Chapter 6
GETTING TO GRIPS WITH CONSOLIDATED ACCOUNTS

A group-building exercice

The purpose of consolidated accounts is to present the financial situation of a group of companies as if they formed one single entity. This chapter deals with the basic aspects of consolidation that should be fully mastered by anyone interested in corporate finance.

An analysis of the accounting documents of each individual company belonging to a group does not serve as a very accurate or useful guide to the economic health of the whole group. The accounts of a company reflect the other companies that it controls only through the book value of its shareholdings (revalued or written down, where appropriate) and the size of the dividends that it receives.

The purpose of consolidated accounts is to present the financial situation of a group of companies as if they formed one single entity.

The goal of this chapter is to familiarise readers with the problems arising from consolidation. Consequently, we present an example-based guide to the main aspects of consolidation in order to facilitate analysis of consolidated accounts.

In some cases, consolidated accounts take some time to come out or even do not exist.[1] That said, for various reasons, financial analysts may need to know some of the key consolidated figures, such as earnings and shareholders' equity, albeit only approximately.

The aggregation of accounts may give analysts this overview provided that they roughly apply the various preconsolidation adjustments explained in this chapter.

Section 6.1
CONSOLIDATION METHODS

Any firm that controls other companies exclusively or that exercises significant influence over them should prepare consolidated accounts and a management report for the group.[2]

Consolidated accounts must be certified by the statutory auditors and, together with the group's management report, made available to shareholders, debtholders and all interested parties.

1 *For example, it took nine months for Dutch supermarket group Ahold to produce its 2002 consolidated accounts after it had discovered accounting frauds in its US subsidiary.*

2 *Unless (i) the parent is itself a wholly-owned subsidiary or is virtually wholly-owned and (ii) its securities are not listed or about to be and (iii) the immediate or ultimate parent issues consolidated accounts.*

Listed European companies have been required to use IFRS[3] accounting principles for their consolidated financial statements from 2005.[4]

The companies to be included in the preparation of consolidated accounts form what is known as the **scope of consolidation**. Scope of consolidation comprises:

- the parent company;
- the companies in which the parent company holds directly or indirectly at least 20% of the voting rights.

However, a subsidiary should be excluded from consolidation when its parent loses the power to govern its financial and operating policies, for example when the subsidiary becomes subject to the control of a government, a court or an administration. Such subsidiaries should be accounted for at fair market value.

The basic principle behind consolidation consists in replacing the historical cost of the parent's investment in the company being consolidated with its assets, liabilities and equity.

For instance, let us consider a company with a subsidiary that appears on its balance sheet with an amount of 20. Consolidation entails replacing the historical cost of 20 with all or some of the assets, liabilities and equity of the company being consolidated.

There are three methods of consolidation which are used depending on the strength of the parent company's control or influence over its subsidiary:

Type of relationship	Type of company	Consolidation method
Control	Subsidiary	Full consolidation[5]
Joint control	Joint venture	Proportionate consolidation[6]
Significant influence	Associate	Equity method

We will now examine each of these three methods in terms of its impact on sales, net profit and shareholders' equity.

1/ FULL CONSOLIDATION

The accounts of a subsidiary are fully consolidated if the latter is controlled by its parent. Control is defined as the ability to direct the strategic financing and operating policies of an entity so as to access benefits. It is presumed to exist when the parent company:

- holds, directly or indirectly, over 50% of the voting rights in its subsidiary;
- holds, directly or indirectly, less than 50% of the voting rights but has power over more than 50% of the voting rights by virtue of an agreement with other investors;
- has power to govern the financial and operating policies of the subsidiary under a statute or an agreement;
- has power to cast the majority of votes at meetings of the board of directors; or
- has power to appoint or remove the majority of the members of the board.

The criterion of exclusive control is the key factor under IFRS standards. Under US GAAP, the determining factor is whether or not the parent company holds the majority of

3 *IFRS rules are produced by the International Accounting Standards Board (IASB), a private organisation made up of most accountancy bodies in the world.*

4 *Except for groups already publishing their accounts following internationally recognised rules (applies to Austrian, Dutch and German groups using US rules). They had to switch to IFRS rules from 2007 onwards.*

5 *Or simply consolidation.*

6 *There are proposals for the exclusion of this method from IFRS as it is in US GAAPs.*

voting rights. Nevertheless, the definition is broader and can encompass companies in which only a minority is held (or even no shares at all!).

As its name suggests, full consolidation consists in transferring all the subsidiary's assets, liabilities and equity to the parent company's balance sheet and all the revenues and costs to the parent company's income statement.

The assets, liabilities and equity thus replace the investments held by the parent company, which therefore disappear from its balance sheet.

That said, when the subsidiary is not controlled exclusively by the parent company, the claims of the other "minority" shareholders on the subsidiary's equity and net income also need to be shown on the consolidated balance sheet and income statement of the group.

Assuming there is no difference between the book value of the parent's investment in the subsidiary and the book value of the subsidiary's equity,[7] full consolidation works as follows:

7 *Which means "no goodwill", a topic to which we will return.*

- On the balance sheet:
  - the subsidiary's assets and liabilities are **added item by item** to the parent company's balance sheet;
  - the historical cost amount of the shares in the consolidated subsidiary held by the parent is eliminated from the parent company's balance sheet and the same amount is deducted from the parent company's reserves;
  - the subsidiary's equity (including net income) is added to the parent company's equity and then allocated between the interests of the parent company (added to its reserves) and those of minority investors, which is added to a special **minority interests** line below the line item showing the parent company's shareholders' equity.
- On the income statement, all the subsidiary's revenues and charges are added item by item to the parent company's income statement. The parent company's net income is then broken down into:
  - the portion attributable to the parent company, which is added to the parent company's net income on both the income statement and the balance sheet;
  - the portion attributable to third-party investors, which is shown on a separate line of the income statement under the heading "minority interests".

Minority interests represent the share attributable to minority shareholders in the shareholders' equity and net income of fully consolidated subsidiaries.

From a solvency standpoint, minority interests certainly represent shareholders' equity. But from a valuation standpoint, they add no value to the group since minority interests represent shareholders' equity and net profit attributable to third parties and not to shareholders of the parent company.

Right up until the penultimate line of the income statement, financial analysis assumes that the parent company owns 100% of the subsidiary's assets and liabilities and implicitly that all the liabilities finance all the assets. This is true from an economic, but not from a legal, perspective.

To illustrate the full consolidation method, consider the following example assuming that the parent company owns 75% of the subsidiary company.

The original balance sheets are as follows:

Parent company's balance sheet				Subsidiary's balance sheet			
Investment in the subsidiary[8]	15	Shareholders' equity	70	Assets	28	Shareholders' equity	20
Other assets	57	Liabilities	2			Liabilities	8

8 *Valued at historical cost less depreciation if any.*

In this scenario, the consolidated balance sheet would be as follows:

Consolidated balance sheet

Investment in the subsidiary (15 – 15)	0	Shareholder' equity (70 + 20 – 15)	75
Assets (57 + 28)	85	Liabilities (2 + 8)	10

Or in a more detailed form:

Consolidated balance sheet

Assets	85	Shareholders' equity group share (75 – 5)	70
		Minority interests (20 × 25%)	5
		Liabilities	10

The original income statements are as follows:

Parent company's income statement				Subsidiary's income statement			
Charges	80	Net sales	100	Charges	30	Net sales	38
Net income	20			Net income	8		

In this scenario, the consolidated income statement would be as follows:

Consolidated income statement

Charges (80 + 30)	110	Net sales (100 + 38)	138
Net income (20 + 8)	28		

Or in a more detailed form:

Consolidated income statement

Charges	110	Net sales	138
Net income:			
Group share	26		
Minority interest (8 × 25%)	2		

2/ EQUITY METHOD OF ACCOUNTING

When the parent company exercises significant influence over the operating and financial policy of its associate, the latter is accounted for under the equity method. Significant influence over the operating and financial policy of a company is assumed when the parent holds, directly or indirectly, at least 20% of the voting rights. Significant influence may be reflected by participation on the executive and supervisory bodies, participation in strategic decisions, the existence of major intercompany links, exchanges of management personnel and a relationship of dependence from a technical standpoint.

Equity accounting consists in replacing the carrying amount of the shares held in an associate (also known as an **equity affiliate** or **associated undertaking**) with the corresponding portion of the associate's shareholders' equity (including net income).

This method is purely financial. Both the group's investments and aggregate profit are thus reassessed on an annual basis. Accordingly, the IASB regards equity accounting as being more of a valuation method than a method of consolidation.

From a technical standpoint, equity accounting takes place as follows:

- the historical cost amount of shares held in the associate is subtracted from the parent company's investments and replaced by the share attributable to the parent company in the associate's shareholders' equity including net income for the year;
- the carrying value of the associate's shares is subtracted from the parent company's reserves, to which is added the share in the associate's shareholders' equity, **excluding** the associate's income attributable to the parent company;
- the portion of the associate's net income attributable to the parent company is added to its net income on the balance sheet and the income statement.

Investments in associates represent the share attributable to the parent company in associates' shareholders' equity attributable to the parent company.

The equity method of accounting therefore leads to an increase each year in the carrying amount of the shareholding on the consolidated balance sheet, by an amount equal to the net income transferred to reserves by the associate.

However, from a solvency standpoint, this method does not provide any clue to the group's risk exposure and liabilities *vis-à-vis* its associate. The implication is that the group's risk exposure is restricted to the value of its shareholding.

The equity method of accounting is more a method used to revaluate certain participating interests than a genuine form of consolidation.

To illustrate the equity method of accounting, let us consider the following example based on the assumption that the parent company owns 20% of its associate:

The original balance sheets are as follows:

Parent company's balance sheet				Associate's balance sheet			
Investment in the associate	5	Shareholders' equity	60	Assets	35	Shareholders' equity	25
Other assets	57	Liabilities	2			Liabilities	10

In this scenario, the consolidated balance sheet would be as follows:

Consolidated balance sheet

Investment in the associate (20% × 25)	5	Shareholder's equity (60 + 5 − 5)	60
Other assets	57	Liabilities	2

The original income statements are as follows:

Parent company's income statement

Charges	80	Net sales	100
Net income	20		

Associate's income statement

Charges	30	Net sales	35
Net income	5		

In this scenario, the consolidated income statement would be as follows:

Consolidated income statement

Charges	80	Net sales	100
Net income (20 + 5 × 20%)	21	Income from associates (5 × 20%)	1

3/ PROPORTIONATE CONSOLIDATION

A difficult question to solve when preparing the accounts is what method to use when the parent company exercises joint control with a limited number of partners over another company (joint ventures). The key factors determining joint control are: (i) a limited number of partners sharing control (without any partner able to claim exclusive control), and (ii) a contractual arrangement outlining and defining how this joint control is to be exercised.

IFRS used to allow the use of the **proportionate consolidation** method which was not permitted under US GAAPs. Current changes in IFRS will probably lead to not allowing proportionate consolidation in the future so the method to be used in the case of joint control will then be the equity method.

Similar to full consolidation, proportionate consolidation leads to the replacement of the investment held in the joint venture with the assets, liabilities and equity of the joint venture. As its name suggests, the key difference with respect to full consolidation is that assets and liabilities are transferred to the parent company's balance sheet **only in proportion to the parent company's interest in the joint venture**. Likewise, the joint venture's revenues and charges are added to those of the parent company on the consolidated income statement only in proportion to its participation in the joint venture.

From a technical standpoint, proportionate consolidation is carried out as follows:

- the joint venture's assets and liabilities are added to the parent company's assets and liabilities in proportion to the latter's interest in the joint venture;

- the carrying amount of the shares in the joint venture held by the parent company is subtracted from long-term investments and from reserves in the balance sheet;
- the parent company's share in the shareholders' equity of the joint venture excluding the latter's net income is added to the parent company's reserves;
- all the joint venture's revenues and charges are added in proportion to the level of the parent company's shareholding to the corresponding line items of the parent company's income statement;
- the portion of the joint venture's net income attributable to the parent company is added to its net income on the balance sheet and income statement.

Proportionate consolidation does not give rise to any minority interests.

One shortcoming of proportionate consolidation is that it appears to exaggerate the group's power since a portion of the turnover, cash flow, equity, fixed assets, etc. of joint ventures is included in the parent company's financial statements even if the group does not have exclusive control over those joint ventures.

Section 6.2
CONSOLIDATION-RELATED ISSUES

1/ SCOPE OF CONSOLIDATION

The scope of consolidation, i.e. the companies to be consolidated, is determined using the rules we presented in Section 6.1. To determine the scope of consolidation, one needs to establish the level of control exercised by the parent company over each of the companies in which it owns shares.

(a) Level of control and ownership level

The **level of control**[9] measures the strength of direct or indirect dependence that exists between the parent company and its subsidiaries, joint ventures or associates. Although control is assessed in a broader way in IFRS (see p. 75), the percentage of voting rights that the parent company controls (what we call here "level of control") will be a key indication to determine whether the subsidiary is controlled or significantly influenced.

To calculate the level of control, we must look at the percentage of voting rights held by all group companies in the subsidiary provided that the group companies are controlled directly or indirectly by the parent company.

Control is assumed when the percentage of voting rights held is 50% or higher or when a situation of *de facto* control exists at each link in the chain.

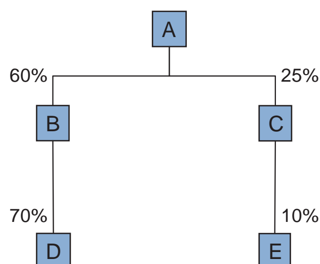
It is important not to confuse the level of control with the level of ownership. Generally speaking, these two concepts are different. The **ownership level**[10] is used to calculate the parent company's claims on its subsidiaries, joint ventures or associates. It reflects the proportion of their capital held directly or indirectly by the parent company. It is a financial concept, unlike the level of control which is a power-related concept.

The ownership level is the sum of the product of the direct and indirect percentage stakes held by the parent company in a given company. The ownership level differs from the level of control which considers only the controlled subsidiaries.

9 *Or percentage control.*

10 *Or percentage interest.*

Consider the following example:



A controls 60% of B, B controls 70% of D, so A controls 70% of D. D and B are therefore considered as controlled and thus fully consolidated by A. But A owns not 70%, but 42% of D (i.e. 60% × 70%). The ownership level of A over D is then 42%: only 42% of D's net income is attributable to A.

Since C owns just 10% of E, C will not consolidate E. But since A controls 25% of C, A will account for C under the equity method and will show 25% of C's net income in its income statement.

How the ownership level is used varies from one consolidation method to another:

- with full consolidation, the **ownership level** is used only to allocate the subsidiary's reserves and net income between the parent company and minority interests in the subsidiary;
- with proportionate consolidation, all the joint venture's balance sheet and income statement items are added in proportion to the **ownership level** to the balance sheet and income statement items of the parent company;
- with the equity method of accounting, the **ownership level** is used to determine the portion of the subsidiary's shareholders' equity and net income attributable to the parent company.

(b) Changes in the scope of consolidation

It is important to analyse the scope of consolidation, especially with regard to what has changed and what is excluded. A decision not to consolidate a company means:

- neither its losses nor its shareholders' equity will appear on the balance sheet[11] of the group;
- its liabilities will not appear on the balance sheet of the group.

The equity method of accounting also means that not all the group's liabilities are shown on the balance sheet as readers will see with the example of Coca Cola in Chapter 13.

Changes in the scope of consolidation require the preparation of **pro forma** financial statements. Pro forma statements enable analysts to compare the company's performances on a consistent basis. In these pro forma statements, the company may either:

- restate past accounts to make them comparable with the current scope of consolidation; or

11 *Unless the losses are such that the portion of the subsidiary's shareholders' equity attributable to the parent company is lower than the net book value of the shares in the subsidiary held by the parent. In which case, an impairment loss is recognised on the shareholding.*

- remove from the current scope of consolidation any item that was not present in the previous period to maintain its previous configuration. The latter option is, however, less interesting for financial analysts.

Finally certain techniques can be used to remove subsidiaries still controlled by the parent company from the scope of consolidation. These techniques have been developed to make certain consolidated accounts look more attractive. These techniques frequently involve a special-purpose vehicle (SPV). The SPV is a separate legal entity created specially to handle a venture on behalf of a company. In many cases, from a legal standpoint the SPV belongs to banks or to investors rather than to the company. This said, the IASB has stipulated that the company should consolidate the SPV if:

- it enjoys the majority of the benefits; or
- it incurs the residual risks arising from the SPV even if it does not own a single share of the SPV.

2/ GOODWILL

It is very unusual for one company to acquire another for exactly its book value.

Generally speaking, there is a difference between the acquisition price, which may be paid in cash or in shares, and the portion of the target company's shareholders' equity attributable to the parent company. In most cases, this difference is positive as the price paid exceeds the target's book value.

(a) What does this difference represent?

In other words, why should a company agree to pay out more for another company than its book value? There are several possible explanations:

- the assets recorded on the acquired company's balance sheet are worth more than their historical cost. This situation may result from the prudence principle, which means that unrealised capital losses have to be taken into account, but not unrealised capital gains;
- it is perfectly conceivable that assets such as patents, licences and market shares that the company has accumulated over the years without wishing to, or even being able to, account for them, may not appear on the balance sheet. This situation is especially true if the company is highly profitable;
- the merger between the two companies may create synergies, either in the form of cost reductions and/or revenue enhancement. The buyer is likely to partly reflect them in the price offered to the seller;
- the buyer may be ready to pay a high price for a target just to prevent a new player from buying it, entering the market, and putting the current level of the buyer's profitability under pressure;
- finally, the buyer may quite simply have overpaid for the deal.

(b) How is goodwill accounted for?

Goodwill is shown under intangible fixed assets of the new group's balance sheet at an amount equal to the difference between the acquisition price and the share of the new

subsidiary's equity adjusted for unrealised capital gains net of unrealised capital losses on assets and liabilities. Assets, liabilities and equity of the new subsidiary are transferred to the group's balance sheet at their estimated value rather than their book value. In this case, the intangible assets acquired, i.e. brands, patents, licences, landing slots, data bases, etc., are recorded on the group's balance sheet even if they did not originally appear on the acquired company's balance sheet.

The difference between the purchase cost and the fair market value of the assets and liabilities acquired with a company is called goodwill.

Goodwill is assessed each year to verify whether its value is at least equal to its net book value as shown on the group's balance sheet. This assessment is called an **impairment test**. If the market value of goodwill is below its book value, goodwill is written down to its fair market value and a corresponding impairment loss is recorded in the income statement.

This method is known as the **purchase method**. This is the method prescribed by US GAAP[12] since December 2001 and by IFRS from 1 January 2006. The **pooling of interest method** was abolished by the US authorities in December 2001 and by the IASB in 2006. It allowed the assets and liabilities of the newly acquired company to be included in the group's accounts at their book value without any goodwill being recorded.[13]

To illustrate the purchase method, let's analyse now how Sanofi, the pharmaceutical group, accounted for the acquisition of its rival Aventis.

Prior to the acquisition, Sanofi's balance sheet (in billions of €) can be summarised as follows:

Goodwill	0.1	Shareholders' equity	6.3
Other fixed assets	2.6		
Working capital	1.3	Net debt	−2.3

While Aventis' balance sheet was as follows:

Goodwill	9.0	Shareholders' equity	11.8
Other fixed assets	9.5		
Working capital	−2.1	Net debt	4.6

During 2004, Sanofi acquired 100% of Aventis for €52.1bn paid for €15.9bn in cash and €36.2bn in Sanofi shares. Therefore, Sanofi paid €40.3bn more than Aventis' equity.

Aventis' assets and liabilities were revalued by €15.6bn:

- intangible assets (mainly licences on molecules) + €32.1bn
- elimination of Aventis' existing goodwill – €9.0bn
- inventories + €1.6bn
- research and development + €5.0bn
- financial assets + €1.6bn
- inventories + €1.0bn
- other assets + €0.3bn

12 *Generally Accepted Accounting Principles.*

13 *As the difference between the price paid for the shares and their book value was deducted from the acquiror's equity.*

- deferred tax liability + €12.2bn
- net debt (fair value) + €0.2bn
- share of minority shareholders in asset revaluation + €0.7bn
- other liabilities + €2.3bn

Consequently, the amount of goodwill created was reduced to €15.6bn. The simplified balance sheet of the combined entity was therefore as follows:

Goodwill	24.8[14]	Shareholders' equity	43.2[15]
Other fixed assets	51.1[16]	Deferred tax	12.2
Working capital	−2.1	Net debt	18.4[17]

14 24.8 = 24.7 + 0.1

15 43.2 = 6.3 + 36.2 + 0.7

16 51.1 = 2.6 + 9.5 + 32.1 + 5.0 + 1.6 + 0.3

17 18.4 = −2.3 + 4.6 + 0.2 + 15.9

Finally, transactions may give rise to negative goodwill under certain circumstances. Under IFRS, negative goodwill is immediately recognised as a profit in the income statement of the new groups.

All in all, the difference between the purchase price and the share in equity is broken down into two portions. One reflects unrealised capital gains on the assets of the target company and is factored into the valuation of the consolidated assets. The other one, the residual portion, is called goodwill and is not accounted for by unrealised capital gains.

The consolidated company's assets and liabilities are therefore revalued upon its first-time consolidation. Its accounts are adjusted to bring them into line with the accounting policies applied by its new parent company.

(c) How should financial analysts treat goodwill?

From a financial standpoint, it is sensible to regard goodwill as an asset like any other, which may suffer sudden falls in value that need to be recognised by means of an impairment charge.

Can it be argued that goodwill impairment losses do not reflect any decrease in the company's wealth because there is no outflow of cash? We do not think so.

Granted, goodwill impairment losses are a non-cash item, but it would be wrong to say that only decisions giving rise to cash flows affect a company's value. For instance, setting a maximum limit on voting rights or attributing 10 voting rights to certain categories of shares does not have any cash impact, but definitely reduces the value of shareholders' equity.

Recognising the impairment of goodwill related to a past acquisition is tantamount to admitting that the price paid was too high. But what if the acquisition was paid for in shares? This makes no difference whatsoever, irrespective of whether the buyer's shares were overvalued at the same time.

Had the company carried out a share issue rather than overpaying for an acquisition, it would have been able to capitalise on its lofty share price to the great benefit of existing shareholders. The cash raised through the share issue would have been used to make acquisitions at much more reasonable prices once the wave of euphoria had subsided. This is precisely the strategy adopted by Bouygues. It raised €1.5bn of new equity in March 2000 at a very high share price, refused to participate in the UMTS auctions and used its cash pile only in 2002 to buy out minority interests in its telecom subsidiary at a far lower level than the rumoured price in 2000.

It is essential to remember that shareholders in a company which pays for a deal in shares suffer dilution in their interest. They accept this dilution because they take the view that the size of the cake will grow at a faster rate (e.g. by 30%) than the number of guests invited to the party (e.g. by over 25%). Should it transpire that the cake grows at merely 10% rather than the expected 30% because the purchased assets prove to be worth less than anticipated, the number of guests at the party will unfortunately stay the same. Accordingly, the size of each guest's slice of the cake falls by 12% (110/125−1), so shareholders' wealth has certainly diminished.

Finally, testing each year whether the capital employed of each company segment is greater than its book value so as to determine whether the purchased goodwill needs to be written down is implicitly checking whether internally generated goodwill gradually replaces the purchased goodwill or not. As we know, goodwill has a limited lifespan in view of the competition prevailing in the business world.

(d) How should financial analysts treat "adjusted income"?

In certain specific sectors (like the pharmaceutical sector), following an acquisition, the acquirer publishes an "adjusted income" to neutralise the P&L impact of the revaluation of assets and liabilities of its newly-acquired subsidiary. Naturally, a P&L account is drawn up under normal standards, but it carries an audited table showing the impact of the switch to adjusted income.

As a matter of fact, by virtue of the revaluation of the target's inventories to their market value, the normal process of selling the inventories generates no profit. So how relevant will the P&L be in the first year after the merger? This issue becomes critical only when the production cycle is very long and therefore the revaluation of inventories (and potentially research and development capitalised) is material.

We believe that for those specific sectors, groups are right to show this adjusted P&L.

Section 6.3
TECHNICAL ASPECTS OF CONSOLIDATION

1/ HARMONISING ACCOUNTING DATA

Since consolidation consists of aggregating accounts give or take some adjustments, it is important to ensure that the accounting data used is consistent, i.e. based on the same principles.

Usually, the valuation methods used in individual company accounts are determined by accounting or tax issues specific to each subsidiary, especially when some of them are located outside the group's home country. This is particularly true for provisions, depreciation and amortisation, fixed assets, inventories and work in progress, deferred charges and shareholders' equity.

These differences need to be eliminated upon consolidation. This process is facilitated by the fact that most of the time consolidated accounts are not prepared to calculate taxable income, so groups may disregard the prevailing tax regulations.

Prior to consolidation, the consolidating company needs to restate the accounts of the to-be-consolidated companies. The consolidating company applies the same valuation principles and makes adjustments for the impact of the valuation differences that are justified on tax grounds, e.g. tax-regulated provisions, accelerated depreciation for tax purposes and so on.

2/ ELIMINATING INTRA-GROUP TRANSACTIONS

Consolidation entails more than the mere aggregation of accounts. Before the consolidation process as such can begin, intra-group transactions and their impact on net income have to be eliminated from the accounts of both the parent company and its consolidated companies.

Assume, for instance, that the parent company has sold to subsidiaries products at cost plus a margin. An entirely fictitious gain would show up in the group's accounts if the relevant products were merely held in stock by the subsidiaries rather than being sold on to third parties. Naturally, this fictitious gain, which would be a distortion of reality, needs to be eliminated.

Intra-group transactions to be eliminated upon consolidation can be broken down into two categories:

- Those that are very significant because they affect consolidated net income. It is therefore vital for such transactions to be reversed. The goal is to avoid showing two profits or showing the same profit twice in two different years. The reversal of these transactions upon consolidation leads primarily to the elimination of:
  - intra-group profits included in inventories;
  - capital gains arising on the transfer or contribution of investments;
  - dividends received from consolidated companies;
  - impairment losses on intra-group loans or investments; and
  - tax on intra-group profits.
- those that are not fundamental because they have no impact on consolidated net income or those affecting the assets or liabilities of the consolidated entities. These transactions are eliminated through netting, so as to show the real level of the group's debt. They include:
  - parent-to-subsidiary loans (advances to the subsidiary) and vice versa;
  - interest paid by the parent company to the consolidated companies (financial income of the latter) and vice versa.

3/ TRANSLATING THE ACCOUNTS OF FOREIGN SUBSIDIARIES

(a) The problem

The translation of the accounts of foreign companies is a thorny issue because of exchange rate fluctuations and the difference between inflation rates, which may distort the picture provided by company accounts.

For instance, a parent company located in the euro zone may own a subsidiary in a country with a soft currency.[18]

18 *A soft or weak currency is a currency that tends to fall in value because of political or economic uncertainty (high in ation rate). The Nepal Rupee is a good example.*

Using year-end exchange rates to convert the assets of its subsidiary into the parent company's currency understates their value. From an economic standpoint, all the assets do not suffer depreciation proportional to that of the subsidiary's home currency.

On the one hand, fixed assets are protected to some extent. Inflation means that it would cost more in the subsidiary's local currency to replace them after the devaluation in the currency than before. All in all, the inflation and devaluation phenomena may actually offset each other, so the value of the subsidiary's fixed assets in the parent company's currency is roughly stable. On the other hand, inventories, receivables and liabilities (irrespective of their maturity) denominated in the devalued currency all depreciate in tandem with the currency.

If the subsidiary is located in a country with a hard currency (i.e. a stronger one than that of the parent company), the situation is similar, but the implications are reversed.

To present an accurate image of developments in the foreign subsidiary's situation, it is necessary to take into account:

- the impact on the consolidated accounts of the translation of the subsidiary's currency into the parent company's currency;
- the adjustment that would stem from translation of the foreign subsidiary's fixed assets into the local currency.

(b) Methods

Several methods may be used at the same time to translate different items in the balance sheet and income statement of foreign subsidiaries giving rise to currency translation differences.

- If the subsidiary is economically and financially independent of its parent company, which is the most common situation, the **closing rate method** is used.
- If the subsidiary is not independent of its parent company, because its operations are an integral part of another company, the **temporal method**[19] is used.
- Finally, if the subsidiary is based in a country with high inflation, a special method is used.

19 *Based on the historical exchange rate method.*

Under the **closing rate method**, all assets and liabilities are translated at the closing rate which is the rate of exchange at the balance sheet date.[20] IFRS recommend using the exchange rate prevailing on the transaction date to translate revenues and charges on the income statement or, failing this, the average exchange rate for the period, which is what most companies do. Currency translation differences are recorded under shareholders' equity, with a distinction being made between the group's share and that attributable to minority investors. This translation method is relatively comparable to the US standard.

20 *This method is also called the **current rate method**.*

The **temporal method** consists of translating:

- monetary items (i.e. cash and sums receivable or payable denominated in the foreign company's currency and determined in advance) at the closing rate;
- non-monetary items (fixed assets and the corresponding depreciation and amortisation,[21] inventories, prepayments, shareholders' equity, investments, etc.) at the exchange rate at the date to which the historical cost or valuation pertains;
- revenues and charges on the income statement theoretically at the exchange rate prevailing on the transaction date. In practice, however, they are usually translated at an average exchange rate for the period.

21 *As an exception to this rule, goodwill is translated at the closing rate.*

Under the temporal method, the difference between the net income on the balance sheet and that on the income statement is recorded on the income statement under foreign exchange gains and losses.

The temporal method is prescribed in the US.

(c) Translating the accounts of subsidiaries located in hyperinflationary countries

A hyperinflationary country is one where inflation is both chronic and out of control. In such circumstances, the previous methods are not suitable for translating the effects of inflation into the accounts.

Hence the use of a specific method based on restatements made by applying a general price index. Items such as monetary items that are already stated at the measuring unit at the balance sheet date are not restated. Other items are restated based on the change in the general price index between the date those items were acquired or incurred and the balance sheet consolidation. A gain or loss on the net monetary position is included in net income.

SUMMARY

Consolidation aims at presenting the financial position of a group of companies as if they formed one single entity. It is an obligation for companies that exclusively control other companies or exercise significant influence over them. The scope of consolidation encompasses the parent company and the companies in which the parent company holds at least 20% of the voting rights. The basic principle of consolidation is to replace the book value of investments on the parent company's balance sheet with the assets, liabilities and equity of the consolidated subsidiaries.

Full consolidation, which is generally applied when the parent company holds more than 50% of voting rights in its subsidiary, consists in replacing the investments on the parent company's balance sheet with all the subsidiary's assets, liabilities and equity, as well as adding all the revenues and charges from its income statement. This method gives rise to minority interests in the subsidiary's net income and shareholders' equity.

Where the parent company exercises significant influence (usually by holding over 20% of the voting rights) over another company called an associate, the equity method of accounting is used. The book value of investments is replaced by the parent company's share in the associate's equity (including net income). This method is actually equivalent to an annual revaluation of these investments.

Proportionate consolidation can be used where the parent company shares control over a joint venture with a limited number of partners. The approach is the same as for full consolidation, but assets, liabilities, equity, revenues and charges are transferred only in proportion to the stake of the parent company in the joint venture.

From a financial standpoint, the ownership level, which represents the percentage of the capital held directly or indirectly by the parent company, is not equal to the level of control, which reflects the proportion of voting rights held. The level of control is used to determine which consolidation method is applied. The ownership level is used to separate the group's interests from minorities' interests in equity and net income.

A group often acquires a company by paying more than the book value of the company's equity. The difference is recorded as goodwill under intangible assets, minus any unrealised capital gains or losses on the acquired company's assets and liabilities. This

goodwill arising on consolidation is compared each year with its estimated value and written down to fair market value, where appropriate.

When analysing a group, it is essential to ensure that the basic accounting data are consistent from one company to another. Likewise, intra-group transactions, especially those affecting consolidated net income (intra-group profits, dividends received from subsidiaries, etc.), must be eliminated upon consolidation.

Two methods are used to translate the accounts of foreign subsidiaries: the closing rate and the temporal method for currency exchange rate translations. In addition, specific currency translation methods are used for companies in hyperinflationary countries.

QUESTIONS

@ quiz

1/Describe the three methods used for consolidating accounts.

2/What criticism can be made of the equity method of accounting?

3/What criticism can be made of proportionate consolidation?

4/What is the difference between the proportion of voting rights held and the ownership level?

5/On the consolidated income statement, what is the "share of earnings in companies accounted for under the equity method" similar to?

6/In what circumstances should the group's share be separated from that attributable to minority investors?

7/Will opening up the capital of a subsidiary to shareholders outside the group have an impact on the group's earnings? Is this a paradox? Explain.

8/Why do dividends paid by subsidiaries have to be restated when consolidated accounts are drawn up?

9/What is goodwill and how is it stated?

10/What is the most frequently used method of consolidation? Why?

11/In French, in the UK or in Italian GAAP (used for some nonlisted companies) where goodwill is amortised linearly over a fixed period of time, does the rate at which goodwill is written down have an impact on the amount of tax paid by the group?

12/What is the pooling of interests method?

13/Is an impairment loss in the amount of goodwill a recurrent or a nonrecurrent item? Explain why nevertheless it has a negative impact on the share price.

14/Why has the phasing-out of the pooling of interests method made accounts more rigorous?

15/What is the logic behind the temporal method of translating fixed assets at the historical exchange rate?

EXERCISES

1/ The financial statements of company *M* and its subsidiary *S* are shown here (in €m).

Balance sheet

Assets	M	S	Equity and liabilities	M	S
Tangible and intangible fixed assets	100	30	Equity and share capital	40	10
Investment in subsidiary S	16	–	Reserves	80	10
Other investments	5	–	Net earnings	10	5
Current assets	200	70	Debt	191	75
Total	**321**	**100**	**Total**	**321**	**100**

Income statement

		M	S
	Sales	200	90
–	Purchases of raw materials	100	50
–	Change in inventories	–	2
–	Other external services	25	20
–	Personnel costs	40	8
–	Interest and other financial charges	10	1
+	Interest, dividends and other financial income	3	–
–	Exceptional costs	9	–
+	Exceptional income	2	–
–	Corporate income tax	11	4
=	**Net income**	**10**	**5**

Draw up the consolidated accounts for the group *M*+*S* in the following circumstances:

(a) *M* has 80% stake in *S* (full consolidation).

(b) *M* has 50% stake in *S* (assuming the accounting principles allow for proportional consolidation).

(c) *M* has 20% stake in *S* (equity method consolidation).

(N.B. It is assumed that there are no flows between *M* and *S*.)

ANSWERS

Questions

1/ *See chapter.*
2/ *It is not a consolidation method but a method for revaluing assets.*
3/ *It is misleading in the sense that, if you own a third of the joint venture, you do not own a third of the assets and are not liable for a third of liabilities.*
4/ *See chapter.*
5/ *Financial income on long-term investments.*
6/ *When valuing shares of the group because shareholders of the group have no claim whatsoever on stakes owned by minority interests in subsidiaries.*

7/ *Yes, it results in minority interests. This is a paradox since the group registers a profit or a loss without receiving cash. This is because of the increase or reduction in the group's share in shareholders' equity.*
8/ *Because they are internal flows.*
9/ *Goodwill is the difference between the price paid for the subsidiary and the estimated value of its assets minus liabilities. Goodwill is an intangible asset whose value will be tested every year and impaired if need be.*
10/ *Full consolidation because groups tend to prefer exclusive control over joint control or significant influence.*
11/ *No, it is a consolidated accounting entry; and corporate income taxes are not computed on consolidated accounts but in individual accounts in France, in the UK and in Italy.*
12/ *See chapter.*
13/ *It should normally be a nonrecurrent item. If not the future of the company is doomed! Because it is a clear indication that the future profitability of the company will be lower than initially anticipated.*
14/ *Because it is no longer possible to reduce capital employed and capital invested by writing-off goodwill against equity, artificially boosting return on equity or return on capital employed.*
15/ *The temporal method is only used for subsidiaries that are dependent on the parent company. It is considered that their fixed assets are accordingly the property of the parent company but that they just happen to be abroad. Consequently, their value appears on the balance sheet of the groups as if those fixed assets had been bought by the parent company at a price translated on the purchase date at the then exchange rate.*

22 *An Excel version of the solutions is available on the website.*

Exercise[22]

M + S income statement (€m)	**80%**	**50%**	**20%**
Assets			
Tangible and intangible fixed assets	130	115	100
Equity in associated companies			5
Investments	5	5	5
Current assets	270	235	200
Total	**405**	**355**	**310**
Equity and liabilities			
Share capital	40	40	40
Reserves	80*	74	68
Minority interests in equity	4		
Net earnings (group share)	14	12.5	11
Minority interests in net earnings	1		
Debt	266	228.5	191
Total	**405**	**355**	**310**

* Group share

	M + S income statement (€m)	80%	50%	20%
	Sales	290	245	200
–	Purchases of raw materials	150	125	100
–	Change in inventories	2	1	
–	Other external services	45	35	25
–	Personnel costs	48	44	40
–	Interest and other finance charges	11	10.5	10
+	Interest, dividends and other financial income	3	3	3
–	Exceptional costs	9	9	9
+	Exceptional income	2	2	2
–	Corporate income tax	15	13	11
+	Income from associates			1
=	Net earnings	15	12.5	11
–	Minority interests	1		
=	Net earnings, group share	14		

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