Contemporary Accounting Issues

Collection

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Chapter 1: Business Combinations

Introduction

When one company obtains control of one or more businesses, a business combination has occurred. Some of the reasons for business combinations are to

- defend a competitive position within a market segment or with a particular customer;
- diversify into a new market and/or geographic region;
- gain access to new customers and/or partners;
- acquire new and/or complementary products or services;
- acquire new expertise or capabilities;
- accelerate time to market (for a product and/or service);
- improve the company's rate of innovation either by acquiring new technology and/or intellectual property;
- gain control over a supplier; and
- position the company to benefit from industry consolidation.

Business combinations are frequent events throughout the world. Hardly a week passes without some reference in the press to actual or proposed takeovers and mergers. Examples of these events are:

- Burger King Worldwide Inc.'s of the United States bought Tim Hortons Inc. of Canada for US$11.3 billion.
- Repsol S.A. of Spain bought Talisman Energy Inc. of Canada for US$13 billion.
- Caisse de depot et placement du Quebec participation in the takeover of PetSmart Inc. of the United States was the biggest foreign takeover involving a Canadian acquirer in 2014 for US$8.6 billion.
- Encana Corporation of Canada's US$7.1 billion acquisition of Athlon Energy Inc. of the United States was the biggest purchase of a U.S. oil and gas producer by a Canadian company.
- Amaya Inc. of Canada purchased Oldford Group Limited of the Isle of Man for US$4.9 billion in June, making it the largest publicly held online gambling company in the world.
- BCE Inc. of Canada acquired the outstanding shares of Bell Aliant Inc. of Canada that it did not already own for CAD$4.5 billion.

BUSINESS COMBINATIONS

A business combination is defined as a transaction or other event in which an acquirer obtains control of one or more businesses. An investor controls an investee when it is exposed or has rights to variable returns from its involvement with the investee, and it has the ability to affect those returns through its power over the investee. This definition contains the following three elements:

a) The investor has power over the investee.
b) The investor has exposure, or rights, to variable returns from its involvement with the investee.
c) The investor has the ability to use its power over the investee to affect the amount of the investor's returns.

All three elements must be met for the investor to have control. If the investor does have control over the investee, the investor is called the parent and the investee is called the *subsidiary.* Let us now discuss each element of control.

Power. An investor has power over an investee when the investor has existing rights giving it the current ability to direct relevant activities, that is, the activities that significantly affect the investee's returns. Sometimes, assessing power is straightforward, such as when power over an investee is obtained directly and solely from the voting rights granted by equity instruments such as shares and can be assessed by considering the voting rights from those shareholdings. In other cases, the assessment will be more complex and require consideration of more than one factor, for example, when power results from one or more contractual arrangements. An investor with the current ability to direct the relevant activities has power, even if its rights to direct have yet to be exercised. Evidence that the investor has been directing relevant activities can help determine whether the investor has power, but such evidence is not, in itself, conclusive in determining whether the investor has power over an investee. If two or more investors each have existing rights giving them unilateral ability to direct different relevant activities, the investor with the current ability that *most significantly* affects the returns of the investee has power over the investee.

Control is the power to direct the relevant activities of the investee.

Returns. An investor is exposed or has rights to variable returns from its involvement with the investee when those returns from its involvement could vary as a result of the investee's performance; the investor's returns

can be only positive, only negative, or both positive and negative. An investment in common shares is exposed to variable returns because the common shareholders receive the residual returns in the company. If the company is very profitable, the dividends to the shareholders or appreciation in the price of common shares will be positive and can be substantial. On the other hand, if the company is incurring losses, the prospects for dividends or appreciation in the share price is minimal or nonexistent.

The definition of control requires that the investor has exposure, or rights, to variable returns from its involvement with the investee.

Link between power and returns. An investor controls an investee if the investor not only has power over the investee and exposure or rights to variable returns from its involvement with the investee, but the investor also has the ability to use its power to affect his or her returns from its involvement. A common shareholder usually has the power through voting rights and exposure to variable returns. A preferred shareholder may have exposure to a variable return. However, the preferred shareholder typically does not have voting rights and, therefore, does not have power over the relevant activities of the investee.

The definition of control requires that the investor has the ability to use its power over the investee to affect the amount of the investor's returns.

Let us now apply the elements of control to some practical situations. If the means of paying for the business is cash or a promise to pay cash in the future, the company making the payment is usually the one obtaining control. If shares were issued as a means of payment, relative holdings of voting shares of the combined company by shareholders of the combining companies is key. In a combination involving two companies, if one shareholder group holds more than 50% of the voting shares of the combined company, that company would usually have control. If more than two companies are involved, the shareholder group holding the largest number of voting shares would usually be identified as the company with control.

Owning more than 50% of the voting shares usually, but not always, indicates control.

Since the board of directors establishes the strategic policies of a corporation, the ability to elect a majority of the members of the board would generally be evidence of control. Therefore, the first element of control is presumed to exist if the parent owns, directly or indirectly,

enough voting shares to elect the majority of the board of directors of a subsidiary.

In most situations, more than 50% of the voting shares are required to elect the majority of the board, and so the first element of control is presumed to exist with greater than 50% ownership. However, we have to look at all factors. For example, if D Company owns 60% of the voting shares of E Company and F Company owns the other 40%, then we can presume that D Company has power over the activities of E Company. But if F Company owns convertible bonds of E Company or options or warrants to purchase E Company shares, which, if converted or exercised, would give F Company 62% of the outstanding shares of E Company, then F Company, not D Company, would have power over the activities of E Company.

There is also a general presumption that a holding of less than 50% of the voting shares does not constitute control. This presumption can be overcome if other factors clearly indicate control. For example, an irrevocable agreement with other shareholders to convey voting rights to the parent would constitute control, even if the parent owned less than 50% of the voting shares. A parent may also have power despite owning less than 50% of the voting shares if its holdings of rights, warrants, convertible debt, or convertible preferred shares would give it enough voting power to control the board of directors of the subsidiary. Exercise or conversion would not be necessary, only the right to exercise or convert is.

It is also possible for a parent to have power without a majority share ownership if it also has agreements in writing allowing it to dictate the operating policies of the subsidiary, resulting in it receiving fees, royalties, and profits from intercompany sales. For these situations, the parent makes the key decisions, receives the majority of the benefits, and absorbs most of the risk, even though the parent may own very few, if any, of the shares in the controlled company.

> *A company could have control with less than 50% of the voting shares when contractual agreements give it control.*

In another example, X Company owns 40% of Y Company, which is the largest single block of Y Company's outstanding shares. The other 60% is very widely held and only a very small proportion of the holders appear at the annual meeting of Y Company. As a result, X Company has had no trouble electing the majority of the board of directors. Thus, X Company could be deemed to have control in this situation as long as the other shareholders do not actively cooperate when they exercise their votes so as to have more voting power than X Company.

Temporary control of an entity does not of itself change the fact that control exists. During the time that control is held and until such time as control ceases, the reporting requirements for controlled entities should be applied.

The seizure of the company's assets by a trustee in a receivership or bankruptcy situation would be evidence that control has probably ceased, as would the imposition of governmental restrictions over a foreign company's ability to pay dividends to its investor. However, when a receiver seizes a specific asset in satisfaction of a default under a loan agreement but permits the company to continue in business under the direction of the parent, this is not a loss of control.

Normal business restrictions do not preclude control by the parent.

A reporting entity can control another entity, even though other parties have protective rights relating to the activities of that other entity. Protective rights are designed to protect the interests of the party holding those rights, without giving that party control of the entity to which they relate. They include, for example, the following:

a- Approval or veto rights granted to other parties that do not affect the strategic operating and financing policies of the entity. Protective rights often apply to fundamental changes in the activities of an entity or apply only in exceptional circumstances. For example:

1- A lender might have rights that protect the lender from the risk that the entity will change its activities to the detriment of the lender, such as selling important assets or undertaking activities that change the credit risk of the entity.

2- Non-controlling shareholders might have the right to approve capital expenditures greater than a particular amount, or the right to approve the issue of equity or debt instruments.

b- The ability to remove the party that directs the activities of the entity in circumstances such as bankruptcy or on breach of contract by that party.

c- Limitations on the operating activities of an entity. For example, a franchise agreement for which the entity is the franchisee might restrict the pricing, advertising, or other operating activities of the entity but would not give the franchisor control of the franchisee. Such rights usually protect the brand of the franchisor.

A parent can control a subsidiary, even though other parties have protective rights relating to the subsidiary.

A key aspect of control is the ability to direct the activities that most significantly affect the investor's returns.

FORMS OF BUSINESS COMBINATIONS

Essentially, there are three main forms of business combinations. One company can obtain control over the net assets of another company by (1) purchasing its net assets, (2) acquiring enough of its voting shares to control the use of its net assets, or (3) gaining control through a contractual arrangement.

PURCHASE OF ASSETS OR NET ASSETS An obvious way to obtain control over a business is by outright purchase of the assets that constitute a business. In this case, the selling company is left only with the cash or other consideration received as payment from the purchaser, and the liabilities present before the sale. In other cases, the acquirer purchases all the assets of the acquiree and assumes all its liabilities, which together are referred to as net assets. In either case, the shareholders of the selling company have to approve the sale, as well as decide whether their company should be wound up or continue operations after the sale.

When purchasing assets or net assets, the transaction is carried out with the selling company.

PURCHASE OF SHARES As an alternative to the purchase of assets or net assets, the acquirer could purchase enough voting shares from the acquiree's shareholders to give it the power to determine the acquiree's strategic operating and financing policies. This is the most common form of combination, and it is often achieved through a tender offer made by the management of the acquirer to the shareholders of the acquiree. These shareholders are invited to exchange their shares for cash or for shares of the acquirer company.

When purchasing shares, the transaction is usually consummated with the shareholders of the selling company.

The share-purchase form of combination is usually the least costly to the acquirer because control can be achieved by purchasing less than 100% of the outstanding voting shares. In addition, there can be important tax advantages to the vendor if shares rather than assets are sold. Because the transaction is between the acquirer and the acquiree's shareholders, the acquiree's accounting for its assets and liabilities is not

affected, and the company carries on as a subsidiary of the acquirer. The acquirer becomes a parent company and, therefore, must consolidate its subsidiary when it prepares its financial statements.

The acquired company makes no journal entries when the acquiring company purchases shares.

CONTROL THROUGH CONTRACTUAL ARRANGEMENT A company can get control of another company by signing an agreement with the acquiree's shareholders to give it control, without actually acquiring any shares of the other company. Nevertheless, the company with control will be deemed a parent and the controlled company will be a subsidiary. Since there were no actual transactions between the parent and the subsidiary for the transfer of control, there will be no entries made on the subsidiary's books to record this change in control. However, the parent would have to consolidate this subsidiary when it prepares its financial statements.

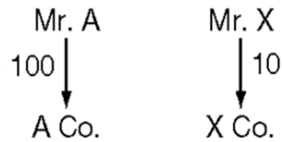
Control can be obtained through a contractual arrangement that does not involve buying assets or shares.

All three forms of business combination result in the assets and liabilities of the two companies being combined. If control is achieved by purchasing net assets, the combining takes place in the accounting records of the acquirer. If control is achieved by purchasing shares or through contractual arrangement, the combining takes place when the consolidated financial statements are prepared.

Exhibit 1.1 shows the intercompany shareholdings, both before and after a business combination, under a variety of forms. Intercompany shareholdings are often depicted in this manner. The arrow points from the investor to the investee company, with the number beside the arrow showing the number of shares owned by the investor. Mr. A and Mr. X were the sole shareholders in A Co. and X Co. prior to the business combination.

EXHIBIT 1.1 Different Forms of Business Combinations

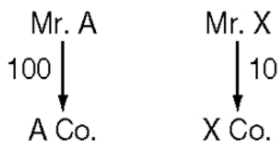
Intercompany Shareholdings
before the Business Combination



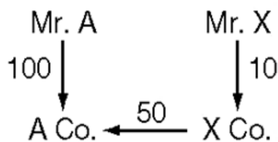
Intercompany Shareholdings
after the Business Combination

Consolidated Statements Not Required

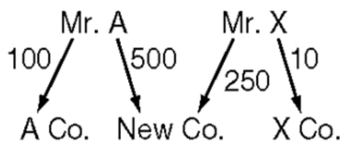
A Co. purchased net assets of X Co. with cash



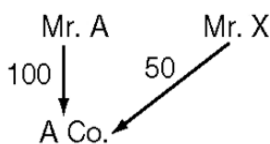
A Co. purchased net assets of X Co. with 50 shares



New company purchased net assets of
both companies with cash



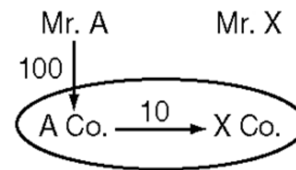
A Co. purchased net assets of X Co.
with shares & X Co. is wound up
(Statutory amalgamation)



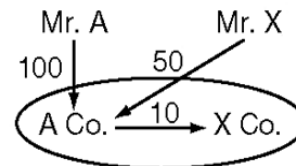
Intercompany Shareholdings
after the Business Combination

Consolidated Statements Are Required

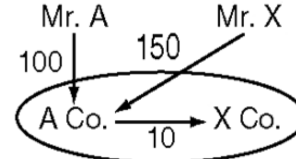
A Co. purchased shares of X Co. with cash



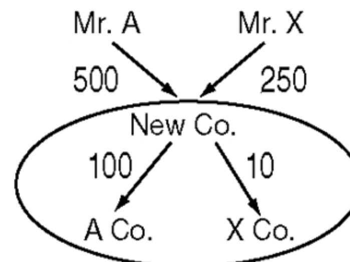
A Co. purchased shares of X Co. with 50 shares



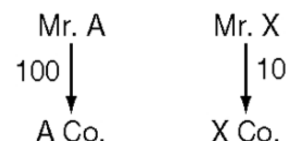
A Co. purchased shares of X Co. with 150 shares
(Reverse Takeover)



New company purchased shares of both
companies with shares



A Co. obtained control of X Co. through
contractual arrangement



ACCOUNTING FOR BUSINESS COMBINATIONS UNDER ACQUISITION METHOD

IFRS 3 outlines the accounting requirements for business combinations. The main principles are as follows:

- All business combinations should be accounted for by applying the acquisition method.
- An acquirer should be identified for all business combinations.
- The acquisition date is the date the acquirer obtains control of the acquiree.
- The acquirer should attempt to measure the fair value of the acquiree, as a whole, as of the acquisition date. The fair value of the acquiree as a whole is usually determined by adding together the fair value of consideration transferred by the acquirer (i.e., the acquisition cost) plus the value assigned to the non-controlling shareholders. In this text, we will refer to the sum of the acquisition cost plus value assigned to the non-controlling shareholders as total consideration given. The value assigned to the non-controlling interest is measured as either the fair value of the shares owned by the noncontrolling shareholders or as the non-controlling interest's proportionate share of the fair value of the acquiree's identifiable net assets. Business valuation techniques would be used to measure the fair value of the business acquired, especially if the parent acquired less than 100% of the shares, if control is obtained without transferring any consideration or if the consideration transferred does not represent the fair value of the business acquired. Certain business valuation techniques are referred to in IFRS 3 but are beyond the scope of this book.
- The acquirer should recognize and measure the identifiable assets acquired and the liabilities assumed at fair value and report them separately from goodwill.
- The acquirer should recognize goodwill, if any.

The acquisition method is required, and an acquirer must be identified for all business combinations.

IDENTIFYING THE ACQUIRER AND DATE OF ACQUISITION The acquirer is the entity that obtains control of one or more businesses in a business combination. The concept of control and how to determine who has control was discussed earlier in this chapter. It is important to determine who has control because this determines whose net assets are reported at carrying amount and whose assets are reported at fair value at the date of acquisition. The date of acquisition is the date that one entity obtains control of one or more businesses.

ACQUISITION COST The acquisition cost is made up of the following:

- Any cash paid
- Fair value of assets transferred by the acquirer
- Present value of any promises by the acquirer to pay cash in the future
- Fair value of any shares issued—the value of shares is based on the market price of the shares on the acquisition date
- Fair value of contingent consideration

The acquisition cost is measured as the fair value of consideration given to acquire the business.

The acquisition cost does not include costs such as fees for consultants, accountants, and lawyers as these costs do not increase the fair value of the acquired company. These costs should be expensed in the period of acquisition.

Costs incurred in issuing debt or shares are also not considered part of the acquisition cost. These costs should be deducted from the amount recorded for the proceeds received for the debt or share issue; for example, deducted from loan payable or common shares as applicable. The deduction from loan payable would be treated like a discount on notes payable and would be amortized into income over the life of the loan using the effective interest method.

The acquisition cost does not include costs such as professional fees or costs of issuing shares.

RECOGNITION AND MEASUREMENT OF NET ASSETS ACQUIRED The acquirer should recognize and measure the identifiable assets acquired and the liabilities assumed at fair value and report them separately from goodwill. An identifiable asset is not necessarily one that is presently recognized in the records of the acquiree company. For example, the acquiree company may have patent rights that have a fair value but are not shown on its balance sheet because the rights had been developed internally.

Identifiable assets and liabilities should be recorded separately from goodwill.

IAS 38 paragraph 12 defines an identifiable asset if it either

a- is separable, that is, is capable of being separated or divided from the entity and sold, transferred, licensed, rented, or exchanged, either individually or together with a related contract, identifiable asset, or liability, regardless of whether the entity intends to do so; or

b- arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

To qualify for recognition, as part of applying the acquisition method, the identifiable assets acquired, and liabilities assumed must meet the definitions of assets and liabilities in the IASB's *The Conceptual Framework for Financial Reporting* at the acquisition date. For example, costs that the acquirer expects but is not obliged to incur in the future to effect its plan to exit an activity of an acquiree or to terminate the employment of or to relocate an acquiree's employees do not meet the definition of a liability at the acquisition date. Therefore, the acquirer does not recognize those costs as a liability at the date of acquisition. Instead, the acquirer recognizes those costs in its post-combination financial statements in accordance with other IFRS.

IFRS 3 provides guidance in identifying assets to be recognized separately as part of a business combination.

There are some exceptions to the general principle in accounting for a business combination that all assets and liabilities of the acquired entity must be recognized and measured at fair value. One of the exceptions for recognition pertains to contingent liabilities. For the acquired company, following the usual standards in IAS 37 *Provisions, Contingent Liabilities and Contingent Assets,* the contingent liability would only be recognized in its separate entity financial statements if it were probable that an outflow of resources would be required to settle the obligation. Under IFRS 3 an exception is made, requiring the acquirer to recognize a contingent liability if it is a present obligation that arises from past events and its fair value can be measured reliably. Therefore, the acquirer recognizes the liability even if it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation.

Special requirements for recognition and measurement of financial statement items at the date of acquisition also apply to employee benefits, indemnification assets, reacquired rights, share-based payment awards, and assets held for sale. Deferred income tax assets and liabilities are not fair-valued and not carried forward. Instead, new amounts for deferred tax assets and liabilities are determined at the date of acquisition.

All of the acquiree's identifiable assets and liabilities must be recognized and most of these identifiable assets and liabilities would be measured at fair value at the date of acquisition.

RECOGNITION OF GOODWILL If the total consideration given by the controlling and non-controlling shareholders is greater than the fair value of identifiable assets and liabilities acquired, the excess is recorded in the acquirer's financial statements as goodwill. Goodwill represents the amount paid for excess earning power plus the value of other benefits that did not meet the criteria for recognition as an identifiable asset.

Goodwill is the excess of total consideration given over the fair value of identifiable assets and liabilities.

If the total consideration given is less than the fair value of the identifiable net assets acquired, we have what used to be described as a "negative goodwill" situation. This negative goodwill is now recognized as a gain attributable to the acquirer on the acquisition date.

Negative goodwill could result in the reporting of a gain on purchase by the acquiring company.

To illustrate the accounting involved using the acquisition method, we will use the summarized balance sheets of two companies. Summarized statements are used here so that we can focus completely on the broad accounting concepts. In later examples, more detailed statements will be used. Exhibit 1.2 presents the December 31, Year 1, balance sheets of the two companies that are party to a business combination.

Exhibit 1.2

A COMPANY LTD. BALANCE SHEET At December 31, Year 1	
Assets	$300,000
Liabilities	$120,000
Shareholders' equity:	
Common shares (Note 1)	100,000
Retained earnings	80,000
	$300,000

Note *1*: The shareholders of the 5,000 common shares issued and outstanding are identified as Group X.

B CORPORATION BALANCE SHEET At December 31, Year 1	
Assets	$88,000
Liabilities	$30,000
Shareholders' equity:	
Common shares (Note 2)	25,000
Retained earnings	33,000
	$88,000

The fair values of B Corporation's identifiable assets and liabilities are as follows as at December 31, Year 1:

Fair value of assets	$ 109,000
Fair value of liabilities	29,000
Fair value of net assets	$ 80,000

Note 2: The shareholders of the common shares of B Corporation are identified as Group Y.

The actual number of shares issued and outstanding has been purposely omitted because this number would have no bearing on the analysis required later.

Company A and Company B are separate legal entities.

Because the identification of an acquirer requires the analysis of shareholdings after the combination, Notes 1 and 2 are presented in the exhibit to identify the shareholders of each company as belonging to two distinct groups.

A Company Ltd. will initiate the takeover of B Corporation. The first two examples will involve the purchase of net assets with cash and the issuance of shares as the means of payment. Later examples will have A Company purchasing enough shares of B Corporation to obtain control over that company’s net assets and will introduce the preparation of consolidated statements.

Control through Purchase of Net Assets

In the following independent examples, A Company offers to buy all assets and assume all liabilities of B Corporation. The management of B Corporation accepts the offer.

EXAMPLE 1 Assume that on January 1, Year 2, A Company pays $95,000 in cash to B Corporation for all of the net assets of that company, and that no other direct costs are involved. Because cash is the means of payment, A Company is the acquirer. Goodwill is determined as follows:

Acquisition cost	$95,000
Fair value of net assets acquired	80,000
Goodwill	$15,000

A Company would make the following journal entry to record the acquisition of B Corporation's net assets:

Assets (in detail)	109,000	
Goodwill	15,000	
Liabilities (in detail)		29,000
Cash		95,000

The acquiring company records the net assets purchased on its own books at fair value.

A Company's balance sheet after the business combination would be as follows:

A COMPANY LTD. BALANCE SHEET At January 1, Year 2	
Assets (300,000 — 95,000* + 109,000)	$314,000
Goodwill	15,000
	$329,000
Liabilities (120,000 + 29,000)	$149,000
Shareholders' equity:	
Common shares	100,000
Retained earnings	80,000
	$329,000

**Cash paid by A Company to B Corporation.*

The acquiring company’s own assets and liabilities are not revalued when it purchases the net assets of the acquired company.

While this example focuses on the balance sheet of A Company immediately after the business combination, it is also useful to look at B Corporation in order to see the effect of this economic event on that company. B Corporation would make the following journal entry to record the sale of its assets and liabilities to A Company:

Cash	95,000	
Liabilities (in detail)	30,000	
Assets (in detail)		88,000
Gain on sale of assets and liabilities		37,000

The selling company records the sale of its net assets on its own books.

The balance sheet of B Corporation immediately after the sale of all of its net assets follows:

B CORPORATION BALANCE SHEET	
At January 1, Year 2	
Cash	$95,000
Shareholders' equity:	
Common shares	$25,000
Retained earnings (33,000 + 37,000*)	70,000
	$95,000

*The gain on sale of the net *assets* amounts to $37,000 (95,000 — [88,000 — 30,000].

The management of B Corporation must now decide the future of their company. They could decide to invest the company’s cash in productive assets and carry on in some other line of business. Alternatively, they could decide to wind up the company and distribute the sole asset (cash) to the shareholders.

After the sale of net assets, B Corporation’s sole asset is cash.

EXAMPLE 2 Assume that on January 1, Year 2, A Company issues 4,000 common shares, with a market value of $23.75 per share, to B Corporation as payment for the company's net assets. B Corporation will be wound up after the sale of its net assets. Because the method of payment is shares, the following analysis is made to determine which company is the acquirer.

	Shares of A Company
Group X now holds	5,000
Group Y will hold (when B Corporation is wound up)	4,000
	9,000

Group X will hold 5/9 (56%) of the total shares of A Company after the combination, and Group Y will hold 4/9 (44%) of this total after the dissolution of B Corporation. Because one shareholder group holds more than 50% of the voting shares, that group will have power to make the key decisions for A Company. Accordingly, A Company is identified as the acquirer as Group X was the original shareholder of A Company.

The acquirer is determined based on which shareholder group controls A Company after B Corporation is wound up.

Goodwill is determined as follows:

Acquisition cost (4,000 shares @ 23.75)	$95,000
Fair value of net assets acquired	80,000
Goodwill	$15,000

A Company would make the following journal entry to record the acquisition of B Corporation's net assets and the issuance of 4,000 common shares at fair value on January 1, Year 2:

Assets (in detail)	109,000	
Goodwill	15,000	
Liabilities (in detail)		29,000
Common shares		95,000

A Company's balance sheet after the business combination would be as follows:

A COMPANY LTD. BALANCE SHEET	
At January 1, Year 2	
Assets (300,000 + 109,000)	$409,000
Goodwill	15,000
	$424,000
Liabilities (120,000 + 29,000)	$149,000
Shareholders' equity:	
Common shares (100,000 + 95,000)	195,000
Retained earnings	80,000
	$424,000

This balance sheet was prepared by combining the carrying amounts of A Company's assets and liabilities with the fair values of those of B Corporation.

The recently purchased assets are recorded at fair value and A Company's old assets are retained at carrying amount.

B Corporation would make the following journal entry to record the sale of its assets and liabilities to A Company:

Account	Debit	Credit
Investment in shares of A Company	95,000	
Liabilities (in detail)	30,000	
Assets (in detail)		88,000
Gain on sale of assets and liabilities		37,000

The selling company records the sale of its net assets in exchange for shares of the acquiring company.

B Corporation's balance sheet immediately following the sale of its net assets is given below:

B CORPORATION BALANCE SHEET	
At January 1, Year 2	
Investment in shares of A Company	$95,000
Shareholders' equity:	
Common shares	$25,000
Retained earnings (33,000 + 37,000)	70,000
	$95,000

After the sale of net assets, B Corporation's sole asset is investment in shares of A Company.

B Corporation's sole asset is 4,000 of the issued shares of A Company. This single block represents a voting threat to A Company's shareholders (Group X). A Company will likely insist that B Corporation be wound up and distribute these 4,000 shares to its shareholders (Group Y), who presumably will not get together to determine how to vote them.

SUMMARY

A *business combination* takes place when one company gains control over the net assets of a business. An investor controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee, and has the ability to affect those returns through its power over the investee.

A business combination can be achieved by purchasing the net assets directly, by purchasing enough voting shares to gain control over the use of the net assets, or through contractual arrangements. The *acquisition method* must be used to report a business combination. The balance sheet for the combined entity at the date of acquisition includes the assets and liabilities of the acquirer at their carrying amounts and the identifiable assets and liabilities of the acquiree at their fair value.

When a business combination is achieved by purchasing the net assets directly, the acquirer records the purchased assets and assumed liabilities in its own accounting records. Any excess of the total consideration given over the fair value of the subsidiary's identifiable assets and liabilities is recorded as goodwill.

Self-Study Problem

On December 31, Year 1, the condensed balance sheets for ONT Limited and NB Inc. were as follows:

	ONT	*NB*
Assets:		
Cash	$ 44,000	$ 80,000
Accounts receivable	480,000	420,000
Inventories	650,000	540,000
Property, plant, and equipment	2,610,000	870,000
Accumulated depreciation	(1,270,000)	(130,000)
	$2,514,000	$1,780,000
Liabilities:		
Current liabilities	$ 660,000	$ 560,000
Bonds payable	820,000	490,000
	1,480,000	1,050,000
Shareholders' equity:		
Common shares	200,000	400,000
Retained earnings	834,000	330,000
	1,034,000	730,000
	$2,514,000	$1,780,000

The fair value of all of NB's assets and liabilities were equal to their carrying amounts except for the following:

Asset	*Carrying Amount*	*Fair Value*
Inventories	$540,000	$570,000
Property, plant, and equipment	740,000	790,000
Bonds payable	490,000	550,000

Required

Assume that on January 1, Year 2, ONT acquired all of NB's net assets by issuing new common shares with a fair value of $1,000,000. This was the only transaction on this day.

1- Prepare the journal entry on ONT's book to record the purchase of NB's net assets.

2- Prepare a balance sheet for ONT at January 1, Year 2, after recording the purchase of NB's net assets.

Solution to Self-Study Problem

(1)

Cash	80,000	
Accounts receivable	420,000	
Inventories	570,000	
Property, plant, and equipment	790,000	
Goodwill	250,000	
Current liabilities		560,000
Bonds payable		550,000
Common shares		1,000,000

(2)

ONT LIMITED
BALANCE SHEET
At January 1, Year 2

Assets:	
Cash (44,000 + 80,000)	$ 124,000
Accounts receivable (480,000 + 420,000)	900,000
Inventories (650,000 + 570,000)	1,220,000
Property, plant, and equipment (2,610,000 + 790,000)	3,400,000
Accumulated depreciation (1,270,000 + 0)	(1,270,000)
Goodwill	250,000
	$4,624,000
Liabilities:	
Current liabilities (660,000 + 560,000)	$1,220,000
Bonds payable (820,000 + 550,000)	1.370.000
	2.590.000
Shareholders' equity:	
Common shares (200,000 + 1,000,000)	1,200,000
Retained earnings	834,000
	2,034,000
	$4,624,000

Problems

Problem 1-1

The balance sheets of Abdul Co. and Lana Co. on June 30, Year 2, just before the transaction described below, were as follows:

	Abdul	*Lana*
Cash and receivables	$ 93,000	$20,150
Inventory	60,500	8,150
Plant assets (net)	236,000	66,350
	$389,500	$94,650
Current liabilities	$ 65,500	$27,600
Long-term debt	94,250	40,100
Common shares	140,500	40,050
Retained earnings (deficit)	89,250	(13,100)
	$389,500	$94,650

On June 30, Year 2, Abdul Co. purchased all of Lana Co. assets and assumed all of Lana Co. liabilities for $58,000 in cash. The carrying amounts of Lana's net assets were equal to fair value except for the following:

	Fair Value
Inventory	$10,050
Plant assets	70,100
Long-term debt	33,800

Required

1. Prepare the journal entries for Abdul Co. and for Lana Co. to record this transaction.
2. Prepare the balance sheets for Abdul Co. and Lana Co. at June 30, Year 2 after recording the transaction noted above.

Problem 1-2

Three companies, A, L, and M, whose December 31, Year 5, balance sheets appear below, have agreed to combine as at January 1, Year 6.

Each of the companies has a very small proportion of an intensely competitive market dominated by four much larger companies. In order to survive, they have decided to merge into one company. The merger agreement states that Company A will buy the assets and liabilities of each of the other two companies by issuing 27,000 common shares to Company L and 25,000 common shares to Company M, after which the two companies will be wound up.

Company A's shares are currently trading at $5 per share. Company A will incur the following costs:

Costs of issuing shares	$ 8,000
Professional fees	20,000
	$28,000

The following information has been assembled regarding the three companies:

COMPANY A		
	Carrying Amount	*Fair Value*
Current assets	$ 99,900	$102,000
Plant and equipment (net)	147,600	160,000
	$247,500	
Liabilities	$ 80,000	75,000
Common shares (50,000 shares)	75,000	
Retained earnings	92,500	
	$247,500	
COMPANY L		
	Carrying Amount	*Fair Value*
Current assets	$ 60,000	$ 65,000
Plant and equipment (net)	93,000	98,000
	$153,000	
Liabilities	$ 35,000	36,000
Common shares (24,000 shares)	48,000	
Retained earnings	70,000	
	$153,000	

COMPANY M		
	Carrying Amount	*Fair Value*
Current assets	$ 52,000	$ 68,000
Plant and equipment (net)	115,000	120,000
	$167,000	
Liabilities	$ 72,000	70,000
Common shares (33,000 shares)	60,000	
Retained earnings	35,000	
	$167,000	

Required

Prepare the balance sheet of Company A on January 2, Year 6, after Company L and Company M have been wound up.

Problem 1-3

The statement of financial position of Bagley Incorporated as at July 31, Year 4, is as follows:

BAGLEY INCORPORATED
STATEMENT OF FINANCIAL POSITION
At July 31, Year 4

	Carrying Amount	*Fair Value*
Plant and equipment—net	$ 913,000	$1,056,000
Patents	—	81,000
Current assets	458,000	510,000
	$1,371,000	
Ordinary shares	$ 185,000	
Retained earnings	517,000	
Long-term debt	393,000	419,000
Current liabilities	276,000	276,000
	$1,371,000	

On August 1, Year 4, the directors of Bagley considered a takeover offer from Davis Inc., whereby the corporation would sell all of its assets and liabilities. Davis's costs of investigation and drawing up the merger agreement would amount to $21,000.

Required

a- Assume that Davis made a $1,090,600 cash payment to Bagley for its net assets. Prepare the journal entries in the accounting records of Davis to record the business combination.

b- Assume that Davis issued 133,000 ordinary shares, with a market value of $8.20 per share, to Bagley for its net assets. Legal fees associated with issuing these shares amounted to $6,800 and were paid in cash. Davis had 153,000 shares outstanding prior to the takeover.

   1- Prepare the journal entries in the records of Davis to record the business combination.

   2- Prepare the statement of financial position of Bagley immediately after the sale.

Problem 1-4

The following are summarized statements of financial position of three companies as at December 31, Year 3:

	Company X	*Company Y*	*Company Z*
Assets	$400,000	$300,000	$250,000
Ordinary shares (note 1)	$ 75,000	$ 48,000	$ 60,000
Retained earnings	92,500	70,000	35,000
Liabilities	232,500	182,000	155,000
	$400,000	$300,000	$250,000
Note 1: Shares outstanding	50,000	12,000	16,500

The fair values of the identifiable assets and liabilities of the three companies as at December 31, Year 3, were as follows:

	Company X	*Company Y*	*Company Z*
Assets	$420,000	$350,000	$265,000
Liabilities	233,000	180,000	162,000

On January 2, Year 4, Company X will purchase the assets and assume the liabilities of Company Y and Company Z. It has been agreed that Company X will issue common shares to each of the two companies as payment for their net assets as follows:

To Company Y—13,500 shares

To Company Z—12,000 shares

The shares of Company X traded at $15 on December 31, Year 3.

Company X will incur the following costs associated with this acquisition:

Costs of registering and issuing shares	$12,000
Other professional fees associated with the takeover	30,000
	$42,000

Company Y and Company Z will be wound up after the sale.

Required

a) Prepare a summarized pro forma statement of financial position of Company X as at January 2, Year 4, after the purchase of net assets from Company Y and Company Z.

b) Prepare the pro forma statements of financial position of Company Y and Company Z as at January 2, Year 4, after the sale of net assets to Company X and prior to being wound up.

Problem 1-5

Myers Company Ltd. was formed 10 years ago by the issuance of 34,000 common shares to three shareholders. Four years later, the company went public and issued an additional 30,000 common shares.

The management of Myers is considering a takeover in which Myers would purchase all of the assets and assume all of the liabilities of Norris Inc. Myers would issue 62,000 shares currently trading at $7.20 each for the Norris net assets. Other costs associated with the takeover would be as follows:

Legal, appraisal, and finders' fees	$ 6,200
Costs of issuing shares	8,200
	$14,400

Norris shareholders would be offered five seats on the 10-member board of directors of Myers, and the management of Norris would be absorbed into the surviving company.

Balance sheet data for the two companies prior to the combination are as follows:

	Myers	*Norris*	*Norris*
	Carrying Amount	*Carrying Amount*	*Fair Value*
Cash	$ 152,000	$ 64,500	$ 64,500
Accounts receivable	179,200	73,450	68,200
Inventory	386,120	122,110	148,220
Land	437,000	87,000	222,000
Buildings (net)	262,505	33,020	36,020
Equipment (net)	90,945	29,705	27,945
	$1,507,770	$409,785	
Current liabilities	$ 145,335	$ 53,115	53,115
Non-current liabilities	—	162,000	167,000
Common shares	512,000	112,000	
Retained earnings	850,435	82,670	
	$1,507,770	$409,785	

Required

a) Prepare the journal entries of Myers for each of the two proposals being considered.

b) Prepare the balance sheet of Myers after the takeover for each of the proposals being considered.

Chapter 2: Consolidated Statements: Date of Acquisition

The preceding chapter dealt with business combinations that are accomplished as asset acquisitions. The net assets of an entire company are acquired and recorded directly on the books of the acquiring company. Consolidation of the two companies is automatic because all subsequent transactions are recorded on a single set of books.

A company will commonly acquire a large enough interest in another company's voting common stock to obtain control of operations. The company owning the controlling interest is termed the *parent,* while the controlled company is termed the *subsidiary.* Legally, the parent company has only an investment in the stock of the subsidiary and will only record an investment account in its accounting records. The subsidiary will continue to prepare its own financial statements. However, accounting principles require that when one company has effective control over another, a single set of *consolidated statements* must be prepared for the companies under common control. The consolidated statements present the financial statements of the parent and its subsidiaries as those of a single economic entity. Worksheets are prepared to merge the separate statements of the parent and its subsidiary(s) into a single set of consolidated statements.

This chapter will show how to combine the separate statements of a parent and its subsidiaries. The theory of *acquisition accounting,* developed in Chapter 1, is applied in the consolidation process. In fact, the consolidated statements of a parent and its 100% owned subsidiary look exactly like they would have had the net assets been acquired**.** This chapter contains only the procedures necessary to prepare consolidated statements on the day that the controlling investment is acquired.

LEVELS OF INVESTMENT

The purchase of the voting common stock of another company receives different accounting treatments depending on the level of ownership and the amount of influence or control caused by the stock ownership. The ownership levels and accounting methods can be summarized as follows:

Level of Ownership	Initial Recording	Recording of Income
Passive—generally under 20% ownership.	At cost including brokers' fees.	Dividends as declared (except stock dividends).
Influential—generally 20% to 50% ownership.	At cost including brokers' fees.	Ownership share of income (or loss) is reported. Shown as investment income on financial statements. (Dividends declared are distributions of income already recorded; they reduce the investment account.)
Controlling—generally over 50% ownership.	At cost.	Ownership share of income (or loss). Accomplished by consolidating the subsidiary income statement accounts with those of the parent in the consolidation process.

To illustrate the differences in reporting the income applicable to the common stock shares owned, consider the following example based on the reported income of the investor and investee (the company whose shares are owned by investor):

Account	Investor*	Investee
Sales	$500,000	$300,000
Less: Cost of goods sold	250,000	180,000
Gross profit	$250,000	$120,000
Less: Selling and administrative expenses	100,000	80,000
Net income	$150,000	$40,000

**Does not include any income from investee.*

Assume that the investee company paid $10,000 in cash dividends. The investor would prepare the following income statements, depending on the level of ownership:

Level of Ownership	10% Passive	30% Influential	80% Controlling
Sales	$500,000	$500,000	$800,000
Less: Cost of goods sold	250,000	250,000	430,000
Gross profit	$250,000	$250,000	$370,000
Less: Selling and administrative expenses	100,000	100,000	180,000
Operating income		$150,000	
Dividend income (10% x $10,000 dividends)	$150,000 1,000		
Investment income (30% x $40,000 reported income)		12,000	
Net income	**$151,000**	**$162,000**	$190,000
Distribution of income:			
Noncontrolling interest (20% x $40,000 reported income)			$8,000
Controlling interest (100% of investor's $150,000 + 80% of investee's $40,000)			**$182,000**

With a 10% passive interest, the investor included only its share of the dividends declared by the investee as its income. With a 30% influential ownership interest, the investor reported 30% of the investee income as a separate source of income. With an 80% controlling interest, the investor (now termed the parent) merges the investee's (now a subsidiary) nominal accounts with its own amounts. Dividend and investment income no longer exist. A single set of financial statements replaces the separate statement of the entities. If the parent owned a 100% interest, net income would simply be reported as $190,000. Since this is only an 80% interest, the net income must be shown as distributed between the noncontrolling and controlling interests. The noncontrolling interest is the 20% of the subsidiary that is not owned by the parent. The controlling interest is the parent income plus 80% of the subsidiary income.

Notes

- An influential investment (generally over 20% ownership) requires recording, as a single line-item amount, the investor's share of the investee's income as it is earned.
- A controlling investment (generally over 50% ownership) requires that subsidiary income statement accounts be combined with those of the parent company.
- The essence of consolidated reporting is the portrayal of the separate legal entities as a single economic entity.

FUNCTION OF CONSOLIDATED STATEMENTS

Consolidated financial statements are designed to present the results of operations, cash flow, and the balance sheet of both the parent and its subsidiaries as if they were a single company. Generally, consolidated statements are the most informative to the stockholders of the controlling company. Yet, consolidated statements do have their shortcomings. The rights of the noncontrolling shareholders are limited to only the company they own, and, therefore, they get little value from consolidated statements. They really need the separate statements of the subsidiary. Similarly, creditors of the subsidiary need its separate statements because they may look only to the legal entity that is indebted to them for satisfaction of their claims. The parent's creditors should be content with the consolidated statements, since the investment in the subsidiary will produce cash flows that can be used to satisfy their claims.

Consolidated statements have been criticized for being too aggregated. Unprofitable subsidiaries may not be very obvious because, when consolidated, their performance is combined with that of other affiliates. However, this shortcoming is easily overcome. One option is to

prepare separate statements of the subsidiary as supplements to the consolidated statements. The second option, which may be required, is to provide disclosure for major business segments. When subsidiaries are in businesses distinct from the parent, the definition of a segment may parallel that of a subsidiary.

Criteria for Consolidated Statements

Under U.S. GAAP, there are two models that determine when consolidation of financial statements is required. The most common model is based on control of a voting interest entity. That is an entity with common stock where the investor company owns over 50% of the voting common shares. That ownership interest is referred to as a "Controlling Interest." There are, however, exceptions where control may also exist with a lesser percentage of ownership such as when there is control via contract, lease, agreement with other shareholders, or by court decree.

Consolidation may also be required when a not-for-profit (NFP) entity has a controlling interest in another NFP. Control can be based on ownership of a majority interest or if there are an economic interest and a majority voting interest.

Notes

- The combining of the statements of a parent and its subsidiaries into consolidated statements is required when parent ownership exceeds 50% of the controlled firm's shares.
- Consolidation is required for any company that is controlled, even in cases where less than 51% of the company's shares is owned by the parent.

TECHNIQUES OF CONSOLIDATION

This chapter builds an understanding of the techniques used to consolidate the separate balance sheets of a parent and its subsidiary immediately subsequent to the acquisition.

Chapter 1 emphasized that there are two means of achieving control over the assets of another company. A company may directly acquire the assets of another company, or it may acquire a controlling interest in the other company's voting common stock. In an *asset acquisition,* the company whose assets were acquired is dissolved. The assets acquired are recorded directly on the books of the acquirer, and consolidation of balance sheet amounts is automatic. Where control is achieved through a *stock acquisition,* the acquired company (the subsidiary) remains as a separate legal entity with its own financial statements. While the initial accounting for the two types of acquisitions differs significantly, a 100% stock acquisition and an asset acquisition have the same effect of creating one larger single reporting entity and should produce the same consolidated balance sheet. There is, however, a difference if the stock acquisition is less than 100%. Then, there will be a noncontrolling interest

in the consolidated balance sheet. This is not possible when the assets are purchased directly.

In the following discussion, the recording of an asset acquisition and a 100% stock acquisition are compared, and the balance sheets that result from each type of acquisition are studied. Then, the chapter deals with the accounting procedures needed when there is less than a 100% stock ownership and a noncontrolling equity interest exists.

Reviewing an Asset Acquisition

Illustration 2-1 demonstrates an asset acquisition of Company S by Company P for cash. Part A of the exhibit presents the balance sheets of the two companies just prior to the acquisition. Part B shows the entry to record Company P's payment of $500,000 in cash for the net assets of Company S. The book values of the assets and liabilities acquired are assumed to be representative of their fair values, and no goodwill is acknowledged. The assets and liabilities of Company S are added to those of Company P to produce the balance sheet for the combined company, shown in Part C. Since account balances are combined in recording the acquisition, statements for the single combined reporting entity are produced automatically, and no consolidation process is needed.

Illustration 2-1 Asset Acquisition

Part A. Balance sheets of Companies P and S prior to acquisition:

Company P Balance Sheet

Assets		Liabilities and Equity	
Cash	$800,000	Current liabilities	$150,000
Accounts receivable	300,000	Bonds payable	500,000
Inventory	100,000	Common stock	100,000
Equipment (net)	150,000	Retained earnings.....	600,000
Total	$1,350,000	Total	$1,350,000

Company S Balance Sheet

Assets		Liabilities and Equity	
Accounts receivable	$200,000	Current liabilities	$100,000
Inventory	100,000	Common stock	200,000
Equipment (net)	300,000	Retained earnings..	300,000
Total	$600,000	Total..............	$600,000

Part B. Entry on Company P's books to record acquisition of the net assets of Company S by Company P:

Account	Debit	Credit
Accounts Receivable	200,000	
Inventory	100,000	
Equipment	300,000	
Current Liabilities		100,000
Cash		500,000

Part C. Balance sheet of Company P (the combined company) subsequent to asset acquisition:

Company P Balance Sheet

Assets		Liabilities and Equity	
Cash	$300,000	Current liabilities	$250,000
Accounts receivable	500,000	Bonds payable	500,000
Inventory	200,000	Common stock	100,000
Equipment (net)	450,000	Retained earnings	600,000
Total	$1,450,000	Total	$1,450,000

Consolidating a Stock Acquisition

In a stock acquisition, the acquiring company deals only with existing shareholders, not the company itself. Assuming the same facts as those used in Illustration 2-1, except that Company P will acquire all the outstanding stock of Company S from its shareholders for $500,000, Company P would make the following entry:

Investment in Subsidiary S..................................	500,000	
Cash		500,000

This entry does not record the individual underlying assets and liabilities over which control is achieved. Instead, the acquisition is recorded in an investment account that represents the controlling interest in the net assets of the subsidiary. If no further action was taken, the investment in the subsidiary account would appear as a long-term investment on Company P's balance sheet. However, such a presentation is permitted only if consolidation were not required (i.e., when control does not exist).

Assuming consolidated statements are required (i.e., when control does exist), the balance sheet of the two companies must be combined into a single consolidated balance sheet. The consolidation process is separate from the existing accounting records of the companies and requires completion of a worksheet. No journal entries are actually made to the parent's or subsidiary's books, so the elimination process starts anew each year.

The first example of a consolidated worksheet, Worksheet 2-1, appears later in the chapter on page 70. (The icon in the margin indicates the location of the worksheet at the end of the chapter.) The first two columns of the worksheet include the trial balances (balance sheet only for this chapter) for Companies P and S. The trial balances and the consolidated balance sheet are presented in single columns to save space. Credit balances are shown in parentheses. Obviously, since there are no nominal accounts listed, the income statement accounts have already been closed to Retained Earnings.

The consolidated worksheet requires elimination of the investment account balance because the two companies will be treated as one. (How can a company have an investment in itself?) Similarly, the subsidiary's stockholders' equity accounts are eliminated because its assets and liabilities belong to the parent, not to outside equity owners. In general journal form, the elimination entry is as follows:

(EL) Common Stock, Company S	200,000	
Retained Earnings, Company S	300,000	
Investment in Company…………………….………..		500,000

Note that the key (EL) will be used in all future worksheets. Keys, once introduced, will be assigned to all similar items throughout the text. For quick reference, a listing of these keys is provided on the inside front cover of this text. The balances in the Consolidated Balance Sheet column (the last column) are exactly the same as in the balance sheet prepared for the preceding asset acquisition example—as they should be for a 100% stock acquisition.

Notes

- Consolidation when a parent owns 100% of the subsidiary's voting common stock produces the same balance sheet that would result in an asset acquisition.
- Consolidated statements are derived from the individual statements of the parent and its subsidiaries.

ADJUSTMENT OF SUBSIDIARY ACCOUNTS

In the last example, the price paid for the investment in the subsidiary was equal to the net book value of the subsidiary (which means the price was also equal to the subsidiary's stockholders' equity). In most acquisitions, the price will exceed the book value of the subsidiary's net assets. Typically, fair values will exceed the recorded book values of assets. The price may also reflect unrecorded intangible assets, including goodwill. Let us revisit the last example and assume that instead of paying $500,000 cash, Company P paid $700,000 cash for all the common stock shares of Company S and made the following entry for the purchase:

Investment in Subsidiary S	700,000	
Cash ………………………………………………		700,000

Use the same Company S balance sheet as in Illustration 2-1, with the following additional information on fair values:

Company S Book and Estimated Fair Values December 31, 2015					
Assets	Book Value	Fair Value	Liabilities and Equity	Book Value	Fair Value
Accounts receivable	$200,000	$200,000	Current liabilities	$100,000	$100,000
Inventory Equipment (net)	100,000 300,000	120,000 400,000	**Market value of net assets (assets — liabilities)**		**$620,000**
Total assets	**$600,000**	**$720,000**			

If this were an asset acquisition, the identifiable assets and liabilities would be recorded at fair value and goodwill at $80,000. This is the price paid of $700,000 minus the $620,000 ($720,000 total assets — $100,000 total liabilities) fair value of net assets. Adding fair values to Company P's accounts, the new balance sheet would appear as follows:

Company P Consolidated Balance Sheet December 31,2015					
Assets			Liabilities and Equity		
Current assets:			Current liabilities	$250,000	
Cash	$100,000		Bonds payable	500,000	
Accounts receivable	500,000		Total liabilities		$750,000
Inventory	220,000				
Total current assets		$820,000			
Long-term assets:			Stockholders' equity:		
Equipment (net)	$550,000		Common stock	$100,000	
Goodwill	80,000		Retained earnings	600,000	
Total long-term assets	630,000		Total equity		700,000
Total assets	$1,450,000		Total liabilities and equity		$1,450,000

As before, the consolidated worksheet should produce a consolidated balance sheet that looks exactly the same as the preceding balance sheet for an asset acquisition. Worksheet 2-2, on page 71, shows how this is accomplished.

- The (EL) entry is the same as before: $500,000 of subsidiary equity is eliminated against the investment account.
- Entry **(D)** distributes the remaining cost of $200,000 to the acquired assets to bring them from book to fair value and to record goodwill of $80,000.

In general journal entry form, the elimination entries are as follows:

(EL) Common Stock, Company S	200,000	
Retained Earnings, Company S	300,000	
Investment in Company S……………………………		500,000

(D1) Inventory (to increase from $100,000 to $120,000)..................	20,000	
(D2) Equipment (to increase from $300,000 to $400,000)…………….	100,000	
(D3) Goodwill ($700,000 price minus $620,000 fair value assets)…..	80,000	
(D) Investment in Company S ($700,000 price minus $500,000 book value eliminated above)………………………………………………………..		200,000

The Consolidated Balance Sheet column of Worksheet 2-2 includes the subsidiary accounts at full fair value and reflects the $80,000 of goodwill included in the purchase price. The formal balance sheet for Company P, based on the worksheet, would be exactly the same as shown above for the asset acquisition.

Acquisition of a subsidiary at a price in excess of the fair values of the subsidiary equity is as simple as the case just presented, especially where there are a limited number of assets to adjust to fair value. For more involved acquisitions, where there are many accounts to adjust and/or the price paid is less than the fair value of the net assets, a more complete analysis is needed. We will now proceed to develop these tools.

Analysis of Complicated Purchases—100% Interest

The previous examples assumed the purchase of the subsidiary for cash. However, most acquisitions are accomplished by the parent issuing common stock (or, less often, preferred stock) in exchange for the subsidiary common shares being acquired. This avoids the depletion of cash and, if other criteria are met, allows the subsidiary shareholders to have a tax-free exchange. In most cases, the shares are issued by a publicly traded parent company that provides a readily determinable market price for the shares issued. The investment in the subsidiary is then recorded at the fair value of the shares issued. Less frequently, a nonpublicly traded parent may issue shares to subsidiary shareholders. In these cases, the fair values are determined for the net assets of the subsidiary company, and the total estimated fair value of the subsidiary company is recorded as the cost of the investment.

In order to illustrate the complete procedures used to record the investment in and the consolidation of a subsidiary, we will consider the acquisition of a 100% interest in Sample Company. The book and fair values of the net assets of Sample Company on December 31, 2015, when Parental, Inc., acquired 100% of its shares, were as follows:

Assets	Book Value	Market Value	Liabilities and Equity	Book Value	Market Value
Accounts receivable	$20,000	$20,000	Current liabilities	$40,000	$40,000
Inventory	50,000	55,000	Bonds payable	100,000	100,000
Land	40,000	70,000	**Total liabilities ....**	**$140,000**	**$140,000**
Buildings	200,000	250,000			
Accumulated depreciation	(50,000)		Stockholders' equity:		
Equipment	60,000	60,000	Common stock ($1 par) .	$10,000	
Accumulated depreciation	(20,000)		Paid-in capital in excess of par............................	90,000	
Copyright		50,000	Retained earnings	60,000	
			Total equity................	**$160,000**	
Total assets	$300,000	$505,000	**Net assets.....................**	**$160,000**	**$365,000**

Assume that Parental, Inc., issued 20,000 shares ofits$1 par value common stock for 100% (10,000 shares) of the outstanding shares of Sample Company. The fair value of a share of Parental, Inc., stock is $25. Parental also pays $25,000 in accounting and legal fees to accomplish the purchase. Parental would make the following entry to record the purchase:

Investment in Sample Company (20,000 shares issued x $25 fair value)	500,000	
Common Stock ($1 par value) (20,000 shares x $1 par)		20,000
Paid-In Capital in Excess of Par ($500,000 — $20,000 par value)		480,000

Parental would record the costs of the acquisition as follows:

Acquisition Expense (closed to Retained Earnings since only balance sheets are being examined)	25,000	
Cash……………………………..……………..		25,000

A value analysis schedule has been designed to compare the fair value of the company acquired with the fair value of the net assets. In this case, the fair value of the company is based on the value of the shares exchanged by Parental, Inc. The schedule includes a column for a noncontrolling interest (NCI) for later cases when the parent does not acquire a 100% interest.

Value Analysis Schedule	Company Implied Fair Value	Parent Price (100%)	NCI Value (0%)
Company fair value........................	$500,000	$500,000	N/A
Fair value of net assets excluding goodwill..	365,000	365,000	
Goodwill	**$135,000**	**$135,000**	
Gain on acquisition	N/A	N/A	

Notice the following features of the value analysis:

- In this case, the company fair value exceeds the fair value of the net assets. This means that all subsidiary accounts will be adjusted to fair value, and goodwill of $135,000 will be shown on the consolidated balance sheet.
- If the company fair value was less than the fair value of the net assets, all of the subsidiary accounts would still be adjusted to fair value and a gain on the acquisition would be recorded.

Reflection

- The value analysis schedule determines if there will be goodwill or a gain as a result of consolidating the subsidiary with the parent.

DETERMINATION AND DISTRIBUTION OF EXCESS SCHEDULE

The determination and distribution of excess (D&D) schedule is used to compare the company fair value with the recorded book value of the subsidiary. It also schedules the adjustments that will be made to all subsidiary accounts in the consolidated worksheet process. The D&D schedule below is for a 100% interest but is built to accommodate an NCI in later examples.

Determination and Distribution of Excess Schedule			
	Company Implied Fair Value	Parent Price (100%)	NCI Value (0%)
Fair value of subsidiary....................	$500,000	$500,000	N/A
Less book value of interest acquired:			
Common stock ($1 par)	$10,000		
Paid-in capital in excess of par	90,000		
Retained earnings....................	60,000		
Total stockholders' equity..	$160,000	$160,000	
Interest acquired		100%	
Book value		$160,000	
Excess of fair value over book value	**$340,000**	$340,000	

Adjustment of identifiable accounts:

	Adjustment	Worksheet Key
Inventory ($55,000 fair — $50,000 book value)	$5,000	**debit D1**
Land ($70,000 fair — $40,000 book value)	30,000	**debit D2**
Buildings ($250,000 fair — $150,000 net book value)	100,000	**debit D3**
Equipment ($60,000 fair — $40,000 net book value)	20,000	**debit D4**
Copyright ($50,000 fair — $0 book value)	50,000	**debit D5**
Goodwill...	**135,000**	**debit D6**
Total..	**$340,000**	

Note the following features of the above D&D schedule:

- Since this is a 100% interest, the parent price and the implied value of the subsidiary are equal.
- The total adjustment that will have to be made to subsidiary net assets on the worksheet is $340,000.
- The schedule shows the adjustments to each subsidiary account. Recall that in Chapter 1, we recorded the entire value of the subsidiary accounts in the acquisition entry. Now the subsidiary assets are already listed on the worksheet at book value, and they only need to be adjusted to fair value.

The D&D schedule provides complete guidance for the worksheet eliminations. Study Worksheet 2-3 on page 72 and note the following:

- Elimination (EL) eliminated the subsidiary equity purchased (100% in this example) against the investment account as follows:

(EL) Common Stock ($1 par)—Sample	10,000	
Paid-In Capital in Excess of Par—Sample	90,000	
Retained Earnings—Sample	60,000	
Investment in Sample Company…………………………………….		160,000

♦ The (D) series eliminations distribute the $340,000 excess to the appropriate accounts, as indicated by the D&D schedule. A valuable check is to be sure that the investment account is now eliminated. If it has not been eliminated, there has been an error in the balances entered into the Balance Sheet columns of the worksheet. Worksheet eliminations are as follows:

(D1) Inventory	5,000	
(D2) Land	30,000	
(D3) Buildings...	100,000	
(D4) Equipment	20,000	
(D5) Copyright..	50,000	
(D6) Goodwill	135,000	
(D) Investment in Sample Company [remaining excess after (EL)]…		340,000

The amounts that will appear on the consolidated balance sheet are shown in the final column of Worksheet 2-3. Notice that we have consolidated 100% of the fair values of subsidiary accounts with the existing book values of parent company accounts.

<u>Formal Balance Sheet</u>

The formal consolidated balance sheet resulting from the 100% purchase of Sample Company, in exchange for 20,000 Parental shares, has been taken from the Consolidated Balance Sheet column of Worksheet 2-3.

Parental, Inc. Consolidated Balance Sheet December 31,2015					
Assets			Liabilities and Equity		
Current assets:			Current liabilities	$120,000	
Cash	$84,000		Bonds payable	300,000	
Accounts receivable	92,000		Total liabilities		$420,000
Inventory	135,000				
Total current assets		$311,000	Stockholders' equity:		
			Common stock ($1 par)	$40,000	
Long-term assets:			Paid-in capital in excess of par	680,000	
Land	$170,000				
Buildings	800,000		Retained earnings	456,000	
Accumulated depreciation	(130,000)				
Equipment	320,000		Total controlling equity		1,176,000
Accumulated depreciation	(60,000)				
Copyright (net)	50,000				
Goodwill (net)	135,000				
Total long-term assets.		1,285,000			
Total assets		$1,596,000	Total liabilities and equity		$1,596,000

Bargain Purchase

A bargain purchase refers to an acquisition at a price that is less than the fair value of the subsidiary net identifiable assets. Let us change the prior example to assume that Parental, Inc., issued only 12,000 shares of its stock. The entry to record the purchase would be as follows.

Investment in Sample Company (12,000 shares issued x $25 fair value) 300,000
Common Stock ($1 par value) (12,000 shares x $1 par)......................12,000
Paid-In Capital in Excess of Par ($300,000 — $12,000 par value)…...288,000

The entry to record the costs of the acquisition would be as follows:

Acquisition Expense (closed to Retained Earnings since only balance sheets are being examined) 25,000
Cash 25,000

The value analysis schedule would compare the price paid with the fair value of the subsidiary net identifiable assets as follows:

Value Analysis Schedule	Company Implied Fair Value	Parent Price (100%)	NCI Value (0%)
Company fair value	$300,000	$300,000	N/A
Fair value of net assets excluding goodwill	365,000	365,000	
Goodwill	N/A	N/A	
Gain on acquisition	**$(65,000)**	**$(65,000)**	

The D&D schedule would be as follows for the $300,000 price:

Determination and Distribution of Excess/Schedule			
	Company Implied Fair Value	Parent Price (100%)	NCI Value (0%)
Fair value of subsidiary	$300,000	$300,000	N/A
Less book value of interest acquired:			
Common stock ($1 par)	$10,000		
Paid-in capital in excess of par	90,000		
Retained earnings	60,000		
Total equity	$160,000	$160,000	
Interest acquired		100%	
Book value		$160,000	
Excess of fair value over book value	**$140,000**	$140,000	

Adjustment of identifiable accounts:

	Adjustment	**Worksheet Key**
Inventory ($55,000 fair — $50,000 book value)	$5,000	**debit D1**
Land ($70,000 fair — $40,000 book value)	30,000	**debit D2**
Buildings ($250,000 fair — $150,000 net book value)	100,000	**debit D3**
Equipment ($60,000 fair — $40,000 net book value)	20,000	**debit D4**
Copyright ($50,000 fair — $0 book value)	50,000	**debit D5**
Gain on acquisition	**(65,000)**	**credit D7**
Total	**$140,000**	

Note the following features of the above D&D schedule:

- All identifiable net assets are still adjusted to full fair value even though it was a bargain purchase.
- A gain will be distributed to the parent on the worksheet.

The D&D schedule provides complete guidance for the worksheet eliminations. Study Worksheet 2-4 on page 74 and note the following:

- Elimination (EL) eliminated the subsidiary equity purchased (100% in this example) against the investment account as follows:

(EL) Common Stock ($1 par)—Sample……….. 10,000	
Paid-In Capital in Excess of Par—Sample...90,000	
Retained Earnings—Sample………………. 60,000	
Investment in Sample Company…………………	160,000

- The (D) series eliminations distribute the $100,000 excess to the appropriate accounts, as indicated by the D&D schedule. Worksheet eliminations are as follows:

(D1)	Inventory	5,000	
(D2)	Land..	30,000	
(D3)	Buildings	100,000	
(D4)	Equipment..	20,000	
(D5)	Copyright..	50,000	
(D7)	**Retained Earnings—Parental*** **……………**		**65,000**
(D)	Investment in Sample Company [remaining excess after (EL)] ....……………		140,000

*Since only a balance sheet is being prepared, the gain on the acquisition is closed directly to Parental Retained Earnings.

The amounts that will appear on the consolidated balance sheet are shown in the final column of Worksheet 2-4. Notice that 100% of the fair values of subsidiary accounts has been consolidated with the existing book values of parent company accounts.

There could be an unusual situation where the price paid by the parent is less than the book value of the subsidiary net assets. For example, if the price paid by the parent was only $150,000, the value analysis schedule would be as follows:

Value Analysis Schedule	Company Implied Fair Value	Parent Price (100%)	NCI Value (0%)
Company fair value................	$150,000	$150,00	N/A
Fair value of net assets excluding goodwill	365,000	365,000	
Goodwill................................	N/A	N/A	
Gain on acquisition	**$(215,000)**	**$(215,000)**	

The D&D schedule would be as follows for the $150,000 price:

Determination and Distribution of Excess Schedule			
	Company Implied Fair Value	Parent Price (100%)	NCI Value (0%)
Fair value of subsidiary............	$150,000	$150,000	N/A
Less book value of interest acquired:			
Common stock ($1 par).........	$10,000		
Paid-in capital in excess of par	90,000		
Retained earnings	60,000		
Total equity..........................	$160,000	$160,000	
Interest acquired...................		100%	
Book value...............................		$160,000	
Excess of fair value over book value.......................................	**$(10,000)**	$(10,000)	

Adjustment of identifiable accounts:

	Adjustment	Worksheet Key
Inventory ($55,000 fair — $50,000 book value)	$5,000	**debit D1**
Land ($70,000fair — $40,000 book value)	30,000	**debit D2**
Buildings ($250,000 fair — $150,000 book value)	100,000	**debit D3**
Equipment ($60,000 fair — $40,000 book value)	20,000	**debit D4**
Copyright ($50,000 fair — $0 book value)	50,000	**debit D5**
Gain on acquisition*...............	**(215,000)**	**credit D7**
Total....................................	**$(10,000)**	

*Agrees with total (company) gain in the value analysis schedule.

The eliminations on the worksheet would be as follows:

♦ Elimination (EL) eliminated the subsidiary equity purchased (100% in this example) against the investment account as follows:

		Debit	Credit
(EL)	Common Stock ($1 par)—Sample...	10,000	
	Paid-In Capital in Excess of Par—Sample	90,000	
	Retained Earnings—Sample	60,000	
	Investment in Sample Company.………………………………..		160,000

- The (D) series eliminations distribute the $10,000 negative excess to the appropriate accounts, as indicated by the D&D schedule. Worksheet eliminations are as follows:

		Debit	Credit
(D1)	Inventory	5,000	
(D2)	Land	30,000	
(D3)	Buildings	100,000	
(D4)	Equipment..	20,000	
(D5)	Copyright...	50,000	
(D7)	Retained Earnings—Parental*........…………		215,000
(D)	Investment in Sample Company [remaining excess after **(EL)**]……………………………………………………..		10,000

*Since only a balance sheet is being prepared, the gain on the acquisition is closed directly to Parental Retained Earnings.

A worksheet, in this case, would debit the investment account $10,000 to cure the distribution of adjustments to subsidiary accounts that exceed the amount available for distribution.

Notes

- The D&D schedule compares the price paid for the investment in the subsidiary with subsidiary book values and schedules the adjustments to be made on the worksheet.
- The worksheet adjusts the subsidiary accounts to fair values and adds them to the parent accounts to arrive at a consolidated balance sheet.

CONSOLIDATING WITH A NONCONTROLLING INTEREST

Consolidation of financial statements is required whenever the parent company controls a subsidiary. In other words, a parent company could consolidate far less than a 100% ownership interest. If a parent company owns 80% of the common stock of a company, the remaining 20% interest is noncontrolling interest. Several important ramifications may arise when less than 100% interest is consolidated.

- The parent's investment account is eliminated against only its ownership percentage of the underlying subsidiary equity accounts. The NCI is shown on the consolidated balance sheet in total and is not broken into par, paid-in capital in excess of par, and retained earnings. The NCI must be shown as a component of stockholders' equity. In the past, the NCI has also been displayed on the consolidated balance sheet as a liability, or in some cases has appeared between the liability and equity sections of the balance sheet. These alternatives are no longer allowed.
- The entire amount of every subsidiary nominal (income statement) account is merged with the nominal accounts of the parent to calculate consolidated income. *The noncontrolling interest is allocated its percentage ownership times the reported income of the subsidiary only.* In the past, this share of income has often been treated as an other expense in the consolidated income statement. FASB ASC 810-10-65-1 requires that it not be shown as an expense but, rather, as a distribution of consolidated income.
- Subsidiary accounts are adjusted to full fair value regardless of the controlling interest percentage. Prior to 2009, subsidiary accounts would only be adjusted to the controlling interest percentage ownership interest. For example, assume that the parent owns an 80% interest in the subsidiary. Further assume that the book value of equipment is $100,000 and that its fair value is $150,000. Past practice would have been to adjust the asset by $40,000 (80% ownership interest x $50,000 fair value-book

value difference). The new requirement is that the asset will be adjusted for the full $50,000 difference no matter what size the controlling interest is.

Analysis of Complicated Purchase with a Noncontrolling Interest

We will illustrate consolidation procedures using the 80% acquisition of Sample Company by Parental, Inc. Presented below are the balance sheet amounts and the fair values of the assets and liabilities of Sample Company as of December 31, 2015.

Assets	Book Value	Market Value	Liabilities and Equity	Book Value	Market Value
Accounts receivable	$20,000	$20,000	Current liabilities	$40,000	$40,000
Inventory	50,000	55,000	Bonds payable	100,000	100,000
Land	40,000	70,000	**Total liabilities**	**$140,000**	**$140,000**
Buildings	200,000	250,000			
Accumulated depreciation	(50,000)		Stockholders' equity:		
Equipment	60,000	60,000	Common stock ($1 par)	$10,000	
Accumulated depreciation	(20,000)		Paid-in capital in excess of par	90,000	
Copyright		50,000	Retained earnings	60,000	
			Total equity	$160,000	
Total assets	**$300,000**	**$505,000**	**Net assets**	**$160,000**	**$365,000**

Assume that Parental, Inc., issued 16,000 shares of its $1 par value common stock for 80% (8,000 shares) of the outstanding shares of Sample Company. The fair value of a share of Parental, Inc., stock is $25. Parental also pays $25,000 in accounting and legal fees to accomplish the purchase. Parental would make the following entry to record the purchase:

Investment in Sample Company (16,000 shares issued x $25 fair value) 400,000
    Common Stock ($1 par value) (16,000 shares x $1 par)............. …………16,000
    Paid-In Capital in Excess of Par ($400,000 — $16,000 par value)………..384,000

Parental would record the costs of the acquisition as follows:

Acquisition Expense (closed to Retained Earnings since only balance sheets are being examined)………………………………………………………..25,000
    Cash ………………………………………………………………….... 25,000

The following value analysis would be prepared for the 80% interest:

Value Analysis Schedule	Company Implied Fair Value	Parent Price (80%)	NCI Value (20%)
Company fair value	$500,000	$400,000	$100,000
Fair value of net assets excluding goodwill	365,000	292,000	73,000
Goodwill	**$135,000**	**$108,000**	**$27,000**
Gain on acquisition	N/A	N/A	

Several assumptions went into the above calculation.

♦ Company fair value—It is assumed that if the parent would pay $400,000 for an 80% interest, then the entire subsidiary company is worth $500,000 ($400,000/80%). We will refer to this as the ''implied value'' of the subsidiary company. Assuming this to be true, the NCI is worth 20% of the total subsidiary company value (20% x $500,000 = $100,000). This approach assumes that the price the parent would pay is directly proportional to the size of the interest purchased. We will later study the situation where this presumption is defeated. **Unless otherwise stated, exercises and problems in this text will assume the value of the NCI is ''implied'' by the price the parent pays for the controlling interest.**

♦ Fair value of net assets excluding goodwill ($365,000)—The fair values of the subsidiary accounts are from the comparison of book and fair values. All identifiable assets and all liabilities will be adjusted to 100% of fair value regardless of the size of the controlling interest purchased.

♦ Goodwill—The total goodwill is the excess of the ''company fair value'' over the fair value of the subsidiary net assets. It is proportionately allocated to the controlling interest and NCI.

Determination and Distribution of Excess Schedule

The D&D schedule that follows revalues the entire entity, including the NCI.

Determination and Distribution of Excess Schedule			
	Company Implied Fair Value	Parent Price (80%)	NCI Value (20%)
Fair value of subsidiary	$500,000	$400,000	$100,000
Less book value of interest acquired:			
Common stock ($1 par) .	$10,000		
Paid-in capital in excess of par	90,000		
Retained earnings	60,000		
Total equity......................	$160,000	$160,000	$160,000
Interest acquired.............		80%	20%
Book value.......................		$128,000	$32,000
Excess of fair value over book value	**$340,000**	$272,000	$68,000

Adjustment of identifiable accounts:

	Adjustment	Worksheet Key
Inventory ($55,000 fair — $50,000 book value)	$5,000	**debit D1**
Land ($70,000 fair — $40,000 book value)	30,000	**debit D2**
Buildings ($250,000 fair — $150,000 net book value)	100,000	**debit D3**
Equipment ($60,000 fair — $40,000 net book value)	20,000	**debit D4**
Copyright ($50,000 fair — $0 book value)	50,000	**debit D5**
Goodwill ($500,000 fair — $365,000 book value)	**135,000***	**debit D6**
Total	**$340,000**	

*Agrees with total (company) goodwill in the value analysis schedule.

Note the following features of a D&D schedule for a less than 100% parent ownership interest:

- The ‘‘fair value of subsidiary’’ line contains the implied value of the entire company, the parent price paid, and the implied value of the NCI from the above value analysis schedule.
- The total stockholders’ equity of the subsidiary (equal to the net assets of the subsidiary at book value) is allocated 80/20 to the controlling interest and the NCI.
- The excess of fair value over book value is shown for the company, the controlling interest, and the NCI. This line means that the entire adjustment of subsidiary net assets will be $340,000. The controlling interest paid $272,000 more than the underlying book value of subsidiary net assets. This is the excess that will appear on the worksheet when the parent’s 80% share of subsidiary stockholders’ equity is eliminated against the investment account.

Finally, the NCI share of the increase to fair value is $68,000.

- All subsidiary assets and liabilities will be increased to 100% of fair value, just as would be the case for a 100% purchase.

The D&D schedule provides complete guidance for the worksheet eliminations. Study Worksheet 2-5 on page 76 and note the following:

- Elimination (EL) eliminated the subsidiary equity purchased (80% in this example) against the investment account as follows:

(EL) Common Stock ($1 par)—Sample	8,000	
Paid-In Capital in Excess of Par—Sample	72,000	
Retained Earnings—Sample	48,000	
Investment in Sample Company..		128,000

- The (D) series eliminations distribute the excess applicable to the controlling interest plus the increase in the NCI [labeled (NCI)] to the appropriate accounts, as indicated by the D&D schedule. The adjustment of the NCI is carried to subsidiary retained earnings. Recall, however, that only the total NCI will appear on the consolidated balance sheet. Worksheet eliminations are as follows:

(D1) Inventory	5,000		
(D2) Land	30,000		
(D3) Buildings	100,000		
(D4) Equipment	20,000		
(D5) Copyright	50,000		
(D6) Goodwill	135,000		
(D)		Investment in Sample Company [remaining excess after (EL)]	272,000
(NCI)		Retained Earnings Sample (NCI share of fair market adjustment)	68,000

Worksheet 2-5 has an additional column, the NCI column. The components of the NCI are summed and presented as a single amount in this balance sheet column. Notice that 100% ofthe fair values of subsidiary accounts has been consolidated with the existing book values of parent company accounts. The amounts that will appear on the consolidated balance sheet are shown in the final column of Worksheet 2-5. The Balance Sheet columns of the worksheet will show the components of controlling equity (par, paid-in capital in excess of par, and retained earnings) and the total NCI.

Formal Balance Sheet

The formal consolidated balance sheet resulting from the 80% purchase of Sample Company, in exchange for 16,000 Parental shares, has been taken from the Consolidated Balance Sheet column of Worksheet 2-5. Recall, this is the date of acquisition.

Parental, Inc. Consolidated Balance Sheet December 31,2015					
Assets			Liabilities and Equity		
Current assets:			Current liabilities	$120,000	
Cash	$84,000		Bonds payable	300,000	
Accounts receivable	92,000		Total liabilities.........		$420,000
Inventory	135,000				
Total current assets		$311,000			
Long-term assets:			Stockholders' equity:		
Land..................	$170,000		Common stock ($1 par)	$36,000	
Buildings............	800,000		Paid-in capital in excess of par	584,000	
Accumulated depreciation	(130,000)		Retained earnings .	456,000	
Equipment	320,000		Total controlling equity		1,076,000
Accumulated depreciation	(60,000)		**Noncontrolling interest**		**100,000**
Copyright	50,000		Total equity..........		$1,176,000
Goodwill.............	135,000				
Total long-term assets		1,285,000			
Total assets		$1,596,000	Total liabilities and equity		$1,596,000

Adjustment of Goodwill Applicable to NCI

The NCI goodwill value can be reduced below its implied value if there is evidence that the implied value exceeds the real fair value of the NCI's share of goodwill. This could occur when a parent pays a premium to achieve control, which is not dependent on the size of the ownership interest.

The NCI share of goodwill could be reduced to zero, but the NCI share of the fair value of net tangible assets is never reduced. **The total NCI can never be less than the NCI percentage of the fair value of the net assets** (in this case, it cannot be less than 20% x $365,000 = $73,000).

If the fair value of the NCI was estimated to be $90,000 ($10,000 less than the value implied by parent purchase price), the value analysis would be modified as follows (changes are boldfaced):

Value Analysis Schedule	Company Implied Fair Value	Parent Price (80%)	NCI Value (20%)
Company fair value	**$490,000**	$400,000	**$90,000**
Fair value of net assets excluding goodwill	365,000	292,000	73,000
Goodwill	**$125,000**	$108,000	**$17,000**
Gain on acquisition......................	N/A	N/A	

Several assumptions went into the above calculation.

- Company fair value—This is now the sum of the price paid by the parent plus the newly estimated fair value of the NCI.
- Fair value of net assets excluding goodwill—The fair values of the subsidiary accounts are from the comparison of book and fair values. These values are never less than fair value.
- Goodwill—The total goodwill is the excess of the ''company fair value'' over the fair value of the subsidiary net assets.

The revised D&D schedule with changes (from the previous example) in boldfaced type would be as follows.

Determination and Distribution of Excess Schedule			
	Company Implied Fair Value	Parent Price (80%)	NCI Value (20%)
Fair value of subsidiary....	$490,000	$400,000	**$90,000**
Less book value of interest acquired:			
Common stock ($1 par) .	$10,000		
Paid-in capital in excess of par	90,000		
Retained earnings..........	60,000		
Total equity	$160,000	$160,000	$160,000
Interest acquired		80%	20%
Book value		$128,000	$32,000
Excess of fair value over book value	**$330,000**	$272,000	**$58,000**

Adjustment of identifiable accounts:	**Adjustment**	**Worksheet Key**
Inventory ($55,000 fair — $50,000 book value)	$5,000	**debit D1**
Land ($70,000 fair — $40,000 book value)	30,000	**debit D2**
Buildings ($250,000 fair — $150,000 book value)	100,000	**debit D3**
Equipment ($60,000 fair — $40,000 book value)	20,000	**debit D4**
Copyright ($50,000 fair — $0 book value)	50,000	**debit D5**
Goodwill ($490,000 fair — $365,000 book value)	**125,000***	**debit D6**
Total	**$330,000**	

*Agrees with total (company) goodwill in the value analysis schedule.

If goodwill becomes impaired in a future period, the impairment charge would be allocated to the controlling interest and the NCI based on the percentage of total goodwill each equity interest received on the D&D schedule. In the original example, where goodwill on the NCI was assumed to be proportional to that recorded on the controlling interest, the impairment charge would be allocated 80/20 to the controlling interest and NCI. In the above example, where goodwill was not proportional, a new percentage would be developed as follows:

	Value	Percentage of Total
Goodwill applicable to parent from value analysis schedule	$108,000	86.4%
Goodwill applicable to NCI from value analysis schedule	17,000	13.6%
Total goodwill	$125,000	

No Goodwill on the Noncontrolling Interest

Currently, International Accounting Standards provide a choice in accounting for the noncontrolling interest. The NCI can be recorded at fair value, which would result in goodwill applicable to the NCI, as demonstrated above. The other choice is to record the NCI at the NCI percentage of the fair value of the net identifiable assets only, with no goodwill on the NCI. Under the non- NCI goodwill model, the preceding example would be modified to appear as shown below.

If the fair value of the NCI is estimated to be $73,000 (20% x $365,000 fair value of subsidiary company net identifiable assets), the value analysis would be modified as follows (changes are boldfaced):

Value Analysis Schedule	Company Implied Fair Value	Parent Price (80%)	NCI Value (20%)
Company fair value	**$473,000**	$400,000	**$73,000**
Fair value of net assets excluding goodwill	365,000	292,000	73,000
Goodwill...............................	**$108,000**	$108,000	**$ 0**
Gain on acquisition	N/A	N/A	

Several assumptions went into the calculation on page 55.

- Company fair value—This is now the sum of the price paid by the parent plus the NCI share of net identifiable assets.
- Fair value of net assets excluding goodwill—The fair values of the subsidiary accounts are from the comparison of book and fair values. These values are never less than fair value.
- Goodwill—The only goodwill recorded is that applicable to the controlling interest.

The revised D&D schedule with changes (from the previous example) in boldfaced type would be as follows:

Determination and Distribution of Excess Schedule			
	Company Implied Fair Value	Parent Price (80%)	NCI Value (20%)
Fair value of subsidiary	$473,000	$400,000	**$73,000**
Less book value of interest acquired:			
Common stock ($1 par).	$10,000		
Paid-in capital in excess of par	90,000		
Retained earnings.........	60,000		
Total equity..................	$160,000	$160,000	$160,000
Interest acquired		80%	20%
Book value		$128,000	$32,000
Excess of fair value over book value	**$313,000**	$272,000	$**41,000**

Adjustment of identifiable accounts:

	Adjustment	Worksheet Key
Inventory ($55,000 fair — $50,000 book value)	$5,000	**debit D1**
Land ($70,000 fair — $40,000 book value)	30,000	**debit D2**
Buildings ($250,000 fair — $150,000 book value)	100,000	**debit D3**
Equipment ($60,000 fair — $40,000 book value) .	20,000	**debit D4**
Copyright ($50,000 fair — $0 book value)	50,000	**debit D5**
Goodwill ($473,000 fair — $365,000 book value)	**108,000***	**debit D6**
Total	**$313,000**	

*Agrees with total (company) goodwill in the value analysis schedule.

If goodwill becomes impaired in a future period, the impairment charge would apply only to the controlling interest.

Gain on Purchase of Subsidiary

Let us now study the same example, except that the price paid by the parent will be low enough to result in a gain. Assume that Parental, Inc., issued 10,000 shares of its $1 par value common stock for 80% of the outstanding shares of Sample Company. The fair value of a share of Parental, Inc., stock is $25. Parental also pays $25,000 in accounting and legal fees to complete the purchase. Parental would make the following journal entry to record the purchase:

Investment in Sample Company (10,000 shares issued x $25 fair value)	250,000	
Common Stock ($1 par value) (10,000 shares x $1 par).........................		10,000
Paid-In Capital in Excess of Par ($250,000 — $10,000 par value)...........		240,000

Parental would record the costs of the acquisition as follows:

Acquisition Expense (closed to Retained Earnings since only balance sheets are being examined)...	25,000	
Cash..		25,000

Refer back to the prior comparison of book and fair values for the subsidiary. The following value analysis would be prepared for the 80% interest:

Value Analysis Schedule	Company Implied Fair Value	Parent Price (80%)	NCI Value (20%)
Company fair value	$323,000	$250,000	$73,000
Fair value of net assets excluding goodwill	365,000	292,000	73,000
Goodwill	N/A	N/A	
Gain on acquisition.............	**$(42,000)**	**$(42,000)**	

Several assumptions went into the above calculation.

- Company fair value—It is assumed that if the parent would pay $250,000 for an 80% interest, then the entire subsidiary company is worth $312,500 ($250,000/80%). We will refer to this as the ‘‘implied

value'' of the subsidiary company. Assuming this to be true, the NCI is worth 20% of the total subsidiary company value (20% x $312,500 = $62,500). The NCI value, however, can never be less than its share of net identifiable assets ($73,000). Thus, the NCI share of company value is raised to $73,000 (replacing the $62,500).

- Fair value of net assets excluding goodwill—The fair values of the subsidiary accounts are from the comparison of book and fair values.
- Goodwill—There can be no goodwill when the price paid is less than the fair value of the parent's share of the fair value of net identifiable assets.
- Gain on acquisition—The only gain recognized is that applicable to the controlling interest.

The following D&D would be prepared:

Determination and Distribution of Excess Schedule			
	Company Implied Fair Value	Parent Price (80%)	NCI Value (20%)
Fair value of subsidiary.....	$323,000	$250,000	$73,000
Less book value of interest acquired:			
Common stock ($1 par)	$10,000		
Paid-in capital in excess of par	90,000		
Retained earnings .	60,000		
Total equity.....	$160,000	$160,000	$160,000
Interest acquired.....		80%	20%
Book value........................		$128,000	$32,000
Excess of fair value over book value	**$163,000**	$122,000	$41,000

Adjustment of identifiable accounts:

	Adjustment	Worksheet Key
Inventory ($55,000 fair — $50,000 book value)	$5,000	**debit D1**
Land ($70,000 fair — $40,000 book value)	30,000	**debit D2**
Buildings ($250,000 fair — $150,000 book value).	100,000	**debit D3**
Equipment ($60,000 fair — $40,000 book value)	20,000	**debit D4**
Copyright ($50,000 fair — $0 book value)	50,000	**debit D5**
Gain (only applies to controlling interest)...	**(42,000)**	**credit D7**
Total...	**$163,000**	

Worksheet 2-6 on page 78 is the consolidated worksheet for the $250,000 price. The D&D schedule provides complete guidance for the worksheet eliminations.

- Elimination (EL) eliminated the subsidiary equity purchased (80% in this example) against the investment account as follows:

(EL) Common Stock ($1 par)	8,000	
Paid-In Capital in Excess of Par	72,000	
Retained Earnings	48,000	
Investment in Sample Company		128,000

- The (D) series eliminations distribute the excess applicable to the controlling interest plus the increase in the NCI [labeled (NCI)] to the appropriate accounts as indicated by the D&D schedule. Worksheet eliminations are as follows:

(D1) Inventory	5,000	
(D2) Land	30,000	
(D3) Buildings	100,000	
(D4) Equipment	20,000	
(D5) Copyright	50,000	
(D7) Gain on Purchase of Subsidiary (since we are dealing only with a balance sheet, this would be credited to Controlling Retained Earnings)		42,000
(D) Investment in Sample Company [remaining excess after (EL)]		122,000
(NCI) Retained Earnings—Sample (NCI share of fair market adjustment)		41,000

Valuation Schedule Strategy

Here are steps to valuation that will always work if prepared in the order shown below.

Step 1: Enter ownership percentages in C2 and D2. Then enter fair value of net assets of acquired company in B4, and multiply by ownership percentages to fill C4 and D4.

	A	B	C	D
1.	Value Analysis Schedule	Company Implied Fair Value	Parent Price	NCI Value
2.	Ownership percentages		80%	20%
3.	Company fair value			
4.	Fair value of net assets excluding goodwill	**365,000**	**292,000**	**73,000**
5.	Goodwill			
6.	Gain on bargain acquisition			

Step 2: Enter the price paid by the parent in C3. Then, enter value of NCI in D3. Normally, this is proportionate to price paid by parent. It can be a separate value, but never less than D4. This would happen when the parent pays a control premium. B3 is sum of C3 and D3.

	A	B	C	D
1.	Value Analysis Schedule	Company Implied Fair	Parent Price	NCI Value
2.	Ownership percentages		80%	20%
3.	Company fair value	**525,000**	**420,000**	**105,000**
4.	Fair value of net assets excluding goodwill	365,000	292,000	73,000
5.	Goodwill			
6.	Gain on bargain acquisition			

Step 3: Compare company fair value (B3) with fair value of net assets, excluding goodwill (B4). If B3 is greater than B4, follow Step 3A (Goodwill). If B3 is less than B4, follow Step 3B (Gain).

Step 3A (Goodwill): Calculate goodwill for B5-D5 by subtracting line 4 from line 3 in columns B—D.

	A	B	C	D
1.	Value Analysis Schedule	Company Implied Fair	Parent Price	NCI Value
2.	Ownership percentages		80%	20%
3.	Company fair value	525,000	420,000	105,000
4.	Fair value of net assets excluding goodwill	365,000	292,000	73,000
5.	Goodwill	**160,000**	**128,000**	**32,000**
6.	Gain on bargain acquisition			

Step 3B (Gain): Enter the new values for line 3. The NCI value cannot be less than D4 and normally will be equal to D4. (An exception where it exceeds D4 follows.) B4 is the sum of C4 and D4. Calculate and enter C6. It is C4 minus C3. No other cells are filled.

	A	B	C	D
1.	Value Analysis Schedule	Company Implied Fair	Parent Price	NCI Value
2.	Ownership percentages		80%	20%
3.	Company fair value	**323,000**	**250,000**	**73,000**
4.	Fair value of net assets excluding goodwill	365,000	292,000	73,000
5.	Goodwill			
6.	Gain on bargain acquisition		**(42,000)**	

Step 3B (Gain) Exception for NCI: This exception is for a situation where the NCI value exceeds its share of fair value of net assets, excluding goodwill.

Enter new Value for D3. Then calculate and enter values for C6 and D6. B6 is sum of C6 and D6.

	A	B	C	D
1.	Value Analysis Schedule	Company Implied Fair	Parent Price	NCI Value
2.	Ownership percentages		80%	20%
3.	Company fair value	**340,000**	**250,000**	**90,000**
4.	Fair value of net assets excluding goodwill	365,000	292,000	73,000
5.	Goodwill			
6.	Gain on bargain acquisition	**(25,000)**	**(42,000)**	**17,000**

The entry to distribute the excess on the worksheet would be as follows:

Investment in Subsidiary 42,000
NCI 17,000
Gain on Acquisition of Subsidiary.............. 25,000

Parent Exchanges Noncash Assets for Controlling Interest

The parent must bring to fair value any assets, other than cash, that it exchanges for the controlling interest. If those assets are retained and used by the subsidiary company, the gain must be eliminated in the consolidation process.

Assets transferred would be retained by the subsidiary when either:

1. The assets are transferred to the former shareholders of the subsidiary company and the shareholders sell the assets to the subsidiary company, or
2. The assets are transferred directly to the subsidiary company in exchange for newly issued shares or treasury shares.

Notes

- A less than 100% interest requires that value analysis be applied to the entire subsidiary.
- Subsidiary accounts are adjusted to full fair value regardless of the controlling percentage ownership.
- The noncontrolling interest shares in all asset and liability fair value adjustments.
- The noncontrolling interest does not share a gain on the acquisition (when applicable).
- The noncontrolling share of subsidiary equity appears as a single line-item amount within the equity section of the balance sheet.

PREEXISTING GOODWILL

If a subsidiary is purchased and it has goodwill on its books, that goodwill is ignored in the value analysis. The only complication caused by existing goodwill is that the D&D schedule will adjust existing goodwill, rather than only recording new goodwill. Let us return to the example involving the 80% acquisition of Sample Company on pages 42 and 43 and change only two facts: assume Sample has goodwill of $40,000 and its retained earnings is $40,000 greater. The revised book and fair values would be as follows:

Assets	Book Value	Market Value	Liabilities and Equity	Book Value	Market Value
Accounts receivable .	$20,000	$20,000	Current liabilities	$40,000	$40,000
Inventory..................	50,000	55,000	Bonds payable	100,000	100,000
Land.........................	40,000	70,000	**Total liabilities.......**	**$140,000**	**$140,000**
Buildings..................	200,000	250,000	**Stockholders' equity:**		
Accumulated depreciation	(50,000)		Common stock ($1 par)	$10,000	
Equipment	60,000	60,000	Paid-in capital in excess of par.	90,000	
Accumulated depreciation	(20,000)		Retained earnings	100,000	
Copyright..................		50,000	Total equity	$200,000	
Goodwill	40,000		Total liabilities and equity	**$340,000**	
Total assets.............	**$340,000**	**$505,000**	**Net assets................**		**$365,000**

Assume that Parental, Inc., issued 16,000 shares of its $1 par value common stock for 80% (8,000 shares) of the outstanding shares of Sample Company. The fair value of a share of Parental, Inc., stock is $25. Parental also pays $25,000 in accounting and legal fees to accomplish the purchase. Parental would make the following entry to record the purchase:

Account	Debit	Credit
Investment in Sample Company (16,000 shares issued x $25 fair value)	400,000	
Common Stock ($1 par value) (16,000 shares x $1 par)		16,000
Paid-In Capital in Excess of Par ($400,000 — $16,000 par value)		384,000

Parental would record the costs of the acquisition as follows:

Account	Debit	Credit
Acquisition Expense (closed to Retained Earnings since only balance sheets are being examined)……………………………………………….	25,000	
Cash		25,000

The value analysis schedule is unchanged. The fair value of the Sample Company net assets does not include goodwill.

Value Analysis Schedule	Company Implied Fair Value	Parent Price (80%)	NCI Value (20%)
Company fair value....................	$500,000	$400,000	$100,000
Fair value of net assets excluding goodwill	365,000	292,000	73,000
Goodwill	**$135,000**	**$108,000**	**$27,000**

Gain on acquisition

The D&D schedule differs from the earlier one only to the extent that:
*The Sample Company retained earnings is $40,000 greater.
*The implied goodwill of $135,000 is compared to existing goodwill of $40,000.

Determination and Distribution of Excess Schedule			
	Company Implied Fair Value	Parent Price (80%)	NCI Value (20%)
Fair value of subsidiary ...	$500,000	$400,000	$100,000
Less book value of interest acquired:			
Common stock ($1 par)	$10,000		
Paid-in capital in excess of par	90,000		
Retained earnings .	**100,000**		
Total equity	$200,000	$200,000	$200,000
Interest acquired		80%	20%
Book value		$160,000	$40,000
Excess of fair value over book value	**$300,000**	$240,000	$60,000

Adjustment of identifiable accounts:

	Adjustment	**Worksheet Key**
Inventory ($55,000 fair — $50,000 book value)	$5,000	**debit D1**
Land ($70,000 fair — $40,000 book value)	30,000	**debit D2**
Buildings ($250,000 fair — $150,000 net book value)	100,000	**debit D3**
Equipment ($60,000 fair — $40,000 net book value)	20,000	**debit D4**
Copyright ($50,000 fair — $0 book value)	50,000	**debit D5**
Goodwill ($135,000 fair — $40,000 book value)	**95,000**	**debit D6**
Total	**$300,000**	

The D&D schedule provides complete guidance for the worksheet eliminations. Changes from Worksheet 2-5 are in boldface. Study Worksheet 2-7 on page 80 and note the following:

- Elimination (EL) eliminated the subsidiary equity purchased (80% in this example) against the investment account as follows:

	Debit	Credit
(EL) Common Stock ($1 par)—Sample	8,000	
Paid-In Capital in Excess of Par—Sample	72,000	
Retained Earnings—Sample	80,000	
Investment in Sample Company..................		160,000

- The (D) series eliminations distribute the excess applicable to the controlling interest plus the increase in the NCI [labeled (NCI)] to the appropriate accounts, as indicated by the D&D schedule. The adjustment of the NCI is carried to subsidiary retained earnings.

(D1) Inventory	5,000	
(D2) Land………………………………………………………	30,000	
(D3) Buildings	100,000	
(D4) Equipment..	20,000	
(D5) Copyright..	50,000	
(D6) Goodwill ($135,000 - $40,000 book value)	95,000	
(D) Investment in Sample Company [remaining excess after (EL)]		240,000
(NCI) Retained Earnings Sample (NCI share of fair market adjustment)		60,000

The Consolidated Balance Sheet column of Worksheet 2-7 is the same as those for Worksheet 2-5 and the resulting balance sheet.

Note

- Where the acquired firm already has goodwill on its books, the D&D adjusts from the recorded goodwill to the goodwill calculated in the valuation schedule.

OWNERSHIP OF A PRIOR NONCONTROLLING INTEREST

The acquirer may already own a noncontrolling investment (less than 50%) interest in a company. It may then decide to buy additional shares of common stock to achieve a controlling interest. The previously owned shares are adjusted to fair value and a gain or loss is recorded on the investment. The fair value of the shares is then added to the price paid for the new shares. The prior plus new interest is treated as one price paid for a controlling interest. Normally, the fair value of the previously owned shares is based on the price paid for the controlling interest.

For example, assume Company P owns a 10% interest (10,000 shares) in Company S that Company P purchased at a prior date for $20 per share. At a later date, Company P purchases another 50,000 shares (50% interest) for $30 per share.

The 10,000 previously purchased shares would be adjusted to fair value as follows:

Investment in Company S shares (10,000 shares x $10increase)	100,000	
Unrealized Gain on Revaluation of Investments		100,000

This entry would increase the carrying value of the 10,000 previously owned shares to $300,000. The acquisition price for the controlling 60% interest would be calculated as follows:

Fair value of previously owned 10% interest	$300,000
Acquisition of 50,000 shares at $30	1,500,000
Total acquisition cost	$1,800,000

Assuming cash is paid for the 50,000 shares, the acquisition entry would be as follows:

Investment in Subsidiary Company S	1,800,000	
Cash (50,000 shares at $30)		1,500,000
Investment in Company S (10,000 shares x $30)		300,000

Value analysis and the D&D schedule would be constructed for a single 60% interest with an acquisition price of $1,800,000.

Two observations that should be made about the prior investment that is rolled into the total acquisition cost are as follows:

1. The above investment was a passive investment and was not an influential investment accounted for under the equity method. Most likely, it would have been an ''Available for Sale'' investment. It would have been adjusted to fair value on prior balance sheet dates with the adjustment going to ''Other Comprehensive Income'' (OCI). That portion of the portfolio and OCI adjustment attributable to this investment would be included in future portfolio valuations. It is unlikely, but possible, that the investment could have been a ''Trading Investment.'' In that case, prior portfolio adjustments were recorded as unrealized gains or losses and were included in net income. The above investment would no longer be included in the future portfolio adjustments.
2. The previously owned interest may be large enough to be accounted for under the equity method (typically greater than a 20% interest). If that is the case, the investment will be carried at equity-adjusted cost. It will be adjusted to fair value on the date of the later acquisition that creates control.

Note

- Any previously owned interest in the acquiree is adjusted to fair value based on the price paid for the later interest that creates control.

PUSH-DOWN ACCOUNTING

Thus far, it has been assumed that the subsidiary's statements are unaffected by the parent's purchase of a controlling interest in the subsidiary. None of the subsidiary's accounts is adjusted on the subsidiary's books. In all preceding examples, adjustments to reflect fair value are made only on the consolidated worksheet. This is the most common but not the only accepted method.

Some accountants object to the inconsistency of using book values in the subsidiary's separate statements while using fair value-adjusted values when the same accounts are included in the consolidated statements. They would advocate *push-down accounting,* whereby the subsidiary's accounts are adjusted to reflect the fair value adjustments. In accordance with the new basis of accounting, retained earnings are eliminated, and the balance (as adjusted for fair value adjustments) is added to paid-in capital. It is argued that the purchase of a controlling interest gives rise to a new basis of accountability for the interest traded, and the subsidiary accounts should reflect those values.

If the push-down method were applied to the example of a 100% purchase for $500,000 on pages 42 and 43, the following entry would be made by the subsidiary on its books:

Inventory	5,000	
Land	30,000	
Buildings	100,000	
Equipment	20,000	
Copyright	50,000	
Goodwill	135,000	
Paid-In Capital in Excess of Par		340,000

This entry would raise the subsidiary equity to $500,000. The $500,000 investment account would be eliminated against the $500,000 subsidiary equity with no excess remaining. All accounts are adjusted to full fair value, even if there is a noncontrolling interest. The SEC staff has adopted a policy of requiring push-down accounting, in some cases, for the separately published statements of a subsidiary. The existence of any significant noncontrolling interests (usually above 5%) and/or significant publicly held debt or preferred stock generally eliminates the need to use push-down accounting. **Note that the consolidated statements are unaffected by this issue.** The only difference is in the placement of the adjustments from the determination and distribution of excess schedule. The conventional approach, which is used in this text, makes the adjustments on the consolidated worksheet. The push-down method makes the same adjustments directly on the books of the subsidiary. Under the push-down method, the adjustments are already made when consolidation procedures are applied. Since all accounts are adjusted to reflect fair values, the investment account is eliminated against subsidiary equity with no excess. The difference in methods affects only the presentation on the subsidiary's separate statements.

Notes

- Push-down accounting revalues subsidiary accounts directly on the books of the subsidiary based on adjustments indicated in the D&D schedule.
- Since assets are revalued before the consolidation process starts, no distribution of excess (to adjust accounts) is required on the consolidated worksheet.

APPENDIX: REVERSE ACQUISITION

A reverse acquisition occurs when a usually larger firm, that is not publicly traded, wishes to acquire a controlling interest in a usually smaller company, which does not have publicly traded common stock. The ''reverse'' nature of the transaction concerns the common shares used in the exchange. So far, we have assumed that the potential controlling company issues its common stock shares to make the acquisition. In a ''reverse acquisition,'' the shares of the ''to be'' acquired publicly traded company are used for the exchange. The intent is to end up with a consolidated company that has easily tradable stock.

The following example is taken from FASB ASC 805-40-55-4 to allow the reader additional information on the process. Prior to the acquisition, assume that Private Company (the acquirer) and Public Company (the acquiree) have the following balance sheets:

Private Company (the acquirer, but the company receiving public shares) Balance Sheet December 31,2015			
Assets		Liabilities and Equity	
Current assets.........	$700	Long-term liabilities.........	$1,700
Fixed assets...........	3,000	Common stock (60 shares) ($1 par)	60
		Paid-in capital in excess of par	540
		Retained earnings	1,400
Total assets..........	$3,700	Total liabilities and equity	$3,700

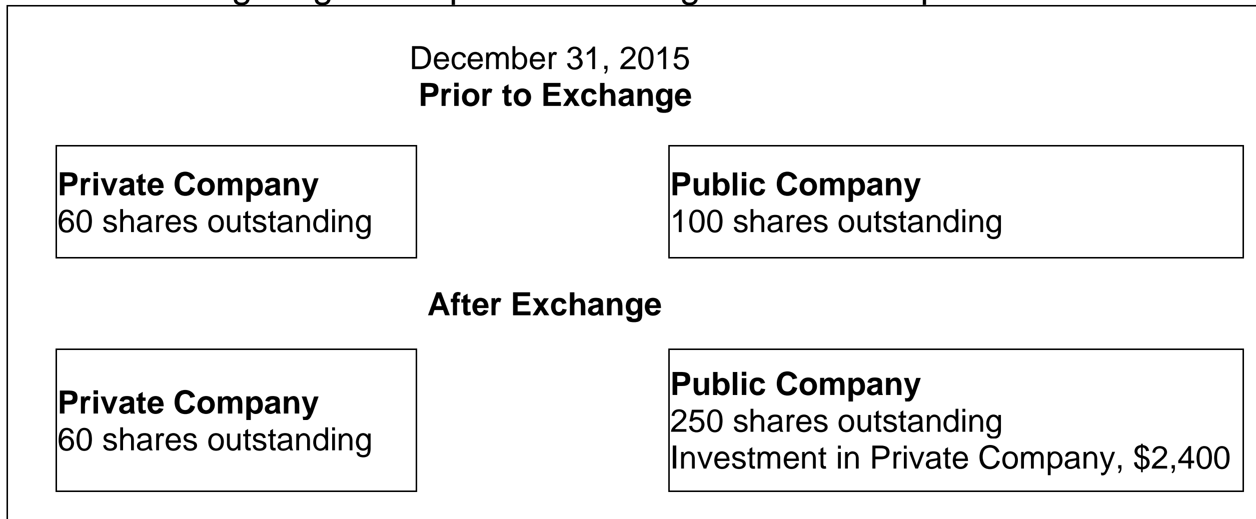
Public Company (the acquiree, but the company issuing public shares) Balance Sheet December 31,2015					
Assets	Book Value	Fair Value	Liabilities and Equity	Book Value	Fair Value
Current assets	$500	$500	Long-term liabilities	$700	$700
Fixed assets .	1,300	1,500	Common stock (100 shares) ($1 par)	100	
			Paid-in capital in excess of par	200	
			Retained earnings	800	
Total assets.	$1,800	$2,000	Total liabilities and equity	$1,800	

Public Company will issue 150 new shares to Private Company shareholders in exchange for their 60 outstanding shares of Private Company. Assuming that the fair value of a Public Company share is $16,

the transaction would be recorded by Public Company as follows:

Investment in Private Company (150 shares x $16).......................... 2,400
    Common Stock ($1 par) (150 shares x $1 par)……………………… 150
    Paid-In Capital in Excess of Par ($2,400 - $150 par)……………… 2,250

The following diagram depicts the change in ownership:



After the exchange, all of the shares of Private Company are owned by Public Company. In most cases, Public Company will distribute Public Company shares to the former Private Company shareholders. However, the 150 shares of Public Company are owned by the former Private Company shareholders. The former Private Company shareholders now own 60% of the 250 total Public Company shares. They, collectively, now have control of Public Company.

Since control of Public Company has been transferred, the company is considered to have been sold. Thus, it is the Public Company assets and liabilities that must be adjusted to fair value. Since the fair value per share of Public Company is $16, it is assumed that Public Company was worth $1,600 (100 shares x $16) prior to the transfer.

Because the shareholders of Private Company are the controlling interest, Private Company cannot revalue its assets to fair value. The controlled company is Public Company; thus, it is the company that must have its net assets adjusted to fair value. This means that value analysis is only applied to Public Company.

The following value analysis would be prepared for Public Company. The fair value analysis would apply to only those assets present just prior to the acquisition. The fair value of Public Company at the time of the acquisition can be calculated as $1,600 (100 shares x $16 market value).

The value analysis schedule for Public Company would be as follows:

Value Analysis Schedule	Company Implied Fair Value	Parent Price (100%)	NCI Value
Company fair value	$1,600	$1,600	
Fair value of assets excluding goodwill ($1,100 net book value + $200 adjustment to fixed assets)	1,300	1,300	
Goodwill	**$300**	**$300**	
Gain on acquisition..........................	N/A	N/A	

The determination and distribution of excess schedule would be prepared as follows:

Determination and Distribution of Excess Schedule	Company Implied Fair Value	Parent Price (100%)	NCI Value
Fair value of subsidiary	$1,600	$1,600	
Less book value of interest acquired:			
Common stock ($1 par).........	$100		
Paid-in capital in excess of par	200		
Retained earnings.................	800		
Total equity..........................	$1,100	$1,100	
Interest acquired		100%	
Book value		$1,100	
Excess of fair value over book value	**$500**	$500	

Adjustment of identifiable accounts:

Fixed assets	$200
Goodwill	**300**
Total.......................................	**$500**

Worksheet 2 A-1 on page 82 includes the consolidation procedures that may be used for the acquisition on the acquisition date. The first step is to eliminate the investment account against the increase in Public Company equity *recorded at the time of the acquisition* as follows:

(EL) Common Stock ($1 par)—Public Company (150 shares x $1)	150	
Paid-In Capital in Excess of Par—Public Company (150 shares x $15)	2,250	
Investment in Private Company..		2,400

The assets of Public Company are then adjusted to fair value on the acquisition date, using the information from the above determination and distribution of excess schedule. The total adjustment is credited to Public Company retained earnings.

(D1) Fixed Assets	200	
(D2) Goodwill	300	
(D) Retained Earnings—Public Company	500	

Then, the Private Company par and paid-in capital in excess of par amounts are transferred to the par and paid-in value of the public shares. The retained earnings of the acquired, Public Company, are also transferred to the paid-in capital in excess of par account of Public Company as follows:

(Trans) Common Stock ($1 par)—Private Company	60	
Paid-In Capital in Excess of Par—Private Company.	540	
Retained Earnings—Public Company (as adjusted by"D")	1,300	
Common Stock ($1par)—Public Company (150 shares x $1)		150
Paid-In Capital in Excess of Par—Public Company ($1,900 $150)		1,750

The consolidation steps can be summarized as follows:

(EL) Remove the investment account and the additions to paid-in capital that occurred on the purchase date.

(D) Bring the acquired company's assets and liabilities to fair value on the acquisition date. (Trans) Assign all remaining equity account values, except the controlling interest share of retained earnings, to paid-in capital accounts ofthe publicly traded company. The only retained earnings that can emerge from the combination are that of the controlling interest.

The following balance sheet results:

Public Company and Subsidiary Private Company
Balance Sheet
December 31,2015

Assets		Liabilities and Equity	
Current assets.......	$1,200	Long-term liabilities	$2,400
Fixed assets	4,500		
Goodwill	300	Equity:	$250
		Common stock ($1 par)	1,950
		Paid-in capital in excess of par. Retained earnings	1,400
		Total controlling interest	$3,600
Total assets	$6,000	Total liabilities and equity	$6,000

There are alternative procedures that could be used on the worksheet, but the end result is that the controlling equity can only include the retained earnings of the acquiring company. In this case, that is the original $1,400 attributable to Private Company. The total paid-in capital can be confirmed as follows:

Total equity of acquired Public Company ($100 + $200 + $800)	$1,100
Adjustment of Public Company to fair value	500
Total paid-in capital of Private Company ($60 + $540)	600
Total paid-in capital of consolidated Public Company	$2,200

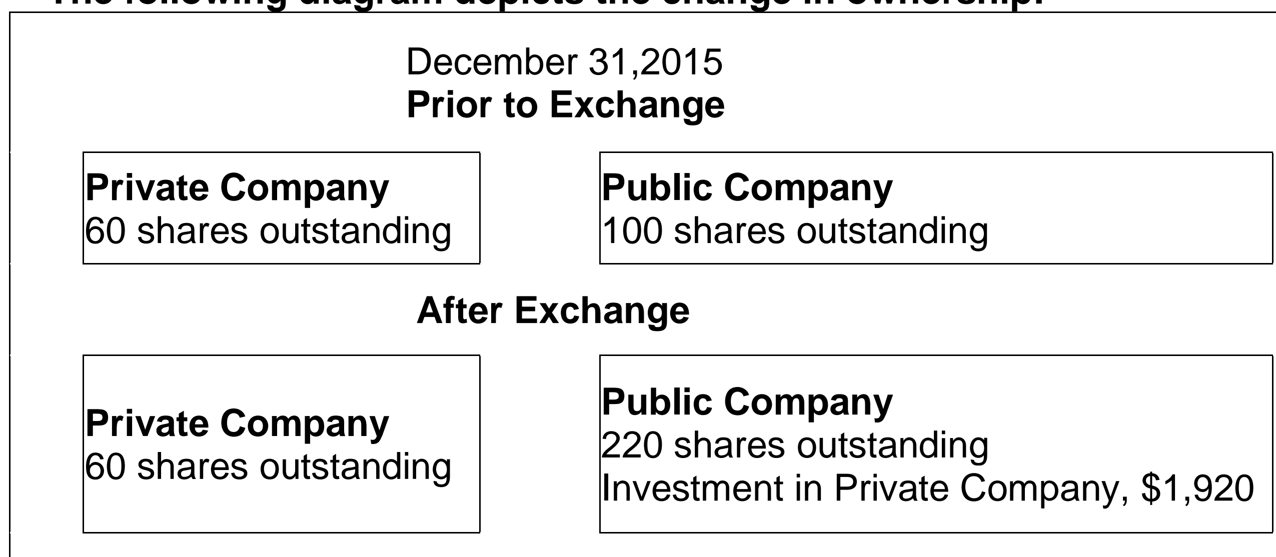
Reverse Acquisition with Noncontrolling Interest

A portion of the acquiring company shareholders may choose not to exchange their shares for the company being acquired. Let us change the prior example to assume that only 80% or 48 Private Company shares participate in the exchange. The 20% or 12 Private Company shares become a noncontrolling interest in Private Company.

Public Company will issue 120 new shares to the Private Company shareholders in exchange for their 48 outstanding shares of Private Company. Assuming that the fair value of a Public Company share is $16, the transaction would be recorded by Public Company as follows:

Investment in Private Company (120 shares x $16)	1,920	
Common Stock ($1 par) (120 shares x $1 par)		120
Paid-In Capital in Excess of Par ($1,920 - $120 par)		1,800

The following diagram depicts the change in ownership:



After the exchange, 80% of the shares of Private Company are owned by Public Company. However, the 120 shares of Public Company are owned by former Private Company shareholders. The former Private Company shareholders now own 54.5% of the 220 total Public Company shares. They, collectively, now have control of Public Company.

Since the control of Public Company has been transferred, the company is considered to have been sold. Thus, it is the Public Company assets and liabilities that must be adjusted to fair value. Since the fair value per share of Public Company is $16, it is assumed that Public Company was worth $1,600 (100 shares x $16) prior to the transfer.

There is no change in the value analysis or the determination and distribution of excess schedule. Since the noncontrolling interest is

applicable to Private Company, it does not share in the revaluation.

Worksheet 2 A-2 on page 83 includes the consolidation procedures that may be used for the acquisition on the acquisition date. The first step is to eliminate the investment account against the increase in Public Company equity *recorded at the time of the acquisition* as follows:

(EL) Common Stock ($1 par)—Public Company (120 shares x $1)	120	
Paid-In Capital in Excess of Par—Public Company (120 shares x $15).	1,800	
Investment in Public Company		1,920

The assets of Public Company are then adjusted to fair value on the acquisition date, using the information from the above determination and distribution of excess schedule. The total adjustment is credited to Public Company retained earnings**.**

(D1) Fixed Assets	200	
(D2) Goodwill	300	
(D) Retained Earnings—Public Company		500

Then, the Private Company par and paid-in capital in excess of par amounts are transferred to the par and paid-in value of the public shares. The retained earnings of the acquired, Public Company, are also transferred to the paid-in capital in excess of par account of Public Company as follows:

(Trans) Common Stock ($1 par)—Private Company ($60 x 80%)	48	
Paid-In Capital in Excess of Par—Private Company ($540 x 80%)	432	
Retained Earnings—Public Company (as adjusted by"D")	1,300	
Common Stock ($1 par)—Public Company (120 shares x $1)		120
Paid-In Capital in Excess ofPar—Public Company ($1,780-$120)		1,660

The following balance sheet results:

Public Company and Subsidiary Private Company Balance Sheet December 31,2015			
Assets		Liabilities and Equity	
Current assets	$1,200	Long-term liabilities....	$2,400
Fixed assets ..	4,500	Equity:	
Goodwill	300	Common stock ($1 par)	$220
		Paid-in capital in excess of par	1,860
		Retained earnings	1,120
		Total controlling interest	$3,200
		Noncontrolling interest	400
		Total equity	$3,600
Total assets	$6,000	Total liabilities and equity	$6,000

There are alternative procedures that could be used on the worksheet, but the end result is that the controlling equity can only include the retained earnings of the acquiring company. In this case, that is $1,120 (80% x $1,400) attributable to the Private Company controlling interest. The total paid-in capital can be confirmed as follows:

Public Company equity ($100 + $200 + $800)	$1,100
Fair value adjustment	500
80% of Private Company paid-in capital (80% x $600)	480
Total paid-in capital in excess of par, Public Company	$2,080

100% Interest; Price Equals Book Value

Company P and Subsidiary Company S Worksheet for Consolidated Balance Sheet December 31, 2015

Worksheet 2-1 (see page 34)

		Trial Balance		Eliminations & Adjustments		Consolidated Balance Sheet	
		Company P	Company S	Dr.	Cr.		
1	Cash	300,000				300,000	1
2	Accounts Receivable	300,000	200,000			500,000	2
3	Inventory	100,000	100,000			200,000	3
4	Investment in Company S	500,000			**(EL) 500,000**		4
5							5
6	Equipment (net)	150,000	300,000			450,000	6
7	Goodwill						7
8	Current Liabilities	(150,000)	(100,000)			(250,000)	8
9	Bonds Payable	(500,000)				(500,000)	9
10	Common Stock—Company S		(200,000)	**(EL) 200,000**			10
11	Retained Earnings—Company S		(300,000)	**(EL) 300,000**			11
12	Common Stock—Company P	(100,000)				(100,000)	12
13	Retained Earnings—Company P	(600,000)				(600,000)	13
14	Totals	0	0	500,000	500,000	0	14

Eliminations and Adjustments:

(EL) Eliminate the investment in the subsidiary against the subsidiary equity accounts.

100% Interest; Price Exceeds Book Value

Company P and Subsidiary Company S Worksheet for Consolidated Balance Sheet December 31,2015

Worksheet 2-2 (see page 35)

		Trial Balance		Eliminations & Adjustments		Consolidated Balance Sheet	
		Company P	Company S	Dr.	Cr.		
1	Cash	100,000				100,000	1
2	Accounts Receivable	300,000	200,000			500,000	2
3	Inventory	100,000	100,000	**(D1) 20,000**		220,000	3
4	Investment in Company S	700,000			(EL) 500,000		4
5					**(D) 200,000**		5
6	Equipment (net)	150,000	300,000	**(D2) 100,000**		550,000	6
7	Goodwill			**(D3) 80,000**		80,000	7
8	Current Liabilities	(150,000)	(100,000)			(250,000)	8
9	Bonds Payable	(500,000)				(500,000)	9
10	Common Stock—Company S		(200,000)	(EL) 200,000			10
11	Retained Earnings—Company S		(300,000)	(EL) 300,000			11
12	Common Stock—Company P	(100,000)				(100,000)	12
13	Retained Earnings—Company P	(600,000)				(600,000)	13
14	Totals	0	0	700,000	700,000	0	14

Eliminations and Adjustments:

(EL) Eliminate the investment in the subsidiary against the subsidiary equity accounts. (■>) Distribute $200,000 excess of cost over book value as follows:

(D1) Inventory, $20,000.

(D2) Equipment, $100,000.

(D3) **Goodwill, $80,000.**

100% Interest; Price Exceeds Market Value of Identifiable Net Assets

Parental, Inc. and Subsidiary Sample Company Worksheet for Consolidated Balance Sheet December 31,2015

Worksheet 2-3 (see page 37)

	(Credit balance amounts are in parentheses.)	Balance Sheet		Eliminations & Adjustments		Consolidated Balance Sheet	
		Parental	Sample	Dr.	Cr.		
1	Cash	84,000				84,000	1
2	Accounts Receivable	72,000	20,000			92,000	2
3	Inventory	80,000	50,000	(D1) 5,000		135,000	3
4	Land	100,000	40,000	(D2) 30,000		170,000	4
5	Investment in Sample Company	500,000			(EL) 160,000		5
6					(D) 340,000		6
7	Buildings	500,000	200,000	(D3) 100,000		800,000	7
8	Accumulated Depreciation	(80,000)	(50,000)			(130,000)	8
9	Equipment	240,000	60,000	(D4) 20,000		320,000	9
10	Accumulated Depreciation	(40,000)	(20,000)			(60,000)	10
11	Copyright			(D5) 50,000		50,000	11
12	Goodwill			(D6) 135,000		135,000	12
14	Current Liabilities	(80,000)	(40,000)			(120,000)	14
13	Bonds Payable	(200,000)	(100,000)			(300,000)	13
14	Common Stock—Sample		(10,000)	(EL) 10,000			14
15	Paid-In Capital in Excess of Par—Sample		(90,000)	(EL) 90,000			15
16	Retained Earnings—Sample		(60,000)	(EL) 60,000			16
17	Common Stock—Parental	(40,000)				(40,000)	17
18	Paid-In Capital in Excess of Par—Parental	(680,000)				(680,000)	18
19	Retained Earnings—Parental	(456,000)				(456,000)	19
20	Totals	0	0	500,000	500,000	0	20

Eliminations and Adjustments:
(EL) Eliminate 100% subsidiary equity against investment account.
(D) Distribute remaining excess in investment account plus NCI adjustment to:
(D1) Inventory.
(D2) Land.
(D3) Buildings (recorded cost is increased without removing accumulated depreciation).
The alternative is to debit Accumulated Depreciation for $50,000 and Buildings for $50,000.
(D4) Equipment (recorded cost is increased without removing accumulated depreciation).
The alternative is to debit Accumulated Depreciation for $20,000.
This would also restate the net asset at fair value.
(D5) Copyright.
(D6) Goodwill.
This would also restate the net asset at fair value.

100% Interest; Price Exceeds Fair Value of Net Identifiable Assets

Parental, Inc. and Subsidiary Sample Company Worksheet for Consolidated Balance Sheet December 31,2015

Worksheet 2-4 (see page 41)

	(Credit balance amounts are in parentheses.)	Balance Sheet		Eliminations & Adjustments		Consolidated Balance Sheet	
		Parental	Sample	Dr.	Cr.		
1	Cash	84,000				84,000	1
2	Accounts Receivable	72,000	20,000			92,000	2
3	Inventory	80,000	50,000	(D1) 5,000		135,000	3
4	Land	100,000	40,000	(D2) 30,000		170,000	4
5	Investment in Sample Company	300,000			(EL) 160,000		5
6					(D) 140,000		6
7	Buildings	500,000	200,000	(D3) 100,000		800,000	7
8	Accumulated Depreciation	(80,000)	(50,000)			(130,000)	8
9	Equipment	240,000	60,000	(D4) 20,000		320,000	9
10	Accumulated Depreciation	(40,000)	(20,000)			(60,000)	10
11	Copyright			(D5) 50,000		50,000	11
12	Goodwill						12
13	Current Liabilities	(80,000)	(40,000)			(120,000)	13
14	Bonds Payable	(200,000)	(100,000)			(300,000)	14
15	Common Stock—Sample		(10,000)	(EL) 10,000			15
16	Paid-In Capital in Excess of Par—Sample		(90,000)	(EL) 90,000			16
17	Retained Earnings—Sample		(60,000)	(EL) 60,000			17
18	Common Stock—Parental	(32,000)				(32,000)	18
19	Paid-In Capital in Excess of Par—Parental	(488,000)				(488,000)	19
20	Retained Earnings—Parental	(456,000)			**(D7) 65,000**	(521,000)	20
21	Totals	0	0	365,000	365,000	0	21

Eliminations and Adjustments:
(EL) Eliminate 100% subsidiary equity against investment account.
(D) Distribute remaining excess in investment account plus NCI adjustment to:
(D1) Inventory.
(D2) Land.
(D3) Buildings (recorded cost is increased without removing accumulated depreciation).
The alternative is to debit Accumulated Depreciation for $50,000 and
Buildings for $50,000. This would also restate the net asset at fair value.
(D4) The alternative is to debit Accumulated Depreciation for $20,000.
This would also restate the net asset at fair value.
(D5) Copyright.
(D7) Gain on acquisition (close to Parental's Retained Earnings since **balance sheet only worksheet).**
Equipment (recorded cost is increased without removing accumulated depreciation).

80% Interest; Price Exceeds Fair Value of Net Identifiable Assets

Parental, Inc. and Subsidiary Sample Company Worksheet for Consolidated Balance Sheet December 31,2015

Worksheet 2-5 (see page 46)

	(Credit balance amounts are in parentheses.)	Balance Sheet		Eliminations & Adjustments		NCI	Consolidated Balance Sheet	
		Parental	Sample	Dr.	Cr.			
1	Cash	84,000					84,000	1
2	Accounts Receivable	72,000	20,000				92,000	2
3	Inventory	80,000	50,000	(D1) 5,000			135,000	3
4	Land	100,000	40,000	(D2) 30,000			170,000	4
5	Investment in Sample Company	400,000			(EL) 128,000			5
6					**(D) 272,000**			6
7	Buildings	500,000	200,000	(D3) 100,000			800,000	7
8	Accumulated Depreciation	(80,000)	(50,000)				(130,000)	8
9	Equipment	240,000	60,000	(D4) 20,000			320,000	9
10	Accumulated Depreciation	(40,000)	(20,000)				(60,000)	10
11	Copyright			(D5) 50,000			50,000	11
12	Goodwill			(D6) 135,000			135,000	12
13	Current Liabilities	(80,000)	(40,000)				(120,000)	13
14	Bonds Payable	(200,000)	(100,000)				(300,000)	14
15	Common Stock—Sample		(10,000)	(EL) 8,000		(2,000)		15
16	Paid-In Capital in Excess of Par—Sample		(90,000)	(EL) 72,000		(18,000)		16
17	Retained Earnings—Sample		(60,000)	(EL) 48,000	**(NCI) 68,000**	(80,000)		17
18	Common Stock—Parental	(36,000)					(36,000)	18
19	Paid-In Capital in Excess of Par—Parental	(584,000)					(584,000)	19
20	Retained Earnings—Parental	(456,000)					(456,000)	20
21	Totals	0	0	468,000	468,000			21
22	NCI					(100,000)	(100,000)	22
23	Totals						0	23

Eliminations and Adjustments:
(EL) Eliminate **80%** subsidiary equity against investment account.
(NCI) Adjust NCI to fair value (credit to Sample's Retained Earnings].
(D) Distribute remaining excess in investment account plus NCI adjustment to:
(D1) Inventory.
(D2) Land.
(D3) Buildings (recorded cost is increased without removing accumulated depreciation).
The alternative is to debit Accumulated Depreciation for $50,000 and Buildings for $50,000. This would also restate the net asset at fair value.
(D4) Equipment (recorded cost is increased without removing accumulated depreciation).
The alternative is to debit Accumulated Depreciation for $20,000.
This would also restate the net asset at fair value.
(D5) Copyright.
(D6) Goodwill.

80% Interest; Price Is Less Than Fair Value of Net Identifiable Assets

Parental, Inc. and Subsidiary Sample Company Worksheet for Consolidated Balance Sheet December 31,2015

Worksheet 2-6 (see page 53)

	(Credit balance amounts are in parentheses.)	Balance Sheet		Eliminations & Adjustments		NCI	Consolidated Balance Sheet	
		Parental	Sample	Dr.	Cr.			
1	Cash	254,000					254,000	1
2	Accounts Receivable	72,000	20,000				92,000	2
3	Inventory	80,000	50,000	(D1) 5,000			135,000	3
4	Land	100,000	40,000	(D2) 30,000			170,000	4
5	Investment in Sample Company	250,000			(EL) 128,000			5
6					(D) 122,000			6
7	Buildings	500,000	200,000	(D3) 100,000			800,000	7
8	Accumulated Depreciation	(80,000)	(50,000)				(130,000)	8
9	Equipment	240,000	60,000	(D4) 20,000			320,000	9
10	Accumulated Depreciation	(40,000)	(20,000)				(60,000)	10
11	Copyright			(D5) 50,000			50,000	11
12	Goodwill							12
13	Current Liabilities	(80,000)	(40,000)				(120,000)	13
14	Bonds Payable	(200,000)	(100,000)				(300,000)	14
15	Common Stock—Sample		(10,000)	(EL) 8,000		(2,000)		15
16	Paid-In Capital in Excess of Par—Sample		(90,000)	(EL) 72,000		(18,000)		16
17	Retained Earnings—Sample		(60,000)	(EL) 48,000	(NCI) 41,000	(53,000)		17
18	Common Stock—Parental	(36,800)					(36,800)	18
19	Paid-In Capital in Excess of Par—Parental	(603,200)					(603,200)	19
20	Retained Earnings—Parental	(456,000)			(D7) 42,000		(498,000)	20
21	Totals	0	0	333,000	333,000			21
22	NCI					(73,000)	(73,000)	22
23	Totals						0	23

Eliminations and Adjustments:
(EL) Eliminate 80%subsidiary equity against investment account.
(NCI) Adjust NCI to fair value (credit to Sample's Retained Earnings).
(D) Distribute remaining excess in investment account plus NCI adjustment to:
(Dl) Inventory.
(D2) Land.
(D3) Buildings (recorded cost is increased without removing accumulated depreciation).
The alternative is to debit Accumulated Depreciation for $50,000 and Buildings for $50,000.
(D4) Equipment (recorded cost is increased without removing accumulated depreciation).
This would also restate the net asset at fair value.
(D5) Copyright.
(D7) Gain on acquisition (close to Parental's Retained Earnings since balance- sheet-only worksheet).
This would also restate the net asset at fair value.
The alternative is to debit Accumulated Depreciation for $20,000.

80% Interest; Price Exceeds Fair Value of Net Identifiable Assets Preexisting Goodwill

Parental, Inc. and Subsidiary Sample Company Worksheet for Consolidated Balance Sheet December 31, 2015

Worksheet 2-7 (see page 58)

	(Credit balance amounts are in parentheses.)	Balance Sheet		Eliminations & Adjustments		NCI	Consolidated Balance Sheet	
		Parental	Sample	Dr.	Cr.			
1	Cash	84,000					84,000	1
2	Accounts Receivable	72,000	20,000				92,000	2
3	Inventory	80,000	50,000	(D1) 5,000			135,000	3
4	Land	100,000	40,000	(D2) 30,000			170,000	4
5	Investment in Sample Company	400,000			(EL) 160,000			5
6					(D) 240,000			6
7	Buildings	500,000	200,000	(D3) 100,000			800,000	7
8	Accumulated Depreciation	(80,000)	(50,000)				(130,000)	8
9	Equipment	240,000	60,000	(D4) 20,000			320,000	9
10	Accumulated Depreciation	(40,000)	(20,000)				(60,000)	10
11	Copyright			(D5) 50,000			50,000	11
12	Goodwill		**40,000**	**(D6) 95,000**			135,000	12
13	Current Liabilities	(80,000)	(40,000)				(120,000)	13
14	Bonds Payable	(200,000)	(100,000)				(300,000)	14
15	Common Stock—Sample		(10,000)	(EL) 8,000		(2,000)		15
16	Paid-In Capital in Excess of Par—Sample		(90,000)	(EL) 72,000		(18,000)		16
17	Retained Earnings—Sample		(100,000)	(EL) 80,000	NCI 60,000	(80,000)		17
18	Common Stock—Parental	(36,000)					(36,000)	18
19	Paid-In Capital in Excess of Par—Parental	(584,000)					(584,000)	19
20	Retained Earnings—Parental	(456,000)					(456,000)	20
21	Totals	0	0	460,000	460,000			21
22	NCI					(100,000)	(100,000)	22
23	Totals						0	23

Eliminations and Adjustments:
(EL) Eliminate 80% subsidiary equity against investment account.
(NCI) Adjust NCI to fair value (credit to Sample's Retained Earnings).
(D) Distribute remaining excess in investment account plus NCI adjustment to:
(D1) Inventory.
(D2) Land.
(D3) Building (recorded cost is increased without removing accumulated depreciation).
The alternative is to debit Accumulated Depreciation for $50,000 and Buildings for $50,000.
(D4) Equipment (recorded cost is increased without removing accumulated depreciation).
The alternative is to debit Accumulated Depreciation for $20,000.
This would also restate the net asset at fair value.
(D5) Copyright.
(D6) Goodwill.
This would also restate the net asset at fair value.

Reverse Acquisition

Public Company and Subsidiary Private Company Worksheet for Consolidated Balance Sheet December 31, 2013 Worksheet 2 A-1 (see page 63)

	(Credits are in parentheses.)	Balance Sheet		Eliminations & Adjustments		NCI	Consolidated Balance Sheet	
		Private	Public	Dr.	Cr.			
1	Current Assets	700	500				1,200	1
2	Investment in Private Company		2,400					2
3					(EL) 2,400			3
4	Fixed Assets	3,000	1,300	(D1) 200			4,500	4
5	Goodwill			(D2) 300			300	5
6	Long-Term Liabilities	(1,700)	(700)				(2,400)	6
7	Common Stock—Private	(60)		(Trans) 60				7
8	Paid-In Capital in Excess of Par—Private	(540)		(Trans) 540				8
9	Retained Earnings—Private	(1,400)					(1,400)	9
10	Common Stock—Public (100 + 150)		(250)	(EL) 150	(Trans) 150		(250)	10
11	Paid-In Capital in Excess of Par—Public (200 + 2,250)		(2,450)	(EL) 2,250	(Trans) 1,750		(1,950)	11
12	Retained Earnings—Public		(800)	(Trans) 1,300	(D) 500			12
13	Totals	0	0	4,800	4,800		0	13
14	NCI					0	0	14
15	Totals						0	15

Eliminations and Adjustments:

(EL) Eliminate investment account and entries to Public equity made to record the acquisition.

(D) Distribute fair market value adjustment to Public Company retained earnings as of the acquisition date.

(D1) Increase fixed assets from $1,300 to $1,500.

(D2) Record goodwill.

(Trans) Transfer Private paid-in equity and Public retained earnings into value assigned to newly issued Public shares.

Reverse Acquisition with Noncontrolling Interest in the Private Company

Public Company and Subsidiary Private Company Worksheet for Consolidated Balance Sheet December 31,2015 Worksheet 2A-2 (see page 67)

	(Credits are in parentheses.)	Balance Sheet		Eliminations & Adjustments		NCI	Consolidated Balance Sheet	
		Private	Public	Dr.	Cr.			
1	Current Assets	700	500				1,200	1
2	Investment in Private Company		1,920					2
3					(EL) 1,920			3
4	Fixed Assets	3,000	1,300	(D1) 200			4,500	4
5	Goodwill			(D2) 300			300	5
6	Long-Term Liabilities	(1,700)	(700)				(2,400)	6
7	Common Stock—Private	(60)		(Trans) 48		(12)		7
8	Paid-In Capital in Excess of Par—Private	(540)		(Trans) 432		(108)		8
9	Retained Earnings—Private	(1,400)				(280)	(1,120)	9
10	Common Stock—Public (100 + 120)		(220)	(EL) 120	(Trans) 120		(220)	10
11	Paid-In Capital in Excess of Par—Public (200 + 1,800)		(2,000)	(EL) 1,800	(Trans) 1,660		(1,860)	11
12	Retained Earnings—Public		(800)	(Trans) 1,300	(D) 500			12
13	Totals	0	0	4,200	4,200		0	13
14	NCI					(400)	(400)	14
15	Totals						0	15

Eliminations and Adjustments:

(EL) Eliminate investment account and entries to Public equity made to record the acquisition.

(D) Distribute fair market value adjustment to Public Company retained earnings as of the acquisition date.

(D1) Increase fixed assets from $1,300 to $1,500.

(D2) Record goodwill.

(Trans) Roll Private paid-in equity and Public retained earnings into value assigned to newly issued Public shares.

Exercises & Problems

1. Jacobson Company is considering an investment in the common stock of Biltrite Company. What are the accounting issues surrounding the recording of income in future periods if Jacobson purchases:

a) 15% of Biltrite's outstanding shares.
b) 40% of Biltrite's outstanding shares.
c) 100% of Biltrite's outstanding shares.
d) 80% of Biltrite's outstanding shares.

2. What does the elimination process accomplish?

3. Paulos Company purchases a controlling interest in Sanjoy Company. Sanjoy had identifiable net assets with a book value of $500,000 and a fair value of $800,000. It was agreed that the total fair value of Sanjoy's common stock was $1,200,000. Use value analysis schedules to determine what adjustments will be made to Sanjoy's accounts and what new accounts and amounts will be recorded if:

a) Paulos purchases 100% of Sanjoy's common stock for $1,200,000.
b) Paulos purchases 80% of Sanjoy's common stock for $960,000.

4. Pillow Company is purchasing a 100% interest in the common stock of Sleep Company. Sleep's balance sheet amounts at book and fair values are as follows:

Account	Book Value	Fair Value
Current Assets	**$200,000**	**$250,000**
Fixed Assets.............	**350,000**	**800,000**
Liabilities	**(200,000)**	**(200,000)**

Use valuation analysis schedules to determine what adjustments to recorded values of Sleep Company's accounts will be made in the consolidation process (including the creation of new accounts), if the price paid for the 100% is:

a) $1,000,000.
b) $500,000.

5. Pillow Company is purchasing an 80% interest in the common stock of Sleep Company. Sleep's balance sheet amounts at book and fair values are as follows:

Account	Book Value	Fair Value
Current Assets	**$200,000**	**$250,000**
Fixed Assets.............	**350,000**	**800,000**
Liabilities	**(200,000)**	**(200,000)**

Use valuation analysis schedules to determine what adjustments to recorded values of Sleep Company's accounts will be made in the consolidation process (including the creation of new accounts), if the price paid for the 80% is:

a) $800,000.
b) $600,000.

6. Pillow Company is purchasing an 80% interest in the common stock of Sleep Company for $800,000. Sleep's balance sheet amounts at book and fair value are as follows:

Account	Book Value	Fair Value
Current Assets	**$200,000**	**$250,000**
Fixed Assets.............	**350,000**	**800,000**
Liabilities	**(200,000)**	**(200,000)**

Use a valuation analysis schedule to determine what will be the amount of the noncontrolling interest in the consolidated balance sheet and how will it be displayed in the consolidated balance sheet.

Exercise 1 Investment recording methods. Santos Corporation is considering investing in Fenco Corporation, but is unsure about what level of ownership should be undertaken. Santos and Fenco have the following reported incomes:

	Santos	Fenco
Sales.........................	**$700,000**	**$450,000**
Cost of goods sold...	**300,000**	**300,000**
Gross profit...............	**$400,000**	**$150,000**
Selling and administrative expenses	**120,000**	**80,000**
Net income.............	**$280,000**	**$70,000**

Fenco paid $15,000 in cash dividends to its investors. Prepare a pro forma income statement for Santos Corporation that compares income under 10%, 30%, and 80% ownership levels.

Exercise 2 Asset compared to stock purchase. Glass Company is thinking about acquiring Plastic Company. Glass Company is considering two methods of accomplishing control and is wondering how the accounting treatment will differ under each method. Glass Company has estimated that the fair values of Plastic's net assets are equal to their book values, except for the equipment, which is understated by $20,000. The following balance sheets have been prepared on the date of acquisition:

Assets	**Glass**	**Plastic**
Cash	**$540,000**	**$20,000**
Accounts receivable.	**50,000**	**70,000**
Inventory...................	**50,000**	**100,000**
Property, plant, and equipment (net)	**230,000**	**270,000**
Total assets	**$870,000**	**$460,000**

Liabilities and Equity		
Current liabilities......	**$140,000**	**$80,000**
Bonds payable..........	**250,000**	**100,000**
Stockholders' equity:		
Common stock ($100 par)	**200,000**	**150,000**
Retained earnings ..	**280,000**	**130,000**
Total liabilities and equity	**$870,000**	**$460,000**

1- Assume Glass Company purchased the net assets directly from Plastic Company for $530,000.

a) Prepare the entry that Glass Company would make to record the purchase.

b) Prepare the balance sheet for Glass Company immediately following the purchase.

2- Assume that 100% of the outstanding stock of Plastic Company is purchased from the former stockholders for a total of$530,000.

a) Prepare the entry that Glass Company would make to record the purchase.

b) State how the investment would appear on Glass's unconsolidated balance sheet prepared immediately after the purchase.

c) Indicate how the consolidated balance sheet would appear

Exercise 3 Simple value analysis. Flom Company is considering the cash purchase of 100% of the outstanding stock of Vargas Company. The terms are not set, and alternative prices are being considered for negotiation. The balance sheet of Vargas Company shows the following values:

Assets		Liabilities and Equity	
Cash equivalents	$60,000	Current liabilities	$60,000
Inventory	120,000	Common stock ($5 par)	100,000
Land	100,000	Paid-in capital in excess of par	150,000
Building (net)	200,000	Retained earnings	170,000
Total assets	$480,000	Total liabilities and equity	$480,000

Appraisals reveal that the inventory has a fair value of $160,000 and that the land and building have fair values of $120,000 and $300,000, respectively.

1. Above what price will goodwill be recorded?
2. Below what price will a gain be recorded?

Exercise 4 Recording purchase with goodwill. Woolco, Inc., purchased all the outstanding stock of Paint, Inc., for $980,000. Woolco also paid $10,000 in direct acquisition costs. Just before the investment, the two companies had the following balance sheets:

Assets	Woolco, Inc.	Paint, Inc.
Accounts receivable	$900,000	$500,000
Inventory	600,000	200,000
Depreciable fixed assets (net)	1,500,000	600,000
Total assets	$3,000,000	$1,300,000

Appraisals for the assets of Paint, Inc., indicate that fair values differ from recorded book values for the inventory and for the depreciable fixed assets, which have fair values of $250,000 and $750,000, respectively.

1. Prepare the entries to record the purchase of the Paint, Inc., common stock and payment of acquisition costs.

Liabilities and Equity		
Current liabilities	$950,000	$400,000
Bonds payable	500,000	200,000
Common stock ($10 par)	400,000	300,000
Paid-in capital in excess of par	500,000	380,000
Retained earnings	650,000	20,000
Total liabilities and equity	$3,000,000	$1,300,000

2. Prepare the value analysis and the determination and distribution of excess schedule for the investment in Paint, Inc.
3. Prepare the elimination entries that would be made on a consolidated worksheet.

Exercise 5 Purchase with a gain. Libra Company is purchasing 100% of the outstanding stock of Genall Company for $700,000. Genall has the following balance sheet on the date of acquisition:

Assets		Liabilities and Equity	
Accounts receivable....	$300,000	Current liabilities	$250,000
Inventory	200,000	Bonds payable	200,000
Property, plant, and equipment (net)	500,000	Common stock ($5 par)	200,000
		Paid-in capital in excess of par	300,000
Computer software......	125,000	Retained earnings	175,000
Total assets	$1,125,000	Total liabilities and equity	$1,125,000

Appraisals indicate that the following fair values for the assets and liabilities should be acknowledged:

Accounts receivable.................................. $300,000
Inventory... 215,000
Property, plant, and equipment.................... 700,000
Computer software 130,000
Current liabilities 250,000
Bonds payable.. 210,000

1. Prepare the value analysis schedule and the determination and distribution of excess schedule.
2. Prepare the elimination entries that would be made on a consolidated worksheet prepared on the date of purchase.

Exercise 6 80% purchase, alternative values for goodwill. Quail Company purchases 80% of the common stock of Commo Company for $800,000. At the time of the purchase, Commo has the following balance sheet:

Assets		Liabilities and Equity	
Cash equivalents	**$120,000**	**Current liabilities ......**	**$200,000**
Inventory	**200,000**	**Bonds payable ....**	**400,000**
Land	**100,000**	**Common stock ($5 par)............................**	**100,000**
Building (net)	**450,000**	**Paid-in capital in excess of par**	**150,000**
Equipment (net)	**230,000**	**Retained earnings ....**	**250,000**
Total assets	**$1,100,000**	**Total liabilities and equity ....**	**$1,100,000**

The fair values of assets are as follows:

Cash equivalents..	$120,000
Inventory	250,000
Land..	200,000
Building	650,000
Equipment..	200,000

1- Prepare the value analysis schedule and the determination and distribution of excess schedule under three alternatives for valuing the NCI:

a) The value of the NCI is implied by the price paid by the parent for the controlling interest.

b) The market value of the shares held by the NCI is $45 per share.

c) The international accounting option, which does not allow goodwill to be recorded as part of the NCI, is used.

2- Prepare the elimination entries that would be made on a consolidated worksheet prepared on the date of purchase under the three alternatives for valuing the NCI:

a) The value of the NCI is implied by the price paid by the parent for the controlling interest.

b) The market value of the shares held by the NCI is $45 per share.

c) The international accounting option, which does not allow goodwill to be recorded as part of the NCI, is used.

Exercise 7 80% purchase with a gain and preexisting goodwill. Venus Company purchases 8,000 shares of Sundown Company for $64 per share. Just prior to the purchase, Sundown Company has the following balance sheet:

Assets		Liabilities and Equity	
Cash	$20,000	Current liabilities	$250,000
Inventory	280,000	Common stock ($5 par)	50,000
Property, plant, and equipment (net).	400,000	Paid-in capital in excess of par	130,000
Goodwill	100,000	Retained earnings	370,000
Total assets	$800,000	Total liabilities and equity	$800,000

Venus Company believes that the inventory has a fair value of $400,000 and that the property plant, and equipment is worth $500,000.

1. Prepare the value analysis schedule and the determination and distribution of excess schedule.
2. Prepare the elimination entries that would be made on a consolidated worksheet prepared on the date of acquisition.

Exercise 8 Prior investment, control with later acquisition. Barns Corporation purchased a 10% interest in Delta Company on January 1, 2015, as an available- for-sale investment for a price of $42,000.

On January 1, 2020, Barns Corporation purchased 7,000 additional shares of Delta Company from existing shareholders for $350,000. This purchase raised Barns's interest to 80%. Delta Company had the following balance sheet just prior to Barns's second purchase:

Assets		Liabilities and Equity	
Current assets	$165,000	Liabilities	$65,000
Buildings (net)	140,000	Common stock ($10 par)	100,000
Equipment (net)	100,000	Retained earnings	240,000
Total assets	$405,000	Total liabilities and equity	$405,000

At the time of the second purchase, Barns determined that Delta's equipment was understated by $50,000 and had a 5-year remaining life. All other book values approximated fair values. Any remaining excess was attributed to goodwill.

1. Prepare the value analysis and the determination and distribution of excess schedule for the 2020 purchase.

2. Record the investment made by Barns on January 1, 2020, and any required adjustment of the prior 10% interest.

<u>Exercise 9 Push-down accounting</u>. On January 1, 2021, Knight Corporation purchases all the outstanding shares of Craig Company for $950,000. It has been decided that Craig Company will use push-down accounting principles to account for this transaction. The current balance sheet is stated at historical cost.

The following balance sheet is prepared for Craig Company on January 1, 2021:

Assets			**Liabilities and Equity**		
Current assets:			**Current liabilities Long-**		
Cash	**$80,000**		**term liabilities:**		
Accounts receivable	**260,000**		**Bonds payable ......**	**$300,000**	**$90,000**
			Deferred taxes.......	**50,000**	**350,000**
Prepaid expenses....	**20,000**	**$360,000**	**Stockholders' equity:**		
Property, plant, and			**Common stock ($10 par)**	**$300,000**	
equipment:	**$200,000**		**Retained earnings**	**420,000**	**720,000**
Building (net)	**600,000**	**800,000**			
Total assets.............		**$1,160,000**	**Total liabilities and equity**		**$1,160,000**

Knight Corporation receives the following appraisals for Craig Company's assets and liabilities:

Cash	$80,000
Accounts receivable	260,000
Prepaid expenses	20,000
Land	250,000
Building (net)	700,000
Current liabilities	90,000
Bonds payable	280,000
Deferred tax liability	40,000

1. Record the investment.
2. Prepare the value analysis schedule and the determination and distribution of excess schedule.
3. Record the adjustments on the books of Craig Company.
4. Prepare the entries that would be made on the consolidated worksheet to eliminate the investment.

Exercise 10 Reverse acquisition. Small Company acquired a controlling interest in Big Company. Private Company had the following balance sheet on the acquisition date:

Small Company (the acquirer)
Balance Sheet
December 31,2015

Assets		Liabilities and Equity	
Current assets	$1,000	Long-term liabilities.....	
Fixed assets........	5,000	Common stock ($1 par) (100 shares)	$2,000
		Paid-in capital in excess	100
		of par............................	900
		Retained earnings........	3,000
Total assets......	$6,000	Total liabilities and equity	$6,000

Big Company had the following book and fair values on the acquisition date:

Assets	Book Value	Fair Value	Liabilities and Equity	Book Value	Fair Value
Current assets	$1,000	$1,000	Long-term liabilities	$1,000	$1,000
Fixed assets	2,000	3,000	Common stock ($1 par) (200 shares)	200	
			Paid-in capital in excess of par...........	800	
			Retained earnings	1,000	
Total assets	$3,000	$4,000	Total liabilities and equity	$3,000	

The shareholders of Small Company requested 300 Big Company shares in exchange for all of their 100 shares. This was an exchange ratio of 3 to 1. The fair value of a share of Big Company was $25.

Prepare an appropriate value analysis and a determination and distribution of excess schedule.

Problems

Problem 2-1 100% purchase, goodwill, consolidated balance sheet.

On July 1, 2016, Roland Company exchanged 18,000 of its $45 fair value ($1 par value) shares for all the outstanding shares of Downes Company. Roland paid acquisition costs of $40,000. The two companies had the following balance sheets on July 1, 2016:

Assets	Roland	Downes
Other current assets	$50,000	$70,000
Inventory	120,000	60,000
Land................................	100,000	40,000
Building (net)	300,000	120,000
Equipment (net)	430,000	110,000
Total assets....................	$1,000,000	$400,000

Liabilities and Equity		
Current liabilities............	$180,000	$60,000
Common stock ($1 par) .	40,000	20,000
Paid-in capital in excess of par	360,000	180,000
Retained earnings	420,000	140,000
Total liabilities and equity	$1,000,000	$400,000

The following fair values applied to Downes's assets:

Other current assets	$70,000
Inventory	80,000
Land	90,000
Building	150,000
Equipment	100,000

1. Record the investment in Downes Company and any other entry necessitated by the purchase.
2. Prepare the value analysis and the determination and distribution of excess schedule.
3. Prepare a consolidated balance sheet for July 1, 2016, immediately subsequent to the purchase.

Problem 2-2 80% purchase, goodwill, consolidated balance sheet. Using the data given in Problem 2-1, assume that Roland Company exchanged 14,000 of its $45 fair value ($1 par value) shares for 16,000 of the outstanding shares of Downes Company.

1. Record the investment in Downes Company and any other purchase-related entry.
2. Prepare the value analysis schedule and the determination and distribution of excess schedule.
3. Prepare a consolidated balance sheet for July 1, 2016, immediately subsequent to the purchase.

Problem 2-3 100% purchase, bargain, elimination entries only.
On March 1, 2015, Carlson Enterprises purchases a 100% interest in Entro Corporation for $400,000. Entro Corporation has the following balance sheet on February 28, 2015:

Entro Corporation Balance Sheet February 28, 2015

Assets		Liabilities and Equity	
Accounts receivable ..	$60,000	Current liabilities	$50,000
Inventory	80,000	Bonds payable	100,000
Land	40,000	Common stock ($5 par)	50,000
Buildings	300,000	Paid-in capital in excess of par	250,000
Accumulated depreciation-building	(120,000)	Retained earnings	70,000
Equipment	220,000		
Accumulated depreciation-equipment	(60,000)		
Total assets	$520,000	Total liabilities and equity	$520,000

Carlson Enterprises receives an independent appraisal on the fair values of Entro Corporation's assets and liabilities. The controller has reviewed the following figures and accepts them as reasonable:

Accounts receivable	$60,000
Inventory	100,000
Land.........................	40,500
Building	202,500
Equipment	162,000
Current liabilities.....	50,000
Bonds payable	95,000

1. Record the investment in Entro Corporation.
2. Prepare the value analysis and the determination and distribution of excess schedule.
3. Prepare the elimination entries that would be made on a consolidated worksheet prepared on the date of acquisition.

Problem 2-4 80% purchase, bargain, elimination entries only. On March 1, 2015, Penson Enterprises purchases an 80% interest in Express Corporation for $320,000 cash. Express Corporation has the following balance sheet on February 28, 2015:

Express Corporation Balance Sheet February 28, 2015

Assets		Liabilities and Equity	
Accounts receivable	$60,000	Current liabilities	$50,000
Inventory	80,000	Bonds payable	100,000
Land	40,000	Common stock ($10 par)	50,000
Buildings	300,000	Paid-in capital in excess of par	250,000
Accumulated depreciation-buildings	(120,000)	Retained earnings	70,000
Equipment	220,000		
Accumulated depreciation-equipment	(60,000)		
Total assets..................	$520,000	Total liabilities and equity	$520,000

Penson Enterprises receives an independent appraisal on the fair values of Express Corporation's assets and liabilities. The controller has reviewed the following figures and accepts them as reasonable:

Accounts receivable .... …………….	$60,000
Inventory	100,000
Land...	50,000
Buildings	200,000
Equipment..	162,000
Current liabilities	50,000
Bonds payable	95,000

1. Record the investment in Express Corporation.
2. Prepare the value analysis schedule and the determination and distribution of excess schedule.
3. Prepare the elimination entries that would be made on a consolidated worksheet prepared on the date of acquisition.

Problem 2-5 100% purchase, goodwill, push-down accounting. On March 1, 2015, Collier Enterprises purchases a 100% interest in Robby Corporation for $480,000 cash. Robby Corporation applies push-down accounting principles to account for this acquisition.

Robby Corporation has the following balance sheet on February 28, 2015:

Robby Corporation Balance Sheet February 28, 2015

Assets		Liabilities and Equity	
Accounts receivable	$60,000	Current liabilities	$50,000
Inventory.........................	80,000	Bonds payable..........	100,000
Land	40,000	Common stock ($5) ..	50,000
Buildings.........................	300,000	Paid-in capital in excess of par	250,000
Accumulated depreciation-buildings	(120,000)	Retained earnings ...	70,000
Equipment	220,000		
Accumulated depreciation-equipment	(60,000)		
Total assets	$520,000	Total liabilities and equity	$520,000

Collier Enterprises receives an independent appraisal on the fair values of Robby Corporation's assets and liabilities. The controller has reviewed the following figures and accepts them as reasonable:

Accounts receivable	$60,000
Inventory	100,000
Land..	55,000
Buildings	200,000
Equipment..	150,000
Current liabilities	50,000
Bonds payable...	98,000

1. Record the investment in Robby Corporation.
2. Prepare the value analysis schedule and the determination and distribution of excess schedule.
3. Give Robby Corporation's adjusting entry.

Problem 2-6 100% purchase, goodwill, worksheet. On December 31, 2015, Aron Company purchases 100% of the common stock of Shield Company for $450,000 cash. On this date, any excess of cost over book value is attributed to accounts with fair values that differ from book values. These accounts of Shield Company have the following fair values:

Cash………………………………………………………………………………	$40,000
Accounts receivable	30,000
Inventory…………………………………………………………………………	140,000
Land...	45,000
Buildings and equipment…………………………………………………………	225,000
Copyrights	25,000
Current liabilities	65,000
Bonds payable…………………………………………………………………...	105,000

The following comparative balance sheets are prepared for the two companies immediately after the purchase:

	Aron	Shield
Cash	$185,000	$40,000
Accounts receivable	70,000	30,000
Inventory	130,000	120,000
Investment in Shield Company	450,000	
Land.................................	50,000	35,000
Buildings and equipment	350,000	230,000
Accumulated depreciation	(100,000)	(50,000)
Copyrights	40,000	10,000
Total assets	$1,175,000	$415,000
Current liabilities..............	$192,000	$65,000
Bonds payable..................		100,000
Common stock ($10 par)—Aron	100,000	
Common stock ($5 par)—Shield		50,000
Paid-in capital in excess of par	250,000	70,000
Retained earnings	633,000	130,000
Total liabilities and equity	$1,175,000	$415,000

1. Prepare the value analysis schedule and the determination and distribution of excess schedule for the investment in Shield Company.
2. Complete a consolidated worksheet for Aron Company and its subsidiary Shield Company as of December 31, 2015.

Problem 2-7 80% purchase, goodwill, worksheet. Using the data given in Problem 2-6, assume that Aron Company purchases 80% of the common stock of Shield Company for $320,000 cash.

The following comparative balance sheets are prepared for the two companies immediately after the purchase:

	Aron	Shield
Cash	$315,000	$40,000
Accounts receivable	70,000	30,000
Inventory	130,000	120,000
Investment in Shield Company	320,000	
Land	50,000	35,000
Buildings and equipment	350,000	230,000
Accumulated depreciation	(100,000)	(50,000)
Copyrights	40,000	10,000
Total assets	$1,175,000	$415,000
Current liabilities............	$192,000	$65,000
Bonds payable................		100,000
Common stock ($10 par)—Aron	100,000	
Common stock ($5 par)—Shield		50,000
Paid-in capital in excess of par	250,000	70,000
Retained earnings	633,000	130,000
Total liabilities and equity	$1,175,000	$415,000

1. Prepare the value analysis and the determination and distribution of excess schedule for the investment in Shield Company.

2. Complete a consolidated worksheet for Aron Company and its subsidiary Shield Company as of December 31, 2015.

Use the following information for Problems 2-8 through 2-11:

In an attempt to expand its operations, Palto Company acquires Saleen Company on January 1, 2015. Palto pays cash in exchange for the common stock of Saleen. On the date of acquisition, Saleen has the following balance sheet:

Saleen Company Balance Sheet January 1,2015

Assets		Liabilities and Equity	
Accounts receivable......	$20,000	Current liabilities..................	$40,000
Inventory........................	50,000	Bonds payable	100,000
Land	40,000	Common stock ($1 par)	10,000
Buildings	200,000	Paid-in capital in excess of par	90,000
Accumulated depreciation	(50,000)	Retained earnings	60,000
Equipment	60,000		
Accumulated depreciation	(20,000)		
Total assets	$300,000	Total liabilities and equity ...	$300,000

An appraisal provides the following fair values for assets:

Accounts receivable	$20,000
Inventory................	60,000
Land	80,000
Buildings	320,000
Equipment	60,000
Copyright................	50,000

Problem 2-8 100% purchase, goodwill, worksheet. Use the preceding information for Palto's purchase of Saleen common stock. Assume Palto purchases 100% of the Saleen common stock for $500,000 cash. Palto has the following balance sheet immediately after the purchase:

Palto Company Balance Sheet January 1,2015

Assets		Liabilities and Equity	
Cash	$61,000	Current liabilities	$80,000
Accounts receivable	65,000	Bonds payable	200,000
Inventory	80,000	Common stock ($1 par)	20,000
Investment in Saleen	500,000	Paid-in capital in excess of par	180,000
Land..........................	100,000	Retained earnings	546,000
Buildings	250,000		
Accumulated depreciation	(80,000)		
Equipment	90,000		
Accumulated depreciation	(40,000)		
Total assets............	$1,026,000	Total liabilities and equity	$1,026,000

1. Prepare the value analysis schedule and the determination and distribution of excess schedule for the investment in Saleen.
2. Complete a consolidated worksheet for Palto Company and its subsidiary Saleen Company as of January 1, 2015.

Problem 2-9 100% purchase, bargain, worksheet. Use the preceding information for Palto's purchase of Saleen common stock. Assume Palto purchases 100% of the Saleen common stock for $400,000 cash. Palto has the following balance sheet immediately after the purchase:

Palto Company Balance Sheet January 1,2015

Assets		Liabilities and Equity	
Cash..........................	$161,000	Current liabilities	$80,000
Accounts receivable	65,000	Bonds payable ($1 par)	200,000
Inventory	80,000	Common stock.........	20,000
Investment in Saleen	400,000	Paid-in capital in excess of par	180,000
Land..........................	100,000	Retained earnings ...	546,000
Buildings	250,000		
Accumulated depreciation	(80,000)		
Equipment................	90,000		
Accumulated depreciation	(40,000)		
Total assets............	$1,026,000	Total liabilities and equity	$1,026,000

1. Prepare the value analysis schedule and the determination and distribution of excess schedule for the investment in Saleen.
2. Complete a consolidated worksheet for Palto Company and its subsidiary Saleen Company as of January 1, 2015.

Problem 2-10 80% purchase, goodwill, worksheet. Use the preceding information for Palto's purchase of Saleen common stock. Assume Palto purchases 80% of the Saleen common stock for $400,000 cash. The shares of the noncontrolling interest have a fair value of $46 each. Palto has the following balance sheet immediately after the purchase:

Palto Company Balance Sheet January 1,2015

Assets		Liabilities and Equity	
Cash	$161,000	Current liabilities	$80,000
Accounts receivable	65,000	Bonds payable	200,000
Inventory	80,000	Common stock ($1 par)	20,000
Investment in Saleen	400,000	Paid-in capital in excess of par	180,000
Land	100,000	Retained earnings	546,000
Buildings	250,000		
Accumulated depreciation	(80,000)		
Equipment	90,000		
Accumulated depreciation	(40,000)		
Total assets	$1,026,000	Total liabilities and equity	$1,026,000

1. Prepare the value analysis schedule and the determination and distribution of excess schedule for the investment in Saleen.
2. Complete a consolidated worksheet for Palto Company and its subsidiary Saleen Company as ofJanuary 1, 2015.

Problem 2-11 80% purchase, bargain, purchase, worksheet. Use the preceding information for Palto's purchase of Saleen common stock. Assume Palto purchases 80% of the Saleen common stock for $300,000 cash. Palto has the following balance sheet immediately after the purchase:

Palto Company Balance Sheet January 1,2015

Assets		Liabilities and Equity	
Cash	$261,000	Current liabilities	$80,000
Accounts receivable	65,000	Bonds payable	200,000
Inventory..................	80,000	Common stock ($1 par)	20,000
Investment in Saleen	300,000	Paid-in capital in excess of par	180,000
Land	100,000	Retained earnings ..	546,000
Buildings	250,000		
Accumulated depreciation	(80,000)		
Equipment	90,000		
Accumulated depreciation	(40,000)		
Total assets...........	$1,026,000	Total liabilities and equity	$1,026,000

1. Prepare the value analysis and the determination and distribution of excess schedule for the investment in Saleen.
2. Complete a consolidated worksheet for Palto Company and its subsidiary Saleen Company as of January 1, 2015.

Use the following information for Problems 2-12 through 2-15:

Purnell Corporation acquires Sentinel Corporation on December 31, 2015. Sentinel has the following balance sheet on the date of acquisition:

Sentinel Corporation Balance Sheet December 31,2015

Assets		Liabilities and Equity	
Accounts receivable	$50,000	Current liabilities	$90,000
Inventory...............	120,000	Bonds payable	200,000
Land	100,000	Common stock ($1 par)	10,000
Buildings	300,000	Paid-in capital in excess of par	190,000
Accumulated depreciation	(100,000)	Retained earnings ...	140,000
Equipment	140,000		
Accumulated depreciation	(50,000)		
Patent.....................	10,000		
Goodwill	60,000		
Total assets	$630,000	Total liabilities and equity	$630,000

An appraisal is performed to determine whether the book values of Sentinel's net assets reflect their fair values. The appraiser also determines that intangible assets exist, although they are not recorded. The following fair values for assets and liabilities are agreed upon:

Accounts receivable	**$50,000**
Inventory	**100,000**
Land	**200,000**
Buildings	**400,000**
Equipment	**200,000**
Patent	**150,000**
Computer software	**50,000**
Current liabilities	**90,000**
Bonds payable	**210,000**

Problem 2-12 100% purchase, goodwill, several adjustments, worksheet. Use the preceding information for Purnell's purchase of Sentinel common stock. Assume Purnell exchanges 22,000 shares of its own stock for 100% of the common stock of Sentinel. The stock has a market value of $50 per share and a par value of $1. Purnell has the following trial balance immediately after the purchase:

Purnell Corporation Trial Balance December 31,2015

Cash	**20,000**
Accounts Receivable	**300,000**
Inventory	**410,000**
Investment in Sentinel	**1,100,000**
Land	**800,000**
Buildings	**2,800,000**
Accumulated Depreciation	**(500,000)**
Equipment	**600,000**
Accumulated Depreciation	**(230,000)**
Current Liabilities	**(150,000)**
Bonds Payable	**(300,000)**
Common Stock ($1 par)	**(95,000)**
Paid-In Capital in Excess of Par	**(3,655,000)**
Retained Earnings	**(1,100,000)**
Total	**0**

1. Prepare the value analysis schedule and the determination and distribution of excess schedule for the investment in Sentinel.
2. Complete a consolidated worksheet for Purnell Corporation and its subsidiary Sentinel Corporation as of December 31, 2015.

Problem 2-13 100% purchase, bargain, several adjustments, worksheet. Use the preceding information for Purnell's purchase of Sentinel common stock. Assume Purnell exchanges 16,000 shares of its own stock for 100% of the common stock of Sentinel. The stock has a market value of $50 per share and a par value of $1. Purnell has the following trial balance immediately after the purchase.

Purnell Corporation Trial Balance December 31,2015	
Cash	20,000
Accounts Receivable	300,000
Inventory	410,000
Investment in Sentinel	800,000
Land	800,000
Buildings	2,800,000
Accumulated Depreciation	(500,000)
Equipment	600,000
Accumulated Depreciation	(230,000)
Current Liabilities	(150,000)
Bonds Payable	(300,000)
Common Stock ($1 par)	(89,000)
Paid-In Capital in Excess of Par	(3,361,000)
Retained Earnings	(1,100,000)
Total	0

1. Prepare the value analysis schedule and the determination and distribution of excess schedule for the investment in Sentinel.
2. Complete a consolidated worksheet for Purnell Corporation and its subsidiary Sentinel Corporation as of December 31, 2015.

Problem 2-14 80% purchase, goodwill, several adjustments, worksheet. Use the preceding information for Purnell's purchase of Sentinel common stock. Assume Purnell exchanges 19,000 shares of its own stock for 80% of the common stock of Sentinel. The stock has a market value of $50 per share and a par value of $1. Purnell has the following trial balance immediately after the purchase:

Purnell Corporation Trial Balance December 31,2015

Cash	**20,000**
Accounts Receivable	**300,000**
Inventory	**410,000**
Investment in Sentinel	**950,000**
Land	**800,000**
Buildings	**2,800,000**
Accumulated Depreciation	**(500,000)**
Equipment	**600,000**
Accumulated Depreciation	**(230,000)**
Current Liabilities	**(150,000)**
Bonds Payable	**(300,000)**
Common Stock ($1 par)	**(92,000)**
Paid-In Capital in Excess of Par	**(3,508,000)**
Retained Earnings	**(1,100,000)**
Total	**0**

1. Prepare the value analysis schedule and the determination and distribution of excess schedule for the investment in Sentinel.
2. Complete a consolidated worksheet for Purnell Corporation and its subsidiary Sentinel Corporation as of December 31, 2015.

Problem 2-15 80% purchase, bargain, several adjustments, worksheet. Use the preceding information for Purnell's purchase of Sentinel common stock. Assume Purnell exchanges 10,000 shares of its own stock for 80% of the common stock of Sentinel. The stock has a market value of $50 per share and a par value of $1. Purnell has the following trial balance immediately after the purchase:

Purnell Corporation Trial Balance December 31,2015

Cash	20,000
Accounts Receivable	300,000
Inventory	410,000
Investment in Sentinel	500,000
Land	800,000
Buildings	2,800,000
Accumulated Depreciation	(500,000)
Equipment	600,000
Accumulated Depreciation	(230,000)
Current Liabilities	(150,000)
Bonds Payable	(300,000)
Common Stock ($1 par)	(83,000)
Paid-In Capital in Excess of Par	(3,067,000)
Retained Earnings	(1,100,000)
Total	0

1. Prepare the value analysis schedule and the determination and distribution of excess schedule for the investment in Sentinel.
2. Complete a consolidated worksheet for Purnell Corporation and its subsidiary Sentinel Corporation as of December 31, 2015.

Problem 2-16 Reverse acquisition On January 1, 2016, the shareholders of Unknown Company request 6,000 Famous shares in exchange for all oftheir 5,000 shares. This is an exchange ratio of 1.2 to 1. The fair value of a share of Famous Company is $60. The acquisition occurs when the two companies have the following balance sheets:

Unknown Company (the acquirer) Balance Sheet December 31,2015

Assets		Liabilities and Equity	
Current assets...	$10,000	Long-term liabilities .	$5,000
Building (net)	150,000	Common stock ($1 par) (5,000 shares)	5,000
Equipment (net)	100,000	Paid-in capital in excess of par	115,000
		Retained earnings	135,000
Total assets.......	$260,000	Total liabilities and equity	$260,000

Famous Company (the acquiree) Balance Sheet December 31,2015

Assets	Book Value	Fair Value	Liabilities and Equity	Book Value	Fair Value
Current assets.	$5,000	$5,000	Long-term liabilities	$10,000	$10,000
Building (net)...	100,000	200,000	Common stock ($1 par) (4,000 shares)	4,000	
Equipment (net)	20,000	40,000	Paid-in capital in excess of par	96,000	
			Retained earnings ..	15,000	
Total assets ...	.. $125,000	$245,000	Total liabilities and equity	$125,000	

1. Prepare an appropriate value analysis and a determination and distribution of excess schedule.
2. Complete a consolidated worksheet for Unknown Company and its subsidiary, Famous Company, as of January 1, 2016.

CASE Consolidating a Bargain Purchase

Your client, Great Value Hardware Stores, has come to you for assistance in evaluating an opportunity to purchase a controlling interest in a hardware store in a neighboring city. The store under consideration is a closely held family corporation. Owners of 60% of the shares are willing to sell you the 60% interest, 30,000 common stock shares in exchange for 7,500 of Great Value shares, which have a fair value of $40 each and a par value of $10 each.

Your client sees this as a good opportunity to enter a new market. The controller of Great Value knows, however, that all is not well with the store being considered. The store, Al's Hardware, has not kept pace with the market and has been losing money. It also has a major lawsuit against it stemming from alleged faulty electrical components it supplied that caused a fire. The store is not insured for the loss. Legal counsel advises that the store will likely pay $300,000 in damages.

The following balance sheet was provided by Al's Hardware as of December 31, 2015:

Assets		Liabilities and Equity	
Cash	$180,000	Current liabilities ..	$425,000
Accounts receivable	460,000	8% Mortgage payable	600,000
Inventory	730,000	Common stock ($5 par)	250,000
Land	120,000	Paid-in capital in excess of par	750,000
Building	630,000	Retained earnings	(80,000)
Accumulated depreciation-building	(400,000)		
Equipment	135,000		
Accumulated depreciation-equipment	(85,000)		
Goodwill	175,000		
Total assets..................	$1,945,000	Total liabilities and equity	$1,945,000

Your analysis raises substantial concerns about the values shown. You have gathered the following information:

1. Aging of the accounts receivable reveals a net realizable value of $350,000.
2. The inventory has many obsolete items; the fair value is $600,000.
3. Appraisals for long-lived assets are as follows:

Land	**$100,000**
Building	**300,000**
Equipment	**100,000**

4. The goodwill resulted from the purchase of another hardware store that has since been consolidated into the existing location. The goodwill was attributed to customer loyalty.
5. Liabilities are fairly stated except that there should be a provision for the estimated loss on the lawsuit.

On the basis of your research, you are convinced that the statements of Al's Hardware are not representative and need major restatement. Your client is not interested in being associated with statements that are not accurate.

Your client asks you to make recommendations on two concerns:

1. Does the price asked seem to be a real bargain? Consider the fair value of the entire equity of Al's Hardware; then decide if the price is reasonable fora 60% interest.
2. If the deal were completed, what accounting methods would you recommend either on the books of Al's Hardware or in the consolidation process? Al's Hardware would remain a separate legal entity with a substantial noncontrolling interest.

Chapter 3: Accounting for Branches

Introduction:

As a business enterprise grows, it may establish one or more branches to market its products over a large district (territory). Although branches of an enterprise are not separate legal entities, they are separate economic and accounting entities whose special features necessitate accounting procedures tailored for those features, such as ***reciprocal*** ledger accounts.

The term ***branch*** is used to describe a business unit located at some distance from the ***home office***. This unit carries merchandise obtained from the home office, makes sales, approves customers' credit, and makes collections from its customers.

A branch may obtain goods solely from the home office, or a portion may be purchased from outside suppliers. The cash receipts of the branch often are deposited in a bank account belonging to the home office; the branch expenses then are paid from an ***imprest cash fund*** or a bank account provided by the home office. As the imprest cash fund is depleted, the branch submits a list of cash payments supported by ***vouchers*** and receives a check or an electronic or wire transfer from the home office to replenish the fund.

The use of an imprest cash fund gives the home office considerable control over the cash transactions of the branch. Nevertheless, it is common practice for a large branch to maintain its own bank account. The extent of autonomy (independency) and responsibility of a branch varies, even among different branches of the same business enterprise.

A segment of a business enterprise also may be operated as a ***division***, which generally has more autonomy than a branch. The accounting procedures for a division not organised as a separate corporation ***(subsidiary company)*** are similar to those used for branches. When a business segment is operated as a separate corporation, consolidated financial statement are generally required.

Accounting System for A Branch

The accounting system of one business *enterprise* with branches may provide for a complete set of accounting records at each branch; policies of another such enterprise may keep all accounting records in the home office. For example, branches of drug and grocery chain stores submit daily reports and business documents to the home office, which enters all transactions by branches in computerized accounting records kept in a central location. The home office may not even conduct operations of its own; it may serve only as an accounting and control centre for the branches.

A branch may maintain a complete set of accounting records consisting of journals, ledgers, and a chart of accounts similar to those of an independent business enterprise. Financial statements are prepared by the branch accountant and forwarded to the home office. The number and types of ledger accounts, the internal control structure, the form and content of the financial statements, and the accounting policies generally are prescribed (imposed) by the home office.

This section on a branch operation that maintains a complete set of accounting records. Transactions recorded by a branch should include all controllable expenses and revenue for which the branch manager is responsible. If the branch manager has responsibility over all branch assets, liabilities, revenue, and expenses, the branch accounting records should reflect this responsibility. Expenses such as depreciation often are not subject to control by a branch manager; therefore, both the branch plant assets and the related depreciation ledger accounts generally are maintained by the home office.

Reciprocal Ledger Accounts:

The accounting records maintained by a branch include a ***Home Office*** ledger account that is **credited** for all merchandise, cash, or other assets provided by the home office; it is **debited** for all cash, merchandise, or other assets sent by the branch to the home office or to other branches. The *Home Office* account is similar to ownership equity account that shows the net investment by the home office in the branch. At the end of an accounting period when the branch closes its accounting records, the Income Summary account is closed to the Home Office account. A net income increases the credit balance of the Home Office account; a net loss decreases this balance.

In the home office accounting records, a ***reciprocal ledger account*** with a title such as **Investment in Branch** is maintained. This noncurrent asset account is debited for cash, merchandise, and services provided to the branch by the home office, and for net income reported by the branch. It is credited for cash or other assets received from the branch, and for net losses reported by the branch. Thus, the Investment in Branch account reflects the *equity method of accounting.* A separate investment account generally is maintained by the home office for each branch. If there is only one branch, the account title is likely to be Investment in Branch; if there are numerous branches, each account title includes a name or number to identify each branch.

Expenses Incurred by Home Office and Allocated to Branches

In practice, some business enterprises follow a policy of notifying each branch of expenses incurred by the home office on the branch's behalf. As stated previously, plant assets located at a branch generally are carried in the home office accounting records. If a plant asset is acquired by the home office for the branch, the journal entry for the acquisition is a debit to an appropriate asset account such as *Equipment: Branch* and a credit to Cash or an appropriate liability account. **If the branch acquires a plant asset, it debits the *Home Office* ledger account and credits *Cash* or an appropriate liability account. The home office debits an asset account such as *Equipment: Branch* and credits *Investment in Branch*.**

The home office also usually acquires insurance, pays property and other taxes, and arranges for advertising that benefits all branches. Obviously, such expenses as depreciation, property taxes, insurance, and advertising must be considered in determining the profitability of a branch. A policy decision must be made as to whether these expense data are to be retained at the home office or are to be reported to the branches so that the income statement prepared for each branch will give a complete picture of its operations. An expense incurred by the home office and allocated to a branch is recorded by the home office by a debit to Investment in Branch and a credit to an appropriate expense ledger account; the branch debits an expense account and credits Home Office.

If the home office does not make sales, but functions only as an accounting and control centre, most or all of its expenses may be allocated to the branches. To facilitate comparison of the operating results of the various branches, the home office may charge each branch interest on the capital invested in that branch. Such interest expense recognised by the branches would be offset by interest revenue recognized by the home office and would not be displayed in the ***combined*** income statement of the business enterprise as a whole.

Alternative Methods of Billing Merchandise Shipments to Branches:

Practically, three methods are available to the home office for billing merchandise shipped to its branches. The shipments may be billed:

(1) At home office cost.
(2) At a percentage above home office cost.
(3) At the branch's retail selling price.

The shipment of merchandise to a branch does not constitute a sale, because ownership of the merchandise does not change.

1- **Billing at home office cost**. It is the simplest procedure and is widely used. It avoids the complication of unrealized gross profit in inventories

and permits the financial statements of branches to give a meaningful picture of operations. However, billing merchandise to branches at home office cost attributes all gross profits of enterprise to the branches, even though some of the merchandise may be manufactured by the home office. Under these circumstances, home office cost may not be the most realistic basis for billing shipments to branches.

2- **Billing at a percentage above home office cost.** Adopting this method (such as 110% of cost) may be intended to allocate a reasonable gross profit to the home office. When merchandise is billed to a branch at a price above home office cost, ***the net income reported by the branch is understated and the ending inventories are overstated for the enterprise as a whole***. Adjustments must be made by the home office to eliminate the excess of billed prices over cost ***(intracompany profits)*** in the preparation of combined financial statements for the home office and the branch.

3- **Billing at branch retail selling prices.** Billing shipments to a branch at branch retail selling prices may be based on a desire to strengthen internal control over inventories. The inventories ledger account of the branch shows the merchandise received and sold at retail selling prices. As a result, the account will show the ending inventories that should be on hand at retail prices. The home office record of shipments to a branch, when considered along with sales reported by the branch, provides a perpetual inventory stated at selling prices. If the physical inventories taken periodically at the branch do not agree with the amounts thus computed, an error or theft may be indicated and should be investigated promptly.

Separate Financial Statements for Branch and for Home Office

Logically, a separate income statement and balance sheet should be prepared for a branch in order that management of the enterprise may review the operating results and financial position of the branch. The branch's income statement has no unusual features if merchandise is billed to the branch at home office cost. However, if merchandise is billed to the branch at branch retail selling prices, the branch's income statement will show a net loss approximating the amount of operating expenses. The only unusual aspect of the balance sheet for a branch is the use of the Home Office ledger account instead of the ownership equity accounts for a separate business enterprise. The separate financial statements prepared for a branch may be revised at the home office to include expenses incurred by the home office allocable to the branch and to show the results of branch operations after elimination of any intracompany profits on merchandise shipments.

Additionally, separate financial statements also may be prepared for the home office so that management will be able to appraise the results of its operations and its financial position. Nevertheless, it is important to emphasize that separate financial statements of the home office and of the branch are prepared ***for internal use only***; they do not meet the needs of investors or other external users of financial statements.

Illustration 3.1:
Illustrative Journal Entries for Operations of a Branch:
Egypt Company bills merchandise to Qena Branch **at home office cost** and that Qena Branch maintains complete accounting records and prepares financial statements. ***Both the home office and the branch use the perpetual inventory system.*** Equipment used at the branch is carried in the home office accounting records. Certain expenses, such as advertising and insurance, incurred by the home office on behalf of the branch, are billed to the branch. Transactions and events during the first year (2014) of operation of Qena Branch are summarized below:
1. Cash of L.E.1000 was forwarded by the home office to Qena Branch.
2. Merchandise with a home office cost of L.E.60000 was shipped by the home office to Qena Branch.
3. Equipment was acquired by Qena Branch for L.E.500, to be carried in the home office accounting records. (other plant assets for Qena Branch generally are acquired by the home office.
4. Credit sales by Qena Branch amounted to L.E.80000; the branch's cost of the merchandise sold was L.E.45000.
5. Collections of trade accounts receivable by Qena Branch amounted to L.E.62000.
6. Payments for operating expenses by Qena Branch totalled L.E.20000.
7. Cash of L.E.37500 was remitted by Qena Branch to the home office.
8. Operating expenses incurred by the home office and charged to Qena Branch totalled L.E.3000.
Instructions:
Record these transactions and events in the accounting records of home office and Qena Branch.

Solution:

Home Office Accounting Records Journal Entries			Qena Branch Accounting Records Journal Entries		
(1) Investment in Qena Branch	1000		Cash	1000	
Cash		1000	Home Office		1000
(2) Investment in Qena Branch	60000		Inventories	60000	
Inventories		60000	Home Office		60000
(3) Equipment: Qena Branch	500		Home Office	500	
Investment in Qena Branch		500	Cash		500
(4) None			Trade Accounts Receivable	80000	
			Sales		80000
			Cost of Goods Sold	45000	
			Inventories		45000
(5) None			Cash	62000	
			Trade Accounts Receivable		62000
(6) None			Operating Expenses	20000	
			Cash		20000
(7) Cash	37500		Home Office	37500	
Investment in Qena Branch		37500	Cash		37500
(8) Investment in Qena Branch	3000		Operating Expenses	3000	
Operating Expenses		3000	Home Office		3000

On the other hand, if a branch obtains merchandise from outsiders as well as from the home office, the merchandise acquired from the home office may be recorded in a separate **Inventories from Home Office** ledger account.

In the home office accounting records, the *Investment in Quena Branch* ledger account has a debit balance of L.E.26000 [before the accounting records are closed and the branch net income of L.E.12000 (L.E.8000 – L.E.45000 – L.E.20000 – L.E.3000 = L.E.12000) is transferred to the *Investment in Quena Branch* ledger account], as illustrated below (Reciprocal Ledger Account in Accounting Records of Home Office Prior to Equity-Method Adjusting Entry).

Investment in Qena Branch

Date	Explanation	Debit	Credit	Balance
2014	Cash sent to branch	1000		1000 dr
	Merchandise billed to branch at home office cost	60000		61000 dr
	Equipment acquired by branch, carried in home office accounting records		500	60500 dr
	Cash received from branch		37500	23000 dr
	Operating expenses billed to branch	3000		26000 dr

In the accounting records of Qena Branch, the *Home Office* ledger account has a credit balance of L.E.26000 (before the accounting records are closed and the net income of L.E.12000 is transferred to the **Home Office** account), as shown below [Reciprocal Ledger Account in Accounting Records of Qena Branch Prior to Closing Entry].

Home Office

Date	Explanation	Debit	Credit	Balance
2014	Cash received from home office		1000	1000 cr
	Merchandise received from home office		60000	61000 cr
	Equipment acquired	500		60500 cr
	Cash sent to home office	37500		23000 cr
	Operating expenses billed by home office		3000	26000 cr

Combined Financial Statements for Home Office and Branch

A balance sheet for distribution to creditors, stockholders, and government agencies must show the financial position of a business enterprise having branches as a ***single entity***. A convenient starting point in the preparation of a combined balance sheet consists of the adjusted trial balances of the home office and of the branch. A working paper for the combination of these trial balances is illustrated on the following pages.

The assets and liabilities of the branch are substituted for the ***Investment in Branch*** ledger account included in the home office trial balance. Similar accounts are combined to produce a single total amount for cash, trade accounts receivable, and other assets and liabilities of the enterprise as a whole.

In the preparation of a combined balance sheet, reciprocal ledger accounts are eliminated because they have no significance when the branch and home office report as a single entity. The balance of the ***Home Office*** account is offset against the balance of the ***Investment in Branch*** account; in addition, any receivables and payables between the home office and the branch (or between two branches) are eliminated.

The operating results of the enterprise (the home office and all branches) are shown by an income statement in which the revenue and expenses of the branches are combined with corresponding revenue and

expenses for the home office. Any intracompany profits or losses are eliminated.

Working Paper for Combined Financial Statements:

A working paper for combined financial statements has three purposes:

(1) to combine ledger account balances for like revenue, expenses, assets, and liabilities;

(2) to eliminate any intracompany profits or losses, and

(3) to eliminate the reciprocal accounts.

Assume that the perpetual inventories of L.E.15000 (L.E.60000 – L.E.45000 =15000) at the end of 2014 for Qena Branch had been verified by a physical count. The following working paper for Egypt Company is based on the transactions and events of Illustration 2.1 above and additional assumed data for the home office trial balance. All the routine year-end adjusting entries (except the home office entries on presented next) are assumed to have been made, and the working paper is begun wit the adjusted trial balances of the home office and Qena Branch.

EGYPT COMPANY
Working Paper for Combined Financial Statements of Home Office and Qena Branch
For Year Ended December 31, 2014
(Perpetual Inventory System: Billing at Cost)

	Adjusted Trial Balances		Eliminations	Combined
	Home Office	Qena Branch		
	Dr (Cr)	Dr (Cr)	Dr (Cr)	Dr (Cr)
Income Statement				
Sales	(400000)	(80000)		(480000)
Cost of goods sold	235000	45000		280000
Operating expenses	90000	23000		113000
Net income (to statement of retained earnings below)	75000	12000		87000
Totals	-0000-	-0000-		-0000-
Statement of Retained Earnings				
Retained earnings, beginning of year	(70000)			(70000)
Net (income) (from income statement above)	(75000)	(12000)		(87000)
Dividends declared	40000			40000
Retained earnings, end of year (to balance sheet below)				117000
Totals				-0000-
Balance Sheet				
Cash	25000	5000		30000
Trade accounts receivable (net)	39000	18000		57000
Inventories	45000	15000		60000
Investment in Qena Branch	26000		(a) (26000)	
Equipment	150000			150000
Accumulated depreciation of equipment	(10000)			(10000)
Trade accounts payable	(20000)			(20000)
Home office		(26000)	(a) 26000	
Common stock,L.E.10 par	(150000)			(150000)
Retained earnings (from statement of retained earnings above)				(117000)
Totals	-0000-	-0000-	-0000-	-0000-

(a) To eliminate reciprocal ledger account balances.

Note that the L.E.26000 debit balance of the *Investment in Qena Branch* ledger account and the L.E.26000 credit balance of the *Home Office* account are the balances **before the respective accounting records are closed**, that is, before the L.E.12000 net income of Qena Branch is entered in these two reciprocal accounts. In the Elimination column, elimination (a) offsets the balance of the *Investment in Qena Branch* account against the balance of the *Home Office* account. ***This elimination appears in the working paper only;*** it is not entered in the

accounting records of either the home office or Qena Branch because its only purpose is to facilitate the preparation of combined financial statements.

Illustrating Combined Financial Statements:

The above working paper provides the information for the combined financial statements of Egypt Company as follows:

EGYPT COMPANY
Income Statement
For Year Ended December 31, 2014

Sales	L.E.	480000
Cost of goods sold		280000
Gross margin on sales		200000
Operating expenses		113000
Net income		87000
Basic earnings per share of common stock		5.80

EGYPT COMPANY
Statement of Retained Earnings
For Year Ended December 31, 2014

Retained earnings, beginning of year	L.E.	70000
Add: Net Income		87000
Subtotal		157000
Less: Dividends (L.E.2.67 per share)		40000
Retained earnings, end of year		117000

EGYPT COMPANY
Balance Sheet
December 31, 2014

Assets		L.E.
Cash		30000
Trade accounts receivable (net)		57000
Inventories		60000
Equipment	L.E.150000	
Less: Accumulated depreciation	10000	140000
Total assets		287000
Liabilities and Stockholders' Equity		L.E.
Liabilities		
Trade accounts payable		20000
Stockholders' equity		
Common stock, L.E.10 par, 15000 shares authorized, issued and outstanding	L.E.150000	
Retained earnings	117000	267000
Total liabilities and stockholders' equity		287000

Home Office Adjusting and Closing Entries and Branch Closing Entries

The home office's equity-method adjusting and closing entries for branch operating results and the branch's closing entries on December 31, 2014, are as follows:

Home Office Accounting Records
Adjusting and Closing Entries
(Perpetual Inventory System)

Investment in Qena Branch	12000	
Income: Qena Branch		12000
Income: Qena Branch	12000	
Income Summary		12000

Qena Branch Accounting Records
Closing Entries
(Perpetual Inventory System)

Sales	80000	
Income Summary		80000
Income Summary	68000	
Cost of Goods Sold		45000
Operating Expenses		23000
Income Summary	12000	
Home Office		12000

Billing of Merchandise to Branches at Prices Above Home Office Cost

Previously, it was stated that the home offices of some business enterprises bill merchandise shipped to branches at home office cost plus a markup percentage (or alternatively at branch retail selling prices). Because both these methods involve similar modifications of accounting procedures, a single example illustrates the key points involved.

Illustration 3.2:

The prior illustration (3.1) for Egypt Company, will be used with one changed assumption: the home office bills merchandise shipped to Qena Branch at a markup of 50% above home office cost, or 33⅓% of billed price.

Notice: Billed price = cost + 0.50 cost; therefore, markup on billed price is

0.50/ (1 + 0.50) or 33⅓%.

In other words, billed price = cost + markup on cost.

Markup on billed price

= markup on cost/cost + markup on cost

Under this assumption, the journal entries for the first year's events and transactions by the home office and Qena Branch are the same as those presented previously (Illustration 2.1), except for the journal entries for shipments of merchandise from the home office to Qena Branch. These shipments (L.E.60000 cost + 50% markup on cost = L.E.90000) are recorded under the perpetual inventory system as follows:

Home Office Accounting Records
Journal Entries

(2) Investment in Qena Branch	90000	
Inventories		60000
Allowance for Overvaluation of Inventories: Qena Branch		30000

Qena Branch Accounting Records
Journal Entries

(2) Inventories	90000	
Home Office		90000

In the accounting records of the home office, the Investment in Qena Branch ledger account prepared previously (Illustration 2.1), now has a debit balance of L.E.56000 before the accounting records are closed and the branch net income or loss is entered in the Investment in Qena Branch account. This account is L.E.30000 larger than the L.E.26000 balance in the prior illustration (2.1). The increase represents the 50% markup over cost (L.E.60000) of the merchandise shipped to Qena Branch, as illustrated below (Reciprocal Ledger Account in Accounting Records of Home Office Prior to Equity-Method Adjusting Entry).

Investment in Qena Branch

Date	Explanation	Debit	Credit	Balance
2014	Cash sent to branch	1000		1000 dr
	Merchandise billed to branch at markup of 50% over home office cost, or 33⅓% of billed price	90000		91000 dr
	Equipment acquired by branch, carried in home office accounting records		500	90500 dr
	Cash received from branch		37500	53000 dr
	Operating expenses billed to branch	3000		56000 dr

In the accounting records of Qena Branch, the *Home Office* ledger account now has a credit balance of L.E.56000, before the accounting records are closed and the net income or loss is entered in the **Home Office** account, as shown below [Reciprocal Ledger Account in Accounting Records of Qena Branch Prior to Closing Entry].

Home Office

Date	Explanation	Debit	Credit	Balance
2014	Cash received from home office		1000	1000 cr
	Merchandise received from home office		90000	91000 cr
	Equipment acquired	500		90500 cr
	Cash sent to home office	37500		53000 cr
	Operating expenses billed by home office		3000	56000 cr

Qena Branch recorded the merchandise received from the home office at billed prices of L.E.90000; the home office recorded the shipment by credits of L.E.60000 to Inventories and L.E.30000 to Allowance for Overvaluation of Inventories: Qena Branch. Use of the allowance account enables the home office to maintain a record of the cost of merchandise shipped to Qena Branch as well as the amount of unrealized gross profit on the shipments.

At the end of the accounting period, Qena Branch reports its inventories (at billed prices) at L.E.22500. The cost of these inventories is L.E.15000 (L.E.22500 ÷ 1.50 = L.E.15000). In the home office accounting records, the required balance of the Allowance for Overvaluation of Inventories: Qena Branch ledger account is L.E.7500 (L.E.22500 – L.E.15000 = L.E.7500); therefore, this account balance must be reduced from its present amount of L.E.30000 to L.E.7500. The reason for this reduction is that ***the 50% markup of billed prices over cost has become realized gross profit to the home office with respect to the merchandise sold by the branch.*** Consequently, at the end of the year the home office reduces its allowance for overvaluation of the branch inventories to the L.E.7500 excess valuation contained in the ending inventories. The debit adjustment of L.E.22500 in the allowance account is offset by a credit to the ***Realized Gross Profit: Qena Branch Sales*** account, because it represents additional gross profit of the home office resulting from sales by the branch.

Working Paper When Billings to Branches Are at Prices above Cost. When a home office bills merchandise shipments to branches at prices above home office cost, preparation of the working paper for combined financial statements is facilitated by an analysis of flow of merchandise to a branch, such as the following for Qena Branch of Egypt Company:

Egypt Company
Flow of Merchandise for Qena Branch
During 2014

	Billed Brice L.E.	**Home Office Cost L.E.**	**Mark-up (50% of Cost; 33⅓% of Billed Price)**
Beginning inventories			
Add: Shipments from home office	90000	60000	30000
Available for sale	90000	60000	30000
Less: Ending inventories	22500	15000	7500
Cost of goods sold	67500	45000	22500

The Markup column in the foregoing analysis provides the information needed for the Eliminations column in the working paper for combined financial statements below:

EGYPT COMPANY
Working Paper for Combined Financial Statements of Home Office and Qena Branch
For Year Ended December 31, 2014
(Perpetual Inventory System: Billings above Cost)

	Adjusted Trial Balances			
	Home Office	Qena Branch	Eliminations	Combined
	Dr (Cr)	Dr (Cr)	Dr (Cr)	Dr (Cr)
Income Statement				
Sales	(400000)	(80000)		(480000)
Cost of goods sold	235000	67500	(a) (22500)	280000
Operating expenses	90000	23000		113000
Net income (loss) (to statement of retained earnings below)	75000	(10500)	(b) 22500	87000
Totals	-0000-	-0000-		-0000-
Statement of Retained Earnings				
Retained earnings, beginning of year	(70000)			(70000)
Net (income) loss (from income statement above)	(75000)	10500	(b) (22500)	(87000)
Dividends declared	40000			40000
Retained earnings, end of year (to balance sheet below)				117000
Totals				-0000-
Balance Sheet				
Cash	25000	5000		30000
Trade accounts receivable (net)	39000	18000		57000
Inventories	45000	22500	(a) (7500)	60000
Investment in Qena Branch	56000		(c) (56000)	
Allowance for overvaluation of inventories: Qena Branch	(30000)		(a) 30000	
Equipment	150000			150000
Accumulated depreciation of equipment	(10000)			(10000)
Trade accounts payable	(20000)			(20000)
Home office		(56000)	(c) 56000	
Common stock, L.E.10 par	(150000)			(150000)
Retained earnings (from statement of retained earnings above)				(117000)
Totals	-0000-	-0000-	-0000-	-0000-

(a) To reduce ending inventories and cost of goods sold of branch to cost, and to eliminate unadjusted balance of Allowance of Overvaluation of Inventories: Qena Branch ledger account.
(b) To increase income of home office by portion of merchandise markup that was realized by branch sales.
(c) To eliminate reciprocal ledger account balances.

The foregoing working paper differs from the previous working paper by the inclusion of an elimination to restate the ending inventories of the branch to cost. Also, the income reported by the home office is adjusted by the L.E.22500 of merchandise markup that was realized as a result of sales by the branch. The amounts in the Eliminations column appear only in the working paper. The amounts represent a mechanical step to aid in the preparation of combined financial statements and are not entered in the accounting records of either the home office or the branch.

Combined Financial Statements

Because the amounts in the Combined column of the working paper above are the same as in the working paper prepared when the merchandise shipments to the branch were billed at home office cost, the combined financial statements are identical to those illustrated previously.

Home Office Adjusting and Closing Entries and Branch Closing Entries

The December 31, 2014, adjusting and closing entries of the home office are illustrated below:

Home Office Accounting Records
Adjusting and Closing Entries

Income: Qena Branch	10500	
Investment in Qena Branch		10500
To record net loss reported by branch.		
Allowance for Overvaluation of Inventories: Qena Branch	22500	
Realized Gross Profit: Qena Branch Sales		22500
To reduce allowance to amount by which ending inventories of branch exceed cost.		
Realized Gross Profit: Qena Branch Sales	22500	
Income: Qena Branch		10500
Income Summary		12000
To close branch net loss and realized gross profit to Income Summary ledger account.		

After the foregoing journal entries have been posted, the ledger accounts in the home office general ledger used to record branch operations are as follows:

Investment in Qena Branch

Date	Explanation	Debit	Credit	Balance
2014	Cash sent to branch	1000		1000 dr
	Merchandise billed to branch at mark-up of 50% over home office cost, or 33⅓% of billed price	90000		91000 dr
	Equipment acquired by branch, carried in home office accounting records		500	90500 dr
	Cash received from branch		37500	53000 dr
	Operating expenses billed to branch	3000		56000 dr
	Net loss for 2014 reported by branch		10500	45500 dr

Allowance for Overvaluation of Inventories: Qena Branch

Date	Explanation	Debit	Credit	Balance
2014	Mark-up on merchandise shipped to branch during 2014 (50% of cost)		30000	30000 cr
	Realization of 50% mark-up on merchandise sold by branch during 2014	22500		7500 cr

Realized Gross Profit: Qena Branch

Date	Explanation	Debit	Credit	Balance
2014	Realization of 50% mark-up on merchandise sold by branch during 2014		22500	22500 cr
	Closing entry	22500		-0000-

Income: Qena Branch

Date	Explanation	Debit	Credit	Balance
2014	Net loss for 2014 reported by branch	10500		10500 dr
	Closing entry		10500	-0000-

In the ***separate*** balance sheet for the home office, the L.E.7500 credit balance of the Allowance of Overvaluation of Inventories: Qena Branch account is deducted from the L.E.45500 debit balance of the Investment in Qena Branch account, thus reducing the carrying amount of the investment account to a cost basis with respect to shipments of merchandise to the branch. In the ***separate*** income statement for the home office, the L.E.22500 realized gross profit on Qena Branch sales may be displayed following gross margin on sales, L.E.165000 (L.E.400000 – L.E.235000 cost of goods sold = L.E.165000).

The closing entries for branch at the end of 2014 are as follows:

Qena Branch Accounting Records
Closing Entries
(Perpetual Inventory System)

Sales	80000	
Income Summary		80000
Income Summary	90500	
Cost of Goods Sold		67500
Operating Expenses		23000
To close revenue and expense ledger accounts.		
Home Office	10500	
Income Summary		10500
To close the net loss in the Income Summary account to the Home Office account.		

Accordingly, after these closing entries have been posted by the branch, the following Home Office ledger account in the accounting records of Qena Branch has a credit balance of L.E.45500, the same debit balance of the Investment in Qena Branch account in the accounting records of the home office:

Home Office

Date	Explanation	Debit	Credit	Balance
2014	Cash received from home office		1000	1000 cr
	Merchandise received from home office		90000	91000 cr
	Equipment acquired	500		90500 cr
	Cash sent to home office	37500		53000 cr
	Operating expenses billed by home office		3000	56000 cr
	Net loss for 2014	10500		45500 cr

Treatment of Beginning Inventories Priced Above Cost

The foregoing working paper shows how the ending inventories and the related allowance for overvaluation of inventories were handled. However, because 2014 was the first year of operations for Qena Branch, no beginning inventories were involved.

Perpetual Inventory System

Under the perpetual inventory system, no special problems arise when the beginning inventories of the branch include an element of unrealized gross profit. The working paper eliminations would be similar to those illustrated previously.

Periodic Inventory System

The illustration of a second year of operations (2015) of Egypt Company demonstrates the handling of beginning inventories carried by Qena Branch at an amount above home office cost.

Illustration 3.3

Assume that both the home office and Qena Branch adopted the periodic inventory system in 2015. when the periodic inventory system is used, the home office credits ***Shipments to Branch*** (an offset account to Purchases) for the home office cost of merchandise shipped and Allowance for Overvaluation of Inventories for the markup over home office cost. The branch debits ***Shipments from Home Office*** (analogous to a Purchases account) for the billed price of merchandise received.

The beginning inventories for 2015 were carried by Qena Branch at L.E.22500, or 150% of the cost of L.E.15000 (L.E.15000 × 1.50 = L.E.22500). Assume that during 2015 the home office shipped merchandise to Qena Branch that cost L.E.80000 and was billed at L.E.120000, and that Qena Branch sold for L.E.150000 merchandise that was billed at L.E.112500. The journal entries to record the shipments and sales under the periodic inventory system are illustrated below (Journal

Entries for Shipments to Branch at a Price above Home Office Cost, Periodic Inventory System):

Home Office Accounting Records

Journal Entries

Investment in Qena Branch	120000	
Shipments to Qena Branch		80000
Allowance for Overvaluation of Inventories: Qena Branch		40000

Qena Branch Accounting Records

Journal Entries

Shipment from Home Office	120000	
Home Office		120000
Cash (or Trade Accounts Receivable)	150000	
Sales		150000

The branch inventories at the end of 2014 amounted to L.E.30000 (L.E.22500 + L.E.120000 – L.E.112500 = L.E.30000) at billed prices, representing cost of L.E.20000 plus a 50% markup on cost (L.E.20000 × 1.50 = L.E.30000). The flow of merchandise for Qena Branch during 2015 is summarizes below:

Egypt Company

Flow of Merchandise for Qena Branch

During 2015

	Billed Brice L.E.	**Home Office Cost L.E.**	**Mark-up (50% of Cost; 33⅓% of Billed Price)**
Beginning inventories	22500	15000	7500
Add: Shipments from home office	120000	80000	40000
Available for sale	142500	95000	47500
Less: Ending inventories	(30000)	(20000)	(10000)
Cost of goods sold	112500	75000	37500

The activities of the branch for 2015 and end-of-period adjusting and closing entries are reflected in the four home office ledger accounts below.

Investment in Qena Branch

Date	Explanation	Debit	Credit	Balance
2015	Balance, Dec 31, 2014			45500dr
	Merchandise billed to branch at mark-up of 50% over home office cost, or 33⅓% of billed price	120000		165500dr
	Cash received from branch		113000	52500dr
	Operating expenses billed to branch	4500		57000dr
	Net income for 2015 reported by branch	10000		67000dr

Allowance for Overvaluation of Inventories: Qena Branch

Date	Explanation	Debit	Credit	Balance
2015	Balance, Dec. 31, 2014			7500cr
	Mark-up on merchandise shipped to branch during 2015 (50% of cost)		40000	47500cr
	Realization of 50% mark-up on merchandise sold by branch during 2015	37500		10000cr

Realized Gross Profit: Qena Branch

Date	Explanation	Debit	Credit	Balance
2015	Realization of 50% mark-up on merchandise sold by branch during 2015		37500	37500cr
	Closing entry	37500		-0000-

Income: Qena Branch

Date	Explanation	Debit	Credit	Balance
2015	Net income for 2015 reported by branch		10000	10000cr
	Closing entry	10000		-0000-

In the accounting records of the home office at the end of 2015, the balance required in the Allowance for Overvaluation of Inventories: Qena Branch ledger account is L.E.10000, that is, the billed price of L.E.30000 less cost of L.E.20000 for merchandise in the branch's ending inventories. Therefore, the allowance account balance is reduced from L.E.47500 to L.E.10000. This reduction of L.E.37500 represents the 50% markup on merchandise above cost that was realized by Qena Branch during 2015 and is credited to the Realized Gross Profit: Qena Branch Sales account.

The Home Office account in the branch general ledger shows the following activity and closing entry for 2015:

Home Office

Date	Explanation	Debit	Credit	Balance
2015	Balance, Dec. 31, 2015			45500cr
	Merchandise received from home office		120000	165500cr
	Cash sent to home office	113000		52500cr
	Operating expenses billed by home office		4500	57000cr
	Net income for 2015		10000	67000cr

The working paper for combined financial statements under the periodic inventory system, which reflects pre-adjusting and pre-closing balances for the reciprocal ledger accounts and the Allowance for Overvaluation of Inventories: Qena Branch account, is shown as below:

EGYPT COMPANY
Working Paper for Combined Financial Statements of Home Office and Qena Branch For Year Ended December 31, 2015
(Periodic Inventory System: Billings above Cost)

	Adjusted Trial Balances			
	Home Office	Qena Branch	Eliminations	Combined
	Dr (Cr)	Dr (Cr)	Dr (Cr)	Dr (Cr)
Income Statement				
Sales	(500000)	(150000)		(650000)
Inventories, Dec.31, 2014	45000	22500	(b) (7500)	60000
Purchases	400000			400000
Shipments to Qena Branch	(80000)		(a) (80000)	
Shipments from Home Office		120000	(a) (120000)	
Inventories, Dec. 31, 2015	(70000)	(30000)	(c) 10000	(90000)
Operating expenses	120000	27500		147500
Net income (to statement of retained earnings below)	85000	10000	(d) 37500	132500
Totals	-0000-	-0000-		-0000-
Statement of Retained Earnings				
Retained earnings, beginning of year	(117000)			(117000)
Net (income) (from income statement above)	(85000)	(10000)	(d) (37500)	(132500)
Dividends declared	60000			60000
Retained earnings, end of year (to balance sheet below)				189500
Totals				-0000-
Balance Sheet				
Cash	30000	9000		39000
Trade accounts receivable (net)	64000	28000		92000
Inventories	70000	30000	(c) (10000)	90000
Investment in Qena Branch	57000		(e) (57000)	
Allowance for overvaluation of inventories:			(a) 40000	
Qena Branch	(47500)		(b) 7500	
Equipment	158000			158000
Accumulated depreciation of equipment	(15000)			(15000)
Trade accounts payable	(24500)			(24500)
Home office		(57000)	(e) 57000	
Common stock, L.E.10 par	(150000)			(150000)
Retained earnings (from statement of retained earnings above)				(189500)
Totals	-0000-	-0000-	-0000-	-0000-

(a) To eliminate reciprocal ledger accounts for merchandise shipments.
(b) To reduce beginning inventories of branch to cost.
(c) To reduce ending inventories of branch to cost.
(d) To increase income of home office by portion of merchandise markup that was realized by branch sales.
(e) To eliminate reciprocal ledger account balances.

Reconciliation of Reciprocal Ledger Accounts

Practically, at the end of an accounting period, the balance of the Investment in Branch ledger account in the accounting records of the home office may not agree with the balance of the Home Office account in the accounting records of the branch because certain transactions may have been recorded by one office but not by the other. The situation is comparable to that of reconciling the ledger account for Cash in Bank with the balance in the monthly bank statement. The lack of agreement between the reciprocal ledger account balances causes no difficulty during an accounting period, but at the end of each period the reciprocal account balances must be brought into agreement before combined financial statements are prepared.

Illustration 3.4

As an illustration of the procedure for reconciling reciprocal ledger account balances at year-end, assume that the home office and branch accounting records of Misr Company on December 31, 2014, contain the data below.

Investment in Aswan Branch
(in Home Office Accounting Records)

Date	Explanation	Debit	Credit	Balance
2014				
Nov. 30	Balance			62,500dr
Dec. 10	Received cash from branch		20,000	42,500dr
27	Collection of branch trade accounts receivable		1,000	41,500dr
29	Shipment of merchandise	8,000		49,500dr

Home Office (in Aswan Branch Accounting Records)

Date	Explanation	Debit	Credit	Balance
2014				
Nov. 30	Balance			62,500cr
Dec. 7	Cash sent to home office	20,000		42,500cr
28	Acquired equipment	3,000		39,500cr
30	Collection of home office trade accounts receivable		2,000	41,500cr

Instructions

a. Prepare a working paper to reconcile the reciprocal ledger accounts of Misr Company's home office and Aswan Branch to the corrected balances on December 31, 2014.

b. Prepare journal entries on December 31, 2014, for the (1) home office and (2) Aswan Branch of Misr Company to bring the accounting records up to date. Both the home office and the branch use the perpetual inventory system.

Solution

Comparison of the two reciprocal ledger accounts discloses four reconciling items, described as below:

1. A debit of L.E.8,000 in the Investment in Aswan Branch ledger account without a related credit in the Home Office account.

On December 29, 2014, the home office shipped merchandise costing L.E.8,000 to the branch. The home office debits its reciprocal ledger account with the branch on the date merchandise is shipped, but the branch credits its reciprocal account with the home office when the merchandise is received a few days later. The required journal entry on December 31, 2014, in the ***branch accounting records***, assuming use of the perpetual inventory system, appears as follows:

Branch Journal Entry for Merchandise in Transit from Home Office

Inventories in Transit	8,000	
Home Office		8,000
To record shipment of merchandise in transit from home office.		

In taking a physical inventory on December 31, 2014, the branch personnel must add to the inventories on hand the L.E.8,000 of merchandise in transit. When the merchandise is received in 2015, the branch debits Inventories and credits Inventories in Transit.

2. A credit of L.E.1,000 in the Investment in Aswan Branch ledger account without a related credit in the Home Office account.

On December 27, trade accounts receivable of the branch were collected by the home office. The collection was reported by the home office by a debit to Cash and a credit to Investment in Aswan Branch. No journal entry had been made by Aswan Branch; therefore, the following journal entry is required in ***the accounting records of Aswan Branch*** on December 31, 2014:

Branch Journal Entry for Trade Accounts Receivable Collected by Home Office

Home Office	1,000	
Trade Accounts Receivable		1,000
To record collection of accounts receivable by home office.		

3. A debit of L.E.3,000 in the Home Office ledger account without a related credit in the Investment in Aswan Branch account.

On December 28, 2014, the branch acquired equipment for L.E.3,000. Because the equipment used by the branch is carried in the accounting records of the home office, the journal entry made by the branch was a debit to Home Office and a credit to Cash. No journal entry had been made by the home office; therefore, the following journal entry is required on December 31, 2014, ***in the accounting records of the home office:***

Home Office Journal Entry for Equipment Acquired by Branch

Equipment: Aswan Branch Investment in Aswan Branch To record equipment acquired by branch.	3,000	 3,000

4. A credit of L.E.2,000 in the Home Office ledger account without a related debit in the Investment in Aswan Branch account.

On December 30, 2014, trade accounts receivable of the home office were collected by Aswan Branch. The collection was recorded by Aswan Branch by a debit to Cash and a credit to Home Office. No journal entry had been made by the home office; therefore, the following journal entry is required ***in the accounting records of the home office*** on December 31, 2014:

Home Office Journal Entry for Trade Accounts Receivable Collected by Branch

Investment in Aswan Branch Trade Accounts Receivable To record collection of accounts receivable by Aswan Branch.	2,000	 2,000

The effect of the foregoing end-of-period journal entries is to update the reciprocal ledger accounts, as shown by the following reconciliation:

MISR COMPANY-HOME OFFICE AND ASWAN BRANCH
Reconciliation of Reciprocal Ledger Accounts
December 31, 2014

	Investment in Aswan Branch Account (in home office accounting records)	**Home Office Account (in branch accounting records)**
Balances before adjustments	L.E.49,500 dr	L.E.41,500 cr
Add: (1) Merchandise shipped to branch by home office		8,000
(4) Home office trade accounts receivable collected by branch	2,000	
Less: (2) Branch trade accounts receivable collected by home office		(1,000)
(3) Equipment acquired by branch	(3,000)	
Adjusted balances	L.E.48,500 dr	L.E.48,500 cr

Transactions between Branches

Efficient operations may on occasion require that merchandise or other assets be transferred from one branch to another. Generally, a branch does not carry a reciprocal ledger account with another branch but records the transfer in the ***Home Office*** ledger account. For instance, if Sohag Branch ships merchandise to Assiut Branch, Sohag Branch debits Home Office and credits Inventories (assuming that the perpetual inventory system is used). On receipt of the merchandise, Assiut Branch debits Inventory and credits Home Office. The home office records the transfer

between branches by a debit to Investment in Assut Branch and a credit to Investment in Sohag Branch.

The transfer of merchandise from one branch to another does not justify increasing the carrying amount of inventories by the freight costs incurred because of the indirect routing (dispatch). The amount of freight costs properly included in inventories at a branch is limited to the cost of shipping the merchandise ***directly*** from the home office to its present location. Excess freight costs are recognized as expenses of the home office.

Illustration 3.5

In order to illustrate the accounting for excess freight costs on inter-branch transfers of merchandise, assume the data below.

The home office shipped merchandise costing L.E.6,000 to Red Sea Branch and paid freight costs of L.E.400. Subsequently, the home office instructed Red Sea Branch to transfer this merchandise to Menia Branch. Freight costs of L.E.300 were paid by Red Sea Branch to carry out this order. If the merchandise had been shipped directly for the home office to Menia Branch, the freight costs would have been L.E.500.

Instructions

Pass the journal entries required in the three sets of accounting records (assuming that the perpetual inventory system is used).

Solution

In Accounting Records of Home Office:

Investment in Red Sea Branch	6,400	
Inventories		6,000
Cash		400
To record shipment of merchandise and payment of freight costs.		
Investment in Menia Branch	6,500	
Excess Freight Expense-Interbranch Transfers	200	
Investment in Red Sea Branch		6,700
To record transfer of merchandise from Red Sea Branch to Menia Branch under instruction of home office. Interbranch freight of L.E.300 paid by Red Sea Branch caused total freight costs on this merchandise to exceed direct shipment costs by L.E.200 (L.E.400 + L.E.300 – L.E.500 = 200).		

In Accounting Records of Red Sea Branch:

Freight in (or Inventories) Inventories Home Office To record receipt of merchandise from home office with freight costs paid in advance by home office.	400 6,000	 6,400
Home Office Inventories Freight in (or Inventories) Cash To record transfer of merchandise to Menis Branch under instruction of home office and payment of freight costs of L.E.300.	6,700	 6,000 400 300

In Accounting Records of Menia Branch:

Freight in (or Inventories) Inventories Home Office To record receipt of merchandise from Red Sea Branch under instruction of home office and normal freight costs billed by home office.	500 6,000	 6,500

Recognizing excess freight costs on merchandise transferred from one branch to another as expenses of the home office is an example of the accounting principle that expenses and losses should be given prompt recognition. The excess freight costs from such shipments generally result from inefficient planning of original shipments and should not be included in inventories.

In recognizing excess freight costs of interbranch transfers as expenses attributable to the home office, the assumption was that the home office makes the decisions directing all shipments. If branch managers are given authority to order transfers of merchandise between branches, the excess freight costs are recognized as expenses attributable to the branches whose managers authorized the transfers.

Exercises and Practical Problems

Exercises:

(Exercise 3.1)

Select the best answer for each of the following multiple-choice questions:

1. May the Investment in Branch ledger account of a home office be accounted for by the:

Cost Method of Accounting?	Equity Method of Accounting?
a. Yes	Yes
b. Yes	No
c. No	Yes
d. No	No

2. Which of the following generally is not a method of billing merchandise shipments by a home office to a branch?

a. Billing at cost.
b. Billing at a percentage below cost.
c. Billing at a percentage above cost.
d. Billing at retail selling prices.

3. A branch journal entry debiting Home Office and crediting Cash may be prepared for:

a. The branch's transmittal of cash to the home office only.
b. The branch's acquisition for cash of plant assets to be carried in the home office accounting records only.
c. Either *a* or *b*.
d. Neither *a* nor *b*.

4. A home office's Allowance for Overvaluation of Inventories: Branch ledger account, which has a credit balance, is:

a. An asset valuation account.
b. A liability account.
c. An equity Account.
d. A revenue account.

5. Does a branch use a Shipments from Home Office ledger account under the:

	Perpetual Inventory System?	Periodic Inventory System?
a.	Yes	Yes
b.	Yes	No
c.	No	Yes
d.	No	No

6. A journal entry debiting Cash in Transit and crediting Investment in Branch is required for:
a. The home office to record the mailing of a check to the branch early in the accounting period.
b. The branch to record the mailing of a check to home office early in the accounting period.
c. The home office to record the mailing of a check by the branch on the last day of the accounting period.
d. The branch to record the mailing of a check to the home office on the last day of the accounting period.

7. For a home office that uses the periodic inventory system of accounting for shipments of merchandise to the branch, the credit balance of Shipments to Branch ledger account is displayed in the home office's separate:
a. Income statement as an offset to Purchases.
b. Balance sheet as an offset to Investment in Branch.
c. Balance sheet as an offset to Inventories.
d. Income statement as revenue.

8. If the home office maintains accounts in its general ledger for a branch's plant assets, the branch debits its acquisition of office equipment to:
a. Home Office.
b. Office Equipment.
c. Payable to Home Office.
d. Office Equipment Carried by Home Office.

9. In a working paper for combined financial statements of the home office and the branch of a business enterprise, an elimination that debits Shipments to Branch and credits Shipments from Home Office is required under:

a. The periodic inventory system only.
b. The perpetual inventory system only.
c. Both the periodic inventory system and the perpetual inventory system.
d. Neither the periodic inventory system nor the perpetual inventory system.

10. The appropriate journal entry for the home office to recognize the branch's expenditure of L.E.1,000 for equipment to be carried in the home office accounting records is:

a. Equipment 1,000
    Investment in Branch 1,000
b. Home Office 1,000
    Equipment 1,000
c. Investment in Branch 1,000
    Cash 1,000
d. Equipment: Branch 1,000
    Investment in Branch 1,000

11. On January 31, 2014, East Branch of Cairo Company, which uses the perpetual inventory system, prepared the following journal entry:

Inventories in Transit 10,000
  Home Office 10,000
To record shipment of merchandise in transit from home office.

When the merchandise is received on February 4, 2014, East Branch should:

a. Prepare no journal entry.
b. Debit Inventories and credit Home Office, L.E.10,000
c. Debit Home Office and credit Inventories in Transit, L.E.10,000.
d. Debit Inventories and credit Inventories in Transit, L.E.10,000.

12. If a home office bills merchandise shipments to the branch at a markup of 20% on cost, the markup on billed price is:

a. 16⅔%
b. 20%
c. 25%
d. Some other percentage.

13. The appropriate journal entry in the accounting records of the home office to record a L.E.10,000 cash remittance in transit from the branch at the end of an accounting period is:

a. Cash	10,000	
Cash in Transit		10,000
b. Cash in Transit	10,000	
Investment in Branch		10,000
c. Cash	10,000	
Home Office		10,000
d. Cash in Transit	10,000	
Cash		10,000

(Exercise 3.2)

On September 1, 2014, Edfina Company established a branch in Sinai. Following are the first three transactions between the home office and Sinai Branch of Edfina Company:

Sept. 1 Home office sent L.E.10,000 to the branch for an imprest bank account.

Sept. 2 Home office shipped merchandise costing L.E.60,000 to the branch, billed a mark-up of 20% on billed price.

Sept. 3 Branch acquired office equipment for L.E.3,000, to be carried in the home office accounting records.

Both the home office and the Sinai branch of Edfina Company use the perpetual inventory system.

Prepare journal entries for the foregoing transactions:

a. In the accounting records of the home office.

b. In the accounting records of the Sinai branch.

(Exercise 3.3)

On September 1, 2014, Western Company established the Eastern Branch. Separate accounting records were set up for the branch. Both the home office and the Eastern Branch use the periodic inventory system. Among the intracompany transactions were the following:

Sept. 1 Home office mailed a check for L.E.50,000 to the branch. The check was received by the branch on September 3.

Sept. 4 Home office shipped merchandise costing L.E.95,000 to the branch, at a billed price of L.E.125,000. The branch received the merchandise on September 8.

Sept. 11 the branch acquired a truck for L.E.34,200. The home office maintains the plant assets of the branch in its accounting records.

Prepare journal entries for the foregoing intracompany transactions:

a. In the accounting records of the home office.

b. In the accounting records of the Eastern Branch.

(Exercise 3.4)

Among the journal entries of the home office of Wally Corporation for the month of January 2014, were the following:

2014	Explanation	L.E. dr	L.E. cr
Jan 2	Investment in Luxor Branch	100,000	
	Inventories		80,000
	Allowance for Overvaluation of Inventories: Luxor Branch		20,000
	To record merchandise shipped to branch.		
	Equipment: Luxor Branch	5,000	
18	Investment in Luxor Branch		5,000
	To record acquisition of equipment by branch for cash.		
31	Investment in Luxor Branch	8,000	
	Operating Expenses		8,000
	To record allocation of operating expenses to branch.		

Prepare related journal entries for the Luxor Branch of Wally Corporation: the branch uses the perpetual inventory system.

(Exercise 3.5)

Among the journal entries for business transactions and events of the Hoover Street of Tanta Company during January 2014, were the following:

2014	Explanation	L.E. dr	L.E. cr
Jan.	Inventories	60,000	
	Home Office		60,000
12	To record the receipt of merchandise shipped Jan. 10 from the home office and billed at a mark-up of 20% on billed price.		
25	Cash	25,000	
	Home Office		25,000
	To record collection of trade accounts receivable of home office.		
31	Operating Expenses	18,000	
	Home Office		18,000
	To record operating expenses allocated by home office.		

Prepare appropriate journal entries for the home office of Tanta Company.

(Exercise 3.6)

Among the journal entries of the home office of Turbo Company for the month ended August 31, 2014, were the following:

2014	Explanation	L.E. dr	L.E. cr
Aug. 6	Investment in Nido Branch	10,000	
	Cash		10,000
	To record payment of account payable of branch.		
14	Cash	6,000	
	Investment in Nido Branch		6,000
	To record collection of trade account receivable of branch.		
22	Equipment: Nido Branch	20,000	
	Investment in Nido Branch		20,000
	To record branch acquisition of equipment for cash, to be carried in home office accounting records.		

Prepare appropriate journal entries for Nido Branch of Turbo Company.

(Exercise 3.7)

Prepare journal entries in the accounting records of both the home office and the Alexandria Branch of World Company to record each of the following transactions or events:

a. Home office transferred cash of L.E.5,000 and merchandise (at home office cost) of L.E.10,000 to the branch. Both the home office and the branch use the perpetual inventory system.

b. Home office allocated operating expenses of L.E.1,500 to the branch.

c. Alexandria Branch informed the home office that it had collected L.E.416 on a note payable to the home office. Principal amount of the note was L.E.400.

d. Alexandria Branch made sales of L.E.12,500, terms 2/10, n/30, and incurred operating expenses of L.E.2,500. The cost of goods sold was L.E.8,000, and the operating expenses were paid in cash.

e. Alexandria Branch had a net income of L.E.500. (Debit Income Summary in the accounting records of the branch.)

(Exercise 3.8)

Newland Company has a policy of accounting for all plant assets of its branches in the accounting records of the home office. Contrary to this policy, the accountant for Dhab Branch prepared the following journal entries for the equipment acquired by Dhab Branch at the direction of the home office:

2014

		Debit	Credit
Aug. 1	Equipment	20,000	
	Cash		20,000

To record acquisition of equipment with an economic life of 10 years and a residual value of L.E.2,000.

		Debit	Credit
Dec. 31	Depreciation Expenses	750	
	Accumulated Depreciation of equipment		750

To recognize depreciation of equipment by the straight-line method (L.E.18,000 × 5/120).

Prepare appropriate journal entries for Dhab Branch and the home office on December 31, 2014, the end of the fiscal year, assuming that the home office had prepared no journal entries for the equipment acquired by the Dhab Branch on August 1, 2014. Neither set of accounting records has been closed.

(Exercise 3.9)

The home office of Port Said Company ships merchandise to the Nile-Star Branch at a billed price that includes a mark-up on home office cost of 25%. The Inventories ledger account of the branch, under the perpetual inventory system, showed a December 31, 2013, debit balance, L.E.120,000; a debit for a shipment received January 16, 2014, L.E.500,000; total credits for goods sold during January 2014, L.E.520,000; and a January 31, 2014, debit balance, L.E.100,000 (all amounts are home office billed prices).

Prepare a working paper for the home office of Port Said Company to analyse the flow of merchandise to Nile-Star Branch during January 2014. (Check Figure: Mark-up in cost of goods sold, L.E.104,000).

(Exercise 3.10)

The flow of merchandise from the home office of Sharm El-Sheikh Company to its Rafah Branch during the month of April 2014, may be analysed as follows:

Sharm El-Sheikh Company Flow of Merchandise for Rafah Branch For Month of April 2014			
	Billed Price	**Cost**	**Markup**
Beginning inventories L.E.	180,000	150,000	30,000
Add: Shipment from home office (Apr. 16)	540,000	450,000	90,000
Available for sale	720,000	600,000	120,000
Less: Ending inventories	120,000	100,000	20,000
Cost of goods sold L.E.	600,000	500,000	100,000

From the foregoing information, reconstruct a three-column ledger account Allowance for Overvaluation of Inventories: Rafah Branch for the home office of Sharm El-Sheikh Company, beginning with the March 31, 2014, balance, L.E.30,000 credit.
(Check Figure: Apr. 30 balance L.E.20,000 credit).

(Exercise 3.11)

On May 31, 2014, Green Branch of Garden Company reported a net income of L.E.80,000 for May 2014, and a L.E.240,000 ending inventory at billed price of merchandise received from the home office at a 25% mark-up on billed. Prior to adjustment, the May 31, 2014, balance of the home office's Allowance for Overvaluation of Inventories: Green Branch was L.E.200,000 credit.

Prepare journal entries on May 31, 2014, for the home office of Garden Company to reflect the foregoing facts.

(Exercise 3.12)

Superman Textile Company has a single branch in South Valley. On March 1, 2014, the home office accounting records included an Allowance for Overvaluation of Inventories: South Valley Branch ledger account with a credit balance of L.E.32,000. During March, merchandise costing L.E.36,000 was shipped to the South Valley Branch and billed at a price representing a 40% mark-up on the billed price. On March 31, 2014, the branch prepared an income statement indicating a net loss of L.E.11,500 for March and ending inventories at billed prices of L.E.25,000.

Instructions

a. Prepare a working paper to compute the home office cost of the branch inventories on March 1, 2014, assuming a uniform markup on all shipments to the branch.

b. Prepare a journal entry to adjust the Allowance for Overvaluation of Inventories: South Valley Branch ledger account on March 31, 2014, in the accounting records of the home office.

(Check Figure: b. Debit allowance for overvaluation of inventories, L.E.46,000).

(Exercise 3.13)

The home office of Oasis Company, which uses the perpetual inventory system, bills shipments of merchandise to the Yellow Branch at a mark-up of 25% on the billed price. On August 31, 2014, the credit balance of the home office's Allowance for Overvaluation of Inventories: Yellow Branch ledger account was L.E.60,000. On September 17, 2014, the home office shipped merchandise to the branch at a billed price of L.E.400,000. the branch reported an ending inventory, at billed price, of L.E.160,000 on September 30, 2014.

Prepare journal entries involving the Allowance for Overvaluation of Inventories: Yellow Branch ledger account of the home office of Oasis Company on September 17 and 30, 2014. Show supporting computations in the explanations for the entries.

(Check Figure: Sept. 30, credit realized gross profit, L.E.120,000).

(Exercise 3.14)

On January 31, 2014, the unadjusted credit balance of the Allowance for Overvaluation of Inventories: Red Branch of the home office of Mountain Company was L.E.80,000. The branch reported a net income of L.E.60,000 for January 2014 and an ending inventory on January 31, 2014, of L.E.81,000, at billed prices that included a mark-up of 50% on home office cost.

Prepare journal entries for the home office of Mountain Company on January 31, 2014, for the foregoing facts.

(Exercise 3.15)

The home office of Gerga Company bills its only branch at a markup of 25% above home office cost for all merchandise shipped to that Bardees Branch. Both the home office and the branch use the periodic inventory system. During 2014, the home office shipped merchandise to the branch at a billed price of L.E.30,000. Bardees Branch inventories for 2014 were as follows:

	Jan. 1	Dec. 31
Purchased from home office (at billed price)	15,000	19,500
Purchased from outsiders	6,800	8,670

Prepare journal entries (including adjusting entry) for the home office of Gerga Company for 2014 to reflect the foregoing information.
(Check Figure: Credit realized gross profit, L.E.5,100).

(Exercise 3.16)

On May 31, 2014, the unadjusted balances of the Investment in Toy Branch ledger account of the home office of Argentina Company and the Home Office account of the Toy Branch of Argentina Company were L.E.380,000 debit and L.E.140,000 credit, respectively.

Additional Information

1. On May 31, 2015, the home office had shipped merchandise to the branch at a billed price of L.E.280,000; the branch did not receive the shipment until June 3, 2014. Both the home office and the branch use the perpetual inventory system.
2. On May 31, 2014, the branch had sent a L.E.10,000 "dividend" to the home office, which did not receive the check until June 2, 2014.
3. On May 31, 2014, the home office had prepared the following journal entry, without notifying the branch:

Cash	50,000	
Investment in Toy Branch		50,000

To record collection of a trade account receivable of branch.

Prepare journal entries on May 31, 2014, for (*a*) the home office and (*b*) the Toy Branch of Argentina Company to reconcile the reciprocal ledger accounts.

Problems
(Problem 3.1)
Strongman, Inc., established Reno Branch on January 2, 2014. During 2014, Strongman's home office shipped merchandise to Reno Branch that cost L.E.300,000. Billings were made at prices marked up 20% above home office cost. Freight costs of L.E.15,000 were paid by the home office. Sales by the branch were L.E.450,000, and branch operating expenses were L.E.96,000, all for cash. On December 31, 2014, the branch took a physical inventory that showed merchandise on hand of L.E.72,000 at billed prices. Both the home office and the branch use the periodic inventory system.

Instructions
Prepare journal entries for Reno Branch and the home office of Strongman, Inc., to record the foregoing transactions and events, ending inventories, and adjusting and closing entries on December 31, 2014. (Allocate a proportional amount of freight costs to the ending inventories of the branch.)

(Problem 3.2)
Included in the accounting records of the home office and Solo Branch, respectively, of Logo Company were the following ledger accounts for the month of January 2014:

Investment in Solo Branch
(in Home Office Accounting Records)

Date	Explanation	Debit	Credit	Balance
2014				
Jan. 1	Balance			39,200dr
9	Shipment of merchandise	4,000		43,200dr
21	Receipt of cash		1,600	41,600dr
27	Collection of branch trade accounts receivable		1,100	40,500dr
31	Shipment of merchandise	6,000		46,500dr
31	Payment of branch trade accounts payable	2,000		48,500dr

Home Office (in Solo Branch Accounting Records)

Date	Explanation	Debit	Credit	Balance
2014				
Jan. 1	Balance			39,200cr
10	Receipt of merchandise		4,000	43,200cr
19	Remittance of cash	1,600		41,600cr
28	Acquisition of furniture	1,200		40,400cr
30	Return of merchandise	2,200		38,200cr
31	Remittance of cash	2,500		35,700cr

Instructions

a. Prepare a working paper to reconcile the reciprocal ledger accounts of Logo Company's home office and Solo Branch to the corrected balances on January 31, 2014.

b. Prepare journal entries on January 31, 2014, for the (1) home office and (2) Solo Branch of Logo Company to bring the accounting records up to date. Both the home office and the branch use the perpetual inventory system.

(Check Figure: Adjusted balances L.E.42,600.)

(Problem 3.3)

The home office of Grand Corporation operates a branch to which it bills merchandise at prices marked up 20% above home office cost. The branch obtains merchandise only from the home office and sells it at prices averaging mark-ups 10% above the prices billed by the home office. Both the home office and the branch maintain perpetual inventory records, and both close their accounting records on December 31.

On March 10, 2014, a fire at the branch destroyed a part of the inventories. Immediately after the fire, a physical inventory of merchandise on hand and not damaged amounted to L.E.16,500 at branch retail selling prices. On January 1, 2014, the inventories of the branch at billed prices had been L.E.18,000. Shipments from the home office during the period January 1 to March 10, 2014, were billed to the branch in the amount of L.E.57,600. The accounting records of the branch show that net sales during this period were L.E.44,880.

Instructions

Prepare journal entries on March 10, 2014, to record the uninsured loss from fire in the accounting records of (*a*) the branch and (*b*) the home office of Grand Company. Show supporting computations for all amounts. Assume that the loss was reported at billed prices by the branch to the home office and that it was recorded in the intracompany reciprocal ledger accounts.

(Check Figure: *a.* Debit loss from fire, L.E.19,800; *b.* Debit loss from fire, L.E.16,500.)

(Problem 3.4)

On December 31, 2014, the Investment in Lion Branch ledger account in the accounting records of the home office of Zoo Company shows a debit balance of L.E.55,500. You ascertain the following facts in analysing this account:

1. On December 13, 2014, merchandise billed at L.E.5,800 was in transit from the home office to the branch. The periodic inventory system is used by both the home office and the branch.
2. The branch had collected a home office trade account receivable of L.E.560 on December 30, 2014; the home office was not notified.
3. On December 29, 2014, the home office had mailed a check for L.E.2,000 to the branch, but the accountant for the home office had recorded the check as a debit to the Charitable Contributions ledger account; the branch had not received the check as of December 31, 2014.
4. Branch net income for December 2014 was recorded erroneously by the home office at L.E.840 instead of L.E.480 on December 31, 2014. The credit was recorded by the home office in the Income: Lion Branch ledger account.
5. On December 28, 2014, the branch had returned supplies costing L.E.220 to the home office; the home office had not recorded the receipt of the supplies. The home office records acquisitions of supplies in the Inventory of Supplies ledger account.

Instructions

a. Assuming that all other transactions and events have been recorded properly, prepare a working paper to compute the unadjusted balance of the Home Office ledger account in the accounting records of Zoo Company's Lion Branch on December 31, 2014.

b. Prepare journal entries for the home office of Zoo Company on December 31, 2014, to bring its accounting records up to date. Closing entries have not been made.

c. Prepare journal entries for Lion Branch of Zoo Company on December 31, 2014, to bring its accounting records up to date.

d. Prepare a reconciliation on December 31, 2014, of the Investment in Lion branch ledger account in the accounting records of the home office and the Home Office account in the accounting records of Lion Branch of Zoo Company. Use a single column for each account and start with the unadjusted balances.

(Check Figures: *a.* Unadjusted balance, L.E.49,680; *d.* Adjusted Balance, L.E.57,480.)

(Problem 3.5)

Luxor Company's home office bills shipments of merchandise to its Savoy Branch at 140% of home office cost. During the first year after the branch was opened, the following were among the transactions and events completed:

1. The home office shipped merchandise with a home office cost of L.E.110,000 to Savoy Branch.
2. Savoy Branch sold for L.E.80,000 cash merchandise that was billed by the home office at L.E.70,000 and incurred operating expenses of L.E.16,500 (all paid in cash).
3. The physical inventories taken by Savoy Branch at the end of the first year were L.E.82,460 at billed prices from the home office.

Instructions

a. Assuming that the perpetual inventory system is used both by the home office and by Savoy Branch, prepare for the first year:

(1) All journal entries, including closing entries, in the accounting records of Savoy Branch of Luxor Company.

(2) All journal entries, including the adjustment of the Inventories Overvaluation account, in the accounting records of the home office of Luxor Company.

b. Assuming that the periodic inventory system is used both by the home office and by Savoy Branch, prepare for the first year:

(1) All journal entries, including closing entries, in the accounting records of Savoy Branch of Luxor Company.

(2) All journal entries, including the adjustment of the Inventories Overvaluation account, in the accounting records of the home office of Luxor Company.

(Problem 3.6)

You are making an audit for the year ended December 31, 2014, of the financial statements of Marina Company, which carries on merchandise operations at both a home office and branch. The unadjusted trial balances of the home office and the branch are shown below:

MARINA COMPANY Unadjusted Trial Balances December 31, 2014		
	Home Office Dr (Cr)	**Branch Dr (Cr)**
Cash L.E.	22,000	10,175
Inventories, Jan. 1, 2014	23,000	11,550
Investment in branch	60,000	
Allowance for overvaluation of branch inventories, Jan. 1, 2014	(1,000)	
Other assets (net)	197,000	48,450
Current liabilities	(35,000)	(8,500)
Common stock, L.E.2.50 par	(200,000)	
Retained earnings, Jan. 1, 2014	(34,000)	
Dividends declared	15,000	
Home office		(51,000)
Sales	(169,000)	(144,700)
Purchases	190,000	
Shipments to branch	(110,000)	
Shipments from home office		104,500
Freight-in from home office		5,225
Operating expenses	42,000	24,300
Totals	-0000-	-0000-

The audit for the year ended December 31, 2014, disclosed the following:

1. The branch deposits all cash receipts in a local bank for the account of the home office. The audit working papers for the cash cutoff include the following:

Amount	Date Deposited By Branch	Date recorded By Home Office
L.E.1,050	Dec. 27, 2014	Dec. 31, 2014
1,100	Dec. 30, 2014	Not recorded
600	Dec. 31, 2014	Not recorded
300	Jan. 2, 2015	Not recorded

2. The branch pays operating expenses incurred locally from an imprest cash account that is maintained with a balance of L.E.2,000. Checks are drawn once a week on the imprest cash account, and the home office is

notified of the amount needed to replenish the account. On December 31, 2014, a L.E.1,800 reimbursement check was in transit from the home office to the branch.

3. The branch received all its merchandise from the home office. The home office bills the merchandise shipments at a mark-up of 10% above home office cost. On December 31, 2014, a shipment with a billed price of L.E.5,500 was in transit to the branch. Freight costs of common carriers typically are 5% of billed price. Freight costs are considered to be inventoriable costs. Both the home office and the branch use the periodic inventory system.
4. Beginning inventories in the trial balance are shown at the respective costs to the home office and to the branch. The physical inventories on December 31, 2014, were as follows:

Home office, at cost	L.E.30,000
Branch, at billed price (excluding Shipment in transit and freight)	9,900

Instructions

a. Prepare journal entries to adjust the accounting records of the home office of Marina Company on December 31, 2014.

b. Prepare journal entries to adjust the accounting records of Marina Company's branch on December 31, 2014.

c. Prepare a working paper for combined financial statements of Marina Company. Compute the amounts in the adjusted trial balances for the home office and the branch by incorporating the journal entries in *(a)* and *(b)* with the amounts in the unadjusted trial balances.
(**Check Figure**: *c.* Combined net income, L.E.63,120.)

(Problem 3.7)

On January 4, 2014, Solo Company opened its first branch, with instructions to the branch manager to perform the functions of granting credit, billing customers, accounting for receivables, and making cash collections. The branch paid its operating expenses by checks drawn on its bank account. The branch obtained merchandise solely from the home office; billings from these shipments ***were at cost to the home office.*** The adjusted trial balances for the home office and the branch on December 31, 2014, were as follows:

SOLO COMPANY Adjusted Trial Balances December 31, 2014		
	Home Office Dr (Cr)	Branch Dr (Cr)
Cash L.E.	46,000	14,600
Notes receivable	7,000	
Trade accounts receivable (net)	80,400	37,300
Inventories, Jan. 1, 2014	95,800	24,200
Investment in branch	82,700	
Furniture and equipment (net)	48,100	
Trade accounts payable	(41,000)	
Common stock, L.E.2 par	(200,000)	
Retained earnings, Dec. 31,	(25,000)	
2013 Dividends declared	30,000	
Home office		(82,700)
Sales	(394,000)	(101,100)
Cost of goods sold	200,500	85,800
Operating expenses	69,500	21,900
Totals	-0000-	-0000-

The physical inventories on December 31, 2014, were in agreement with the perpetual inventory records of the home office and the branch.

Instructions

a. Prepare a four-column working paper for combined financial statements of the home office and branch of Solo Company for the year ended December 31, 2014.

b. Prepare closing entries on December 31, 2014, in the accounting records of the branch of Solo Company.

c. Prepare adjusting and closing entries pertaining to branch operations on December 31, 2014, in the accounting records of the home office of Solo Company.

(Check Figure: *a.* Combined net income, L.E.117,400.)

(Problem 3.8)

The unadjusted general ledger trial balances on December 31, 2014, for Sinai Cola Corporation's home office and its only branch are shown below:

SINAI COLA COMPANY Unadjusted Trial Balances December 31, 2014		
	Home Office Dr (Cr)	**Branch Dr (Cr)**
Cash L.E.	28,000	23,000
Trade accounts receivable (net)	35,000	12,000
Inventories, Jan. 1, 2014 (at cost to home office)	70,000	15,000
Investment in branch	30,000	
Equipment (net)	90,000	
Trade accounts payable	(46,000)	(13,500)
Accrued liabilities	(14,000)	(2,500)
Home office		(19,000)
Common stock, L.E.10 par	(50,000)	
Retained earnings, Jan. 1, 2014	(48,000)	
Dividends declared	10,000	
Sales	(450,000)	(100,000)
Purchases	290,000	24,000
Shipments from home office		45,000
Operating expenses	55,000	16,000
Totals	-0000-	-0000-

Your audit disclosed the following:

1. On December 10, 2014, the branch manager acquired equipment for L.E.500, but failed to notify the home office. The branch accountant, knowing that branch equipment is carried in the home office ledger, recorded the proper journal entry in the branch accounting records. It is Sinai Cola's policy not to recognise depreciation on equipment acquired in the last half of a year.
2. On December 27, 2014, Moro, Inc., a customer of the branch, erroneously paid its account of L.E.2,000 to the home office. The accountant made the correct journal entry in the home office accounting records but did not notify the branch.
3. On December 30, 2014, the branch remitted to the home office cash of L.E.5,000, which had not been received by the home office as of December 31, 2014.
4. On December 31, 2014, the branch accountant erroneously recorded the December allocated expenses from the home office as L.E.500 instead of L.E.5,000.

5. On December 31, 2014, the home office shipped merchandise billed at L.E.3,000 to the branch; the shipment had not received by the branch as of December 31, 2014.
6. The inventories on December 31, 2014, excluding the shipment in transit, were: home office-L.E.60,000 (at cost); branch-L.E.20,000 (consisting of L.E.18,000 from home office at billed price and L.E.2,000 from suppliers). Both the home office and the branch use the periodic inventory system.
7. The home office erroneously billed shipments to the branch at a markup of 20% above home office cost, although the billing should have been at cost. The Sales ledger account was credited for the invoices' price by the home office.

Instructions

a. Prepare journal entries for the home office of Sinai Cola Company on December 31, 2014, to bring the accounting records up to date and to correct any errors. Record ending inventories by an offsetting credit to the Income Summary ledger account. Do not prepare other closing entries.

b. Prepare journal entries for the branch of Sinai Cola Company on December 31, 2014, to bring the accounting records up to date and to correct any errors. Record ending inventories at cost to the home office by an offsetting credit to the Income Summary ledger account. Do not prepare other closing entries.

c. Prepare a working paper to summarize the operations of Sinai Company for the year ended December 31, 2014. Disregard income taxes and use the following column headings:

Revenue & Expenses	**Home Office**	**Branch**	**Combined**

(Check Figure: *c.* Combined net income, L.E.107,000.)

(Problem 3.9)

The following reciprocal ledger accounts were included in the accounting records of the home office and the Senzo Branch of Spinneys Company on April 30, 2014. you have been retained by Spinneys to assist it with some accounting work preliminary to the preparation of financial statements for the quarter ended April 30, 2014.

Investment in Senzo Branch

Date	Explanation	Debit	Credit	Balance
2014				
Feb. 1	Balance			124,630dr
6	Shipment of merchandise 160 units @ L.E.49	7,840		132,470dr
17	Note receivable collected by branch	2,500		134,700dr
Mar. 31	Cash deposited by branch		2,000	132,970dr
Apr. 2	Merchandise returned by branch		450	132,520dr
26	Loss on disposal of branch equipment	780		133,300dr
28	Operating expenses charged to branch	1,200		134,500dr
29	Corrected loss on disposal of branch equipment from L.E.780 to L.E.250		530	133,970dr

Home Office

Date	Explanation	Debit	Credit	Balance
2014				
Feb. 1	Balance			124,620cr
8	Merchandise from home office, 160 units @ L.E.49		7,480	132,110cr
14	Received shipment directly from supplier, invoice to be paid by home office		2,750	134,860cr
15	Note receivable collected for home office		2,500	137,360cr
Mar30	Deposited cash in account of home office	2,000		135,360cr
31	Returned merchandise to home office	450		134,910cr
Apr 29	Paid repair bill for home office	375		134,535cr
30	Excess merchandise returned to home office (billed at cost)	5,205		129,330cr
30	Preliminary net income for quarter (before any required corrections)		13,710	143,040cr

Additional Information

1. Branch equipment is carried in the accounting records of the home office; the home office notifies the branch periodically as to the amount of depreciation applicable to equipment used by the branch. Gains or loss on disposal of branch equipment are reported to the branch and included in the income statement of the branch.

2. Because of the error in recording the shipment from the home office on February 8, 2014, the sale of the 160 units has been debited improperly by the branch to cost of goods sold at L.46.75 a unit.
3. On April 30, 2014, the branch collected trade accounts receivable of L.E.350 belonging to the home office, but the branch employee who recorded the collection mistakenly treated the trade accounts receivable as belonging to the branch.
4. The branch accountant recorded the preliminary net income of L.E.13,710 by a debit to Income Summary and a credit to Home Office, although the revenue and expense ledger accounts had not been closed.

Instructions

a. Reconcile the reciprocal ledger accounts of the home office and Senzo Branch of Spinneys Company to the correct balances on April 30, 2014. Use a four-column working paper (debit and credit columns for the Investment in Senzo Branch account in the home office accounting records and a debit and credit columns for the Home Office account in the branch accounting records). Start with the unadjusted balances on April 30, 2014, and work to corrected balances, including explanations of all adjusting or correcting items.

b. Prepare journal entries for Senzo Branch of Spinneys Company on April 30, 2014, to bring its accounting records up to date, assuming that corrections still may be made to revenue and expense ledger accounts. The branch uses the perpetual inventory system. Do not prepare closing entries.

c. Prepare journal entries for the home office of Spinneys Company on April 30, 2014, to bring its accounting records up to date. The home office uses the perpetual inventory system and has not prepared closing entries. Do not prepare closing entries.

(Check Figure: *b.* Adjusted balances, L.E.143,390.)

(Problem 3.10)

Stars, a single proprietorship owned by Egyptians, sells merchandise at both its home office and a branch. The home office bills merchandise shipped to the branch at 125% of home office cost and is the only supplier for the branch. Shipments of merchandise to the branch have been recorded improperly by the home office by credits to Sales for the billed price. Both the home office and the branch use the perpetual inventory system.

Stars has engaged you to audit its financial statements for the year ended December 31, 2014. This is the first time the proprietorship has retained an independent accountant. You were provided with the following unadjusted trial balances.

STARS Unadjusted Trial Balances December 31, 2014		
	Home Office Dr (Cr)	**Branch Dr (Cr)**
Cash L.E.	31,000	13,000
Trade accounts receivable (net)	20,000	22,000
Inventories	40,000	8,000
Investment in branch	45,000	
Equipment (net)	150,000	
Trade accounts payable	(23,000)	
Accrued liabilities		(2,000)
Note payable, due 2017	(51,000)	
Home office		(10,000)
Egyptians, capital, Jan. 1, 2014	(192,000)	
Egyptians drawing	50,000	
Sales	(390,000)	(160,000)
Purchases	250,000	93,000
Operating expenses	70,000	36,000
Totals	-0000-	-0000-

Additional Information

1. On January 1, 2014, inventories of the home office amounted to L.E.25,000 and inventories of the branch amounted to L.E.6,000. During 2014, the branch was billed for L.E.105,000 for shipments from the home office.
2. On December 28, 2014, the home office billed the branch for L.E.12,000, representing the branch's share of operating expenses paid by the home office. This billing had not been recorded by the branch.

3. All cash collections made by the branch were deposited in a local bank to the bank account of the home office. Deposits of this nature included in the following:

Amount	Date Deposited by Branch	Date recorded By Home Office
L.E.5,000	Dec. 28, 2014	Dec. 31, 2014
3,000	Dec. 30, 2014	Not recorded
7,000	Dec. 31, 2014	Not recorded
2,000	Jan. 2, 2015	Not recorded

4. Operating expenses incurred by the branch were paid from an imprest bank account that was reimbursed periodically by the home office. On December 30, 2014, the home office had mailed a reimbursement check in the amount of L.E.3,000, which had not been received by the branch as of December 31, 2014.
5. A shipment of merchandise from the home office to the branch was in transit on December 31, 2014.

Instructions

a. Prepare journal entries to adjust the accounting records of home office on December 31, 2014. Establish an allowance for overvaluation of branch inventories.

b. Prepare journal entries to adjust the accounting records the branch on December 31, 2014.

c. Prepare a working paper for combined financial statements of Stars on December 31, 2014. Compute the amounts for the adjusted trial balances for the home office and the branch by incorporating the journal entries in *(a)* and *(b)* with the amounts in the unadjusted trial balances.

d. After the working paper in *(c)* is completed, prepare all required adjusting and closing entries on December 31, in the accounting records of Stars' home office.

(Check Figure: *c.* Combined net income, L.E.86,600.)

Chapter 4: Departmental Accounts

4.1 Introduction:

In the real world, a business may have a number of **Departments** each dealing in a different type of goods. for instance, one department may be dealing in furniture, the other may be dealing in textile, still another may be dealing in gifts and so on. Hence and in order to determine the net profit or loss made by each Department, it will be advisable to prepare separately *Trading and Profit & Loss Account* of each Department at the end of the accounting year. To a great extent, preparation of such Departmental Accounts is helpful to the business regarding the following respects:

(1) It enables the business to compare the performance of one Department with that of another.

(2) It helps the business in formulating proper policies relating to the expansion of the business. Accordingly, new profitable lines of production or trading can be taken up while the existing lines of production or trading which are giving a loss can be closed down.

(3) It helps in appropriate rewarding or penalising the Departmental employees on the basis of the results implemented by them.

4.2 Maintenance of Columnar Subsidiary Books:

Practically, the preparation of *Departmental Trading and Profit & Loss Account* requires maintenance of proper subsidiary books having appropriate columns for different departments. For example, if an enterprise has three department, namely ***A, B and C***, the subsidiary books such as Purchase Book, Purchase Returns Book, Sales Book, Sales Returns Book, etc, should have separate columns for each of the departments. Cash book may also have columns for recording cash sales of each of the departments separately in case the volume of cash sales is quite large. The pro forma of a Purchases Book having columns for different Departments is shown below:

Purchase Book

Date	Particulars	Dept. A	Dept. B	Dept. C

The same design of rulings can be followed in case of other subsidiary books also.

4.3 Departmentalization of Expenses:

Logically and in order to ascertain the net profit or loss made by each department, it is necessary that each department is charged with a proper share of the various business expenses. The following basis may be adopted for departmentalization of such expenses:

1- Expenses incurred specifically for a particular department should be directly charged to that department. For instance, salaries payable to each of the departmental managers will be charged to the respective departments. Similarly, if there are separate electricity meters for each of the departments, the electricity expenses should be charged to each of the departments on the basis of the electricity bills received for each one of them.

2- Expenses which have been incurred for the business as a whole but capable of being apportioned over different departments on a suitable basis should be charged to the different departments, on such basis. Of course, there are no hard and fast rules as regards the basis to be applies for apportionment of such expenses. Nevertheless, the following basis for apportionment may be adopted: (*a)* **Departmental wages.** Expenses which directly vary with the departmental wages can be apportioned on this basis. For example, premium for work persons' compensation, insurance, etc may be apportioned on this basis.

*(b)***Capital value of the assets.** Expenses such as depreciation of buildings, plants and machinery, fire insurance premiums regarding this assets etc, may be apportioned on this basis.

(c) **Floor area**. Expenses such as lighting (unless metered separately), rent and rates, wages of night watchmen etc, may be apportioned on this basis.

(d) **Number of workers employed**. Expenses of workers' canteen, welfare, personnel and time keeping departments etc, may be apportioned on this basis.

(e) **Production hours of direct labour**. Works manager's remuneration, general over-time expenses, cost of inter-departmental transport should be charged to the various departments in the ratio which the Departmental Direct Labour Hours bear to the Total Factory Direct Labour Hours.

*(f)***Technical estimate**. Advice of the technical personnel may also be useful for the apportionment of certain expenses. For example, the cost of the central conditioning consumed by a particular department, may be estimated on the basis of the engineer's estimate.

3- Expenses which cannot be allocated or apportioned over different departments in a reasonable manner, should be charged to the total profit of all the departments taken together. For this purpose, the

profit shown by the different departments should be brought down in one account which will be termed as the General Profit & Loss Account and all such expenses should be charged there. General Manager's salary, Directors' fees, Auditors' remuneration, financial interest etc. are some of the expenses which fall in this category.

4.4 Types of Problems:

The common problems relating to departmental accounts can be put in the following categories:

(1) Problems relating to Departmentalization of Expenses.
(2) Problems relating to Computation of Departmental Costs.
(3) Problems relating to Inter-departmental Transfers:
(a) When such transfers are at cost.
(b) When such transfers are at a price higher than the cost.

In the following pages, practical illustrations will be given in respect of each of these types of problems.

(1) Departmentalization of Expenses:

Illustration 4.1:

Elmasrya Auto Garage have three departments: Cars and Trucks, Two wheelers, and Servicing. The former two sell spare parts and occupy a godown-showroom. The servicing department uses a garage and additional site.

The following particular ended are extracted from the books of the business for the year ended 31st of December 2014, from which you are required to prepare:

(a) A departmental Trading and Profit and Loss Account.
(b) A general Profit and Loss Account, and
(c) A Balance Sheet.

	L.E.
Stock 1/1/014	
Cars and Trucks	100,000
Two-wheelers	27,500
Purchases:	
Cars and Trucks	350,000
Two-Wheelers	110,000
Sales:	
Cars and Trucks	600,000
Two-Wheelers	300,000
Servicing	100,000
Wages of counter-salespersons	
Cars and Trucks	30,000
Two-wheelers	12,000
Wages of garage labour	10,800
Office salaries and wages	12,000

Godown and showroom rent	24,000
Land and Garage Building	272,000
Office Expenses	36,000
Garage Equipment	100,000
Showroom Furniture	70,000
Office Van	24,000
Sundry Debtors	12,000
Sundry Creditors	60,000
Bank Overdraft	17,200
Power and Lighting	36,000
Bank Interest	1,000
Cash in hand	900
Drawings A/c	12,000
Proprietor's Capital Account	163,000

The following further information is also available:

(1) Included in "Land and Garage Building" is cost of site used by the servicing department L.E.200,000.

(2) Closing stock on 31/12/2014 at the departments: Cars and Trucks L.E.90,000. Two-wheelers L.E.32,500.

(3) 50% of power and lighting is to be charged to servicing Department, the balance equally to the other departments.

(4) Rates for depreciation are: Building 5%; Garage Equipment 15%; Showroom furniture 10% and Office Van 20%.

(5) Outstanding expenses were: Interest L.E.150 and Office expenses L.E.2,000.

(6) Interest and all expenses relating to the office are to considered common and charged to the General Profit and Loss A/c.

(7) The departments using the showroom share the space and furniture equally.

Solution:

Elmasrya Auto Garage
Departmental Trading and Profit and Loss Account
For the Year ending December 31st, 2014

Particulars	Cars & Trucks L.E.	Two Wheelers L.E.	Servicing L.E.	Particulars	Cars & Trucks L.E.	Two Wheelers L.E.	Servicing L.E.
Opening stock	100000	27500		Sales	600000	300000	100000
Purchases	350000	110000		Closing			
Wages	30000	12000	10800	Stock	90000	32500	
Gross Profit c/d	210000	183000	89200				
Totals	690000	332500	100000	*Totals*	690000	332500	100000
Godown & Showroom Rent	12000	12000		Gross Profit b/d	210000	183000	89200
Power & Lighting	9000	9000	18000				
Depreciation:							
Building			3600				
Garage Equipment			15000				
Furniture	3500	3500					
Net Profit c/d	185500	158500	52600				
Totals	210000	183000	89200	*Totals*	210000	183000	89200

General Profit & Loss Account
For the Year ending December 31st, 2014

Office Salaries & Wages	12000	Profit b/d:	
Office Expenses 36000		Cars & Truck Dept.	185500
Outstanding 2000	38000	Two wheelers Dept.	158500
Depreciation on Van	4800	Servicing Dept.	52600
Bank interest 1000			
Outstanding 150	1150		
Net Profit	340650		
Totals	396600	*Totals*	396600

Balance Sheet

Assets		As at December 31st, 2014	Liabilities	

Assets		Liabilities	
Current Assets:		Bank Overdraft	17200
Cash-in-Hand	900	Outstanding Expenses:	
sundry Debtors	12000	Interest 150	
Stock in trade:		Office Expenses 2000	2150
Cars & Trucks 90000		Sundry Creditors	60000
Two Wheelers 32500	122500	Capital 163000	
Fixed Assets:		Net Profit 340650	
Land	200000	503650	
Garage Building 72000		Less: Drawings 12000	491650
Less: Depreciation 3600	68400		
Garage Equip. 100000			
Less: Depreciation 15000	85000		
Show Room			
Furniture 70000			
Less: Depreciation 7000	63000		
Office Van 24000			
Less: Depreciation 4800	19200		
Totals	571000	*Totals*	571000

(2) Computation Departmental Costs:

Illustration 4.2:

The following purchases were made by a business entity having three departments:

Department A 1,000 units, B 2,000 units, and C 2,000 units; all at a total cost of L.E.100,000.

Stock on 1st of January were: Department A 120 units, Department B 80 units and department C 152 units. The sales were: Department A 1,020 units at L.E.20 each. Department B 1,920 units at L.E.22.50 each. Department C 2,496 units at L.E.25 each.

The rate of gross profit is the same in each case. Prepare Departmental Trading Account.

Solution:

In order to determine the rate of Gross Profit, it is assumed that all units purchased have been sold away.

Sales: Dept. A 1,000 units × L.E.20 = L.E. 20,000
Dept. B 2,000 units × L.E.22.50 = L.E. 45,000
Dept. C 2,400 units × L.E.26 = L.E. 60,000
Total Sales L.E. 125,000
Less Cost of Purchases 100,000
Gross Profit 25,000

Gross Profit as a percentage =
25000/125000 × 100 = 20%

Cost Price of units purchased for each department can now be ascertained as follows:

	Selling Price	Gross Profit	Cost
Dept. A	L.E.20	L.E.4	L.E.16
Dept. B	22.50	4.50	18
Dept. C	25	5	20

Units of closing sock = Opening stock + Purchases - Sales

Dept. A	120	+ 1000	- 1020 =100
Dept. B	80	+ 2000	- 1920 =160
Dept. C	152	+ 2400	- 2496 = 56

Departmental Trading Account can now be prepared as follows:

Departmental Trading Account

Particulars	Dept A	Dept B	Dept C	Particulars	Dept A	Dept B	Dept C
Opening stock	1920	1440	3040	Sales	20400	43200	62400
Purchases	16000	36000	48000	Closing stock	1600	2880	1120
Gross Profit	4080	8640	12480				
Totals	22000	46080	63520	*Totals*	22000	46080	63520

Illustration 4.3:

Adam sells two products manufactured in his own factory. The goods are made in two Departments, A and B for which separate sets of accounts are kept. Some of the manufactured goods of Department A are used as Raw Material by Department B and *vice versa.*

From the following data, you are required to ascertain the total cost of goods manufactured in Department A and B.

Particulars	**Dept. A**	**Dept. B**
Total units manufactured	1000000	500000
Total cost of manufacture (excluding inter-departmental transfers)	10000	5000

Department A transferred 250000 units to Department B and the latter transferred 100000 units to the former.

Solution:

Suppose *a* is the total cost of department A and *b* is the total cost of department B.

a = L.E.10000 + 1/5 b

b = L.E.5000 + ¼ a

or a = L.E.10000 + 1/5 (5000 + ¼ a)

a = L.E.10000 + 1000 + 1/20 a

a = L.E.11000 + 1/20 a

or 20 a = L.E.220000 + a

or 19 a = 220000 or a = L.E.11579

Now b = L.E.5000 + ¼ a

= L.E.5000 + ¼ × L.E.11579

= L.E.5000 + 2895 = L.E.7895.

Total Cost of Goods Manufactured

Particulars	**Dept. A L.E.**	**Dept. B L.E.**
Cost as determined above	11579	7895
Less: Transfer to department (¼ and 1/5)	2895	1579
	8684	6316

(3) Inter-Departmental Transfers:

Actually, transfers of goods or services may take place from one department to another. While preparing the Departmental Trading and Profit and Loss Account, the department receiving the goods or services should be debited with the value of the goods or services so supplied and department providing such goods or services should be credited with the same amount.

The transfer of goods from one department to another is usually at cost. However, if such transfer is at a profit, the profit or loss of each department should be ascertained on the basis of the transfer price itself. Nevertheless, if the goods transferred by one department to another at a profit, still remain unsold with the transferee department, an appropriate reserve for unrealized profit will have to be created by means of the following journal entry.

General Profit & Loss Account Dr

To Stock Reserve Account Cr

In case the transferee department has also some stock in the beginning of the accounting year, including some unrealized profit, against which stock reserve was created last year, such reserve will also be transferred to the General Profit & Loss Account by preparing the following journal entry.

Stock Reserve Account Dr
To General Profit & Loss Account Cr

Alternatively, a single journal entry may be prepared for the unrealized profit on the basis of the difference between unrealized profit included in the opening and closing stocks. This will be clear with the help of the following detailed illustration.

Illustration 4.4:

From the following Trial Balance, you are required to prepare Departmental Trading and Profit and Loss Account for the year ending 31st December 2014 and the Balance Sheet as at that date.

		L.E.
Stock Jan. 1	A Department	1700000
	B Department	1450000
Purchases	A Department	3540000
	B Department	3020000
Sales	A Department	6080000
	B Department	5125000
Wages	A Department	820000
	B Department	270000
Rent, Rates, Taxes and Insurance		939000
Sundry Expenses		360000
Salaries		300000
Lighting and Heating		210000
Discount allowed		222000
Discount received		65000
Advertising		368000
Carriage Inward		234000
Furniture and Fittings		300000
Machinery		2100000
Sundry Debtors		606000
Sundry Creditors		1860000
Capital Account		4766000
Drawings		450000
Cash at Bank		1007000

The following additional information is also available:

1- Internal transfer of goods from A to B Department L.E.42,000.

2- The items Rent, Rates and Taxes and insurance, Sundry Expenses, Lighting and Heating, Salaries and carriage are to be apportioned 2/3rd to A Department and 1/3rd to B Department.

3- Advertising is to apportioned equally.

4- Discount allowed and received are to be apportioned on the basis of Departmental Sales and Purchases (excluding Transfers).
5- Depreciation at 10 per cent annually on Furniture and Fittings and on Machinery is to charged 3/4th to A Department and 1/4th to B Department.
6- Services rendered by B Department to A Department are included in its wages L.E.50,000.
7- Stock on 31st of December 2014 in A Department was worth L.E.1,674,000 and in B Department was worth L.E.1,205,000.

Solution:

Departmental Trading & Profit & Loss Account
For the year ending 31st December 2014

Particulars	Dept A	Dept B	Particulars	Dept A	Dept B
Opening stock	1700000	1450000	Sales	6080000	5125000
Purchases	3540000	3020000	Transfers	42000	50000
Wages	820000	270000	Closing stock	1674000	1205000
Transfer	50000	42000			
Carriage inward	156000	78000			
Gross Profit	1530000	1520000			
Totals	7796000	6380000	*Totals*	7796000	6380000
Salaries	200000	100000	Gross Profit	1530000	1520000
Rent, Rates, Taxes & Insurance	625000	313000	Discount Received	35000	30000
Sundry expenses Lighting,	240000	120000	Net Loss	126000	------
Heating	140000	70000			
Advertising	184000	184000			
Depreciation:					
Machinery	158000	52000			
Furniture	22000	8000			
Discount All.	121000	101000			
Net Profit	------	602000			
Totals	1691000	1550000	*Totals*	1691000	1550000

Balance Sheet
As on 31st December 2014

Assets	*L.E.*	*Liabilities*	*L.E.*
Machinery 2100000		Capital 4766000	
Less: Dep. 210000	1890000	(+): Profit 476000	
Furniture 300000		5242000	
Less: Dep. 30000	270000	(-) Drawings 450000	4792000
Stock in trade	2879000	Sundry Creditors	1860000
Sundry Debtors	606000		
Cash at Bank	1007000		
Totals	6652000	*Totals*	6652000

Illustration 4.5:

Peace Hotel prepares separate Departmental Profit and Loss Accounts. The nature of their operations requires frequent supply of articles/services from one department to another. The Hotel consisted of three departments: Apartments, Boarding and Restaurant. It had been decided that the Apartments Department will charge, for service supplied to other departments the cost thereof plus 10% thereon. The same, Boarding Department was to charge the other departments cost plus 20% thereof in respect of supplies to them. The Restaurant Department supplies to the other departments were charged at the prevailing rates applicable to outsiders. The Accounts for the year ended on December 31, 2014 had been closed without taking into account interdepartmental debits and credits. From the following figures, you are required to show the net variation in the Departmental Profit & Loss Accounts as a result of such adjustments.

(1) Cost of Apartments services extended to:	L.E.
Boarding Staff	8400
Restaurant	4500
(2) Cost of supplies made by Boarding Department to:	
Apartments Staff	29800
Restaurant Staff	5400
(3) Values of supplies made by the Restaurant to:	
Apartments Staff	400
Boarding Staff	5600

Additionally, the following are the charges to be made for Inter-change of staff from one department to another for temporary periods during the year:

Boarding staff lent to Apartments Dept	4400
Apartments staff lent to Boarding Dept	1100

Solution:

Profit and Loss (Adjustment) Account

Particulars	A	B	R	Particulars	A	B.	R
Rent of Apartments	-----	9240	4950	Apartment rents from: B 9240 R 4950	14190	-----	------
Boarding Charges	35760	------	6480	Boarding charges from: A 35760 R 6480	----	42240	------
Restaurant Expenses	400	5600	-----	Restaurant sales: A 400 B 5600	-----	-----	6000
Charge in respect of staff borrowed	4400	1100	-----	Recoveries in respect of staff lent	1100	4400	------
Increase of dept profit or decrease in dept loss	-----	30700	-----	Decrease in dept profit or increase in dept loss	25270	------	5430
Totals	*40560*	*46640*	*11430*	*Totals*	*40560*	*46640*	*11430*

Notes: 10% has been added to costs of Apartments services to find out transfer price to Boarding and Restaurant. 20% has been added to costs of Boarding Department to find out transfer price for Apartment and Restaurant.

Illustration 4.6:

From the following balances extracted from the books of an enterprise, prepare Departmental Trading Account and General Profit and Loss Account for the year ended December 31st, 2014 and a Balance Sheet as on that date after adjusting the unrealized departmental profits if any.

Particulars	Dr. L.E.	Cr. L.E.
1. Capital		300000
2. Land and Building	125000	
3. Furniture	25000	
4. Opening Stock Dept A	30000	
Dept B	40000	
5. Purchases Dept A	1000000	
Dept B	1500000	
6. Sales Dept A		2000000
Dept B		3200000
7. General Expenses	1400000	
8. Sundry Debtors	200000	
9. Sundry Creditors	---------	100000
10. Drawings	280000	
11. Cash and Bank	1000000	
Totals	*5600000*	*5600000*

Additional Information:

1- Closing Stock of Dept. A L.E.130000 including goods from Dept. B L.E.40000 at cost to Dept. A. Dept. B L.E.260000 including goods from Dept. A L.E.90000 at cost to Dept. B.

2- Sales of Dept. A includes transfer of goods to Dept. B of the value of L.E.200000 and sales of Dept. B includes transfer of goods to Dept. A of the value of L.E.300000, both at market price to transferor Dept.

3- Opening Stock of Dept. A and Dept. B includes goods of the value of L.E.10000 and L.E.15000 taken from Dept. B and Dept A respectively at cost to transferor Depts.

4- Depreciate land and building by 5% and furniture by 10% annually.

<u>Solution:</u>

Departmental Trading account and General Profit and Loss Account

For the year ended 31/12/2014

Particulars	Dept A	Dept B	Total	Particulars	Dept A	Dept B	Total
Opening Stock	30000	40000	70000	Sales	1800000	2900000	4700000
Purchases*	700000	1300000	2000000	Transfers	200000	300000	-------
Transfers	300000	200000	-------	Closing Stock	130000	260000	390000
Gross Profit	1100000	1920000	3020000				
Totals	*2130000*	*3460000*	*5090000*	*Totals*	*2130000*	*3460000*	*5090000*
General Expenses			1400000	Gross Profit: Dept A		1100000	
Depreciation:				Dept B		1920000	3020000
Building		6250					
Furniture		2500	8750				
Reserve on Closing Stock: **			73500				
Transfers From: A		49500					
From: B		24000					
Net Profit			1537750				
Totals			*3020000*				*3020000*

*Excluding inter-department transfers.

**Since inter-department transfers in opening stocks are at costs, no stock reserve for opening stock has been created.

Note: The unrealized profit on inter-department transfers determined as follows:

Transfers included in Closing Stock × Gross Profit/Sales + Transfers

Dept. A = 40000 × 1920000/3200000 = 24000

Dept. B = 90000 × 1100000/2000000 = 49500

Balance Sheet
As at 31st December 2014

Land & Buildings	125000		Capital:		
Less: Dep.	6250	118750	Balance	300000	
Furniture	25000		Add: Profit	1537750	
Less: Dep.	2500	22500		1837750	
Stock	390000		Less: Drawings	280000	1557750
Less: Stock Reserve	73500	316500	Sundry Creditors		100000
Sundry Debtors		200000			
Cash and Bank		1000000			
Total		*1657750*	*Totals*		*1657750*

Illustration 4.7:

An Enterprise has a factory which includes two manufacturing Departments *X* and *Y*. Part of the output of X Department is transferred to Y Department for further processing and the balance is directly transferred to the Selling Department. The entire production of Y Department is transferred to the Selling Department. Inter-departmental stock transfers are made as follows:

X Department to Y Department of 33⅓% over-departmental cost.
X Department to Selling Department of 50% over departmental cost.
Y Department to Selling Department of 25% over departmental cost.

The following information is given for the year ending 31st December 2014.

Particulars	Dept. X		Dept. Y		Selling Dept.	
	MT	L.E.	MT	L.E.	MT	L.E.
Opening Stock	60	60000	20	40000	50	145000
Raw Material Consumption	90	100000	20	20000	--	--
Labor Charges	--	50000	--	80000	--	500000
Sales	--	---	--	--		--
Closing Stock	30	---	50	--	60	

Out of the total production in X Department 30 MT were for transfer to the Selling Department. Apart from these stocks which were transferred during the year, the balance output and the entire opening and closing stocks of X Department were for transfer to Y Department. The per tone material and labor consumption in X Department on production to be transferred directly to the selling Department is 300% of the labor and material consumption on production meant for Y Department.

Required: Prepare Departmental Trading and Profit and Loss Account and General Profit and Loss Account; ignoring material wastages.

Solution:

Departmental Trading and Profit And Loss Account

	Dept. X		Dept. Y		Selling Dept.			Dept. X		Dept. Y		Selling Dept.	
	Qty	L.E.	Qty	L.E.	Qty	L.E.		Qty	L.E.	Qty	L.E.	Qty	L.E.
Opening Stock*	60	60000	20	40000	50	145000	Sales	120	255000*	80	200000	100	500000
Raw Material Consumed	90	100000	20	20000			Stock transfer						
Labor Charge		50000		80000			Closing Stock	30	30000	50	100000	60	180000
Stock transferred from X Dept.			90	120000	30	135000							
Stock transferred from Y Dept.					80	200000							
Gross Profit		75000		40000		200000							
Totals	*150*	*285000*	*130*	*300000*	*160*	*680000*		*150*	*285000*	*130*	*300000*	*160*	*680000*

* 90 tones L.E.120000
30 tones L.E.135000
120 tones L.E.255000

General Profit and Loss Account

Stock Reserve (increase required):		Gross Profit from:	
Y Dept.	8182	X Dept.	75000
Selling Dept.	11160	Y Dept.	40000
Net Profit	295658	Selling Dept.	200000
Totals	*315000*	*Totals*	*315000*

Working Notes:

Value of goods transferred

1- X Department	MT	Amount
Qty. and value of production*	210	210000
Transferred to Selling Dept.	90	90000
Balance meant for transfer to Y Dept.1	120	120000
Closing stock of Dept. X	30	30000
Actual transfer to Y Dept.	90	90000
Add Profit of 33⅓%		30000
Total Qty. and value of goods transferred To Y Department	90	120000
Cost of goods transferred to Selling Department	30	90000
Add: Profit of 50%		45000
Quantity and value of goods transferred to Selling Department	30	135000

Total transfer 120000 + 135000= 255000 from Dept. X

*The proportion of cost between output meant for Dept. Y and Selling Dept. is 1:3. Thus, the output of 30 units meant for Selling Dept. is equivalent to 90 units of Dept. Y.

2- Department Y		
Qty. and value of production	130	260000
Less: Closing stock of Y Dept.	50	100000
Cost of goods transferred to selling Dept.	80	160000
Add: Profit of 25%		40000
Quantity and value of goods transferred to Selling Department	80	200000

Stock Reserve for unrealized profit of Y Department.

Transfer from X Dept.	120000
Own cost (Raw material and labor)	100000
	220000
Increase in Closing Stock (100000-40000)	60000
Prop. Of X Dept. 60000 × 120000/220000	32727

Unrealized profit (33⅓% of cost) on 25%
on Transfer Price 8182

3- Selling Department

Transfer directly from X Dept. 135000

Total transfers from Depts. X and Y 335000

Share in increase of unsold stock

135000/335000 × 35000 = 14104

Profit charged by X Dept.
(50% on cost or 33⅓% on 14104) 4701 (1)

Transfer from Y Dept. to Selling Dept. 200000

Share of increase in unsold stock
transferred from Y Dept.
200000/335000 × 35000 = 20896

Profit charged by Y Dept.
(25% on cost or 2o% on L.E.20896) 4179 (2)

Cost of Dept. Y of goods transferred to
Selling Dept. 20896 – 4179) 16717

Share of goods transferred from Dept.
X to Dept. Y in L.E.16717 =
16717 × 120000/220000 = 9118

Profit charged by Dept. X on goods
transferred to Dept. Y (33⅓% on cost
or ¼ of L.E.9118) 2280 (3)

Total unrealized profit in closing stock
with Selling Dept. (4701 + 4179 + 2280)= L.E.11160

4.5 Questions and Practical Problems:

1. State whether each of the following statements is '**True'** or '**False'**.

a. If the rate of gross profit of the departments is the same, the cost price of these departments will be in the ratio of their respective sales price.

b. The fire insurance on building is allocated on the basis of floor area occupied by each department.

c. Depreciation on plant is divided equally over the different departments.

d. Bad debts are charged to the General Profit and Loss since there is no proper basis for their apportionment.

e. Management expenses are charged to the General Profit and Loss Account.

f. Stock Reserve for unrealized profit for inter-departmental transfer of goods is charged to General Profit and Loss Account.

g. In Departmental Accounts, Work-Persons' Compensation Insurance should be apportioned on the basis of the number of workers in each department.

2. Choose the best answer for each of the following:

(1) Non-departmental items of expenses are:

a- charged to Departments on the basis of total sales.
b- charged to the General Profit and Loss Account.
c- charged to departments according to the fixed assets employed.

(2) Repair to machinery is apportioned over different departments according to:

a- the number of machines in each department.
b- value of machinery.
c- floor area occupied by each machine.

(3) In case goods are transferred from department A to department B at a price so as to include a profit of 25% on the cost, the amount of stock reserve on a closing stock of L.E.6000 in department B will be:

a- L.E.1200.
b- L.E.1500.
c- L.E.2000.

(4) The cost of electric power should be apportioned over different departments according to:

a- Horse Power of Motors.
b- Number of light points.
c- Horse Power X Machine Hours.

Practical Problems:

DEPARTMENTALIZATION OF EXPENSES

1. The Trading and Profit and Loss Account of Egyptian Electronics for the year ending 31st of December 2014 is as below:

Details	L.E.	Details	L.E.
Purchases:		Sales:	
(X)	160000	(X)	175000
(Y)	125000	(Y)	140000
(Z)	80000	(Z)	35000
Salaries and Wages	48000	Stock 31/12/2014:	
Rent	10800	(X)	60100
Sundry Expenses	11000	(Y)	20300
Profit	40200	(Z)	44600
Totals	*475000*	*Totals*	*475000*

Prepare Departmental Accounts for each of the three Departments X, Y and Z mentioned above after taking into consideration the following:

(1) Transistors and Tape Recorders are sold at the Showroom, Servicing and Repairs are carried out at the Workshop.

(2) Salaries and Wages comprise as follows: Showroom ¾ths. Workshop ¼th. It was decided to allocate the showroom salaries and wages in ratio 1:2 between Departments X and Y.

(3) The workshop rent is L.E.500 per month. The rent of the showroom is to be divided equally between the Departments X and Y.

(4) Sundry Expenses are to be allocated on the basis of the turnover of each Department.

(**Ans.** *Net Profit:* Dept. X L.E.55200; Dept. Y L.E.4500; *Net Loss* Dept. Z L.E.19500.)

[Answer Key: Opening Balance of Suspense Account (Dr L.E.17,200)].

2. Samsung Brothers are Leading paper merchants and booksellers. Their Wholesale business is in paper and their retail show room conducts business in stationery, books and magazines. The following balances are extracted from their books as at the end of their financial year 31st December 2014:

Particulars	L.E.
Capital	300000
Stock: January 1st, 2014:	
Paper	200000
Stationery	50000
Books	100000
Magazines	25000
Purchases:	
Paper	800000
Stationery	300000
Books	350000
Magazines	300000
Sales:	
Paper	1000000
Stationery	360000
Books	420000
Magazines	420000
Rent	60000
Lighting	24000
Showroom maintenance	18000
Showroom fittings	180000
Sundry Debtors (for paper)	100000
Sundry creditors	150000
Salaries:	
Showroom staff	36000
Wholesale business staff	12000
Showroom cashier	12000
General Office Salaries	11000
General Office Expenses	44000
Cash and Bank Balances	8000

You are required by the firm to prepare their Departmental Trading and Profit and Loss Account for the financial year under reference with the help of the following additional information:

(1) Closing stock at the end of the year in the various departments were: Paper L.E.180000. Stationery L.E.40000. Books L.E.120000. Magazines L.E.30000

(2) Rent and lighting are for premises taken on lease, General office accommodation is negligible. Wholesale department uses 1500 sq. feet. The balance of 1500 sq. feet is occupied by the showroom with equal division among stationery, books and magazines.

(3) Showroom fittings are to be depreciated by 10% annually.

(**Ans.** *Net Profit* Paper L.E.101000, Stationer L.E.600, Books L.E.36700 and Magazines L.E.71700.)

3. The following is the trial balance of Automatic Motors and Garage on 31st December 2014:

Particulars	L.E.	L.E.
Capital Account		76250
Drawings	8500	
Opening Stocks:		
Petrol and oil	1650	
Spare parts and tires	5500	
Tools	2200	
Hire cars	72000	
Purchases:		
Tools	4000	
Spare parts and tires	32000	
Petrol and oil	41250	
Advertising Expenses	4500	
Rent, Rates and Taxes	12000	
Insurance premium:		
On hire cars	4000	
Fire, theft and burglary cases	425	
Wages:		
Drivers	12000	
Repairs Department	16500	
Office	7500	
Garage	1000	
Sales:		
Petrol and oil		23000
Spare parts and tires		37000
Garage Receipts		4000
Repairs Department		1000
Hire Receipts		70000
License fees and permit fees for hire cars		1200
Office Expenses	3000	
Sundry Debtors	4000	
Sundry Creditors	400	5000
Commission received on cars sold		4000
Loans		
Cash in hand and at Bank	2000	
Totals	*234450*	*234450*

The following additional information is also provided to you:

(1) The loan was taken on 1st of October 2014 on which interest at 12% is to be paid.

(2) Stocks on hand on 31st December 2014 were as follows:
Tools L.E.5000, Petrol and oil L.E.4300 and Spare parts and tires

L.E.10000.

(3) Petrol and oil whose value was L.E.15600 and L.E.1800 were used by hire cars and repairs department respectively. Besides, the owner of the garage drew petrol and oil worth L.E.3000 for his personal car.

(4) Repairs department performed work during the year as under: On owner's car L.E.600 and on hire cars L.E.7500.

(5) Spare parts used by the Repairs Department in the year cost L.E.4000 and by the hire carsL.E.750.

(6) Depreciation on hire cars to be provided at 30% annually.

(7) Licenses and taxes amounting to L.E.200 on owner's car have been paid and included in Rent, Rates and Taxes.

(8) Rent, Rates and Taxes to be distributed as below:

a. Repairs Department ½. b. Spare parts ¼.

c. Garage ⅛. d. Office ⅛.

You are required to prepare a Departmental Trading Account, a Profit and Loss Account for the year ended 31st December 2014 and a balance Sheet as at that date.

[Answer Key: Profit; Garage L.E.1525, Petrol & Oil L.E.4775, Spare parts L.E.11300. Hire Cars L.E.5550, Repairs (Loss) L.E.7300, Net Business Profit L.E.2830, B/S Total L.E.72100].

4. Cairo Limited has three departments X, Y and Z. From the particulars given below, compute:

a. The values of stock as on 31st of December 2014 and

b. The departmental trading results.

Particulars	Dept. X	Dept. Y	Dept. Z
(1)	L.E.	L.E.	L.E.
Stock as on 1st Jan. 2014	24000	36000	12000
Purchases	146000	124000	48000
Actual Sales	172500	159400	74600
Gross Profit on normal selling prices	20%	25%	33⅓%
(2) During the year certain items were sold at discount and these discounts were reflected in the value of sales shown above.			
The items sold at discount were:			
Sales at normal prices	10000	3000	1000
Sales at actual prices	7500	2400	600

[Answer: Gross Profit Dept. X L.E.32500, Dept. Y L.E.39400 and Dept. Z L.E.24600.]

ASCERTAINMENT OF DEPARTMENTAL COSTS

5. Kamal Nayle purchased goods for his three departments as follows:

Dept. A 2000 pieces

Dept. B 14000 pieces Total cost L.E.51000

Dept. C 4000 pieces

Sales of three departments were as follows: Dept. A 1800 pieces at L.E.15 per piece. Dept. B 15000 pieces at L.E.18 per piece. Dept. C 4500 pieces at L.E.6 per piece.

Other information about stock in the beginning was as follows:

Dept. A 1000 pieces.

Dept. B 4000 pieces.

Dept. C 600 pieces.

Kamal informs you that the rate of gross profit is the same in all departments. You are required to prepare trading account for the three departments.

[Answer Key: Gross Profit: A Dept. L.E.22500 B Dept. L.E.225000, C Dept. L.E.22500].

INTER-DEPT. TRANSFERS

6. A firm had two departments, cloth and readymade clothes. The clothes were made by the firm itself out of cloth supplied by the cloth department at its selling price. From the following figures, prepare Departmental Trading and Profit and Loss Account for the year 2014.

Particulars	Cloth Department	Readymade Clothes
Opening Stock 1/1/2014	300000	50000
Purchases	2000000	15000
Sales	2200000	450000
Transfer to Readymade Cloth Department	300000	……..
Expenses:		
Manufacturing	20000	60000
Selling	200000	6000
Stock on 31/12/2014		60000

The stocks in the readymade clothes department may be considered as consisting of 75% cloth and 25% other expenses. The cloth department earned gross profit at the rate of 15% in 2013. General expenses of the business as a whole came to L.E.110000.

[Answer Key: Net Profit: Cloth Dept. L.E.380000; Readymade Clothes Dept. L.E.79000, Total Net Profit of the business L.E.347425. Hint: Increase in Stock Reserve by L.E.1575].

7. Qena Highway Garage consists of three departments: Spares, Service and Repairs. Each department is managed by a departmental manager whose commission is respectively 5%, 10% and 10% of the respective departmental profit, subject, however, to a minimum of L.E.3000 in each case. Inter-departmental transfers take place at 'loaded' price as follows:

From Spares to Service 5% above cost
From Spares to Repairs 10% above cost
From Repairs to Service 10% above cost

In respect of the year ended on December 31st, 2014, the firm had already prepared and closed the departmental trading and profit and loss account. Subsequently it was discovered that the closing stocks of various departments had included inter-departmentally transferred goods at 'loaded' price instead of the correct cost price. From the following information you are required to prepare a statement recomputing the departmental profit or loss.

Particulars	Spares L.E.	Services L.E.	Repairs L.E.
Final Net Profit/Loss	19000 (loss)	25200 (profit)	36000 (profit)
Inter-departmental transfers included at 'loaded' price in the departmental stocks	…..	32500 (10500 from Spares and 22000 from Repairs)	2100 (from Spares)

[Answer: Real Net Profit (loss): Spares L.E. (19691); Service L.E.25200 and Repairs L.E.34200]

8. Alexandria Ltd. has three departments A, B & C. The following information is given:

Particulars	A	B	C
Opening Stock	3000	4000	6000
Consumption of direct materials	8000	12000	……
Wages	5000	10000	……
Closing Stock	4000	14000	8000
Sales	…….	…….	34000

Stocks of each department are valued at cost to the department concerned. Stocks of A department are transferred to B at a margin of 50% above departmental cost. Stocks of B department are transferred to C department at a margin of 10% above departmental cost.

Other expenses were:

Salaries L.E.2000
Printing & Stationery L.E.1000
Rent L.E.6000
Interest paid L.E.4000
Depreciation L.E.3000

Allocate expenses in the ratio of departmental gross profits. Opening figures of reserves for unrealized profits on Departmental Stocks were:

Department B L.E.1000
Department C L.E.2000

Required: Prepare Departmental Trading and Profit and Loss Account.
[Answer: Net Loss Dept. A L.E.2000; Dept. B L.E.1000; Dept. C L.E.1000, Total Net loss after adjustment for stock reserves L.E.4918.]

9. Messrs G.B.T. carried on business as Drapers and Tailors. The partners, G, B and T were in charge of the departments X, Y and Z respectively. The partners are entitled to a remuneration equal to 50% of the profits (without taking the partner's remuneration into consideration) of the respective Departments of which they are in charge and the balance of the profits are to be divided among G, B and T in the ratio of 5:3:2. The following are the balances of the Revenue Item in the books for the year 31st December, 2014.

Opening Stock:	L.E.		L.E.
Department X	75780	Salaries and wages	96000
Y	48000	Advertising	4500
Z	40000	Rent	21600
Purchases:		Discount Allowed	27000
Department X	281400	Discount Received	1600
Y	161200	Sundry expenses	24300
Z	88800	Depreciation on	
Sales:		Furniture and Fittings	1500
Department X	360000		
Y	270000		
Z	180000		
Closing Stock:			
Department X	90160		
Y	34960		
Z	43180		

Instructions:

a. Prepare the Departmental accounts for each of the three Departments in a columnar form.

b. Show the distribution of Profits amongst the Partners after taking into account the following:

(1) Goods having a transfer price of L.E.21400 and L.E.1200 were transferred from Department X and Y respectively to Department Z. The inter-departmental transfers are made at 125% of the cost.
(2) The various items shall be apportioned among the three Departments in the following proportion:

Particulars	Dept. X	Dept. Y	Dept. Z
Rent	2	2	5
Salaries	1	1	1
Depreciation	1	1	1
Discount received	8	5	3

All the other expenses: on the basis of the sales (excluding inter-departmental transfers) of each department.
(3) The opening stock of Department Z does not include any goods transferred from other departments, but the closing stock includes L.E.17100 valued at the inter-departmental transfer prices.
[Answer: Net Profit, Dept. X L.E.63880, Dept. Y L.E.49660, Dept. Z L.E.20580]

10. X Ltd. has a factory which has two manufacturing Departments A and B. Part of the output of A Dept. is transferred to B Dept. for further processing and balance is directly transferred to the Selling Department. The entire production of B Department is transferred to the Selling Department. Inter department stock transfers are made as follows:
A Dept. to B Dept. at 20% over departmental cost.
A Department to Selling Department at 30% over departmental cost.
B Department to Selling Department at 25% over departmental cost.
The following information is given for the year ending 31st December 2014.

Particulars	Dept. A		Dept. B		Dept. C	
	M.T	L.E.	M.T	L.E.	M.T.	L.E.
Opening Stock	60	60000	20	40000	50	160000
Raw material consumption	100	110000	30	30000	60	600000
Labor Charges		60000		80000		
Sales						
Closing Stock	40		60			

Out of production in A Department 30 M.T were for transfer to the Selling Department and the balance to B Department. The per tone material and labor consumption in A Department on production to be transferred directly to the Selling Department is 200% of the labor and material consumption on production meant for B Department. Prepare Department Profit and Loss Account.
[Answer: Profit: Dept. A L.E.44640, Dept. B L.E.50490, Selling Dept. L.E.281286].

(Hint. Closing Stock (FIFO) Dept. A L.E.44000, Dept. B L.E.81960, Selling Dept. L.E.190456). It is assumed that no work has been done on the units in closing stock in Dept. A. In Dept. B the closing stock is a mixture of material introduced directly and those transferred from Dept. B i.e., 60/120 of L.E.166920. Closing stock of Selling Dept. is 60/110 of L.E.349170. The other assumption could be that the closing stocks are out of the finished output of the concerned department.
{Answers: [1. True or False (a) T (b) T (c) F (d) F (e) T (f) T (g) F]. [2. (1) b (2) b (3) a (4) c.]}
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