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IAS® Standard 21 The Effects of Changes in Foreign Exchange Rates



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CASE STUDY - IAS 21 THE EFFECTS OF CHANGES IN FOREIGN EXCHANGE RATES

Introduction

IAS 21 outlines how to account for foreign currency transactions and foreign operations in financial statements, as well as accounting for how to convert financial statements to a presentation currency.

The choice of a functional currency of a business whose operations are mainly concentrated in one country is normally the currency of that country. However, for a large number of companies that operate regionally or globally, the choice of a functional currency is less straightforward. IAS 21 has provided a set of indicators to assist in the determination of the functional currency.

IAS 21 requires that a foreign currency transaction be recorded by applying to the foreign currency amount the spot exchange rate between the functional currency and the foreign currency at the date of the transaction.

In the case of a group entity, the presentation currency of the group is the presentation currency of the parent company, which is the reporting entity. IAS 21 specifies two approaches to translation and the conditions under which each approach should be used. The translation approach to be used depends on whether the functional currency of the foreign subsidiary is the same as the presentation currency and whether the books are kept in the functional currency.

This case shows the process of translation of the foreign currency financial statements of a foreign operation to the presentation currency.

The Case Information

On December 31, 2020 Spruce Entity whose functional and presentation currency is the CUX, acquired the entire share capital of Star Entity, a foreign entity whose financial statements are prepared in the local currency (CUY).

Star Entity's statement of financial position on December 31, 2020 is presented below in CUY.

Star Entity			
Statement of Financial Position			
as of December 31, 2020 (in CUY)			
Cash	28,000	Accounts Payable	200,000
Accounts Receivable	100,000		
Inventories	120,000		
Prepaid Insurance	36,000	Retained Earnings	600,000
Fixed Assets (net)	580,000	Share Capital	64,000
Total Assets	864,000	Total Liabilities and Owner's Equity	864,000

Additional Information:

- 1- Fixed assets comprised the following:

	Net Book Value (CUY)	Annual Depreciation (CUY)
Land	100,000	-
Buildings	210,000	10,000
Equipments	336,000	56,000

- 2- Prepaid insurance expired on June 30, 2020.

Star Entity's statement of financial position on December 31, 2021, and December 31, 2022 and its statement of profit and loss and other comprehensive income for the year ending on December 31, 2021 and December 31, 2022 are presented below in CUY.

Star Entity Statement of Profit and Loss and Other Comprehensive Income		
For the Year Ending 2021 and 2022		
	2021 (CUY)	2022 (CUY)
Sales	1,200,000	1,600,000
<u>Cost of Good Sold</u>	<u>(760,000)</u>	<u>(860,000)</u>
<u>Beginning Inventory</u>	120,000	160,000
<u>Purchases</u>	<u>800,000</u>	<u>900,000</u>
Cost of Goods Available for Sale	920,000	1,060,000
Ending Inventory	(160,000)	(200,000)
Gross Profit	440,000	740,000
<u>Operating Expenses</u>	<u>(246,000)</u>	<u>(266,000)</u>
Depreciation Expense	66,000	86,000
Insurance Expense	24,000	12,000
Other Operating Expenses	156,000	168,000
Income Before Tax	194,000	474,000
Tax	<u>(40,000)</u>	<u>(96,000)</u>
Net Income	154,000	378,000

Star Entity Statement of Financial Positions as of December 31, 2021 and		
as of December 31, 2022 (CUY)		
	31.12.2021	31.12.2022
Cash	178,000	300,000
Accounts Receivable	140,000	210,000
Inventories	160,000	200,000
Prepaid Insurance	12,000	-
Fixed Assets (net)	514,000	668,000
TOTAL ASSETS	1,004,000	1,378,000
Accounts Payable	196,000	232,000
Tax Payable	40,000	60,000
Retained Earnings	168,000	446,000
Revaluation Surplus	-	40,000
Share Capital	600,000	600,000
TOTAL LIABILITIES AND OWNER'S EQUITY	1,004,000	1,378,000

	2021	2022
Retained Earnings (January 1)	64,000	168,000
Net Income	154,000	378,000
Dividends Paid	<u>(50,000)</u>	<u>(100,000)</u>
Retained Earnings (December 31)	<u>168,000</u>	<u>446,000</u>

Additional Information:

1. During 2021, additional plant and equipment costing CUY 200,000 were purchased. The exchange rate at the date of purchase was CUY 1 = CUX 2,95. The plant and equipment were depreciated on a straightline basis over ten years. Assume a full year's depreciation was recorded in 2021.
2. Land was revalued from CUY 100,000 to CUY 140,000 on September 30, 2021.
3. On May 15, 2021 CUY 50,000 and on May 20, 2022 CUY 1000,000 dividends paid.
4. Various assumed exchange rates for 2021 and 2022 are as follows:

December 31, 2020	CUY 1 = CUX 2.32
Weighted average rate for 2021	CUY 1 = CUX 2.70
Weighted average rate when closing inventories (2021) were acquired	CUY 1 = CUX 2.94
May 15, 2021	CUY 1 = CUX 2.78
December 31, 2021	CUY 1 = CUX 2.91
Weighted average rate for 2022	CUY 1 = CUX 3.06
Weighted average rate when closing inventories (2022) were acquired	CUY 1 = CUX 3.03
May 20, 2022	CUY 1 = CUX 3.01
September 30, 2022	CUY 1 = CUX 3.00
December 31, 2022	CUY 1 = CUX 3.52

5. Sales and expenses were incurred evenly throughout each reporting period.

Discussion Questions

- Please show the process of translation of the foreign currency financial statements of Star Entity to the presentation currency of Spruce Entity.
- Where do you think the foreign currency translation gain (loss) will be reported? And why?

SOLUTION OF CASE STUDY - IAS 21 THE EFFECTS OF CHANGES IN FOREIGN EXCHANGE RATES

Star Entity's financial statements for 2021 will be translated into CUX, the reporting currency of the parent company, Spruce Entity.

Star Entity			
Statement of Profit and Loss and Other Comprehensive Income Translation			
For the Year 2021			
	CUY	Exchange Rate	CUX
Sales	1,200,000	(*) 2.70	3,240,000
Cost of Goods Sold	<u>(760,000)</u>	2.70	<u>(2,052,000)</u>
Gross Profit	440,000		1,188,000
<u>Operating Expenses</u>			
Depreciation Expense	(66,000)	2.70	(178,200)
Insurance Expense	(24,000)	2.70	(64,800)
Other Operating Expenses	<u>(156,000)</u>	2.70	<u>(421,200)</u>
Income Before Tax	194,000		523,800
Tax	<u>(40,000)</u>	2.70	<u>(108,000)</u>
Net Income	154,000		415,800

The balance of the retained earnings, which will be reported on the statement of financial position of Star Entity as of December 31, 2021, will be calculated as follows.

	CUY	Exchange Rate	CUX
Retained Earnings (January 1, 2021)	64,000	(**) 2.32	148,480
Dividend Paid	(50,000)	2.78	(139,000)
Net Income of the Year 2021	<u>154,000</u>		<u>415,800</u>
Retained Earnings (December 31, 2021)	168,000		425,280

(*) Sales and expenses, including tax expense, are translated at the average rate as they occur evenly throughout the year. The exception is dividends paid, which is translated at the actual rate as it is a one-time transaction.

(**) The beginning retained earnings represent entirely the pre-acquisition retained earnings. Therefore, it is translated using the historical rate. However, if the beginning retained earnings are a composite of pre-acquisition and post-acquisition retained earnings, it is not possible to translate the amount at a single rate, as the amount is an accumulation of two or more years' earnings. In practice, the translated figure is used from the previous year's translated financial statements.

Star Entity
Statement of Financial Position Translation
As of December 31, 2021

	CUY	Exchange Rate	CUX
Cash	178,000	2.91	517,980
Accounts Receivable	140,000	2.91	407,400
Prepaid Insurance	12,000	2.91	34,920
Inventories	160,000	2.91	465,600
Plant, Property and Equipment	<u>514,000</u>	2.91	<u>1,495,740</u>
TOTAL ASSETS	1,004,000		2,921,640
Accounts Payable	(196,000)	2.91	(570,360)
Tax Payable	<u>(40,000)</u>	2.91	<u>(116,400)</u>
TOTAL NET ASSETS	<u>768,000</u>		<u>2,234,880</u>
Retained Earnings	168,000		425,280
Gain on Foreign Currency Translation			417,600
Share Capital	<u>600,000</u>	2.32	<u>1,392,000</u>
OWNER'S EQUITY	<u>768,000</u>		<u>2,234,880</u>

The translation gain of CUX 417,600 can be obtained in one of two ways. It can be obtained as a balancing figure by first translating the net assets at the closing rate. This figure should equal the translated amount on the owner's equity side of the accounting equation. The share capital is translated at the historical rate and the translated retained earnings are obtained from the statement of profit and loss and other comprehensive income. This leaves the **gain on foreign currency translation** as a balancing figure.

The translation difference can also be obtained by doing a reconciliation check as follows:

	CUY	Exchange Rate	CUX
Net Assets (January 1, 2020)	664,000	2.32	1,540,480
<u>Adjustments for Changes in Net Asset Position</u>			
<u>During Year:</u>			
Net Income	154,000	2.70	415,800
Dividends Paid	<u>(50,000)</u>	2.78	<u>(139,000)</u>
			(A) 1,817,280
Net Assets (December 31, 2020)	768,000	2.91	(B) <u>2,234,880</u>
Foreign Currency Translation Gain (Loss) (B-A)			417,600

The foreign currency translation gain is the result of the depreciation of the CUY against CUX during the year. the translation difference resulted from:

- a) The exposed opening net assets (CUY 664,000) that were brought forward at the previous closing rate;
- b) Movements in net assets during the year – the net profit for the year translated at the average rate and the dividends paid at the actual rate.

The sum of a) and b) represented by (A) is the unadjusted net assets in CUY at year-end. At year-end, the net assets carried forward (CUY 768,000) are translated at the closing rate to obtain CUX 2,234,880 (B). The difference between the two amounts (B and A) is the translation difference for the year.

Star Entity's financial statements for 2022 will be translated into CUX, the reporting currency of the parent company, Spruce Entity.

Star Entity			
Statement of Profit and Loss and Other Comprehensive Income Translation			
For the Year 2022			
	CUY	Exchange Rate	CUX
Sales	1,600,000	3.06	4,896,000
Cost of Goods Sold	<u>(860,000)</u>	3.06	<u>(2,631,600)</u>
Gross Profit	740,000		2,264,400
<u>Operating Expenses</u>			
Depreciation Expense	(86,000)	3.06	(263,160)
Insurance Expense	(12,000)	3.06	(36,720)
Other Operating Expenses	<u>(168,000)</u>	3.06	<u>(514,080)</u>
Income Before Tax	474,000		1,450,440
Tax	<u>(96,000)</u>	3.06	<u>(293,760)</u>
Net Income	378,000		1,156,680

The balance of the retained earnings, which will be reported on the statement of financial position of Star Entity as of December 31, 2022, will be calculated as follows.

	CUY	Exchange Rate	CUX
Retained Earnings (January 1, 2022)	168,000		425,280
Dividends	(100,000)	3.01	(301,000)
Net Income of the Year 2022	<u>378,000</u>		<u>1,156,680</u>
Retained Earnings (December 31, 2022)	446,000		1,280,960

Star Entity			
Statement of Financial Position Translation			
As of December 31, 2022			
	CUY	Exchange Rate	CUX
Cash	300,000	3.52	1,056,000
Accounts Receivable	210,000	3.52	739,200
Inventories	200,000	3.52	704,000
Plant, Property and Equipment	<u>668,000</u>	3.52	<u>2,351,360</u>
TOTAL ASSETS	1,378,000		4,850,560
Accounts Payable	(232,000)	3.52	(816,640)
Tax Payable	<u>(60,000)</u>	3.52	<u>(211,200)</u>
TOTAL NET ASSETS	1,086,000		3,822,720

Retained Earnings	446,000		1,280,960
Revaluation Surplus	40,000	3.00	120,000
Gain on Foreign Currency Translation	-	(1)	1,029,760
Share Capital	<u>600,000</u>	2.32	<u>1,392,000</u>
OWNER'S EQUITY	<u>1,086,000</u>		<u>3,822,720</u>

The foreign currency translation gain of CUX 1,029,760 can be obtained in one of two ways. It can be obtained as a balancing figure by first translating the net assets at the closing rate. This figure should equal the translated amount on the owner's equity side of the accounting equation. The share capital is translated at the historical rate and the translated retained earnings are obtained from the statement of profit and loss and other comprehensive income. This leaves the **gain on foreign currency translation** as a balancing figure.

The translation difference can also be obtained by doing a reconciliation check as follows:

(1) Gain on Foreign Currency Translation			
	CUY	Exchange Rate	CUX
Net Assets (January 1)	768,000	2.91	2,234,880
Net Income	378,000	3.06	1,156,680
Revaluation Surplus	40,000	3.00	120,000
Dividends	(100,000)	3.01	<u>(301,000)</u>
			(A) 3,210,560
Net Assets (December 31)	1,086,000	3.52	(B) <u>3,822,720</u>
Gain on Foreign Currency Translation (B-A)			612,160
Gain on Foreign Currency Translation (January 1)			<u>417,600</u>
Gain on Foreign Currency Translation (December 31)			<u>1,029,760</u>