PRINCIPLES OF ACCOUNTING

CHAPTER 3

THE ADJUSTING PROCESS

Accrual Accounting, Adjusting Entries and the Adjusted Trial Balance

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Chapter Introduction

SETTING THE SCENE

At the end of an accounting period, some account balances may be incomplete or outdated.

- Some expenses have been incurred but not recorded.
- Some revenue has been earned but not recorded.
- Some assets have been consumed.
- Some liabilities have been satisfied.
- Cash receipts and payments do not always occur when revenue and expenses are recognized.

Adjustments bring the accounting records up to date before financial statements are prepared.

Why This Chapter Matters

CONSEQUENCES OF SKIPPING ADJUSTMENTS

Without adjusting entries, financial statements may report incorrect amounts for:

Revenue

May be reported in the wrong period.

Expenses

May be omitted or overstated.

Net income

May be misstated for the period.

Assets

May be carried at outdated amounts.

Liabilities

May be incomplete or overstated.

Owner's equity

Reflects every error above.

From Chapter 2 to Chapter 3

WHERE WE ARE IN THE CYCLE

Chapter 2 focused on

- Analyzing transactions
- Journalizing
- Posting
- Preparing an unadjusted trial balance

Chapter 3 focuses on

- Reviewing account balances
- Identifying necessary adjustments
- Recording adjusting entries
- Preparing an adjusted trial balance

Learning Objectives

BY THE END OF THIS CHAPTER, STUDENTS WILL BE ABLE TO

1. Explain the nature and purpose of the adjusting process.
2. Explain accrual-basis accounting.
3. Identify accounts requiring adjustment.
4. Prepare adjusting entries for deferred expenses.
5. Prepare adjusting entries for deferred revenue.
6. Prepare adjusting entries for accrued revenue.
7. Prepare adjusting entries for accrued expenses.
8. Explain depreciation and accumulated depreciation.
9. Prepare an adjusted trial balance.
10. Explain how adjustments affect financial statements.

Chapter Roadmap

TWELVE STEPS THROUGH THE ADJUSTING PROCESS

01
Accounting period

02
Accrual accounting

03
Revenue and expense recognition

04
Purpose of adjusting entries

05
Deferred expenses

06
Deferred revenue

07
Accrued revenue

08
Accrued expenses

09
Depreciation

10
Adjusted trial balance

11
Financial-statement effects

12
Practical exercise

Opening Reflection

A QUESTION TO OPEN THE CHAPTER

A business pays ETB 24,000 for a one-year insurance policy on October 1.

At December 31

- Three months of insurance have expired.
- The full ETB 24,000 is still recorded as an asset.

Discussion Questions

Is the asset balance correct?

Has an expense been incurred?

What adjustment is required?

SECTION 1

Accounting Period and Accrual Basis

Slides 8 – 18

Accounting Period Concept

DIVIDING CONTINUING ACTIVITY

Businesses divide their continuing activities into reporting periods.

- Monthly
- Quarterly
- Semiannually
- Annually

Regular reporting allows users to evaluate financial performance over comparable intervals.

Fiscal Year

A TWELVE-MONTH ACCOUNTING PERIOD

A fiscal year is a twelve-month accounting period.

Calendar close

It may end on December 31.

Alternative close

It may end on another date chosen by the business.

Operating cycle

It may follow the business operating cycle.

Regulatory

It may follow government or regulatory requirements.

Calendar Year

THE MOST COMMON REPORTING PERIOD

A calendar year begins on

January 1

and ends on

December 31

Many businesses use the calendar year as their fiscal year, so that end-of-period adjustments are prepared at December 31.

Interim Periods

REPORTING INSIDE THE FISCAL YEAR

An interim period is a reporting period shorter than one year. Adjustments may be required at the end of each interim period.

One month

Monthly management reporting.

Three months

Quarterly reporting to owners and regulators.

Six months

Semiannual reporting.

Nine months

Cumulative reporting before year end.

Cash-Basis Accounting

RECORDING BY CASH MOVEMENT

Under cash-basis accounting

Revenue is recorded when cash is received.

Expenses are recorded when cash is paid.

Limitation

Cash timing may not reflect when revenue is earned or when expenses are incurred.

Accrual-Basis Accounting

RECORDING BY ECONOMIC ACTIVITY

Revenue

is recorded when earned.

Expenses

are recorded when incurred.

Cash may be received or paid

- **Before recognition**
- **At the time of recognition**
- **After recognition**

Cash Basis versus Accrual Basis

SIDE-BY-SIDE COMPARISON

Cash Basis	Accrual Basis
Revenue when cash is received	Revenue when earned
Expense when cash is paid	Expense when incurred
Focuses on cash movement	Focuses on economic activity
May distort period performance	Matches activity to the correct period
Limited receivables and payables	Recognizes receivables and payables

Revenue Recognition

WHEN HAS REVENUE BEEN EARNED

Revenue is recognized when the business has earned it by providing:

- Goods
- Services
- Rental use
- Other business benefits

Cash collection alone does not always determine revenue recognition.

Expense Recognition

WHEN ARE EXPENSES RECOGNIZED

Expenses are recognized in the period in which:

Assets are consumed

Supplies expense, insurance expense

Services are used

Utilities expense, professional fees

Obligations arise

Wages expense, interest expense

Revenue-generating activity occurs

Depreciation expense

Matching Revenue and Expenses

ALIGNING EFFORT WITH RESULT

Expenses should be recognized in the same period as the related revenue or economic activity.

EXAMPLE Revenue earned in December should be compared with

December wages	**December rent**	**December utilities**	**December depreciation**	**Supplies consumed in December**

Why Cash Timing Creates Differences

FOUR TIMING PATTERNS

Cash paid before the expense occurs
Example: prepaid insurance

Cash received before revenue is earned
Example: unearned rent

Expense occurs before cash payment
Example: accrued wages

Revenue earned before cash collection
Example: fees receivable

SECTION 2

Nature of Adjusting Entries

Slides 19 – 27

What Is an Adjusting Entry?

DEFINITION

An adjusting entry is a journal entry prepared at the end of an accounting period to update account balances.

- Revenue is recorded when earned.
- Expenses are recorded when incurred.
- Assets are properly measured.
- Liabilities are completely reported.

It ensures that each period reports the activity that actually belongs to it.

Purpose of Adjusting Entries

WHAT ADJUSTMENTS MAKE POSSIBLE

Adjusting entries help produce accurate:

Income statements

Revenue and expenses of the period.

Statements of owner's equity

Correct net income carried into equity.

Balance sheets

Assets and liabilities properly measured.

Account balances

Ledger balances brought up to date.

Periodic performance reports

Comparable results period to period.

Unadjusted Trial Balance

BEFORE ADJUSTMENTS

An unadjusted trial balance is prepared before end-of-period adjustments.

- Incomplete
- Outdated
- Overstated
- Understated
- Assigned to the wrong accounting period

It may include balances that are still incorrect for reporting purposes.

Adjusted Trial Balance

AFTER ADJUSTMENTS

An adjusted trial balance is prepared after:

- Adjusting entries are journalized
- Adjustments are posted to the ledger

It contains the balances used to prepare the financial statements.

Characteristics of Adjusting Entries

ADJUSTING ENTRIES NORMALLY

End of period

Are prepared at the end of the accounting period.

Income statement

Affect at least one income-statement account.

Balance sheet

Affect at least one balance-sheet account.

Not cash

Do not normally involve the Cash account.

Update

Update previously recorded transactions or unrecorded events.

Why Cash Is Normally Not Adjusted

THE ROLE OF THE CASH ACCOUNT

Cash transactions are recorded when cash is actually received or paid.

- Expiration of assets
- Completion of services
- Accrued obligations
- Accrued revenue
- Non-cash expenses

Adjusting entries recognize the items above, so Cash is generally not included.

Main Categories of Adjustments

FIVE ADJUSTMENTS TO MASTER

Deferred Items

- Deferred expenses
- Deferred revenue

Accrued Items

- Accrued revenue
- Accrued expenses

Additional Adjustment

Depreciation

Deferred versus Accrued Items

THE TIMING DISTINCTION

Deferred

Cash occurs before revenue or expense recognition.

Accrued

Revenue or expense recognition occurs before cash.

Adjustment Classification Table

CASH TIMING AND RECOGNITION

Adjustment	Cash Timing	Recognition
Prepaid expense	Cash paid first	Expense later
Unearned revenue	Cash received first	Revenue later
Accrued revenue	Revenue earned first	Cash later
Accrued expense	Expense incurred first	Cash later

Deferrals begin with cash. Accruals end with cash.

SECTION 3

Deferred Expenses

Slides 28 – 37

What Is a Deferred Expense?

DEFINITION AND EXAMPLES

A deferred expense is an asset created when cash is paid before the related expense is incurred.

- Prepaid insurance
- Prepaid rent
- Supplies
- Prepaid service contracts

The asset is reduced as the benefit is used up during the period.

Prepaid Insurance

RECORDING THE INITIAL PAYMENT

When insurance is paid in advance, the amount is initially recorded a

Initial entry when insurance is paid in advance

Account	Debit	Credit
Prepaid Insurance	XXX	
Cash		XXX

ASSET CREATED

Prepaid

The benefit has been purchased but not yet used.

Asset increases · Cash decreases · No expense yet

Insurance Adjustment Example

OCTOBER 1 POLICY

On October 1, the business pays ETB 24,000 for twelve months of insurance.

Total premium paid on October 1	**ETB 24,000**
Coverage period	**12 months**
Monthly insurance cost (24,000 ÷ 12)	**ETB 2,000**

Three months of coverage — October, November and December — expire by December 31.

Insurance Expense Calculation

EXPIRED AND REMAINING AMOUNTS

Insurance expense (3 × 2,000)	**ETB 6,000**
Original prepaid amount	**ETB 24,000**
Remaining prepaid insurance (24,000 – 6,000)	**ETB 18,000**

The expired portion becomes an expense; the unexpired portion remains an asset.

Insurance Adjusting Entry

DECEMBER 31 ADJUSTMENT

Account	Debit	Credit
Insurance Expense	6,000	
Prepaid Insurance		6,000

Expense increases · Asset decreases · Net income decreases · Owner's equity decreases

Prepaid Insurance T Accounts

POSTING THE ADJUSTMENT

Prepaid Insurance

Debit	Credit
24,000 initial payment	6,000 adjustment
18,000 balance	

The asset is reduced to the unexpired amount of ETB 18,000.

Insurance Expense

Debit	Credit
6,000 adjustment	

The expired amount of ETB 6,000 is reported as an expense of the period.

Supplies as a Deferred Expense

ASSET CONSUMED THROUGH USE

Supplies are recorded as an asset when purchased. As supplies are used:

- The asset decreases.
- Supplies Expense increases.

An adjustment is required for the supplies consumed during the period.

Supplies Example

DETERMINING THE AMOUNT USED

Supplies account balance before adjustment	**ETB 15,000**
Physical supplies remaining on hand	**ETB 4,000**
Supplies used (15,000 – 4,000)	**ETB 11,000**

The physical count establishes the correct ending asset balance.

Supplies Adjusting Entry

DECEMBER 31 ADJUSTMENT

Account	Debit	Credit
Supplies Expense	11,000	
Supplies		11,000

Adjusted supplies balance: ETB 4,000 · Supplies expense for the period: ETB 11,000

Effect of Failing to Adjust Supplies

CONSEQUENCES OF OMISSION

When used supplies are not adjusted, the financial statements are misstated as follows:

Effect of the adjustment

- ▲ Supplies are overstated.
- ▼ Expenses are understated.
- ▲ Net income is overstated.
- ▲ Owner's equity is overstated.

Statements affected

- Balance sheet: assets too high
- Income statement: expenses too low
- Income statement: profit too high
- Owner's equity: capital too high

SECTION 4

Depreciation

Slides 38 – 48

What Is Depreciation?

ALLOCATING THE COST OF LONG-TERM ASSETS

Depreciation is the systematic allocation of the cost of a long-term tangible asset over its estimated useful life.

- Buildings
- Vehicles
- Machinery
- Furniture
- Office equipment

Each period that benefits from the asset absorbs a share of its cost.

Depreciation Is Cost Allocation

WHAT DEPRECIATION DOES NOT MEASURE

Depreciation does not directly measure:

- Market-value decline
- Physical deterioration only
- Cash replacement needs
- Current selling price

It allocates the asset's depreciable cost to the periods benefiting from its use.

Straight-Line Depreciation

THE FORMULA

$$\text{Annual Depreciation} = \frac{\text{Cost} - \text{Residual Value}}{\text{Useful Life}}$$

Cost

Acquisition cost of the asset

Residual value

Estimated value at the end of useful life

Useful life

Estimated service period

Depreciation Example

EQUIPMENT DATA

The following information relates to equipment acquired by the business.

Equipment cost	**ETB 120,000**
Estimated residual value	**ETB 12,000**
Estimated useful life	**6 years**

Annual Depreciation Calculation

APPLYING THE STRAIGHT-LINE FORMULA

Depreciable cost (120,000 – 12,000)	**ETB 108,000**
Annual depreciation (108,000 ÷ 6)	**ETB 18,000**
Monthly depreciation (18,000 ÷ 12)	**ETB 1,500**

Depreciation Adjusting Entry

RECORDING ANNUAL DEPRECIATION

Account	Debit	Credit
Depreciation Expense — Equipment	18,000	
Accumulated Depreciation — Equipment		18,000

Expense increases · Contra-asset increases · Carrying amount decreases · Equipment account is unchanged

Accumulated Depreciation

A CONTRA-ASSET ACCOUNT

Accumulated Depreciation is a contra-asset account.

Asset-specific

Is related to a specific asset account.

Credit balance

Has a normal credit balance.

Reduces carrying amount

Is deducted from the asset's cost on the balance sheet.

Cumulative

Accumulates depreciation from multiple periods.

Cost, Accumulated Depreciation and Carrying Amount

THE RELATIONSHIP

Asset cost	**ETB 120,000**
Less: accumulated depreciation	**ETB 18,000**
Carrying amount (120,000 – 18,000)	**ETB 102,000**

Carrying amount = Asset cost − Accumulated depreciation

Balance-Sheet Presentation

EQUIPMENT

Item	Amount
Equipment, at cost	ETB 120,000
Less: accumulated depreciation	(18,000)
Carrying amount	ETB 102,000

Both the original cost and the accumulated depreciation are disclosed.

Why the Asset Account Is Not Credited

PRESERVING HISTORICAL COST

The Equipment account remains at its original cost. Accumulated Depreciation separately reports:

- Total allocated depreciation
- Reduction in carrying amount
- Historical cost information

Users can therefore see both what the asset cost and how much of it has been allocated.

Failure to Record Depreciation

CONSEQUENCES OF OMISSION

When depreciation is omitted from the adjusting process:

Effect of the adjustment

- ▲ Assets are overstated.
- ▼ Expenses are understated.
- ▲ Net income is overstated.
- ▲ Owner's equity is overstated.

Why it happens

- Depreciation involves no cash payment.
- No invoice or document prompts the entry.
- It must be calculated, not observed.
- It is recorded only at period end.

SECTION 5

Deferred Revenue

Slides 49 – 54

What Is Deferred Revenue?

CASH RECEIVED IN ADVANCE

Deferred revenue arises when cash is received before the related revenue is earned. It is initially recorded as a liability.

- Rent received in advance
- Subscription revenue received in advance
- Training fees received before training
- Service contracts paid in advance

The liability is reduced as the goods or services are provided.

Initial Unearned-Revenue Entry

RECORDING THE ADVANCE RECEIPT

Account	Debit	Credit
Cash	XXX	
Unearned Revenue		XXX

LIABILITY CREATED

Unearned

An obligation to provide future goods or services.

Cash increases · Liability increases · No revenue yet

Unearned-Rent Example

DECEMBER 1 RECEIPT

On December 1, a business receives ETB 36,000 for six months' rent.

Cash received on December 1	**ETB 36,000**
Rental period covered	**6 months**
Monthly rent revenue (36,000 ÷ 6)	**ETB 6,000**

At December 31, one month of rent has been earned.

Unearned-Revenue Adjustment

DECEMBER 31 ADJUSTMENT

Account	Debit	Credit
Unearned Rent	6,000	
Rent Revenue		6,000

Remaining liability: 36,000 – 6,000 = ETB 30,000 · Revenue recognized this period: ETB 6,000

Effect of Deferred-Revenue Adjustment

HOW THE STATEMENTS CHANGE

Recognizing the earned portion of an advance receipt produces these effects:

- ▼ Liability decreases.
- ▲ Revenue increases.
- ▲ Net income increases.
- ▲ Owner's equity increases.

Failure to Adjust Unearned Revenue

CONSEQUENCES OF OMISSION

When earned revenue remains recorded as a liability:

Effect of the adjustment

- ▲ Liabilities are overstated.
- ▼ Revenue is understated.
- ▼ Net income is understated.
- ▼ Owner's equity is understated.

Statements affected

- Balance sheet: obligations too high
- Income statement: revenue too low
- Income statement: profit too low
- Owner's equity: capital too low

SECTION 6

Accrued Revenue

Slides 55 – 61

What Is Accrued Revenue?

EARNED BUT NOT YET RECORDED

Accrued revenue is revenue that has been earned but:

- Has not yet been received in cash
- Has not yet been recorded

Recognizing accrued revenue creates a receivable.

Examples of Accrued Revenue

COMMON SITUATIONS AT PERIOD END

- Services completed but not billed
- Interest earned but not received
- Rent earned but not collected
- Consulting work completed before invoicing
- Commission earned but not received

Accrued-Service-Revenue Example

CONSULTING SERVICES AT DECEMBER 31

At December 31, a consulting firm has completed services worth

ETB 18,000

The client will be billed in January.

Accounts Affected

Accounts Receivable

Fees Earned

Accrued-Revenue Adjusting Entry

DECEMBER 31 ADJUSTMENT

Account	Debit	Credit
Accounts Receivable	18,000	
Fees Earned		18,000

Receivable recognized · Revenue recorded in the period earned · Cash is not involved

Effect of Accrued-Revenue Adjustment

HOW THE STATEMENTS CHANGE

Recording revenue that has been earned but not billed produces these effects:

- ▲ Assets increase.
- ▲ Revenue increases.
- ▲ Net income increases.
- ▲ Owner's equity increases.

Subsequent Collection

WHEN THE CUSTOMER PAYS IN JANUARY

Account	Debit	Credit
Cash	18,000	
Accounts Receivable		18,000

IMPORTANT

No new revenue

Revenue was already recognized in the previous period.

Cash increases · Receivable is settled · No effect on net income

Failure to Record Accrued Revenue

CONSEQUENCES OF OMISSION

When accrued revenue is omitted from the adjusting process:

Effect of the adjustment

- Assets are understated.
- Revenue is understated.
- Net income is understated.
- Owner's equity is understated.

Why it happens

- No invoice has been issued.
- No cash has been received.
- The work may span two periods.
- It must be identified by review, not by document.

SECTION 7

Accrued Expenses

Slides 62 – 69

What Is an Accrued Expense?

INCURRED BUT NOT YET RECORDED

An accrued expense is an expense that has been incurred but:

- Has not yet been paid
- Has not yet been recorded

Recognizing an accrued expense creates a liability.

Examples of Accrued Expenses

OBLIGATIONS THAT BUILD UP OVER TIME

- **Wages payable**
- **Interest payable**
- **Utilities payable**
- **Rent payable**
- **Professional fees payable**
- **Taxes payable**

Accrued-Wages Example

UNPAID DAYS AT DECEMBER 31

Daily wages earned by employees	**ETB 4,000**
Unpaid days worked by December 31	**3 days**
Accrued wages (4,000 × 3)	**ETB 12,000**

Accrued-Wages Adjusting Entry

DECEMBER 31 ADJUSTMENT

Account	Debit	Credit
Wages Expense	12,000	
Wages Payable		12,000

Expense increases · Liability increases · Net income decreases · Owner's equity decreases

Interest Accrual

INTEREST ARISES WITH THE PASSAGE OF TIME

Interest expense may arise before it is paid.

Interest = Principal × Annual Rate × Time

Time is expressed as a portion of one year — for example, three months is 3/12 of a year.

Accrued-Interest Example

LOAN DATA

Loan principal	ETB 200,000
Annual interest rate	12%
Accrual period	3 months

Interest Calculation and Entry

200,000 × 12% × 3/12 = ETB 6,000

Three months of interest has accrued on the loan but has not yet been paid.

Account	Debit	Credit
Interest Expense	6,000	
Interest Payable		6,000

Expense increases · Liability increases · Cash is unaffected until payment

Effect of Accrued-Expense Adjustment

RECORDED VERSUS OMITTED

Recording an incurred but unpaid expense produces these effects:

Effect of the adjustment

- ▲ Liabilities increase.
- ▲ Expenses increase.
- ▼ Net income decreases.
- ▼ Owner's equity decreases.

Failure to adjust

- ▼ Liabilities are understated.
- ▼ Expenses are understated.
- ▲ Net income is overstated.
- ▲ Owner's equity is overstated.

SECTION 8

Summary of Adjustments

Slides 70 – 75

Adjustment Summary

DEBIT AND CREDIT FOR EACH ADJUSTMENT

Adjustment	Debit	Credit
Prepaid expense used	Expense	Asset
Depreciation	Depreciation Expense	Accumulated Depreciation
Unearned revenue earned	Liability	Revenue
Accrued revenue	Receivable	Revenue
Accrued expense	Expense	Payable

Every adjustment touches one income-statement account and one balance-sheet account.

Adjusting-Entry Decision Process

SIX STEPS FOR EVERY ADJUSTMENT

1 Identify the account

Determine which account requires adjustment.

2 Determine the correct balance

Establish what the ending balance should be.

3 Compare

Compare the correct balance with the recorded balance.

4 Calculate

Calculate the required adjustment amount.

5 Determine debit and credit

Identify the accounts to debit and credit.

6 Journalize and post

Record the entry and post it to the ledger.

Adjusted Trial Balance

PREPARING AND PROVING THE BALANCES

After adjustments are posted

1. List all ledger accounts.
2. Enter adjusted debit or credit balances.
3. Total the debit column.
4. Total the credit column.
5. Verify equality.

Total Adjusted Debits = Total Adjusted Credits

Practical Exercise

PREPARE ALL ADJUSTING ENTRIES

A business provides the following year-end information.

Supplies account **ETB 20,000**	Supplies remaining **ETB 6,000**	Prepaid insurance **ETB 12,000**
Insurance expired **ETB 3,000**	Unearned revenue **ETB 15,000**	Revenue earned **ETB 5,000**
Services performed but unbilled **ETB 9,000**	Accrued wages **ETB 7,000**	Equipment depreciation **ETB 8,000**

Required: Prepare all adjusting entries at year end.

Practical Exercise Solution

SIX ADJUSTING ENTRIES

	Debit account	Credit account	Amount
1. Supplies	Supplies Expense	Supplies	14,000
2. Insurance	Insurance Expense	Prepaid Insurance	3,000
3. Unearned Revenue	Unearned Revenue	Fees Earned	5,000
4. Accrued Revenue	Accounts Receivable	Fees Earned	9,000
5. Accrued Wages	Wages Expense	Wages Payable	7,000
6. Depreciation	Depreciation Expense	Accumulated Depreciation	8,000

Supplies used = 20,000 − 6,000 = ETB 14,000. Each entry debits or credits one income-statement and one balance-sheet account.

Chapter Summary

KEY POINTS AND THE ADJUSTMENT CYCLE

- Accounting periods divide continuing operations into reporting intervals.
- Accrual accounting recognizes revenue when earned and expenses when incurred.
- Adjusting entries update accounts at the end of the reporting period.
- They normally affect one income-statement and one balance-sheet account.
- Cash is generally not included in adjusting entries.
- Deferred expenses: cash paid before expense recognition.
- Deferred revenue: cash received before revenue recognition.
- Accrued revenue: revenue earned before cash collection.
- Accrued expenses: expenses incurred before cash payment.
- Depreciation allocates the cost of long-term assets over their useful lives.
- Accumulated Depreciation is a contra-asset account.
- The adjusted trial balance provides the balances for the financial statements.

Adjustment Cycle

Review accounts

↓

Identify timing differences

↓

Calculate adjustments

↓

Journalize entries

↓

Post to ledger

↓

Prepare adjusted trial balance

↓

Prepare financial statements

Questions and Discussion

THANK YOU

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Principles of Accounting

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Accurate financial statements require careful end-of-period adjustments that assign revenue and expenses to the correct accounting period.