

$$\frac{\text{Credit sale}}{\text{Avg A/R}} = \text{A/R turnover}$$

$$\frac{365}{\text{A/R turnover}} = 750$$

compare which is weighted more

- Pro: Increase Seller's receivable
- Cons: Increase wage cost
- Bad debt cost
- Delayed receipt of cash

when inventory going to be old, bad thing would happen, so \Rightarrow cost of good sold

how to match bad debt and A/R
 same period sales has expense
 has to calculate bad debt ^{uncollectible} ratio

GAAP: estimate bad debt expense:

- { Percentage of credit sale
- { aging of A/R

Footnote

Public offering, footnotes on financial statement disclose everything

A/R

Sale Revenue

when estimate the Bad debt

BD (+E, -SE)

ADA (+XA, -A)

ADA (+A) ↓

A/R (-A) ↓

B/S
 cash

A/R
 Less: ADA
 A/R net

inventory

Allowance method

1. Record the estimated bad debts in the period credit sales occur, using an end-of-period adjustment, and
2. Remove ("write off") specific customer balances when they are known to be uncollectible.

write off 800 Receivable because company could not pay its account

ADA 800

A/R 800

impact of working capital:

| | Beginning of month | Write off | End of month |
|---------|--------------------|-----------|--------------|
| A/R | 100,000 | (1,000) | 99,000 |
| (ADA) | (10,000) | 1,000 | (9,000) |
| net A/R | 9,000 | — 0 — | 90,000 |

$WC = CA - CL$, so there is no impact on WC

| | | Increase of credit sales (increase of ADA) | | |
|---------|---------|---|-------|---------|
| A/R | 200,000 | — | (800) | 199,200 |
| (ADA) | 14,100 | (900) | 800 | 13,300 |
| net A/R | 185,900 | (900) | — 0 — | 185,900 |
| | | | | 5,000 |

Estimate Bad debt

① percentage of credit sale — simply

② aging of AR — accurate

Credit sale
Bad debt loss rate 7.5%

Bad debt expense

| | Total | 0-30 | 31-60 | 61-90 | Over 90 |
|----------------------|--------------------------------------|-----------|----------|----------|----------|
| Total A/R | $X_1 + X_2 + X_3 + X_4$ | X_1 | X_2 | X_3 | X_4 |
| Estimate uncollected | $0.01X_1 + 0.1X_2 + 0.2X_3 + 0.4X_4$ | 1% | 10% | 20% | 40% |
| BD | | $0.01X_1$ | $0.1X_2$ | $0.2X_3$ | $0.4X_4$ |

Compare to benchmark
A/R turnover

$$DSO = \frac{365}{A/R \text{ turnover}}$$

$$= \frac{365}{\frac{\text{Net sale}}{\text{Avg net A/R}}} = \frac{365 \times \text{Avg net A/R}}{\text{net sales}}$$

write off specific customers
ADA
A/R

write off — decrease R/E

E8-9 Recording and Determining the Effects of Write-Offs, Recoveries, and Bad Debt Expense Estimates on the Balance Sheet and Income Statement

Fraud Investigators Inc. operates a fraud detection service.

Required:

1. Prepare journal entries for each transaction below.
 - a. On March 31, 10 customers were billed for detection services totaling \$25,000.
 - b. On October 31, a customer balance of \$1,500 from a prior year was determined to be uncollectible and was written off.
 - c. On December 15, a customer paid an old balance of \$900, which had been written off in a prior year.
 - d. On December 31, \$500 of bad debts were estimated and recorded for the year.

2. Complete the following table, indicating the amount and effect (+ for increase, – for decrease, and NE for no effect) of each transaction.

| Transaction | Net Receivables | Net Sales | Income from Operations |
|-------------|-----------------|-----------|------------------------|
| a. | | | |
| b. | | | |
| c. | | | |
| d. | | | |

Practice ES-9.

① A/R 25000
Sales 25000
cash xx
inventory xx

March

② ADA 1,500
A/R 1,500 : write off

③ reverse write off
A/R 900
ADA allowance 900

cash 900 (collect cash)
A/R 900

④ Bad debt expense 500
ADA 500

~~DEC~~
Mar (2% uncollectible)

| | Net A/R | Net sales | OP income |
|----|--|-----------|------------|
| a. | 25000 | 25000 | 25000 - xx |
| b. | NA | NA | NA |
| c. | (-900) <small>because reverse write off, A/R → cash so A/R reduced</small> | NA | NA |
| d. | (500) | NA | (500) |

MCI
WorldCom

You work for a company named **MCI** and you have been assigned the job of adjusting the company's Allowance for Doubtful Accounts balance. You obtained the following aged listing of customer account balances for December.

Accounts Receivable Aged Listing—December 31

| Customer | Total | 0–30 days | 31–60 days | 61–90 days | 91–120 days | > 120 days |
|--------------|----------------|----------------|----------------|---------------|---------------|---------------|
| AfriTel | 40,000 | 20,000 | 10,000 | 5,000 | 5,000 | 0 |
| CT&T | 0 | 0 | 0 | 0 | 0 | 0 |
| GlobeCom | 28,000 | 0 | 18,000 | 8,000 | 1,000 | 1,000 |
| Hi-Rim | 35,000 | 0 | 0 | 0 | 0 | 35,000 |
| Level 8 | 162,000 | 63,000 | 44,000 | 29,000 | 13,000 | 13,000 |
| NewTel | 0 | 0 | 0 | 0 | 0 | 0 |
| Telemedia | 0 | 0 | 0 | 0 | 0 | 0 |
| Others | 485,000 | 257,000 | 188,000 | 28,000 | 11,000 | 1,000 |
| TOTAL | 750,000 | 340,000 | 260,000 | 70,000 | 30,000 | 50,000 |

Bad debt loss rates for each aging category are estimated to be 1% (0–30 days), 5% (31–60 days), 8% (61–90 days), 10% (91–120 days), and 50% (> 120 days). Using these rates, you calculate a desired balance for the allowance. No entries have been made to the account since the end of November, when the account had a credit balance of \$46,820.

To check the reasonableness of the calculated balance, you obtain the aged listings for prior months (shown below). As you scan the listings, you notice an interesting pattern. Several account balances, which had grown quite large by the end of November, had disappeared in the final month of the year. You ask the accounts receivable manager, Walter Pavlo, what happened. He said the customers “obtained some financing . . . I guess out of nowhere” and they must have used it to pay off their account balances.

Total Accounts Receivable as of . . .

| Customer | Q1 | Q2 | Q3 | Q4 | | |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | (March 31) | (June 30) | (September 30) | (October 31) | (November 30) | (December 31) |
| AfriTel | 19,000 | 19,000 | 21,000 | 16,000 | 20,000 | 40,000 |
| CT&T | 0 | 30,000 | 100,000 | 100,000 | 100,000 | 0 |
| GlobeCom | 29,000 | 28,000 | 31,000 | 27,000 | 28,000 | 28,000 |
| Hi-Rim | 0 | 0 | 25,000 | 35,000 | 35,000 | 35,000 |
| Level 8 | 229,000 | 229,000 | 198,000 | 174,000 | 190,000 | 162,000 |
| NewTel | 0 | 0 | 25,000 | 25,000 | 25,000 | 0 |
| Telemedia | 0 | 0 | 2,000 | 2,000 | 2,000 | 0 |
| Others | 524,000 | 489,000 | 375,000 | 503,000 | 463,000 | 485,000 |
| TOTAL | 801,000 | 795,000 | 777,000 | 882,000 | 863,000 | 750,000 |

Required:

1. Calculate the balance that should be reported in Allowance for Doubtful Accounts as of December 31.
2. Prepare the adjusting journal entry that is required on December 31.
3. Show how Accounts Receivable would be reported on the balance sheet at December 31.
4. If the balances for CT&T, NewTel, and Telemedia at the end of November continued to exist at the end of December (in the over-120-days category), what balance would you have estimated for the Allowance for Doubtful Accounts on December 31? Would this have changed MCI's net income in the current year? Explain.

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②

| Total | 0-30 | 31-60 | 61-90 | 91-120 | >120 | Allowance |
|---------------|---------|---------|--------|--------|--------|-------------|
| | 1% | 5% | 8% | 10% | 50% | |
| 750,000 | 340,000 | 260,000 | 70,000 | 30,000 | 50,000 | 46,820, BEG |
| | | | | | | <u>3180</u> |
| <u>50,000</u> | = 3400 | 13000 | 51600 | 3,000 | 25,000 | 50,000 |

Use allowance info to calculate the BD

this is Allowance

75,000 - 50,000

③ A/R - [Net of 50,000 Allowance] = 700,000

Bad Debt Exp 3180
A D A 3180

④

| | | | | | | |
|--|--|--|--|--|-------------------------|---------------|
| | | | | | \$ 50,000 (still exist) | |
| | | | | | 100,000 CT&T | Allowance |
| | | | | | 25,000 New TEL | 46,820 |
| | | | | | 2,000 TELEmedia | <u>66,680</u> |
| | | | | | 177,000 | 113,500 |
| | | | | | 50% | |
| | | | | | <u>88,500</u> | |

127,000

Total A/R \$770,000

113,500

3400 13,000 51,600 30,000

Bad debt Exp 4680
Allow 66,680

S8-6 Critical Thinking: Analyzing the Impact of Credit Policies

Problem Solved Company has been operating for five years as a software consulting firm. During this period, it has experienced rapid growth in Sales Revenue and in Accounts Receivable. To solve its growing receivables problem, the company hired you as its first corporate controller. You have put into place more stringent credit-granting and collection procedures that you expect will reduce receivables by approximately one-third by year-end. You have gathered the following data related to the changes (in thousands):

| | (in thousands) | |
|----------------------------------|-------------------|--------------------------|
| | Beginning of Year | End of Year (projected) |
| Accounts Receivable | \$1,000,608 | \$660,495 |
| Allowance for Doubtful Accounts | 36,800 | 10,225 |
| Accounts Receivable, Net | <u>\$ 963,808</u> | <u>\$650,270</u> |
| | Prior Year | Current Year (projected) |
| Net Sales (assume all on credit) | \$7,515,444 | \$7,015,069 |

Required:

1. Compute, to one decimal place, the accounts receivable turnover ratio based on three different assumptions:
 - a. The stringent credit policies reduce Accounts Receivable, Net, and decrease Net Sales as projected in the table.
 - b. The stringent credit policies reduce Accounts Receivable, Net, as projected in the table but do not decrease Net Sales from the prior year.
 - c. The stringent credit policies are not implemented, resulting in no change from the beginning of the year Accounts Receivable balance and no change in Net Sales from the prior year.

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$$a) \text{ A/R turnover} = \frac{\text{Sales}}{\text{AUGAR}} = \frac{7015069}{(650,270 + 963808)/2} = 8.7x \quad \frac{365}{8.7} = 42 \text{ days}$$

$$b) \text{ FIAT Sales} = \frac{7515444}{(650,270 + 963808)/2} = 9.3x \quad \frac{365}{9.3} = 39 \text{ Days}$$

$$c) = \frac{7,515,444}{(963808 + 963808)/2} = 7.8 \quad \frac{365}{7.8} = 47 \text{ days}$$