**Appendix 15A**

Investments in International Operations

**QUESTIONS**

**15A. If the foreign exchange rate falls from $1.40 to $1.30 during the time the U.S. company holds a receivable that is denominated in the foreign currency, the U.S. company will incur an exchange loss. The foreign currency unit is worth $1.40 at the time of sale but is worth only $1.30 at the time it is paid to the U.S. company; hence, a loss of $0.10 is incurred for each foreign currency unit owed to the U.S. company.**

**16A. Two major challenges in accounting for international operations include (1) accounting for sales and purchases that are denominated in a foreign currency, and (2) preparing consolidated financial statements with a foreign subsidiary.**

**17A. No. If a sales agreement requires a foreign customer to pay U.S. dollars to the United States seller, the U.S. company is not exposed to the risk of exchange losses or gains**

**QUICK STUDIES**

**Quick Study 15-17A (10 minutes)**

**Date of Sale**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Accounts Receivable**  | **14,500** |  |
|  |  Sales  |  | **14,500** |
|  | ***Record credit sale in value of pounds*** ***(10,000 pounds x $1.45/pound).*** |  |  |

**Date of Payment**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Cash**  | **13,500** |  |
|  | **Foreign Exchange Loss**  | **1,000** |  |
|  |  **Accounts Receivable**  |  | **14,500** |
|  |  ***Cash received on account* (£10,000 x $1.35/£)*.*** |  |  |

**Quick Study 15-18A (10 minutes)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mar. 1** | **Account Receivable—Hamac**  | **9,076** |  |
|  |  **Sales**  |  | **9,076** |
|  | ***Record credit sale in value of ringgits******(20,000 ringgits x $0.4538/ringgit).*** |  |  |
|  |  |  |  |
| **Mar. 31** | **Cash**  | **9,798** |  |
|  |  **Foreign Exchange Gain**  |  | **722** |
|  |  **Accounts Receivable—Hamac**  |  | **9,076** |
|  |  ***Cash received on account***  ***(20,000 ringgits x $0.4899/ringgit).*** |  |  |

**EXERCISES**

**Exercise 15-16A (25 minutes)**

|  |  |  |  |
| --- | --- | --- | --- |
| **2017** |  |  |  |
| **Dec. 16** | **Accounts Receivable⎯Bronson Ltd.**  | **24,791** |  |
|  |  **Sales**  |  | **24,791** |
|  |  ***Record credit sales (17,000 x $1.4583).*** |  |  |
|  |  |  |  |
| **Dec. 31** | **Foreign Exchange Loss\***  | **342** |  |
|  |  **Accounts Receivable⎯Bronson Ltd**  |  | **342** |
|  |  ***Record year-end adjustment.*** |  |  |
|  |  |  |  |

 **\*Original measure = (17,000 x $1.4583) = $24,791**

 **Year-end measure = (17,000 x $1.4382) = 24,449**

 **Loss for the period = $ 342**

**2018**

|  |  |  |  |
| --- | --- | --- | --- |
| **Jan. 15** | **Cash (17,000 x $1.4482)**  | **24,619** |  |
|  |  **Accounts Receivable⎯Bronson Ltd.**  |  | **24,449** |
|  |  **Foreign Exchange Gain\***  |  | **170** |
|  |  ***Record cash receipt on account.*** |  |  |
|  |  |  |  |

 **\*Year-end measure = (17,000 x $1.4382) = $24,449**

 **Final measure = (17,000 x $1.4482) = 24,619**

 **Gain for the period = $ 170**

**Exercise 15-17A (25 minutes)**

|  |  |
| --- | --- |
| **Quarter ended June 30, 2017** |  |
|  **May 8 recorded amount (800,000 x $0.1323)**  | **$105,840** |
|  **June 30 balance sheet amount (800,000 x $0.1352)**  |  **108,160** |
|  **Foreign exchange gain**  | **$ 2,320** |

|  |  |
| --- | --- |
| **Quarter ended September 30, 2017** |  |
|  **June 30 balance sheet amount**  | **$108,160** |
|  **Sept. 30 balance sheet amount (800,000 x $0.1368)**  |  **109,440** |
|  **Foreign exchange gain**  | **$ 1,280** |

|  |  |
| --- | --- |
| **Quarter ended December 31, 2017** |  |
|  **Sept. 30 balance sheet amount**  | **$109,440** |
|  **Dec. 31 balance sheet amount (800,000 x $0.1335)**  |  **106,800** |
|  **Foreign exchange loss**  | **$ 2,640** |
| **Quarter ended March 31, 2018** |  |
|  **Dec. 31 balance sheet amount**  | **$106,800** |
|  **Feb. 10, 2018, amount received (800,000 x $0.1386)**  |  **110,880** |
|  **Foreign exchange gain**  | **$ 4,080** |

***Note* — The combined net gain for all four quarters equals:**

**$5,040 ($2,320 + $1,280 - $2,640 + $4,080).**

**This amount also equals the difference between the number of dollars finally received ($110,880) and the initial measure of the account receivable ($105,840). In addition, this amount equals the number of pesos (800,000) owed by the customer times the change in the exchange rate ($0.0063) between the beginning rate ($0.1323) and the ending rate ($0.1386).**

**PROBLEM SET A**

**Problem 15-6AA (60 minutes)**

***Part 1***

**2017**

|  |  |  |  |
| --- | --- | --- | --- |
| **Apr. 8** | **Cash**  | **5,938** |  |
|  |  **Sales**  |  | **5,938** |
|  |  |  |  |
| **July 21** | **Accounts Receivable⎯Sumito**  | **14,100** |  |
|  |  **Sales**  |  | **14,100** |
|  | ***(1,500,000 yen x $0.0094/yen)*** |  |  |
|  |  |  |  |
| **Oct. 14** | **Accounts Receivable⎯Smithers**  | **27,675** |  |
|  |  Sales  |  | **27,675** |
|  | ***(19,000*£ *x $1.4566/*£*)*** |  |  |
|  |  |  |  |
| **Nov. 18** | **Cash**  | **13,800** |  |
|  | **Foreign Exchange Loss**  | **300** |  |
|  |  **Accounts Receivable⎯Sumito**  |  | **14,100** |
|  | ***(1,500,000 yen x $0.0092/yen)*** |  |  |
|  |  |  |  |
| **Dec. 20** | **Accounts Receivable⎯Hamid Albar**  | **7,652** |  |
|  |  **Sales**  |  | **7,652** |
|  | ***(17,000 ringgits x $0.4501/ringgits)*** |  |  |
|  |  |  |  |
| **Dec. 31** | **Accounts Receivable⎯Smithers.**  | **103** |  |
|  |  **Foreign Exchange Gain \***  |  | **103** |

|  |
| --- |
|  **\*Original measure = (19,000£ x $1.4566/£) = $27,675** |
|  **Year-end measure = (19,000£ x $1.4620/£) = 27,778** |
|  **Gain for the period ……………………... = $ 103** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Dec. 31** | **Foreign Exchange Loss\***  | **77** |  |
|  |  **Accounts Receivable⎯Hamid Albar**  |  | **77** |
|  |
| **\*Original measure = (17,000 *ringgits* x $0.4501/ *ringgits*) = $7,652** |
|  **Year-end measure = (17,000 *ringgits* x $0.4456/ *ringgits*) = 7,575** |
|  **Loss for the period ............................................. = $ 77** |

**Problem 15-6AA *(Continued)***

**2018**

|  |  |  |  |
| --- | --- | --- | --- |
| **Jan. 12** | **Cash\***  | **27,928** |  |
|  |  **Accounts Receivable⎯Smithers\*\***  |  | **27,778** |
|  |  **Foreign Exchange Gain**  |  | **150** |
|  | ***\*(19,000*£ *x $1.4699/*£*) \*\*($27,675 + $103)*** |  |  |
|  |  |  |  |
| **Jan. 19** | **Cash\***  | **7,514** |  |
|  | **Foreign Exchange Loss**  | **61** |  |
|  |  **Accounts Receivable⎯Hamid Albar\*\***  |  | **7,575** |
|  |  ***\*(17,000 ringgits x $0.4420/ ringgits) \*\*($7,652 - $77)*** |

***Part 2***

# Foreign exchange loss reported on the 2017 income statement

|  |  |
| --- | --- |
| November 18  | **$(300)** |
| **December 31**  | **103** |
| **December 31**  |  **(77)** |
| **Total**  | **$(274)** |

***Part 3***

**To reduce the risk of foreign exchange gain or loss, Doering could attempt to negotiate foreign customer sales that are denominated in U.S. dollars. To accomplish this, Doering might be willing to offer favorable terms, such as price discounts or longer credit terms. Another possibility that may be of limited potential is for Doering to make credit purchases denominated in foreign currencies, planning the purchases so that the payables in foreign currencies match the foreign currency receivables in time and amount.**

**NOTE: A few students may also understand the company's opportunity for hedging. This involves selling foreign currency futures to be delivered at the time the receivables from foreign customers will be collected.**

**PROBLEM SET B**

**Problem 15-6BA (60 minutes)**

***Part 1***

**2017**

|  |  |  |  |
| --- | --- | --- | --- |
| **May 26** | **Accounts Receivable—Fuji**  | **60,450** |  |
|  |  **Sales**  |  | **60,450** |
|  | ***(6,500,000 yen x $0.0093/yen)*** |  |  |
|  |  |  |  |
| June 1 | **Cash**  | **64,800** |  |
|  |  **Sales**  |  | **64,800** |
|  |  |  |  |
| **July 25** | **Cash\***  | **59,800** |  |
|  | **Foreign Exchange Loss**  | **650** |  |
|  |  **Accounts Receivable—Fuji**  |  | **60,450** |
|  | ***\*(6,500,000 yen x $0.0092/yen)*** |  |  |
|  |  |  |  |
| **Oct. 15** | **Accounts Receivable—Martinez Brothers**  | **38,556** |  |
|  |  **Sales**  |  | **38,556** |
|  | ***(378,000 pesos x $0.1020/peso)*** |  |  |
|  |  |  |  |
| **Dec. 6** | **Accounts Receivable—Chi-Ying**  |  **35,975** |  |
|  |  **Sales**  |  | **35,975** |
|  | ***(250,000 yuans x $0.1439/yuan)*** |  |  |
|  |  |  |  |
| **Dec. 31** | **Accounts Receivable--Martinez Brothers**  | **1,512** |  |
|  |  **Foreign Exchange Gain\***  |  | **1,512** |

|  |
| --- |
| **\*Original measure = (378,000 pesos x $0.1020/peso) = $38,556** |
|  **Year-end measure = (378,000 pesos x $0.1060/peso) = 40,068** |
|  **Gain for the period ...............……………. = $ 1,512** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Dec. 31** | **Accounts Receivable—Chi-Ying**  | **275** |  |
|  |  **Foreign Exchange Gain\***  |  | **275** |

|  |
| --- |
|  **\*Original measure = (250,000 yuans x $0.1439/yuan) = $35,975** |
|  **Year-end measure = (250,000 yuans x $0.1450/yuan) = 36,250** |
|  **Gain for the period .............……………... = $ 275** |

**Problem 15-6BA *(Concluded)***

**2018**

|  |  |  |  |
| --- | --- | --- | --- |
| **Jan. 5** | **Cash\***  | **39,500** |  |
|  |  **Accounts Receivable—Chi-Ying\*\***  |  | **36,250** |
|  |  **Foreign Exchange Gain**  |  | **3,250** |
|  |  ***\*(250,000 yuans x $0.1580/yuan) \*\*($35,975 + $275)*** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Jan. 13** | **Cash\***  | **39,274** |  |
|  | **Foreign Exchange Loss**  | **794** |  |
|  |  **Accounts Receivable—Martinez Bros\*\***  |  | **40,068** |
|  |  **\* (378,000 pesos x $0.1039/peso) \*\* ($38,556 + $1,512)** |

### Part 2

# Foreign exchange gain reported on 2017 income statement

|  |  |
| --- | --- |
| **July 25**  | **$ (650)** |
| **December 31**  | **1,512** |
| **December 31**  |  **275** |
| Total  | **$1,137** |

***Part 3***

**To reduce the risk of foreign exchange gain or loss, Datamix could attempt to negotiate foreign customer sales that are denominated in U.S. dollars. To accomplish this, Datamix may be willing to offer favorable terms, such as price discounts or longer credit terms. Another possibility that may be of limited potential is for Datamix to make credit purchases denominated in foreign currencies, planning the purchases so that the payables in foreign currency match the foreign currency receivables in time and amount.**

**NOTE: A few students may also understand the company’s opportunity for hedging. This involves selling foreign currency futures to be delivered at the time the receivables from foreign customers will be collected.**