CHAPTER 6

Foreign Currency Translation

Examine the following financial performance commentary. It is extracted from Rio Tinto, a leading multinational company engaged in metal and mineral production. The company operates in over 50 countries and employs in excess of 106,000 people.

> Rio Tinto's shareholders' equity, earnings and cash flows are influenced by a wide variety of currencies due to the geographic diversity of the Group's sales and the countries in which it operates. The U.S. dollar, however, is the currency in which the great majority of the Group's sales are denominated. Operating costs are influenced by the currencies of those countries where the Group's mines and processing plants are located and also by those currencies in which the costs of imported equipment and services are determined. The Australian and Canadian dollars and the Euro are the most important currencies (apart from the US dollar) influencing costs. In any particular year, currency fluctuations may have a significant impact on Rio Tinto's financial results. A strengthening of the US dollar against the currencies in which the Group's costs are partly determined has a positive effect on Rio Tinto's underlying earnings.
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> The following sensitivities give the estimated effect on underlying earnings assuming that each exchange rate moved in isolation. The relationship between currencies and commodity prices is a complex one and movements in exchange rates can cause movements in commodity prices and vice versa. Where the functional currency of an operation is that of a country for which production of commodities is an important feature of the economy, such as the Australian dollar, there is a certain degree of natural protection against cyclical fluctuations, in that the currency tends to be weak, reducing costs in US dollar terms, when commodity prices are low, and vice versa.

Earnings sensitivities – exchange rates	Average exchange rate for 2008	Effect on net and underlying earnings of 10% change in full year average +/– US$m
Australian dollar	US$0.86	502
Canadian dollar	US$0.94	214
Euro	US$1.47	34
Chilean peso	US$0.0019	17
New Zealand dollar	US$0.71	29
South African rand	US$0.12	47
UK sterling	US$1.86	22

The exchange rate sensitivities quoted above include the effect on operating costs of movements in exchange rates but exclude the effect of the revaluation of foreign currency financial asssets and liabilities. They should therefore be used with care.

Given the dominant role of the US currency in the Group's affairs, the US dollar is the currency in which financial results are presented both internally and externally. It is also the most appropriate currency for borrowing and holding surplus cash, although a portion of surplus cash may also be held in other currencies, most notable Australian dollars, Canadian dollars and the Euro. This cash is held in order to meet short term operational and capital commitments and, for the Australian dollar, dividend payments. The Group finances its operations primarily in US dollars, either directly or using cross currency interest rate swaps. A substantial part of the Group's US dollar debt is located in subsidiaries having a US functional currency.

However, certain US dollar debt and other financial assets and liabilities including intragroup balances are not held in the functional currency of the relevant subsidiary. This results in an accounting exposure to exchange gains and losses as the financial assets and liabilities are translated into the functional currency of the subsidiary that accounts for those assets and liabilities. These exchange gains and losses are recorded in the Group's income statement except to the extent that they can be taken to equity under the Group's accounting policy. Gains and losses on US dollar net debt and on intragroup balances are excluded from underlying earnings. Other exchange gains and losses are included in underlying earnings.

Under normal market conditions, the group does not generally believe that active currency hedging of transactions would provide long term benefits to shareholders. The Group reviews on a regular basis its exposures and reserves the right to enter into hedges to maintain financial stability. Currency protection measures may be deemed appropriate in specific commercial circumstances and are subject to strict limits laid down by the Rio Tinto board, typically hedging of capital expenditure and other significant financial items such as tax and dividends. There is a legacy of currency forward contracts used to hedge operating cash flow exposures which were acquired with Alcan and the North companies.

Earnings sensitivities – exchange on financial assets/liabilities	Closing exchange rate US cents	Effect on net earnings of 10% US$ strengthening US$	Effect of items impacting directly on equity US$
Functional currency of business unit:			
Australian dollar	69	(12)	5
Canadian dollar	82	159	56
South African rand	11	13	—
Euro	141	249	2
New Zealand dollar	58	21	—

The functional currency of many operations within the Rio Tinto Group is the local currency of operation. The former Alcan aluminum and alumina producing operations primarily use a US dollar functional currency. Foreign currency gains or losses arising on translation to US dollars of the net assets of non US functional currency operations are taken to equity and, with effect from 1 January 2004, recorded in a currency translation reserve. A weakening of the US dollar would have a positive effect on equity. The approximate translation effects on the Group's net assets of ten per cent movements from the year end exchange rates are as follows:

Net assets' sensitivities – exchange on translation	Closing exchange rate U.S. cents	2008 Effect on net assets of 10% change in Closing rate +/– U.S. $m
Australian dollar	69	1,264
euro	141	621
Canadian dollar	82	180

The paragraphs in the preceding commentary suggest a variety of ways in which Alcan's reported performance, which the company chooses to report in U.S. dollars[1], is impacted by foreign currencies. The first paragraph suggests that the company's sales and operating costs are impacted by fluctuating exchange rates. In particular, earnings are benefitted by a strengthening of the U.S. dollar in relation to the currencies in which the company's costs are partly determined. To understand the effects of exchange rates on both revenues and expenses, assume that Rio Tinto is selling aluminum products , priced in U.S. dollars, to an importer in Italy. As Italy is a member of the European Union[2], the Italian importer must exchange euros for dollars to effect payment. Assume further that the value of the U.S. dollar unexpectedly falls in relation to the euro. The Italian buyer benefits from having to exchange less euros for dollars than would otherwise be the case,

[1] The dollar is the currency most used to set prices for raw materials and the currency most used to conduct trade. See, Robert J. Samuelson, "Why the Buck Is on the Edge," *Newsweek*, December 11, 2006, p. 49.
[2] Members of the European Union include Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, and the U.K.

effectively lowering the price of Rio Tinto's products. If the euro does not change in value relative to other national currencies, this would make Rio Tinto's products cheaper relative to similar aluminum products supplied from other countries. The result would be increased demand for Rio Tinto's products in Italy and other EU countries adopting the euro as their national currency, and hence, larger sales volume than originally anticipated. Similarly, an unexpected fall in the value of the dollar relative to the euro would have an adverse impact on Rio Tinto's future expenses, such as planned advertising expenditures in Italy and all EU countries mentioned above. The effect of changes in foreign currency values on a firm's future sales and future costs is referred to as *economic exposure* and is a major concern of business entities engaged in global commerce and investment. Strategies to minimize the risk of loss arising from unexpected changes in the prices of foreign currencies is the subject of Chapter 11.

In discussing the effect of exchange rate changes on earnings, the company is careful to note that these effects exclude the revaluation of foreign currency financial statements, the principle subject of this chapter. These effects relate to a process in which accounts denominated in foreign currency are translated to Rio Tinto's s reporting currency, U.S. dollars. The currency effects on Rio Tinto's sales and operating costs result from translating revenues and operating expenses denominated in say Canadian dollars to a devalued U.S. dollar. A Canadian dollar revenue and expense will translate to a higher U.S. dollar equivalent, other things remaining the same. The currency effects illustrated in the exhibits entitled, Earnings sensitivites—exchange on financial assets/liabilities, and Net assets' sensitivities—exchange on translation, respectively, occur because Rio Tinto prepares a single set of financial statements that consolidates the results of all of its subsidiaries to afford its readers a more holistic view of Rio Tinto's s total operations, both foreign and domestic. Consolidated statements, in turn, require that financial statements expressed in foreign currency be translated to the reporting currency of the parent company.

Rio Tinto's discussion of exchange rate effects raises two initial questions. First, what does the firm mean by the term, *functional currency*? Does it matter which currency is deemed functional and why? This and related terms are initially defined in Exhibit 6-2 and explained in subsequent sections of this chapter.

Second, "Do reported currency effects resulting from the translation process matter?" The evidence is mixed. Some studies suggest that they do not.[3] Recent studies suggest that they do. Bartov and Bodner, for example, provide evidence of a lagged relation between changes in currency values and stock returns but not for all translation methods employed by reporting entities.[4] Pinto initially reports that lagged values of per share foreign currency translation adjustments are useful in predicting year to year changes in earnings per share. More recently, she finds that the currency translation

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[3] See T.D. Garlicki, F.J. Fabozzi, and R. Fonfeder, "The Impact of Earnings Under FASB 52 on Equity Returns," *Financial Management* (Autumn 1987): 36–44; B.S. Soo and L. Gilbert Soo, "Accounting for the Multinational Firm: Is the Translation Process Valued by the Stock Market?" *The Accounting Review*, Vol. 69 (October 1994): 617–637; D. Dhaliwal, K. Subra and R. Trezevant, "Is Comprehensive Income Superior to Net Income as a Measure of Firm Performance?" *Journal of Accounting and Economics*, Vol. 26 (1999): 43–67; Steven F. Cahan, Stephen M. Courtnay, Paul L. Gronewoller, and David Upton, "Value relevance of Mandated Comprehensive Income Disclosures," *Journal of Business Finance and Accounting*, Vol. 27 nos. 9&10 (2000): 1273–1301.

[4] See E. Bartov, "Foreign Currency Exposure of Multinatioinal Firms: Accounting Measures and Market Valuation," Contemporary Accounting Research, 14 (1997): 623–652.

adjustments, when measured properly, are value relevant in providing a measure of a firm's exchange rate exposure.[5]

> Financial executives also attach mixed importance to gains and losses associated with foreign currency translation. While some assert that accounting gains and losses generated by accounting measurements have no impact on their operational decisions, others express great concern over the distortions they cause in reported corporate earnings. History is replete with instances of management expending resources to minimize the effects of balance sheet translation gains and losses on reported performance. Differing opinions notwithstanding, all agree that foreign currency translation can have significant effects on repoted earnings.

What are the implications of the foregoing discussion? To properly interpret the reported performance of multinational companies, statement readers must understand the nature of foreign exchange gains and losses, how these numbers are derived, and what they mean. To facilitate this understanding, we begin with an examination of why foreign currency translation is necessary.

REASONS FOR TRANSLATION

To reiterate, companies with significant overseas operations prepare consolidated financial statements that afford their statement readers an aggregate view of the firm's global operations. To accomplish this, financial statements of foreign subsidiaries that are denominated in foreign currencies are restated to the reporting currency of the parent company. This process of restating financial information from one currency to another is called translation.

Many of the problems associated with currency translation stem from the fact that the relative value of foreign currencies are seldom fixed. Variable rates of exchange, combined with a variety of translation methods that can be used and different treatments of translation gains and losses, make it difficult to compare financial results from one company to another, or in the same company from one period to the next. In these circumstances, it becomes a challenge for multinational enterprises to make informative disclosures of operating results and financial position as per Rio Tinto's example. Financial analysts find that interpreting such information can also be quite challenging and these troubles extend to evaluating managerial performance.

There are three additional reasons for foreign currency translation. These include recording foreign currency transactions, measuring a firm's exposure to the effects of currency gyrations, and communicating with foreign audiences-of-interest.

Foreign currency transactions, such as the purchase of merchandise from China by a Canadian importer, must be translated because financial statements cannot be prepared from accounts that are expressed in more than one currency. How, for example,

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[5] Jo Ann M. Pinto, "Foreign Currency Translation Adjustments as Predictors of Earnings Changes," *Journal of International Accounting, Auditing and Taxes* (2001): 51–69 and "How Comprehensive is Comprehensive Income? The Value Relevance of Foreign Currency Translation Adjustments," *Journal of International Financial Management and Accounting*, Vol. 16, no. 2 (2005): 97–122.

is one to prepare cost of goods sold when purchases are denominated in Chinese renminbi, Russian rubles, and Argentine pesos?

For accounting purposes, a foreign currency asset or liability is said to be exposed to currency risk if a change in the rate at which currencies are exchanged causes the parent (reporting) currency equivalent to change. The measurement of this exposure will vary depending on the translation method a firm chooses to employ.

Finally, the expanded scale of international investment increases the need to convey accounting information about companies domiciled in one country to users in others. This need occurs when a company wishes to list its shares on a foreign stock exchange, contemplates a foreign acquisition or joint venture, or wants to communicate its operating results and financial position to its foreign stockholders. Many Japanese companies translate their entire financial statements from Japanese yen to U.S. dollars when reporting to interested American audiences. This practice is often called a *convenience translation* and is described more fully in Chapter 9.

BACKGROUND AND TERMINOLOGY

Translation is not the same as conversion, which is the physical exchange of one currency for another. Translation is simply a change in monetary expression, as when a balance sheet expressed in British pounds is restated in U.S. dollar equivalents. No physical exchange occurs, and no accountable transaction takes place as it does in conversion.

Foreign currency balances are translated to domestic currency equivalents by the foreign exchange rate: the price of a unit of one currency expressed in terms of another. The currencies of major trading nations are bought and sold in global markets. Linked by sophisticated telecommunications networks, market participants include banks and other currency dealers, business enterprises, individuals, and professional traders. By providing a venue for buyers and sellers of currencies, the foreign exchange market facilitates the transfer of international payments (e.g., from importers to exporters), allows international purchases or sales to be made on credit (e.g., bank letters of credit that permit goods to be shipped in advance of payment to an unfamiliar buyer), and provides a means for individuals or businesses to protect themselves from the risks of unstable currency values. (Chapter 11 gives a fuller discussion of exchange risk management.)

Foreign currency transactions take place in the spot, forward, or swap markets. Currency bought or sold spot normally must be delivered immediately, that is, within 2 business days. Thus, an American tourist departing for Paris can purchase and immediately receive euros by paying the spot rate in dollars. Spot market rates are influenced by many factors, including different inflation rates among countries, differences in national interest rates, and expectations about the direction of future rates. Spot market exchange rates may be direct or indirect.[6] In a direct quote, the exchange rate specifies the number of domestic currency units needed to acquire a unit of foreign currency. For example, on a given day, the U.S. dollar price of a euro might be $1.4116. An indirect quote is the reciprocal of the direct quote: the price of a unit of the domestic currency in terms of the foreign currency. In this example, it would take approximately € 0.7084 euros to acquire 1 U.S. dollar.

Translation of foreign currency balances is straightforward with either direct or indirect quotes. Domestic currency equivalents are obtained by multiplying foreign

[6] For a daily listing of foreign exchange rates, visit www.ozforex.com.

currency balances by direct exchange rate quotations or dividing foreign currency balances by indirect quotations. To illustrate, suppose that the cash balance of a U.S. subsidiary located in Bombay, India, on July 15 is INR1,000,000. The direct (spot) exchange rate on that date is $.020546. The U.S. dollar equivalent of the rupee cash balance on January 31 is $20,546, calculated by translating INR1,000,000 in either of the following ways:

$$\text{INR1,000,000} \times \$0.020546 = \$20{,}546 \text{ or}$$
$$\text{INR1,000,000} \div \text{INR } 48.6700 = \$20{,}546$$

Transactions in the forward market are agreements to exchange a specified amount of one currency for another at a future date. Quotations in the forward market are expressed at either a discount or a premium from the spot rate, or as outright forward rates. We will illustrate the latter. Moreover, spot and forward rates may often include bid and ask quotes. The bid quote is what the foreign exchange dealer would pay you for foreign currency; the ask quote is the rate that the dealer would sell you foreign currency. If spot roubles (Russian) are quoted at $0.031584, while the 6-month forward rouble is offered at $0.030807, forward roubles are selling at a discount of 9.8 percent in the United States, calculated as follows: forward premium (discount) = (forward rate − spot rate)/spot rate × 12/n, where n is the number of months in the forward contract. Thus, ($0.030807 − $0.031584)/$0.031584 × 12/3 = −0.098. Had the euro been quoted indirectly, the premium would have been determined as: forward premium (discount) = (spot rate − forward rate)/forward rate × 12/n, or rouble (31.6615 −32.4597)/32.4597 × 12/3 = −0.098. Spot and forward quotes for major foreign currencies on any business day can be found in the business section of many major newspapers. Exhibit 6-1 contains spot and forward quotes for selected currencies. A more comprehensive listing can be found on www.fxstreet.com.

EXHIBIT 6-1 Sample of Spot and Forward Foreign Exchange Quotes

	(Foreign Currency in Dollars)			
Currency	**Spot**	**1 month**	**3 month**	**1 year**
Czech Rep. koruna	18.3840	18.3890	18.4245	18.5240
Russian rouble	31.6615	31.9015	32.4597	35.5515
Swedish krona	7.8173	7.8157	7.8126	7.7942
Swiss franc	1.0752	1.0748	1.0739	1.0673
Turkish new lira	1.5295	1.5402	1.5625	1.6674
U.K. pound	0.6480	0.6086	0.6087	0.6090
EU euro	0.7084	0.7084	0.7084	0.7080
Brazilian real	1.9386	1.9504	1.9727	2.0668
Mexican pesos	13.5955	13.6548	13.7708	14.2855
Hong Kong dollar	7.7503	7.7483	7.7442	7.7328
Indian rupee	48.6700	48.7650	48.9475	49.6875
Japanese yen	93.6250	93.5935	93.5283	93.0020
Saudi Arabian riyals	3.7504	3.7499	3.7489	3.7452
South African rands	8.0884	8.1393	8.2347	8.6545
South Korean won	1265.65	1265.25	1263.35	1256.15

A swap transaction involves the simultaneous spot purchase and forward sale, or spot sale and forward purchase, of a currency. Investors often use swap transactions to take advantage of higher interest rates in a foreign country while simultaneously protecting themselves against unfavorable movements in the foreign exchange rate. As an example, should interest rates in the United States exceed those in Switzerland, Swiss investors could purchase dollars in the spot market and invest them in higher yielding U.S. dollar debt instruments, say 6-month U.S. Treasury notes. In doing so, however, Swiss investors would lose this yield advantage if the U.S. dollar loses value relative to the Swiss franc in the 6-month period. To protect against this possibility, Swiss investors could simultaneously sell the dollars they expect to receive in 6 months at the guaranteed forward rate. Such swap transactions work well when the U.S./Swiss interest rate differential is greater than the discount on forward dollars (i.e., the difference between spot and 6-month forward dollars). Over time, foreign currency traders will eliminate this difference, thereby creating interest rate parity.

Exhibit 6-2 defines the foreign currency translation terms used in this chapter.

EXHIBIT 6-2 Glossary of Foreign Currency Translation Terms

attribute. The quantifiable characteristic of an item that is measured for accounting purposes. For example, historical cost and replacement cost are attributes of an asset.

conversion. The exchange of one currency for another.

current rate. The exchange rate in effect at the relevant financial statement date.

discount. When the forward exchange rate is below the current spot rate.

exposed net asset position. The excess of assets that are measured or denominated in foreign currency and translated at the current rate over liabilities that are measured or denominated in foreign currency and translated at the current rate.

foreign currency. A currency other than the currency of the country being referred to; a currency other than the reporting currency of the enterprise being referred to.

foreign currency financial statements. Financial statements that employ foreign currency as the unit of measure.

foreign currency transactions. Transactions (e.g., sales or purchases of goods or services or loans payable or receivable) whose terms are stated in a currency other than the entity's functional currency.

foreign currency translation. The process of expressing amounts denominated or measured in one currency in terms of another currency by use of the exchange rate between the two currencies.

foreign operation. An operation whose financial statements are (1) combined or consolidated with or accounted for on an equity basis in the financial statements of the reporting enterprise and (2) prepared in a currency other than the reporting currency of the reporting enterprise.

forward exchange contract. An agreement to exchange currencies of different countries at a specified rate (forward rate) at a specified future date.

functional currency. The primary currency in which an entity does business and generates and spends cash. It is usually the currency of the country where the entity is located and the currency in which the books of record are maintained.

(continued)

EXHIBIT 6-2 Glossary of Foreign Currency Translation Terms (Continued)

historical rate. The foreign exchange rate that prevailed when a foreign currency asset or liability was first acquired or incurred.

local currency. Currency of a particular country being referred to; the reporting currency of a domestic or foreign operation being referred to.

monetary items. Obligations to pay or rights to receive a fixed number of currency units in the future.

reporting currency. The currency in which an enterprise prepares its financial statements.

settlement date. The date on which a payable is paid or a receivable is collected.

spot rate. The exchange rate for immediate exchange of currencies.

transaction date. The date at which a transaction (e.g., a sale or purchase of merchandise or services) is recorded in a reporting entity's accounting records.

translation adjustments. Translation adjustments result from the process of translating financial statements from the entity's functional currency into the reporting currency.

unit of measure. The currency in which assets, liabilities, revenue, and expenses are measured.

THE PROBLEM

If foreign exchange rates were relatively stable, currency translation would be no more difficult than translating inches or feet to their metric equivalents. However, exchange rates are seldom stable. The currencies of most industrialized countries are free to find their own values in the currency market. For an illustration of the volatility of exchange rates of selected countries, examine the data compiled by the Federal Reserve Bank of St. Louis at www.research.stlouisfed.org/fred2.

Fluctuating exchange values are particularly evident in Eastern Europe, Latin America, and certain parts of Asia. Currency fluctuations increase the number of translation rates that can be used in the translation process and create foreign exchange gains and losses. Currency movements are also closely tied to local rates of inflation, the subject of Chapter 7.

FINANCIAL STATEMENT EFFECTS OF ALTERNATIVE TRANSLATION RATES

The following three exchange rates can be used to translate foreign currency balances to domestic currency. First, the *current rate* is the exchange rate prevailing as of the financial statement date. Second, the *historical rate* is the prevailing exchange rate when a foreign currency asset is first acquired or a foreign currency liability first incurred. Finally, the *average rate* is a simple or weighted average of either current or historical exchange rates. As average rates are simply variations of current or historical rates, the following discussion focuses on the latter two.

What then are the financial statement effects of using historical as opposed to current rates of exchange as foreign currency translation coefficients? Historical exchange rates generally preserve the original cost equivalent of a foreign currency

item in the domestic currency statements. Suppose that a foreign subsidiary of a U.S. parent company acquires an item of inventory for 1,000 foreign currency (FC) units when the exchange rate (indirect quote) is FC2 = $1. This asset would appear in the U.S. consolidated statements at $500. Now assume that the exchange rate changes from FC2 = $1 to FC4 = $1 by the next financial statement date and that the inventory item is still on hand. Will the U.S. dollar equivalent of the inventory now change to $250? It would not. As long as we translate the original FC1,000 cost at the rate that prevailed when the asset was acquired (historical rate), it will appear in the U.S. financial statements at $500, its historical cost expressed in U.S. dollars. *Use of historical exchange rates shields financial statements from foreign currency translation gains or losses*, that is, from increases or decreases in the dollar equivalents of foreign currency balances due to fluctuations in the translation rate between reporting periods. *The use of current rates causes translation gains or losses.* Thus, in the previous example, translating the FC1,000 piece of inventory at the current rate (FC4 = $1) would yield a translation loss of $250 [(FC1,000 ÷ 2) − (FC1,000 ÷ 4)].

Here we must distinguish between *translation* gains and losses and *transaction* gains and losses, both of which fall under the label exchange gains and losses. Foreign currency transactions occur whenever an enterprise purchases or sells goods for which payment is made in a foreign currency or when it borrows or lends foreign currency. Translation is necessary to maintain the accounting records in the currency of the reporting enterprise.

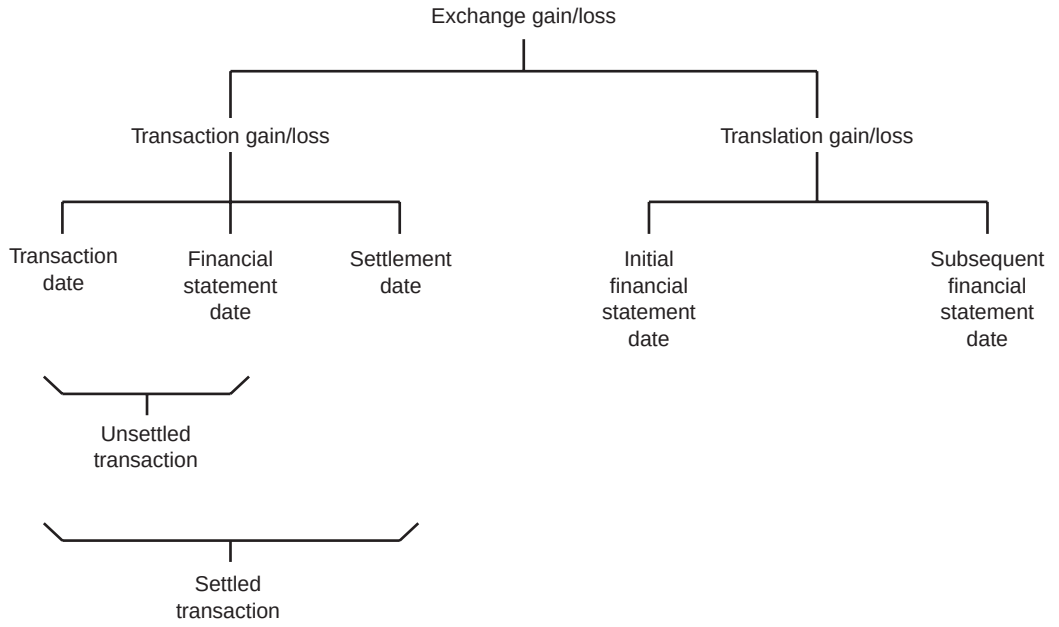
Of the two types of transaction adjustments, the first, *gains and losses on settled transactions*, arises whenever the exchange rate used to book the original transaction differs from the rate used at settlement. Thus, if a U.S. parent company borrows FC1,000 when the exchange rate is FC2 = $1 and then converts the proceeds to dollars, it will receive $500 and record a $500 liability on its books. If the foreign exchange rate rises to FC1 = $1 when the loan is repaid, the U.S. company will have to pay out $1,000 to discharge its FC1,000 debt. The company has suffered a $500 conversion loss.

The second type of transaction adjustment, *gains or losses on unsettled transactions*, arises whenever financial statements are prepared before a transaction is settled. In the preceding example, assume that the FC1,000 is borrowed during year 1 and repaid during year 2. If the exchange rate prevailing at the financial statement date (end of year 1) is FC1.5 = $1, the dollar equivalent of the FC1,000 loan will be $667, creating an exchange loss of $167. Until the foreign currency debt is actually repaid, however, this *unrealized* exchange loss is similar in nature to a translation loss as it results from a restatement process.

Exhibit 6-3 lays out the distinction between transaction and translation gains and losses. Differences in exchange rates in effect at the various dates shown cause the various types of exchange adjustments.

When considering exchange gains and losses, it is critical to distinguish between transaction gains and losses and translation gains and losses. A realized (or settled) transaction creates a real gain or loss. Accountants generally agree that such a gain or loss should be reflected immediately in income. In contrast, translation adjustments (including gains or losses on unsettled transactions) are unrealized or paper items. The appropriate accounting treatment of these gains or losses is less obvious.

EXHIBIT 6-3 Types of Exchange Adjustments



An informed reader of consolidated financial statements must understand three major issues associated with fluctuating exchange rates:

1. What exchange rate was used to translate foreign currency balances to domestic currency?
2. Which foreign currency assets and liabilities are exposed to exchange rate changes?
3. How are translation gains and losses accounted for?

These issues are examined in the rest of this chapter.

Foreign Currency Transactions

The distinguishing feature of a foreign currency transaction is that settlement is effected in a foreign currency. Thus, foreign currency transactions occur whenever an enterprise purchases or sells goods for which payment is made in a foreign currency or when it borrows or lends foreign currency. As an example, a company purchasing inventories denominated in Saudi Arabian riyals on account suffers an exchange loss should the riyal gain in value before settlement.

A foreign currency transaction may be *denominated* in one currency but *measured* in another. To understand why, consider first the notion of the *functional currency.* The functional currency of an entity is the primary currency in which it transacts business and generates and spends cash. If a foreign subsidiary's operation is relatively self-contained and integrated within the foreign country (i.e., one that

manufactures a product for local distribution), it will normally generate and spend its local (country-of-domicile's) currency. Hence, the local currency (e.g., euros for the Belgian subsidiary of a U.S. parent) is its functional currency. If a foreign entity keeps its accounts in a currency other than the functional currency (e.g., the Indian accounts of a U.S. subsidiary whose functional currency is really British pounds, rather than Indian rupees), its functional currency is the third-country currency (pounds). If a foreign entity is merely an extension of its parent company (e.g., a Mexican assembly operation that receives components from its U.S. parent and ships the assembled product back to the United States), its functional currency is the U.S. dollar. Exhibit 6-4 identifies circumstances justifying use of either the local or parent currency as the functional currency.

To illustrate the difference between a transaction being denominated in one currency but measured in another, assume that a U.S. subsidiary in Hong Kong purchases merchandise inventory from the People's Republic of China payable in renminbi. The subsidiary's functional currency is the U.S. dollar. In this instance, the subsidiary would measure the foreign currency transaction—denominated in renminbi—in U.S. dollars, the currency in which its books are kept. From the parent's point of view, the subsidiary's liability is denominated in renminbi but measured in U.S. dollars, its functional currency, for purposes of consolidation.

FAS No. 52, the U.S. authoritative pronouncement on accounting for foreign currency, mandates the following treatment for foreign currency transactions:

1. At the date the transaction is recognized, each asset, liability, revenue, expense, gain, or loss arising from the transaction shall be measured and recorded in the

EXHIBIT 6-4 Functional Currency Criteria

Economic Factors	Circumstances Favoring Local Currency as Functional Currency	Circumstances Favoring Parent Currency as Functional Currency
Cash flows	Primarily in the local currency and do not impact parent's cash flows	Directly impact parent's cash flows and are currently remittable to the parent
Sales price	Largely irresponsive to exchange rate changes and governed primarily by local competition	Responsive to changes in exchange rates and determined by worldwide competition
Sales market	Largely in the host country and denominated in local currency	Largely in the parent country and denominated in parent currency
Expenses	Incurred primarily in the local environment	Primarily related to productive factors imported from the parent company
Financing	Primarily denominated in local currency and serviced by local operations	Primarily from the parent or reliance on parent company to meet debt obligations
Intercompany transactions	Infrequent, not extensive	Frequent and extensive

Adapted from: Financial Accounting Standards Board, *Statement of Financial Accounting Standards No. 52,* Stamford, CT: FASB, 1981, Appendix A.

functional currency of the recording entity by use of the exchange rate in effect at that date.

2. At each balance sheet date, recorded balances that are denominated in a currency other than the functional currency of the recording entity shall be adjusted to reflect the current exchange rate.

On this basis, a foreign exchange adjustment (i.e., gain or loss on a settled transaction) is necessary whenever the exchange rate changes between the transaction date and the settlement date. Should financial statements be prepared before settlement, the accounting adjustment (i.e., gain or loss on an unsettled transaction) will equal the difference between the amount originally recorded and the amount presented in the financial statements.

The FASB rejected the view that a distinction should be drawn between gains and losses on settled and unsettled transactions, because such distinctions cannot be applied in practice. Two accounting treatments for transactions gains and losses are possible.

Single-Transaction Perspective

Under a single-transaction perspective, exchange adjustments (both settled and unsettled) are treated as an adjustment to the original transaction accounts on the premise that a transaction and its settlement are a single event. The following example illustrates this treatment.

On September 1, 2011, a U.S. manufacturer sells, on account, goods to a Swedish importer for 1 million Swedish krona (SEK). The dollar/krona exchange rate is $0.12 = SEK 1, the krona receivable are due in 90 days, and the U.S. company operates on a calendar-year basis. The krona begins to depreciate before the receivable is collected. By the end of the month, the dollar/krona exchange rate is $0.11 = SEK 1; on December 1, 2011, it is $0.09 = SEK 1. (These transactions are posted in Exhibit 6-5.)

EXHIBIT 6-5 U.S. Company's Record: Single-Transaction Perspective

		Foreign Currency	U.S. Dollar Equivalent
Sept. 1, 2011	Accounts receivable	SEK 1,000,000	120,000
	Sales	SEK 1,000,000	120,000
	(To record credit sale)		
Sept. 30, 2011	Sales		10,000
	Accounts receivable		10,000
	(To adjust existing accounts for initial exchange rate change: SEK 1,000,000 × $0.12 minus SEK 1,000,000 × $0.11)		
Dec. 1, 2011	Retained earnings		20,000
	Accounts receivable		20,000
	(To adjust accounts for additional rate change: SEK 1,000,000 × $0.11 minus SEK 1,000,000 × $0.09)		
Dec. 1, 2011	Foreign currency	SEK 1,000,000	90,000
	Accounts receivable	SEK 1,000,000	90,000
	(To record settlement of outstanding foreign currency receivables)		

In this illustration, until the account is collected, the initial dollar amount recorded for both accounts receivable and sales is considered an estimate to be subsequently adjusted for changes in the dollar/krona exchange rate. Further depreciation of the krona between the financial statement date (September 1) and the settlement date (December 1) would require additional adjustments. In the Rio Tinto example at the beginning of this chapter, the effect of exchange rate changes illustrated in Exhibit 6-5 would have impacted consolidated revenues.

Two-Transaction Perspective

Under a two-transaction perspective, collection of the krona receivable is considered a separate event from the sale that gave rise to it. In the previous illustration, the export sale and related receivable would be recorded at the exchange rate in effect at that date. Depreciation of the krona between September 1 and December 1 would result in an exchange loss (i.e., loss on an unsettled transaction) and currency receivable on December 1, 2011, at the even lower exchange rate would result in a further exchange loss (i.e., loss on a settled transaction). See Exhibit 6-6.

In the interest of uniformity, FAS No. 52 requires the two-transaction method of accounting for foreign currency transactions. Gains and losses on settled and unsettled transactions are included in the determination of income; for example, the gains and losses illustrated in Exhibit 6-6 are the foreign currency effects explained in the first exhibit of the Rio Tinto example (Earnings sensitivities—exchange rates). Major exceptions to this requirement occur whenever (1) exchange adjustments relate to certain long-term intercompany transactions and (2) transactions are intended and effective as hedges of net investments (i.e., hedges of foreign operations' exposed net asset/liability positions) and foreign currency commitments. (The notion of an exposed asset or liability position is described shortly.)

EXHIBIT 6-6 U.S. Company's Record: Two-Transaction Perspective

		Foreign Currency	U.S. Dollar Equivalent
Sept. 1, 2011	Accounts receivable	SEK 1,000,000	$120,000
	Sales	SEK 1,000,000	$120,000
	(To record credit sale at Sept. 1, 2011 exchange rate)		
Sept. 30, 2011	Foreign exchange loss		10,000
	Accounts receivable		10,000
	(To record effect of initial rate change)		
Dec. 1, 2011	Foreign currency	SEK 1,000,000	90,000
	Foreign exchange loss		20,000
	Accounts receivable	SEK 1,000,000	110,000
	(To record settlement of foreign currency receivable)		

FOREIGN CURRENCY TRANSLATION

Companies operating internationally use a variety of methods to express, in terms of their domestic currency, the assets, liabilities, revenues, and expenses that are stated in a foreign currency. These translation methods can be classified into two types: those that use a single translation rate to restate foreign balances to their domestic currency equivalents and those that use multiple rates. Exhibit 6-7 summarizes the treatment of specific balance sheet items under these translation methods.

Single Rate Method

The single rate method, long popular in Europe, applies a single exchange rate, the current or closing rate, to all foreign currency assets and liabilities. Foreign currency revenues and expenses are generally translated at exchange rates prevailing when these items are recognized. For convenience, however, revenues and expenses are typically translated by an appropriately weighted average of current exchange rates for the period.

Under the single, or current, rate method, the financial statements of a foreign operation (viewed by the parent as an autonomous entity) have their own reporting domicile: the local currency environment in which the foreign affiliate does business. The consolidated statements preserve the original financial statement relationships (such as financial ratios) of the individual consolidated entities as all foreign currency financial statement items are translated by a constant. That is, consolidated results reflect the currency perspectives of each entity whose results go into the consolidated

EXHIBIT 6-7 **Exchange Rates Employed in Different Translation Methods for Specific Balance Sheet Items**

	Current	Current Noncurrent	Monetary Nonmonetary	Temporal
Cash	C	C	C	C
Accounts receivable	C	C	C	C
Inventories				
Cost	C	C	H	H
Market	C	C	H	C
Investments				
Cost	C	H	H	H
Market	C	H	H	C
Fixed assets	C	H	H	H
Other assets	C	H	H	H
Accounts payable	C	C	C	C
Long-term debt	C	H	C	C
Common stock	H	H	H	H
Retained earnings	*	*	*	*

*Note: C, current rate; H, historical rate; and *, residual, balancing figure representing a composite of successive current rates.*

totals, not the single-currency perspective of the parent company. Some people fault this method on the ground that using multiple currency perspectives violates the basic purpose of consolidated financial statements.

For accounting purposes, a foreign currency asset or liability is said to be *exposed* to exchange rate risk if its parent currency equivalent changes owing to a change in the exchange rate used to translate that asset or liability. Given this definition, the current rate method presumes that all local currency assets are exposed to exchange risk as the current (vs. the historical) rate changes the parent currency equivalent of all foreign currency assets every time exchange rates change. This seldom accords with economic reality as inventory and fixed asset values are generally supported by local inflation.

Consider the following example. Suppose that a foreign affiliate of a U.S. multinational corporation (MNC) buys a tract of land at the beginning of the period for FC1,000,000. The exchange rate (historical rate) was FC1 = $1. Thus, the historical cost of the investment in dollars is $1,000,000 (FC1,000,000 ÷ FC1). Due to changing prices, the land rises in value to FC1,500,000 (unrecognized under U.S. GAAP) while the exchange rate declines to FC1.4 = $1 by the end of the period. If this foreign currency asset were translated to U.S. dollars using the current rate, its original dollar value of $1,000,000 would now be recorded at $714,286 (FC1,000,000 ÷ FC1.4) implying an exchange loss of $285,714. Yet the increase in the fair market value of the land indicates that its current value in U.S. dollars is actually $1,071,285 (FC1,500,000 ÷ FC1.4). This suggests that translated asset values make little sense without making local price-level adjustments first. Also, translation of a historical cost number by a current market-determined exchange rate (e.g., FC1,000,000 ÷ FC1.4 = $714,286) produces a result that resembles neither historical cost ($1,000,000) nor current market value ($1,071,285).

Finally, translating all foreign currency balances by the current rate creates translation gains and losses every time exchange rates change. Reflecting such exchange adjustments in current income could significantly distort reported measures of performance. Many of these gains and losses may never be fully realized, as changes in exchange rates often reverse direction.

Multiple Rate Methods

Multiple rate methods combine current and historical exchange rates in the translation process.

CURRENT–NONCURRENT METHOD Under the current–noncurrent method, a foreign subsidiary's current assets (assets that are usually converted to cash within a year) and current liabilities (obligations that mature within a year) are translated into their parent company's reporting currency at the current rate. Noncurrent assets and liabilities are translated at historical rates. Income statement items (except for depreciation and amortization charges) are translated at average rates applicable to each month of operation or on the basis of weighted averages covering the whole period being reported. Depreciation and amortization charges are translated at the historical rates in effect when the related assets were acquired.

Unfortunately, this method does not often square with reality. Using the year-end rate to translate current assets implies that all foreign currency cash, receivables, and inventories are equally exposed to exchange risk; that is, will be worth more or less in parent currency if the exchange rate changes during the year. This is simply not true.

For example, if the local price of inventory can be increased after a devaluation, its value is protected from currency exchange risk. On the other hand, translation of long-term debt at the historical rate shifts the impact of fluctuating currencies to the year of settlement. Many consider this to be at odds with reality as analysts are always assessing the current realizable values of a firm's long-run obligations. Moreover, current and noncurrent definitions are merely a classification scheme, not a conceptual justification, of which rates to use in translation.

MONETARY–NONMONETARY METHOD[7] The monetary–nonmonetary method also uses a balance sheet classification scheme to determine appropriate translation rates. Monetary assets and liabilities; that is, claims to and obligations to pay a fixed amount of currency in the future are translated at the current rate. Nonmonetary items—fixed assets, long-term investments, and inventories—are translated at historical rates. Income statement items are translated under procedures similar to those described for the current–noncurrent framework.

Unlike the current–noncurrent method, this method views monetary assets and liabilities as exposed to exchange rate risk. Since monetary items are settled in cash, use of the current rate to translate these items produces domestic currency equivalents that reflect their realizable or settlement values. It also reflects changes in the domestic currency equivalent of long-term debt in the period in which exchange rates change, producing a more timely indicator of exchange rate effects.

Note, however, that the monetary–nonmonetary method also relies on a classification scheme to determine appropriate translation rates. This may lead to inappropriate results. For example, this method translates all nonmonetary assets at historical rates, which is not reasonable for assets stated at current market values (such as investment securities and inventory and fixed assets written down to market). Multiplying the current market value of a nonmonetary asset by a historical exchange rate yields an amount in the domestic currency that is neither the item's current equivalent nor its historical cost. This method also distorts profit margins by matching sales at current prices and translation rates against cost of sales measured at historical costs and translation rates.

TEMPORAL METHOD[8] With the temporal method, currency translation does not change the *attribute* of an item being measured; it only changes the *unit of measure.* In other words, translation of foreign balances restates the currency denomination of these items, but not their actual valuation. Under U.S. GAAP, cash is measured in terms of the amount owned at the balance sheet date. Receivables and payables are stated at amounts expected to be received or paid when due. Other assets and liabilities are measured at money prices that prevailed when the items were acquired or incurred (historical prices). Some, however, are measured at prices prevailing as of the financial statement date (current prices), such as inventories under the lower of cost or market rule. In short, a time dimension is associated with these money values.

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[7] This method was originally proposed in Samuel R. Hepworth, Reporting Foreign Operations, Ann Arbor: University of Michigan, 1956.

[8] This method was originally proposed in Leonard Lorensen, "Reporting Foreign Operations of U.S. Companies in U.S. Dollars," Accounting Research Study No. 12, New York: American Institute of Certified Public Accountants, 1972.

In the temporal method, monetary items such as cash, receivables, and payables are translated at the current rate. Nonmonetary items are translated at rates that preserve their original measurement bases. Specifically, assets carried on the foreign currency statements at historical cost are translated at the historical rate. Why? Because historical cost in foreign currency translated by a historical exchange rate yields historical cost in domestic currency. Similarly, nonmonetary items carried abroad at current values are translated at the current rate because current value in foreign currency translated by a current exchange rate produces current value in domestic currency. Revenue and expense items are translated at rates that prevailed when the underlying transactions took place, although average rates are suggested when revenue or expense transactions are voluminous.

When nonmonetary items abroad are valued at historical cost, the translation procedures resulting from the temporal method are virtually identical to those produced by the monetary–nonmonetary method. The two translation methods differ only if other asset valuation bases are employed, such as replacement cost, market values, or discounted cash flows.

Because it is similar to the monetary–nonmonetary method, the temporal method shares most of its advantages and disadvantages. In deliberately ignoring local inflation, this method shares a limitation with the other translation methods discussed. (Of course, historical cost accounting ignores inflation as well!).

All four methods just described have been used in the United States at one time or another and can be found today in various countries. In general, they produce noticeably different foreign currency translation results. The first three methods (i.e., the current rate, current–noncurrent, and monetary–nonmonetary) are predicated on identifying which assets and liabilities are exposed to, or sheltered from, currency exchange risk. The translation methodology is then applied consistent with this distinction. The current rate method presumes that the entire foreign operation is exposed to exchange rate risk since all assets and liabilities are translated at the year-end exchange rate. The current–noncurrent rate method presumes that only the current assets and liabilities are so exposed, while the monetary–nonmonetary method presumes that monetary assets and liabilities are exposed. In contrast, the temporal method is designed to preserve the underlying theoretical basis of accounting measurement used in preparing the financial statements being translated. See Chapter 11 for a further discussion of exposure.

Financial Statement Effects

Exhibits 6-8 and 6-9 highlight the financial statement effects of the major translation methods described. The balance sheet of a hypothetical Mexican subsidiary of a U.S.-based multinational enterprise appears in pesos in the first column of Exhibit 6-9. The second column depicts the U.S. dollar equivalents of the Mexican peso(MXN) balances when the exchange rate was MXN1 = $0.13. Should the peso depreciate to MXN1 = $0.11, several different accounting results are possible.

Under the current rate method, exchange rate changes affect the dollar equivalents of the Mexican subsidiary's total foreign currency assets (TA) and liabilities (TL) in the current period. Since their dollar values are affected by changes in the current rate, they are said to be *exposed* (in an accounting sense) to foreign exchange risk. Accordingly, under the current rate method, an exposed net asset position (TA > TL) results in a

EXHIBIT 6-8 Mexican Subsidiary Balance Sheet

	U. S. Dollars before Peso Devaluation		U. S. Dollars after Peso Depreciation ($ 0.11 = MXN1)			
	Pesos	($ 0.13 = MXN1)	Current Rate	Current–Noncurrent	Monetary–Nonmonetary	Temporal
Assets						
Cash	3,000	$ 390	$ 330	$ 330	$ 330	$ 330
A/R	6,000	780	660	660	660	660
Inventories	9,000	1,170	990	990	1,170	990[a]
F/A (net)	18,000	2,340	1,980	2,340	2,340	2,340
Total	36,000	$4,680	$3,960	$4,320	$4,500	$4,320
Liabilities and Owners' Equity						
S-T payables	9,000	$1,170	$ 990	$ 990	$ 990	$ 990
L-T debt	12,000	1,560	1,320	1,560	1,320	1,320
O/E	15,000	1,950	1,650	1,770	2,190	2,010
Total	36,000	$4,680	$3,960	$4,320	$4,500	$4,320
Accounting exposure (MXN)			15,000	9,000	(12,000)	(3,000)
Translation gain (loss) ($)			(300)	(180)	240	60

Note: If the exchange rate remained unchanged over time, the translated statements would be the same under all translation methods.

[a] *Assume inventories are carried at lower of cost or market. If they were carried at historical cost, the temporal balance sheet would be identical to the monetary–nonmonetary method.*

translation loss if the Mexican peso loses value, and an exchange gain if the peso gains value. An exposed peso net liability position (TA < TL) produces a translation gain if the Mexican peso loses value and a loss if the peso gains value. In our example, current rate translation yields a $300 translation loss, since the dollar equivalent of the Mexican subsidiary's net asset position *after* the peso depreciation is $1,650 (MXN15,000 × $0.11), whereas the dollar equivalent *before* the depreciation was $1,950 (MXN15,000 × $0.13). These translation gains and losses are those depicted at the start of this chapter in its exhibit entitled, "Net assets' sensitivities—exchange on translation."

Under the current–noncurrent method, the U.S. company's accounting exposure is measured by its peso net current asset or liability position (a positive MXN9,000 in our example). Under the monetary–nonmonetary method, exposure is measured by its net peso monetary asset or liability position (a negative MXN12,000). Accounting exposure under the temporal principle depends on whether the Mexican subsidiary's inventories or other nonmonetary assets are valued at historical cost (and therefore not exposed) or some other valuation basis (a negative MXN3,000 in our example).

To summarize, the different translation methods in our example give a wide array of accounting results, ranging from a $300 loss under the current rate method to a $240 gain under the monetary–nonmonetary method. This difference is large given that all the results are based on the same facts. What is more, operations reporting respectable

EXHIBIT 6-9 Mexican Subsidiary Income Statement

	U. S. Dollars before Peso Devaluation		U. S. Dollars after Peso Depreciation ($ 0.11 = MXN1)			
	Pesos	($ 0.13 = MXN1)	Current Rate	Current–Noncurrent	Monetary–Nonmonetary	Temporal
Sales	40,000	$5,200	$4,400	$4,400	$4,400	$4,400
Cost of sales	20,000	2,600	2,200	2,200	2,600	2,200[a]
Depreciation[b]	1,800	234	198	234	234	234
Other expenses	8,000	1,040	880	880	880	880
Pre-tax income	10,200	1,326	1,122	1,086	686	1,086
Income tax (30%)	3,060	(398)	(337)	(337)	(337)	(337)
Translation g/l[c]	—	—	(300)	(180)	240	60
Net income/(loss)	7,140	$ 928	$ 485	$ 569	$ 589	$ 809

Note: This example assumes that the income statement is prepared the day after devaluation.

[a]*Assumes that inventories were written down to market at period's end.*

[b]*Estimated life of fixed assets is assumed to be 10 years.*

[c]*This example reflects what reported earnings would look like if all translation gains or losses were immediately reflected in current income.*

profits before currency translation may well report losses or much lower earnings after translation (the converse is also true). To protect themselves against the financial statement effects of currency swings, financial managers may execute protective maneuvers known as *hedging* strategies. Chapter 11 covers hedging options and foreign exchange risk management in greater detail.

Which Is Best?

We begin by asking whether a single translation method is appropriate for all circumstances in which translations occur and for all purposes that translation serves. Our answer would be, no. Circumstances underlying foreign exchange translation differ widely. Translating accounts from a stable to an unstable currency is not the same as translating accounts from an unstable currency to a stable one. Likewise, there is little similarity between translations involving import- or export-type transactions and those involving a permanently established affiliate or subsidiary company in another country that reinvests its local earnings and does not intend to repatriate any funds to the parent company in the near future.

Second, translations are made for different purposes. Translating the accounts of a foreign subsidiary to consolidate those accounts with those of the parent company has very little in common with translating the accounts of an independent company mainly for the convenience of various foreign audiences-of-interest.

We pose two additional questions:

1. What are acceptable foreign currency translation methods and under what conditions?
2. Are there situations in which currency translation may be inappropriate?

Regarding the first question, we think that there are three different translation approaches that make sense from a reader's viewpoint: (1) the historical method, (2) the current method, and (3) no translation at all. Financial accounts of foreign entities can be translated either from a parent company perspective or from a local perspective. Under the parent company perspective, foreign operations are extensions of parent company operations and are, in large measure, sources of domestic currency cash flows. Accordingly, the object of translation is to change the unit of measure for financial statements of foreign subsidiaries to the domestic currency, and to make the foreign statements conform to accounting principles generally accepted in the country of the parent company. We think these objectives are best achieved by translation methods that use historical rates of exchange. We prefer the temporal principle, as it generally maintains the accounting principles used to measure assets and liabilities originally expressed in foreign currency units.[9] Because foreign statements under a parent company perspective are first adjusted to reflect parent company accounting principles (before translation), the temporal principle is appropriate, as it changes a measurement in foreign currency into a measurement in domestic currency without changing the basis of measurement. The temporal translation method is easily adapted to processes that make accounting adjustments during the translation. When this is so, adjustments for differences between two or more sets of accounting concepts and practices are made along with the translation of currency amounts. For example, inventories or certain liabilities may be restated according to accounting practices different from those originally used. The temporal principle can accommodate any asset valuation framework, be it historical cost, current replacement price, or net realizable values.

The current rate method of translation is a straightforward translation (restatement) from one currency language to another. There is no change in the nature of the accounts; only their particular form of expression is changed. The current rate method is appropriate when the translated accounts of foreign subsidiaries keep the local currency as the unit of measure; that is, when foreign entities are viewed from a local (as opposed to a parent) company perspective. Translation at the current rate does not change any of the initial relationships (e.g., financial ratios) in the foreign currency statements, as all account balances are simply multiplied by a constant. This approach is also useful when the accounts of an independent company are translated for the convenience of foreign stockholders or other external user groups.

The current rate method is also appropriate when price-level-adjusted accounts are translated to another currency. If reliable price-level adjustments are made in a given set of accounts and if domestic price-level changes for the currency are reflected closely in related foreign exchange rate movements, the current rate translation of price-level-adjusted data yields results that are comparable to translating historical cost accounts under the historical rate translation method.[10] This topic is covered in Chapter 7.

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[9] Frederick D.S. Choi and Gerhard G. Mueller, *An Introduction to Multinational Accounting*, Upper Saddle River, NJ: Prentice-Hall, 1978.

[10] Alas, empirical evidence suggests that exchange rate changes and differential inflation are seldom perfectly negatively correlated. Distortions caused by this market anomaly are discussed by David A. Ziebart and Jong-Hag Choi, "The Difficulty of Achieving Economic Reality Through Foreign Currency Translation," *International Journal of Accounting* 33, no. 4 (1998): 403–414.

Are there situations in which currency translations can confuse rather than enlighten? We think so. No translation is appropriate between highly unstable and highly stable currencies. Translation of one into the other will not produce meaningful information using any translation method. No translation also means nonconsolidation of financial statements. We think this is reasonable. If a currency is unstable enough to put account translations out of the question, financial statement consolidation should also be out of the question. No translation is necessary when financial statements of independent companies are issued for purely informational purposes to residents in another country that is in a comparable stage of economic development and has a comparable national currency situation. Finally, certain special management reports should not be translated. Effective international managers should be able to evaluate situations and reach decisions in terms of more than one currency unit. (These and related issues are discussed in Chapter 10.) Some internal company reports may have several different columns of monetary amounts, each in a different currency unit. Translation may be impossible for certain other reports (such as those on a possible international acquisition) because historical foreign exchange rate information may not be available. Still other types of reports may translate current or monetary items only and leave other items untranslated.

Appropriate Current Rate

Thus far we have referred to rates of exchange used in translation methods as either historical or current. Average rates are often used in income statements for expediency. The choice of an appropriate exchange rate is not clear-cut because several exchange rates are in effect for any currency at any time. There are buying and selling (bid and ask) rates, spot rates and forward rates, official rates and free-market rates, and so on. We believe that an appropriate translation rate should reflect economic and business reality as closely as possible. The free-market rate quoted for spot transactions in the country where the accounts to be translated originate is a rate that appropriately measures current transaction values.

Sometimes a country applies different exchange rates to different transactions. In these situations, one must choose among several existing rates. Several possibilities have been suggested: (1) dividend remittance rates, (2) free-market rates, and (3) any applicable penalty or preference rates, such as those associated with imports or exports. Your authors believe that free-market rates are preferable, with one exception: Where specific exchange controls are in effect (i.e., when certain funds are definitely earmarked for specific transactions to which specific foreign exchange rates apply), the applicable rates should be used. For instance, if a Latin American subsidiary of a U.S. parent has received permission to import certain goods from the United States at a favorable rate and has set aside certain funds to do so, the ear-marked funds should be translated to dollars at the special preference rate. The current year-end free-market rate should then be applied to the balance of the foreign cash account. This procedure translates portions of a foreign currency cash account at two or more different translation rates. That is fine as long as it properly and fully reflects economic reality.

Translation Gains and Losses

Exhibit 6-8 illustrated four translation adjustments resulting from applying various translation methods to foreign currency financial statements. Internationally, accounting treatments of these adjustments have been as diverse as the translation procedures.

Approaches to accounting for translation adjustments range from deferral to no deferral with hybrid approaches in between.

Deferral

Exclusion of translation adjustments in current income is generally advocated because these adjustments merely result from a restatement process. Changes in the domestic currency equivalents of a foreign subsidiary's net assets are unrealized and have no effect on the local currency cash flows generated by the foreign entity. Therefore, it would be misleading to include such adjustments in current income. Under these circumstances, translation adjustments are accumulated separately as a part of consolidated equity. Parkinson offers additional reasons to support deferral:

> It can be argued that the gain or loss relates to a very long-term investment—perhaps even a permanent investment—of a . . . parent in a foreign subsidiary; that the gain or loss will not become realized until the foreign operation is closed down and all the net assets are distributed to the parent; that at or before such time the change in the exchange rate may have reversed— i.e., that no gain or loss will ever be realized. It can also be argued that operating results recorded in the periods following the currency revaluation (and translated at the then current exchange rate) will indicate the increased or decreased worth of the foreign operation and that in these circumstances there is no need to record a one-time translation gain or loss in the income statement—that in fact the recording of such a gain or loss might be misleading.[11]

Some analysts are opposed to deferral on the grounds that exchange rates may not reverse themselves. Even if they do, deferral of exchange adjustments is premised on predicting exchange rates, a most difficult task. Some argue that deferring translation gains or losses masks the behavior of exchange rate changes; that is, rate changes are historical facts and financial statement users are best served if the effects of exchange rate fluctuations are accounted for when they occur.

Deferral and Amortization

Some firms, like those in Japan, defer translation gains or losses and amortize these adjustments over the life of related balance sheet items. As an example, assume that the acquisition of a fixed asset is financed by issuing debt. It can be argued that principal and interest payments on the debt are covered by cash flows generated from using the fixed asset. Here, the translation gain or loss associated with the debt would be deferred and amortized over the life of the related fixed asset, that is, released to income in a manner compatible with depreciation expense. Alternatively, the translation gain or loss arising from the debt could be deferred and amortized over the remaining life of the debt as an adjustment to interest expense.

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[11] MacDonald R. Parkinson, Translation of Foreign Currencies, Toronto: Canadian Institute of Chartered Accountants, 1972, 101–102.

Such approaches are criticized by some on theoretical and practical grounds. For example, finance theory tells us that capital budgeting decisions about fixed asset investments are independent of decisions about how to finance them. Linking the two looks more like a device to smooth income. Adjusting interest expense is also suspect. Domestic borrowing costs are not adjusted to reflect changes in market interest rates or the fair value of the debt. Thus, the argument goes, why should fluctuations in currency values have such an effect?

Partial Deferral

A third option in accounting for translation gains and losses is to recognize losses as soon as they occur, but to recognize gains only as they are realized. This was common practice in the United States at one time. Although conservative, deferring a translation gain solely because it is a gain denies that a rate change has occurred. Moreover, deferral of translation gains while recognizing translation losses is logically inconsistent. This approach also lacks any explicit criteria to determine when to realize a translation gain. Also, those who favor deferral of translation gains are at a loss to determine how much to defer. In the past, companies have netted current gains against prior losses and deferred the difference. This implies that translation gains or losses are not period items and will "wash out" in the long run. If this were so, deferrals would be a questionable practice.

No Deferral

A final reporting option utilized by many firms around the world today is to recognize translation gains and losses in the income statement immediately. This option views deferral of any type as artificial and misleading. Deferral criteria are often attacked as internally inconsistent and impossible to implement. However, including translation gains and losses in current income introduces a random element to earnings that could result in significant earning fluctuations whenever exchange rates change. Moreover, including such paper gains and losses in reported earnings can mislead statement readers, because these adjustments do not always provide information compatible with the expected economic effects of rate changes on an enterprise's cash flows.

Where Are We?

The objectives of translation have an important bearing on the nature of any potential translation adjustment. If a local currency perspective is maintained (local company perspective), reflecting a translation adjustment in current income is unwarranted. Recall that a local company perspective requires the current rate translation method in order to preserve relationships existing in the foreign currency statements. In our opinion, including translation gains or losses in income distorts original financial relationships and may mislead users of the information. Management, for example, is interested in how a particular affiliate is faring in its local currency, and translation gains and losses generated from a restatement process does not shed much light on local performance. In this instance, it makes sense to treat translation gains or losses as adjustments to consolidated equity.

If the reporting currency of the parent company is the unit of measure for the translated financial statements (parent company perspective), it is advisable to recognize

translation gains or losses in income immediately. The parent company perspective views a foreign subsidiary as an extension of the parent. Translation gains and losses reflect increases or decreases in the domestic currency equity of the foreign investment and should be recognized.

TRANSLATION ACCOUNTING DEVELOPMENT

Translation accounting practices have evolved over time in response to the increasing complexity of multinational operations and changes in the international monetary system. To provide some historical perspective on the current state of translation accounting, we briefly chronicle financial reporting initiatives in the United States as they are representative of experiences elsewhere.

Pre-1965

Before 1965 the translation practices of many U.S. companies were guided by Chapter 12 of Accounting Research Bulletin No. 43.[12] This statement advocated the current–noncurrent method. Transaction gains or losses were taken directly to income. Translation gains or losses were netted during the period. Net translation losses were recognized in current income, while net translation gains were deferred in a balance sheet suspense account and used to offset translation losses in future periods.

1965–1975

ARB No. 43 allowed certain exceptions to the current–noncurrent method. Under special circumstances, inventory could be translated at historical rates. Long-term debt incurred to acquire long-term assets could be restated at the current rate when there was a large (presumably permanent) change in the exchange rate. Any accounting difference caused by debt restatement was treated as part of the asset's cost. Moreover, translating all foreign currency payables and receivables at the current rate was allowed after Accounting Principles Board Opinion No. 6 was issued in 1965.[13] This change to ARB No. 43 gave companies another translation option.

1975–1981

To end the variety of treatments allowed under previous translation standards, the Financial Accounting Standards Board(FASB) issued FAS No. 8 in 1975.[14] This statement significantly changed U.S. practice and that of foreign companies subscribing to U.S. GAAP by requiring the temporal method of translation. Equally important,

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[12] American Institute of Certified Public Accountants, Committee on Accounting Procedure, "Restatement and Revision of Accounting Research Bulletins," Accounting Research Bulletin No. 43, New York: AICPA, 1953.
[13] American Institute of Certified Public Accountants, "Status of Accounting Research Bulletins," Accounting Principles Board Opinion No. 6, New York: AICPA, 1965.
[14] Financial Accounting Standards Board, "Accounting for the Translation of Foreign Currency Transactions and Foreign Currency Financial Statements," Statement of Financial Accounting Standards No. 8, Stamford, CT: FASB, 1975.

deferral of translation gains and losses was no longer permitted. Translation and transaction exchange gains and losses had to be recognized in income during the period of the rate change.

FAS No. 8 proved controversial. While some applauded it for its theoretical merits, many condemned it for the distortions it caused in reported corporate earnings. The pronouncement was criticized for producing accounting results not in accord with economic reality. The yo-yo effect of FAS No. 8 on corporate earnings also caused concern among executives of multinational companies. They worried that their companies' reported earnings would appear more volatile than those of domestic companies, and thereby depress their stock prices.

1981–Present

In May 1978, the FASB invited public comment on its first 12 pronouncements. Most of the 200 letters received related to FAS No. 8, urging that it be changed. Responding to the dissatisfaction, the FASB reconsidered FAS No. 8 and, after many public meetings and two exposure drafts, issued Statement of Financial Accounting Standards No. 52 in 1981.[15]

FEATURES OF STANDARD NO. 52/INTERNATIONAL ACCOUNTING STANDARD 21

The objectives of translation under FAS No. 52 differ substantially from those of FAS No. 8. FAS No. 8 adopted a parent company perspective by requiring that foreign currency financial statements be presented as if all transactions had taken place in parent currency. Standard No. 52 recognizes that both the parent company and the local company perspectives are valid reporting frameworks. At the international level, the IASB issued a parallel pronouncement, IAS 21, that was recently amended to clarify its requirements and to resolve certain implementation concerns.[16] Both FAS No. 52 and the current version of IAS 21 seek to

1. Reflect, in consolidated statements, the financial results and relationships measured in the primary currency in which each consolidated entity does business (its *functional currency*).
2. Provide information that is generally compatible with the expected economic effects of an exchange rate change on an enterprise's cash flows and equity.

These objectives are based on the concept of a functional currency. Recall that the functional currency of an entity is the currency of the primary economic environment in which it operates and generates cash flows. Moreover, the functional currency designation determines the choice of translation method employed for consolidation purposes and the disposition of exchange gains and losses.

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[15] Financial Accounting Standards Board, "Foreign Currency Translation," Statement of Financial Accounting Standards No. 52, Stamford, CT: FASB, 1981.
[16] Comments on the paper are available at www.iasb.org/news.

Translation When *Local* Currency Is the Functional Currency

If the functional currency is the foreign currency in which the foreign entity's records are kept, its financial statements are translated to dollars using the current rate method. Resulting translation gains or losses are disclosed in a separate component of consolidated equity. This preserves the financial statement ratios as calculated from the local currency statements. The following current rate procedures are used:

1. All foreign currency assets and liabilities are translated to dollars using the exchange rate prevailing as of the balance sheet date; capital accounts are translated at historical rates.
2. Revenues and expenses are translated using the exchange rate prevailing on the transaction date, although weighted average rates can be used for expediency.
3. Translation gains and losses are reported in a separate component of consolidated stockholders' equity. These exchange adjustments do not go into the income statement until the foreign operation is sold or the investment is judged to have permanently lost value.

Translation When the *Parent* Currency Is the Functional Currency

When the parent currency is a foreign entity's functional currency, its foreign currency financial statements are remeasured to dollars using the temporal method. All translation gains and losses resulting from the translation process are included in determining current period income. Specifically:

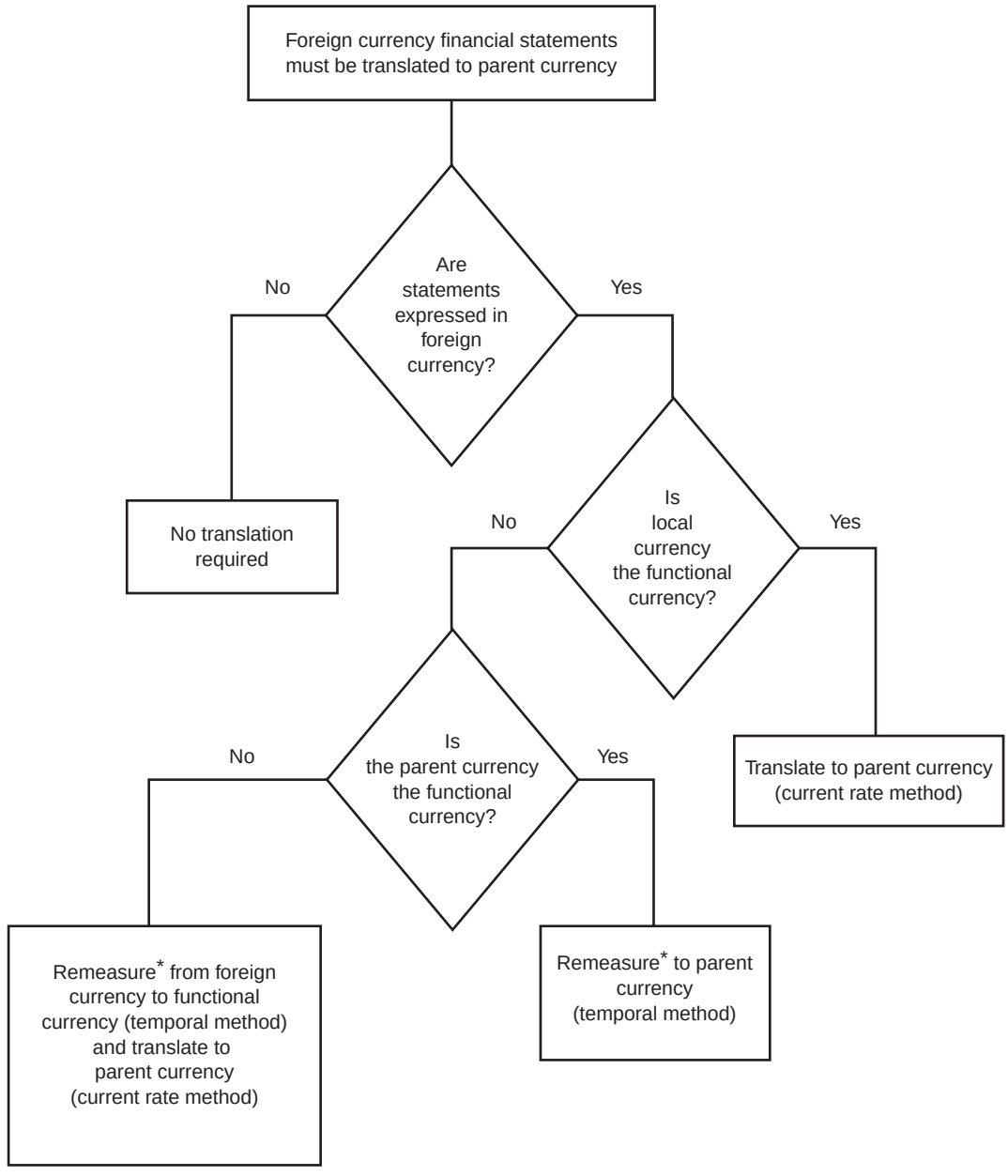
1. Monetary assets and liabilities and nonmonetary assets valued at current market prices are translated using the rate prevailing as of the financial statement date; other nonmonetary items and capital accounts are translated at historical rates.
2. Revenues and expenses are translated using average exchange rates for the period except those items related to nonmonetary items (e.g., cost of sales and depreciation expense), which are translated using historical rates.
3. Translation gains and losses are reflected in current income.

Translation When *Foreign* Currency Is the Functional Currency

A foreign entity may keep its records in one foreign currency when its functional currency is another foreign currency. In this situation, the financial statements are first remeasured from the local currency into the functional currency (temporal method) and then translated into U.S. dollars using the current rate method. Assume a German parent company owns a wholly-owned affiliate in Mexico. The Mexican affiliate subcontracts most of its production to Brazilian vendors. Hence, the Mexican affiliate's functional currency is deemed to be the Brazilian real. In consolidating the accounts of its Mexican affiliate, the German parent company would first remeasure the Mexican accounts from pesos to reals using the temporal method with any translation gains and losses reflected in the reported earnings of the Mexican concern. These real balances would then be translated to German marks using the current rate method with any translation adjustments arising from this process reflected in consolidated equity.

Exhibit 6-10 charts the translation procedures described here, and the appendix to this chapter demonstrates the mechanics of foreign currency translation.

EXHIBIT 6-10 Translation Procedure Flowchart



*The term *remeasure* means to translate so as to change the unit of measure from a foreign currency to the functional currency.

An exception to the current rate method is required for subsidiaries located in places where the cumulative rate of inflation during the preceding three years exceeds 100 percent. In such hyperinflationary conditions, the dollar (the stronger currency) is considered the functional currency, requiring use of the temporal translation method.

Where an entity has more than one distinct and separable operation (e.g., a branch or division), each operation may be considered as a separate entity with its own functional currency. Thus, a U.S. parent might have a self-contained manufacturing operation in Mexico designed to serve the Latin American market and a separate sales outlet for the parent company's exported products. Under these circumstances, financial statements of the manufacturing operation would be translated to dollars using the current rate method. The peso statements of the Mexican sales outlet would be remeasured in dollars using the temporal method.

Once the functional currency for a foreign entity is determined, that currency designation must be used consistently unless changes in economic circumstances clearly indicate that the functional currency has changed. If a reporting enterprise can justify the change, analysts should note that the accounting change need not be accounted for retroactively.

MEASUREMENT ISSUES

Readers of consoliated accounts must address several issues if they are to properly interpret the financial statement effects of foreign currency translation. The following sections discuss several of them.

Reporting Perspective

In adopting the notion of functional currency, FAS No. 52 and IAS 21 accommodate both local and parent company reporting perspectives in the consolidated financial statements. But are financial statement readers better served by incorporating two different reporting perspectives and, therefore, two different currency frameworks in a single set of consolidated financial statements? Is a translation adjustment produced under the temporal method any different in substance from that produced under the current rate method? If not, is any useful purpose served by disclosing some translation adjustments in income and others in stockholders' equity? Is FAS No. 8's concept of a single unit of measure (the parent company's reporting currency) the lesser of two evils? Should we stop translating foreign currency financial statements altogether? Doing so would avoid many of the pitfalls associated with current translation methods, including the problem of incorporating more than one perspective in the translated results.

It has also been suggested that FAS No. 52 is inconsistent with the theory of consolidation, which is to show the statements of a parent company and its subsidiaries as if the group were operating as a single company. Yet subsidiaries whose functional currency is the local currency operate relatively independently of the parent. If the multinational doesn't operate as a single company, then why consolidate those parts that are independent?[17]

[17] C. W. Nobes, "An Analysis of the Use of 'Theory' in the UK and US Currency Translation Standards," reprinted in C. W. Nobes, Issues in International Accounting, New York: Garland, 1986, pp. 129–130.

What Happened to Historical Cost?

As noted earlier in the chapter, translating a balance measured under historical cost at the current exchange rate produces an amount in U.S. dollars that is neither the item's historical cost nor its current value equivalent. Such a translated amount defies theoretical description. Historical cost is the basis of U.S. GAAP and most overseas assets of most multinationals will have historical cost measurements. Yet the current rate method is used for translation whenever a local currency is deemed to be the functional currency. Even if financial statement users can still make sense of the consolidated amounts, the theoretical incoherence remains.

Concept of Income

Under the currency translation pronouncements already described, adjustments arising from the translation of foreign currency financial statements and certain transactions are made directly to shareholders' equity, thus bypassing the income statement. The apparent intention of this was to give statement readers more accurate and less confusing income numbers. Some, however, dislike the idea of burying translation adjustments that were previously disclosed. They fear readers may be confused as to the effects of fluctuating exchange rates on a company's worth.

Managed Earnings

Currency translation pronouncements such as those just described provide opportunities to manage earnings. Consider the choice of functional currencies. An examination of the functional currency criteria shown in Exhibit 6-4 suggests that the choice of a functional currency is not straightforward. A foreign subsidiary's operations could satisfy opposing criteria. For example, a foreign subsidiary may incur its expenses primarily in the local country and make its sales primarily in the local environment and denominated in local currency. These circumstances would favor selection of the local currency as the functional currency. Yet the same operation may be financed entirely by the parent company with cash flows remitted to the parent. Therefore, the parent currency could be selected as the functional currency. The different possible outcomes involved in selecting functional currencies may be one reason why Exxon-Mobil Oil chooses the local currency as the functional currency for most of its foreign operations, while Chevron-Texaco and Unocal choose the dollar. When choice criteria conflict and the choice can significantly affect reporting outcomes, there are opportunities for earnings management.

Research to date is inconclusive as to whether managers manipulate income (and other financial statement amounts) by the choice of functional currency.[18] Some evidence

[18] For example, see J. H. Amernic and B. J. B. Galvin, "Implementing the New Foreign Currency Rules in Canada and the United States: A Challenge to Professional Judgement," *International Journal of Accounting* (Spring 1984): 165–180; Thomas G. Evans and Timothy S. Doupnik, Determining the Functional Currency Under Statement 52, Stamford, CT: FASB, 1986, 11–12; Dileep R. Mehta and Samanta B. Thapa, "FAS 52, Functional Currency, and the Non-Comparability of Financial Reports," *International Journal of Accounting* 26, no. 2 (1991): 71–84; Robert J. Kirsch and Thomas G. Evans, "The Implementation of FAS 52: Did the Foreign Currency Approach Prevail?" *International Journal of Accounting* 29, no. 1 (1994): 20–33; and M. Aiken and D. Ardern, "Choice of Translation Methods in Financial Disclosure: A Test of Compliance with Environmental Hypotheses," *British Accounting Review*, 35 (2003): 327–348.

of earnings management appears when one looks at when companies choose to adopt a new currency translation pronouncement. For example, evidence regarding adoption dates for the U.K.'s currency translation pronouncement, SSAP 20 shows that companies chose to defer adoption of the standard to influence their financial performance and, achieve certain corporate financial objectives.[19] Such motives as these reduce the credibility of multinationals' consolidated financial statements.

FOREIGN CURRENCY TRANSLATION AND INFLATION

An inverse relationship between a country's rate of inflation and its currency's external value has been empirically demonstrated.[20] Consequently, use of the current rate to translate the cost of nonmonetary assets located in inflationary environments will eventually produce domestic currency equivalents far below their original measurement bases. At the same time, translated earnings would be greater because of correspondingly lower depreciation charges. Such translated results could easily mislead rather than inform. Lower dollar valuations would usually understate the actual earning power of foreign assets supported by local inflation, and inflated return on investment ratios of foreign operations could create false expectations of future profitability.

The FASB decided against inflation adjustments before translation, believing such adjustments to be inconsistent with the historical cost valuation framework used in basic U.S. statements. As a solution, FAS No. 52 requires use of the U.S. dollar as the functional currency for foreign operations domiciled in hyperinflationary environments (those countries where the cumulative rate of inflation exceeds 100 percent over a three-year period). This procedure would hold constant the dollar equivalents of foreign currency assets, as they would be translated at the historical rate (by the temporal method). This method has its limitations. First, translation at the historical rate is meaningful only if differential rates of inflation between the subsidiary's host country and parent country are perfectly negatively correlated with exchange rates. If not, the dollar equivalents of foreign currency assets in inflationary environments will be misleading. Should inflation rates in the hyperinflationary economy fall below 100 percent in a future three-year period, switching to the current rate method (because local currency would become the functional currency) could produce a significant translation adjustment to consolidated equity, as exchange rates may change significantly during the

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[19] George Emmanuel Iatrides and Nathan Lael Joseph, "Characteristics of UK firms Related to Timing of Adoption of Statement of Standard Accounting Practice No. 20," *Accounting and Finance*, Vol. 46 (2006): 429–455. For evidence of earnings motivation for switching currency translation methods, see Dahli Gray, "Corporate Preferences for Foreign Currency Accounting Standards," *Journal of Accounting Research* (Autumn 1984): 760–764; James J. Benjamin, Steven Grossman, and Casper Wiggins, "The Impact of Foreign Currency Translation on Reporting During the Phase-in of SFAS No. 52," *Journal of Accounting, Auditing, and Finance* 1, no. 3 (1996): 174–184; Frances L. Ayres, "Characteristics of Firms Electing Early Adoption of SFAS 52," *Journal of Accounting and Economics* (June 1986): 143–158; and Robert W. Rutledge, "Does Management Engage in the Manipulation of Earnings?" *Journal of International Accounting, Auditing, and Taxation* 4, no. 1 (1995): 69–86.

[20] B. Balassa, "The Purchasing Power Parity Doctrine: A Reappraisal," *Journal of Political Economy* (1964): 145–154; R. Z. Aliber and C. P. Stickney, "Accounting Measures of Foreign Exchange Exposure: The Long and Short of It," *Accounting Review* (January 1975): 44–57; and W. Beaver and M. Wolfson, "Foreign Currency Translation in Perfect and Complete Markets," *Journal of Accounting Research* (Autumn 1982): 528–560.

interim. Under these circumstances, charging stockholders' equity with translation losses on foreign currency fixed assets could have a significant effect on financial ratios with stockholders' equity in the denominator. The issue of foreign currency translation cannot be separated from the issue of accounting for foreign inflation, which is treated at greater length in the next chapter.[21]

FOREIGN CURRENCY TRANSLATION ELSEWHERE

We now look briefly at foreign currency translation in other parts of the world. The Canadian Institute of Chartered Accountants (CICA), the U.K.'s Accounting Standards Board, and the International Accounting Standards Board all participated in the deliberations that led to FAS No. 52. It is not surprising, therefore, to find that their corresponding standards are largely compatible with FAS No. 52.[22]

A distinctive feature of Canada's standard (CICA 1650) concerns foreign long-term debt. In Canada, gains and losses from translation are deferred and amortized as opposed to being recognized in income immediately. Canada has issued a second exposure draft proposing to eliminate its defer and amortize approach.

A major difference between the U.K. and U.S. relates to self-contained subsidiaries in hyperinflationary countries. In the United Kingdom, financial statements must first be adjusted to current price levels and then translated using the current rate; in the United States, the temporal method is used.

Finally, there is an important distinction between IAS 21 (as revised) and FAS No. 52. Under IAS 21, the financial statements of subsidiaries in highly inflationary environments must be adjusted to reflect changes in the general price level before translation, a treatment like that in the U.K. standard.

The Australian foreign currency translation standard calls for revaluing noncurrent, nonmonetary assets for subsidiaries in high inflation countries prior to translation. The New Zealand standard is silent on the issue. The New Zealand standard also calls for the monetary–nonmonetary method of translation for subsidiaries with operations integrated with the parent, producing results very similar to the temporal method.

Japan recently changed its standard to require the current rate method in all circumstances, with translation adjustments shown on the balance sheet in stockholders' equity. The EU Fourth and Seventh Directives (see Chapter 8) have no provisions on foreign currency translation. As a result, currency translation practices varied considerably. However, foreign currency translation practices in Europe have narrowed as International Financial Reporting Standards has become the reporting norm for listed EU companies. Observation suggests that foreign currency translation standards globally are converging on FAS No. 52 and IAS 21.

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[21] For a recent examination of this relationship, see John Huges, Jing Liu, and Mingshan Zhang, "Valuation and Accounting for Inflation and Foreign Exchange," *Journal of Accounting Research*, Vol. 42, no. 4 (2004): 731–754.

[22] All three standards were issued in 1983, roughly 18 months after FAS No. 52. The Canadian standard is Accounting Recommendation 1650 and the British standard is Statement of Standard Accounting Practice 20; both are titled "Foreign Currency Translation." The original International Accounting Standard 21 was modified in 1993 and is now called, "The Effects of Changes in Foreign Exchange Rates."

Appendix 6-1

Translation and Remeasurement Under FAS No. 52

Exhibit 6-11 presents comparative foreign currency balance sheets at December 31, 2010 and 2011, and a statement of income for the year ended December 31, 2011, for CM Corporation, a wholly-owned foreign subsidiary of a U.S. company. The statements conform with U.S. generally accepted accounting principles before translation to U.S. dollars.

Capital stock was issued and fixed assets acquired when the exchange rate was FC1 = $.17. Inventories at January 1, 2011, were acquired during the fourth quarter of 2010. Purchases (FC6,250), sales, other expenses, and dividends (FC690) occurred evenly during 2011. Retained earnings in U.S. dollars at December 31, 2010, under the temporal method were $316. Exchange rates for calendar 2011 were as follows:

January 1, 2011	FC1 = $.23
December 31, 2011	FC1 = $.18
Average during 2011	FC1 = $.22
Average during fourth quarter, 2011	FC1 = $.23
Average during fourth quarter, 2011	FC1 = $.19

EXHIBIT 6-11 Financial Statements of CM Corporation

Balance Sheet	**12/31/10**	**12/31/11**
Cash	FC 300	FC 500
Accounts receivable (net)	1,300	1,000
Inventories (lower of FIFO cost or market)	1,200	1,500
Fixed assets (net)	9,000	8,000
Total assets	FC 11,800	FC 11,000
Accounts payable	FC 2,200	FC 2,400
Long-term debt	4,400	3,000
Capital stock	2,000	2,000
Retained earnings	3,200	3,600
Total liabilities and owners' equity	FC 11,800	FC 11,000

Income Statement	**Year ended 12/31/11**
Sales	FC 10,000
Expenses	
Cost of sales	5,950
Depreciation (straight-line)	1,000
Other	1,493
Operating income	FC 1,557
Income taxes	467
Net income	FC 1,090

Current Rate Method

Translation adjustments under the current rate method arise whenever (1) year-end foreign currency balances are translated at a current rate that differs from that used to translate ending balances of the previous period, and (2) foreign currency financial statements are translated at a current rate that differs from exchange rates used during the period. The translation adjustment is calculated by (1) multiplying the beginning foreign currency net asset balance by the change in the current rate during the period. and (2) multiplying the increase or decrease in net assets during the period by the difference between the average exchange rate and the end-of-period exchange rate. Exhibit 6-12 depicts how the FAS No. 52 translation process applies to these figures.

EXHIBIT 6-12 **Current Rate Method of Translation (Local Currency is Functional Currency)**

	Foreign Currency	Exchange Rate	Dollar Equivalents
Balance Sheet Accounts			
Assets			
Cash	FC 500	$.18	$ 90
Accounts receivable	1,000	.18	180
Inventories	1,500	.18	270
Fixed assets	8,000	.18	1,440
Total	FC 11,000		$1,980
Liabilities and Stockholders' Equity			
Accounts payable	FC 2,400	.18	$ 432
Long-term debt	3,000	.18	540
Capital stock	2,000	.17	340
Retained earnings	3,600	[a]	404
Translation adjustment (cumulative)		[b]	264
Total	FC 11,000		$1,980
Income Statement Accounts			
Sales	FC 10,000	.22	$2,200
Cost of sales	(5,950)	.22	(1,309)
Depreciation	(1,000)	.22	(220)
Other expenses	(1,493)	.22	(328)
Income before income taxes	FC 1,557		$ 343
Income taxes	(467)	.22	(103)
Net income	FC 1,090		$ 240
Retained earnings, 12/31/10	3,200		316
Less: dividends	(690)	.22	(152)
Retained earnings, 12/31/11	FC 3,600		$ 404

[a] *See statement of income and retained earnings.*

[b] *The cumulative translation adjustment of $264 is comprised of two parts: (1) the cumulative translation adjustment at the beginning of the year and (2) the translation adjustment for the current year and would be disclosed as a component of Other Comprehensive Income.*

As can be seen, translation procedures under the current rate method are straightforward. However, the derivation of the beginning cumulative translation adjustment merits some explanation. Assume that calendar 2011 is the first year in which the current rate method is adopted (e.g., the previous translation method was the temporal method, as the U.S. dollar was considered functional before 2011). Under this scenario, a one-time translation adjustment would be calculated as of January 1, 2011. This figure approximates the amount by which beginning stockholders' equity would differ in light of the switch from the temporal to the current rate method. It is calculated by translating CM Corporation's January 1, 2011, foreign currency net asset position at the current rate prevailing on that date. (This result simulates what CM's beginning net asset position would be had it used the current rate method all along.) The difference between this amount and the amount of net assets under the temporal method constitutes CM Corporation's beginning-of-period cumulative translation adjustment, as illustrated here.

Net assets, 12/31/10		FC 5,200
Multiplied by exchange rate as of 1/1/11 (FC1 = $.23)		X $0.23
Less: As reported stockholders' equity, 12/31/10 :		1,196
Capital stock	$340	
Retained earnings (per temporal method)	316	656
Cumulative translation adjustment, 1/1/10		$ 540

Given this information, the following steps yield a translation adjustment of $(276) for calendar 2011.

1. Net assets, 12/31/10		FC 5,200	
Multiplied by change in current rate:			
Rate, 12/31/10	FC1 = $.23		
Rate, 12/31/11	FC1 = $.18	X$(.05)	$(260)
2. Change in net assets during year (net income less dividends)		FC 400	
Multiplied by difference between average and year-end rate:			
Average rate	FC1 = $.22		
Year-end rate	FC1 = $.18	X$(.04)	$ (16)
Total			$(276)

The final cumulative translation adjustment for 2011 of $264 is reached by adding the $(276) translation adjustment for 2011 to the beginning balance of $540.

Temporal Method

Exhibit 6-13 illustrates the FAS No. 52 remeasurement process when the dollar is the functional currency.

EXHIBIT 6-13 Temporal Method of Translation (U.S. Dollar is Functional Currency)

	Foreign Currency	Exchange Rate	Dollar Equivalents
Balance Sheet Accounts			
Assets			
Cash	FC 500	$.18	$ 90
Accounts receivable	1,000	.18	180
Inventories	1,500	.19	285
Fixed assets	8,000	.17	1,360
Total	FC 11,000		$1,915
Liabilities and Stockholders' Equity			
Accounts payable	FC 2,400	.18	$ 432
Long-term debt	3,000	.18	540
Capital stock	2,000	.17	340
Retained earnings	3,600	[a]	603
Translation adjustment	—	[b]	—
Total	FC 11,000		$1,915
Income Statement Accounts			
Sales	FC 10,000	.22	$2,200
Cost of sales	(5,950)	[c]	(1,366)
Depreciation	(1,000)	.17	(170)
Other expenses	(1,493)	.22	(328)
Aggregate exchange gain (loss)	—	[d]	206
Income taxes	467	.22	(103)
Net income	FC 1,090		$ 439
Retained earnings, 12/31/10	3,200		316
Dividends	(690)	.22	(152)
Retained earnings, 12/31/11	FC 3,600		$ 603

[a] *See statement of income and retained earnings.*

[b] *Under the temporal method, translation adjustments ("gains and losses") appear directly in consolidated income as opposed to stockholders' equity.*

[c] *The dollar equivalent of cost of sales is derived by translating the components of cost of sales—namely, purchases or cost of production plus beginning and ending inventories by appropriate exchange rates as follows:*

Beginning inventories	*FC 1,200 at $.23 = $ 276*
Purchases	*FC 6,250 at $.22 = $1,375*
Cost of goods available for sale	*$1,651*
Ending inventories	*FC 1,500 at $.19 = $ 285*
Cost of sales	*$1,366*

[d] *The aggregate exchange gain or loss figure combines both transaction and translation gains and losses.*

In contrast to the current rate method, the temporal method translates foreign currency balances using historical as well as current exchange rates. Calculation of the exchange adjustment, which aggregates both transaction and translation gains and losses, also differs. In this example, the first component of the translation adjustment is found by multiplying the beginning net monetary asset position by the change in the current rate during the year. Thus:

(12/31/10 Monetary assets
− monetary liabilities)
× change in current rate
= (FC1,600 − FC6,600)
× ($.18 − $.23)
= $250

The second component is found by first identifying the variables (i.e., sources and uses of monetary items) that caused the foreign subsidiary's net monetary asset position (exposure) to change, and then multiplying these items by the difference between the year-end exchange rate and the rates that pertain to them. This is illustrated here.

Change in net monetary asset position:

12/31/10	FC (5,000)
12/31/11	FC (3,900)
	FC 1,100

Composition of change:

Sources of monetary items multiplied by difference between year-end and average rate:

Net income	FC 1,090
Depreciation	FC 1,000
	2,090 × (.18 − .22) = $ (84)

Uses of monetary items multiplied by the difference between the year-end and average rate:

Increase in inventories	FC 300
Dividends	FC 690
	900 × (.18 − .22) = $40

The aggregate exchange adjustment is the sum of any transaction gain or loss together with the individual translation components derived, that is, $250 + ($84) + $40 = $206.

Discussion Questions

1. What is the difference between the spot, forward, and swap markets? Illustrate each description with an example.
2. What do current, historical, and average exchange rates mean in the context of foreign currency translation? Which of these rates give rise to translation gains and losses? Which do not?
3. A foreign currency transaction can be denominated in one currency, yet measured in another. Explain the difference between these two terms using the case of a Canadian dollar borrowing on the part of a Mexican affiliate of a U.S. parent company that designates the U.S. dollar as the functional currency.
4. What is the difference between a transaction gain or loss and a translation gain or loss?
5. Briefly explain the nature of foreign currency translation as (a) a restatement process and (b) a remeasurement process.
6. Compare and contrast features of the major foreign currency translation methods introduced in this chapter. Which method do you think is best? Why?
7. Under what set of conditions would the temporal method of currency translation be appropriate . Under what set of conditions would the current rate method be appropriate?
8. What lessons, if any, can be learned from examining the history of foreign currency translation in the United States?

9. In what way is foreign currency translation tied to foreign inflation?
10. How does the treatment of translation gains and losses differ between the current and temporal translation methods under FAS No. 52, and what is the rationale for the differing accounting treatments?

Exercises

1. Assume that your Japanese affiliate reports sales revenue of 250,000,000 yen. Referring to Exhibit 6-1, translate this revenue figure to U.S. dollars using the direct bid spot rate. Do the same using the indirect spot quote.
2. On April 1, A. C. Corporation, a calendar-year U.S. electronics manufacturer, buys 32.5 million yen worth of computer chips from the Hidachi Company paying 10 percent down, the balance to be paid in 3 months. Interest at 8 percent per annum is payable on the unpaid foreign currency balance. The U.S. dollar/Japanese yen exchange rate on April 1 was $1.00 = ¥93.6250; on July 1 it was $1.00 = ¥93.5283.

   Required: Prepare dated journal entries in U.S. dollars to record the incurrence and settlement of this foreign currency transaction assuming:
   a. A. C. Corporation adopts a single-transaction perspective, and
   b. it employs a two-transactions perspective.
3. On January 1, the wholly-owned Mexican affiliate of a Canadian parent company acquired an inventory of computer hard drives for its assembly operation. The cost incurred was 15,000,000 pesos when the exchange rate was MXN11.3 = C$1. By year-end, the Mexican affiliate had used three-fourths of the acquired hard drives. Due to advances in hardware technology, the remaining inventory was marked down to its net realizable value of MXN1,750,000. The year-end exchange rate was MXN12.3 = C$1. The average rate during the year was MXN11.8 = C$1.

   Required:
   a. Translate the ending inventory to Canadian dollars assuming the Mexican affiliate's functional currency is the Mexican peso.
   b. Would your answer change if the functional currency were the Canadian dollar? Please explain.
4. U.S. Multinational Corporation's subsidiary in Bangkok has on its books fixed assets valued at 7,500,000 baht. One-third of the assets were acquired two years ago when the exchange rate was THB40 = $1. The other fixed assets were acquired last year when the exchange rate was THB38 = $1. Each layer of fixed assets is being depreciated straight-line with an estimated useful life of 20 years. Relevant exchange rates for the current year are:

   Year-end rate: THB34 = $1

   Average rate: THB35 = $1

   Required:
   a. Calculate the Thai subsidiary's depreciation expense for the current year, assuming the baht is the functional currency.
   b. Repeat requirement a., assuming instead that the U.S. dollar is the functional currency.
5. Sydney Corporation, an Australian-based multinational, borrowed 10,000,000 euros from a German lender at the beginning of the calendar year when the exchange rate was EUR.60 = AUD1. Before repaying this one-year loan, Sydney Corporation learns that the Australian dollar has depreciated to EUR.55 = AUD1. It also discovers that its Frankfurt subsidiary has an exposed net asset position of EUR30,000,000, which will produce a translation gain upon consolidation. What is the exchange gain or loss that will be reported in consolidated income if
   a. The euro is the foreign operation's functional currency?
   b. The Australian dollar is the foreign operation's functional currency?
6. Shanghai Corporation, the Chinese affiliate of a U.S. manufacturer, has the balance sheet shown below. The current exchange rate is $.0.15 = CNY1.

Balance Sheet of Shanghai Corporation (000's)

Assets		Liabilities	
Cash	CNY 5,000	Accounts payable	CNY21,000
Accounts receivable	14,000	Long-term debt	27,000
Inventories[a] (cost = 24,000)	22,000		
Fixed assets, net	39,000	Stockholders' equity	32,000
Total assets	CNY80,000	Total liab & SE	CNY80,000

[a]*Inventories are carried at the lower of cost or market.*

Required:

a. Translate the Chinese dollar balance sheet of Shanghai Corporation into U.S. dollars at the current exchange rate of $.0.15 12 = CNY1. All monetary accounts in Shanhai's balance sheet are denominated in Chinese yuan.
b. Assume the Chinese yuan revalues from $0.15 = CNY1 to $0.1875 = CNY1. What would be the translation effect if Shanghai's balance sheet is translated by the current–noncurrent method? By the monetary–nonmonetary method?
c. Assume instead that the Chinese yuan weakens from $0.15 = CNY1 to $0.1125 = CNY1. What would be the translation effect under each of the two translation methods?

7. Use the information provided in Exercise 6.

Required:

a. What would be the translation effect if Shanghai Corporation's balance sheet were translated by the temporal method assuming the Chinese yuan appreciates by 25 percent? By the current rate method?
b. If the Chinese yuan depreciates by 25 percent, what would be the translation effects under each of the two methods in requirement a?
c. Based on your previous calculations and in Exercise 6, which translation method—current–noncurrent, monetary–nonmonetary, temporal, or current—gives statement readers the most meaningful information?

8. Company A is headquartered in Country A and reports in the currency unit of Country A, the Apeso. Company B is headquartered in Country B and reports in the currency unit of Country B, the Bol. Company A and B hold identical assets, Apeso100 and Bol100, at the beginning and end of the year. At the beginning of the year, the exchange rate is Apeso1 = Bol1.25. At the end of the year, the exchange rate is Apeso1 = Bol 2. No transactions occur during the year.

Required:

a. Calculate total assets reported by Company A and Company B at the beginning and at the end of the year. Which company has a gain and which has a loss for the year?
b. Does your answer to part a. make sense? Would it matter if Companies A and B intended to repatriate their respective foreign assets rather than keep them invested permanently abroad?
c. What is the lesson for statement readers from all of this? Is it all a shell game?

9. A 100 percent–owned foreign subsidiary's trial balance consists of the accounts listed as follows. Which exchange rate—current, historical, or average—would be used to translate these accounts to parent currency assuming that the foreign currency is the functional currency? Which rates would be used if the parent currency were the functional currency?

Trial Balance Accounts	
Cash	Common stock
Marketable securities (cost)	Premium on common stock
Accounts receivable	Retained earnings
Inventory (market)	Sales
Equipment	Purchases
Accumulated depreciation	Cost of sales
Prepaid expenses	General and administrative expenses
Goodwill	Selling expenses
Accounts payable	Depreciation
Due to parent (denominated in dollars)	Amortization of goodwill
Bonds payable	Income tax expense
Income taxes payable	Intercompany interest expense
Deferred income taxes	

10. On December 15, MSC Corporation acquires its first foreign affiliate by acquiring 100 percent of the net assets of the Armaselah Oil Company based in Saudi Arabia for 930,000,000 Saudi Arabian riyals.(SAR). At the time, the exchange rate was $1.00 = SAR3.750. The acquisition price is traceable to the following identifiable assets:

Cash	SAR 60,000,000
Inventory	120,000,000
Fixed assets	750,000,000

As a calendar-year company, MSC Corporation prepares consolidated financial statements every December 31. However, by the consolidation date, the Saudi Arabian riyal depreciates such that the new spot rate is $1.00 = SAR4.125.

Required:

a. Assuming no transactions took place before consolidation, what would be the translation gain or loss if Armaselah's balance sheet were translated to dollars by the temporal rate method?

b. How does the translation adjustment affect MSC's cash flows?

c. What adjustments to Armaselah's accounts would you make to enable you to compare its financial statements with another company of comparable size in the same industry that is employing the current rate translation method per IAS 21?

CASES

Case 6-1

Regents Corporation

Regents Corporation is a recently acquired U.S. manufacturing subsidiary located on the outskirts of London. Its products are marketed principally in the United Kingdom with sales invoiced in pounds and prices determined by local competitive conditions. Expenses (labor, materials, and other production costs) are mostly local, although a significant quantity of components is now imported from the U.S. parent. Financing is primarily in U.S. dollars provided by the parent.

Headquarters management must decide on the functional currency for its London operation: Should it be the U.S. dollar or the British pound? You are asked to advise management on the appropriate currency designation and its relative financial statement effects. Prepare a report that supports your recommendations and identify any policy issues your analysis uncovers.

Exhibit 6-14 presents comparative balance sheets for Regents Corporation at December 31, 2010 and 2011 , and a statement of income for the year ended December 31, 2011 . The statements conform with U.S. generally accepted accounting principles prior to translation to dollars.

EXHIBIT 6-14 **Regents Corporation Financial Statements**

Balance Sheet	12/31/10	12/31/11
Assets		
Cash	£ 1,060	£ 1,150
Accounts receivable	2,890	3,100
Inventory (FIFO)	3,040	3,430
Fixed assets	4,400	4,900
Accumulated depreciation	(420)	(720)
Intangible asset (patent)		70
Total	£10,970	£11,930
Liabilities and Stockholders' Equity		
Accounts payable	£ 1,610	£ 1,385
Due to parent	1,800	1,310
Long-term debt	4,500	4,000
Deferred taxes	80	120
Common stock	1,500	1,500
Retained earnings	1,480	3,615
Total	£10,970	£11,930

(continued)

EXHIBIT 6-14 Regents Corporation Financial Statements (Continued)

Balance Sheet	12/31/10	12/31/11
Income Statement Year Ended 12/31/11		
Sales		£16,700
Expenses		
Cost of sales	£11,300	
General and administrative	1,600	
Depreciation	300	
Interest	480	13,680
Operating income		£ 3,020
Transaction gain (loss)		125
Income before taxes		£ 3,145
Income taxes Current	£ 670	
Deferred	40	710
Net income		£ 2,435
Retained earnings at 12/31/10 (residual)		1,480
		3,915
Dividends		300
Retained earnings at 12/31/11		£ 3,615

Exchange rate information and additional data:

1. Exchange rates:
   - December 31, 2010 $1.80 = £1
   - December 31, 2011 $1.90 = £1
   - Average during 2011 $1.86 = £1
   - Average during fourth quarter 2010 $1.78 = £1
   - Average during fourth quarter 2011 $1.88 = £1
2. Common stock was acquired, long-term debt issued, and original fixed assets purchased when the exchange rate was $1.70 = £1.
3. Due to parent account is denominated in U.S. dollars.
4. Exchange rate prevailing when the intangible asset (patent) was acquired and additional fixed assets purchased was $1.82 = £1.
5. Purchases and dividends occurred evenly during 2011.
6. Of the £300 depreciation expense for 2011 , £20 relates to fixed assets purchased during 2011.
7. Deferred taxes are translated at the current rate.
8. Inventory represents approximately three months of production.

Case 6-2

Managing Offshore Investments: Whose Currency?

The Offshore Investment Fund (OIF) was incorporated in Fairfield, Connecticut, for the sole purpose of allowing U.S. shareholders to invest in Spanish securities. The fund is listed on the New York Stock Exchange. The fund custodian is the Shady Rest Bank and Trust Company of Connecticut ("Shady Rest"), which keeps the fund's accounts. The question of which currency to use in keeping the fund's books arose at once. Shady Rest prepared the fund's books in euros, since the fund was a country fund that invested solely in securities listed on the Madrid Stock Exchange. Subsequently, the fund's auditors stated that, in their opinion, the functional currency should be the U.S. dollar. This case is based on an actual occurrence. Names and country of origin have been changed to ensure anonymity.

Effects of the Decision

The decision to possibly adopt the U.S. dollar as the functional currency for the fund created considerable managerial headaches. For one thing, the work of rewriting and reworking the accounting transactions was a monumental task that delayed the publication of the annual accounts. The concept of the functional currency was a foreign concept in Spain, and the effects of the functional currency choice were not made clear to the managers. Consequently, they continued to manage the fund until late in November without appreciating the impact the currency choice had on the fund's results.

Additional difficulties caused by the functional currency choice were:

a. Shady Rest, with some $300 billion in various funds under management, still had not developed an adequate multicurrency accounting system. Whereas accounting for a security acquisition would normally be recorded in a simple bookkeeping entry, three entries were now required. In addition, payment for the purchase itself could impact the income statement in the current period.

b. More serious problems related to day-to-day operations. When a transaction was initiated, the fund manager had no idea of its ultimate financial effect. As an example, during the first year of operations, the Fund manager was certain that his portfolio sales had generated a profit of more than $1 million. When the sales finally showed up in the accounts, the transaction gain was offset by currency losses of some $7 million!

Reasons Given for Choosing the Dollar as Functional

The auditors gave the following reasons for choosing the dollar as the fund's functional currency:

a. Incorporation in the United States
b. Funded with U.S. shareholder capital
c. Dividends determined and paid in U.S. dollars
d. Financial reporting under U.S. GAAP and in U.S. dollars
e. Administration and advisory fees calculated on U.S. net assets and paid in U.S. dollars

f. Most expenses incurred and paid in U.S. dollars
g. Accounting records kept in U.S. dollars
h. Subject to U.S. tax, SEC, and 1940 Exchange Act regulations

Since the fund was set up to invest in Spain, it is assumed that U.S. shareholders are interested in the impact of an exchange rate change on the fund's cash flows and equity; that is, the shareholders do not invest in Spanish securities only because of attractive yields, but also are making a currency play that directly affects the measurement of cash flow and equity.

Management's Viewpoint

Management disagreed with the auditors. Following is its rebuttal:

a. Incorporation in the United States with U.S. shareholders. FAS 52 clearly states that the functional currency should be determined by "the primary economic environment in which that entity operates rather than by the technical detail of incorporation." Similarly, nowhere does FAS 52 state that the facts that the company has U.S. shareholders and pays dividends in U.S. dollars are relevant. In fact, FAS 52 concerns itself throughout with the firm and its management rather than its shareholders.
b. Financial reporting in U.S. dollars under U.S. GAAP. The auditors fail to differentiate between reporting currency and functional currency. It is clear that the U.S. dollar should be the reporting currency, but that alone does not mean that the U.S. dollar is the functional currency.
c. Payment of certain expenses in dollars. The payment of expenses in U.S. dollars is no reason to make the dollar the functional currency. While expenses of some $8 million for calendar year 2010 were incurred in U.S. dollars, income of over $100 million was earned in euros.
d. U.S. tax and SEC regulations. These considerations are relevant for the reporting currency, not the functional currency.

The decisive argument against identifying the dollar as the functional currency is that doing so does not provide information that is, in the words of FAS 52, "generally compatible with the expected economic effect of a rate change on an enterprise's cash flow and equity." Specifically, the operating cash flow of the Fund is located entirely in Spain once the initial transfer of funds raised by the issue of capital is made. The Fund buys and sells investments in Spain, and receives all its income from Spain. If the functional currency is euros, then realized currency fluctuations are recognized only when money is repatriated to the United States. The present practice of "realizing" an exchange profit or loss when, for example, cash in Spain is exchanged for an investment purchased in Spain is wrong and misleading.

Consider an example. Suppose that the fund deposits EUR100,000,000 in a Spanish bank when the exchange rate is EUR1 = $1.4090. One month later, when the exchange rate is EUR1 = $1.3988, the fund purchases and pays for an investment of EUR100,000,000, which it sells for cash on the same day, having decided the investment was unwise. Ignoring transaction costs, the fund has EUR100,000,000 in cash in Madrid at both the beginning and the end of the week. If the functional

currency is euros, there is no realized gain or loss. However, translation to dollars generates an unrealized currency loss of $1,020,000 , which would be realized only when the amount in question is repatriated to the United States. This is analogous to the purchase of a stock whose price later falls. If the U.S. dollar is the functional currency, the transaction in question would result in a realized loss on exchange of $1,020,000. This result is absurd in terms of any commonsense view of cash flow; indeed, it highlights that, given the fund's purpose, the effect on the reporting of income of adopting the U.S. dollar as the functional currency is equally absurd.

The net asset value of the fund is determined each week in U.S. dollars, and reported to stockholders in U.S. dollars. This is entirely consistent with having the U.S. dollar as the appropriate reporting currency. Using the dollar as the functional currency implies that there is a realistic and practical option on each transaction of moving between the dollar and the euro. This assumption is patently wrong; the fund will only repatriate its base capital under two circumstances: (1) liquidation or (2) as a temporary expedient if Spanish yields fall below U.S. yields.

General Thrust of FAS 52

The language of FAS 52 indicates that its authors did not write it with direct reference to a situation such as that of the Offshore Investment Fund, that is, a company that raises money for the single purpose of investing it in a foreign country. FAS 52 seems rather to be written from the viewpoint of an operating holding company owning a separate, distinct foreign operating subsidiary.

FAS 52 defines the functional currency of an entity as the currency of the primary economic environment in which that entity operates. Had the fund been incorporated in Malta and, as a separate entity, borrowed the funds from its U.S. parent, use of the local currency would have been automatic. If substance is to prevail over form, one must conclude that the euro should still be used.

Paragraph 6 of FAS 52 states, "for an entity with operations that are relatively self-contained and integrated within a particular country, the functional currency generally would be the currency of that country." This statement reinforces the operational aspect that governs the choice of the functional currency; it is surely wrong to argue that the operations of the fund are conducted anywhere but in Spain.

Paragraph 8 reinforces the contention that "management's judgment will be required to determine the functional currency in which financial results and relationships are measured with the greatest degree of relevance and reliability."

Finally, paragraphs 80 and 81 draw a very clear distinction that reinforces our (management's) contention. Paragraph 80 reads:

In the first class are foreign operations that are relatively self-contained and integrated within a particular country or economic environment. The day-to-day operations are not dependent upon the economic environment of the parent's functional currency; the foreign operation primarily generates and expends foreign currency. The foreign currency net cash flows that it generates may be reinvested and converted and distributed to the parent. For this class, the foreign currency is the functional currency.

This definition should be contrasted with paragraph 81, which states:

In the second class . . . the day-to-day operations are dependent on the economic environment of the parent's currency, and the changes in the foreign entity's individual assets and liabilities impact directly on the cash flows of the parent company in the parent's currency. For this class, the U.S. dollar is the functional currency.

Since the purpose of single-country funds is to create entities of the first rather than the second class, paragraph 80 precisely describes the operations of the Overseas Investment Fund.

Required

1. Based on the arguments presented, what do you think should be the functional currency in this case?