensate for the expected loss of purchasing power even for short credit periods,
- interest rates, wages and prices are linked to a price index,
- the cumulative inflation rate over three years exceeds 100%.

Below are two examples of disclosures relating to the treatment of subsidiaries located in hyperinflationary economies.

Ericsson (Sweden)

Financial statements of companies operating for example in countries with highly inflationary economies, whose functional currency is considered to be a currency other than the local currency, are translated in two steps. In the first step, remeasurement is made into the functional currency. Gains and losses resulting from this remeasurement are included in the consolidated income statement. In the second step, from the functional currency to Swedish kronor, balance sheet items are translated at year-end exchange rates, and income statement items at the average rates of exchange during the year. The resulting translation adjustments are reported directly against stockholders' equity. In our opinion, the remeasurement method, which is in accordance with U.S. GAAP FAS 52, gives a fairer view of these financial statements, since the companies concerned operate in de facto US dollar-, Euro- or Deutschmark-based economies

Nestlé (Switzerland)

The balance sheet and net results of Group companies operating in hyperinflationary economies are restated for the changes in the general purchasing power of the local currency, using official indices at the balance sheet date, before translation into Swiss francs at year-end rates.