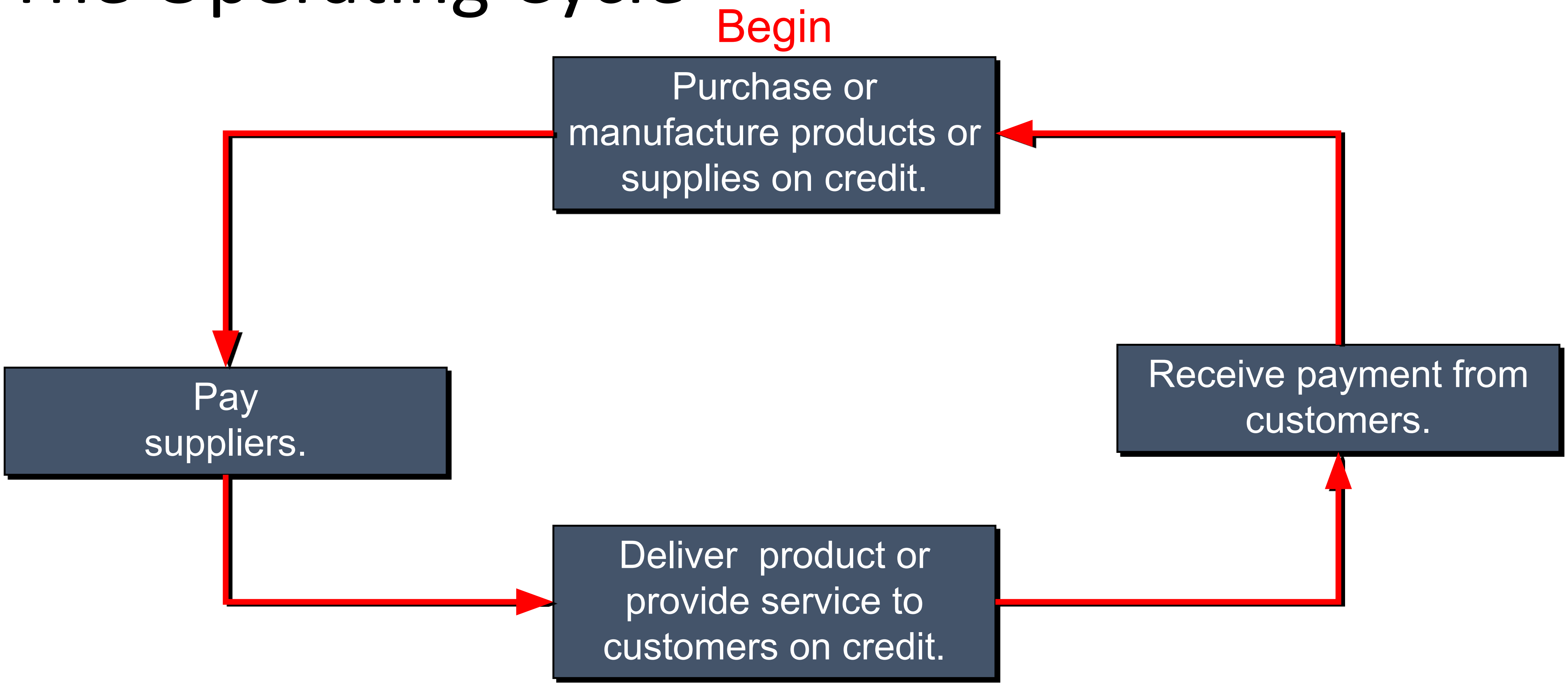
Lecture 5

Methods of revenue and expense calculations.

The Operating Cycle

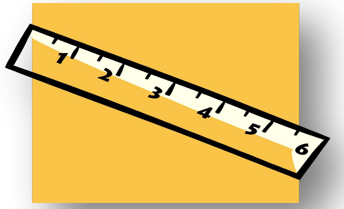


The Accounting Cycle

Time Period: The long life of a company is normally reported over a series of shorter time periods.

Recognition Issues : When should the effects of operating activities be recognized (recorded)?

Measurement Issues: What amounts should be recognized?



Format of the Income Statement

Elements of the Income Statement

Revenues – Inflows or other enhancements of assets or settlements of its liabilities that constitute the entity's ongoing major or central operations.

Examples of Revenue Accounts

- Sales
- Fee
- Interest
- Dividend
- Rent

Format of the Income Statement

Elements of the Income Statement

Expenses – Outflows or other using-up of assets or incurrences of liabilities that constitute the entity's ongoing major or central operations.

Examples of Expense Accounts

- Cost of goods sold
- Depreciation
- Interest
- Rent
- Salaries and wages
- Taxes

Elements of the Income Statement

Gains – Increases in equity (net assets) from peripheral or incidental transactions.

Losses - Decreases in equity (net assets) from peripheral or incidental transactions.

Gains and **losses** can result from

- sale of investments or plant assets,
- settlement of liabilities,
- write-offs of assets.

PAPA JOHN'S INTERNATIONAL, INC.
Consolidated Statement of Income
For the Year Ended December 31, 2008
(dollars in thousands)

Operating Revenues		
Restaurant sales revenue	$ 996,000	
Franchise fee revenue	136,000	
Total revenues	1,132,000	
Operating Expenses		
Cost of sales	483,000	*Operating activities* (central focus of business)
Salaries expense	193,000	
Rent expense	35,000	
Advertising expense	49,000	
General and administrative expenses	100,000	← Includes insurance, repairs, utilities, and fuel expenses
Depreciation expense	33,000	
Other operating expenses	172,000	
Total expenses	1,065,000	
Operating Income	67,000	← Subtotal of operating revenues minus operating expenses
Other Items		
Investment income	1,000	*Peripheral activities* (not the main focus of the business)
Interest expense	(8,000)	
Loss due to restaurants sold	(3,000)	
Income before Income Taxes	57,000	← Subtotal of all revenues minus all expenses except taxes
Income tax expense	20,000	
Net Income	**$ 37,000**	
Earnings per Share	**$1.32**	← = $37,000,000 Net income ÷ 28,100,000 Average number of shares outstanding (from Papa John's annual report)

Recognition of operating activities

- CASH BASIS ACCOUNTING records revenues when cash is received and expenses when cash is paid.
- ACCRUAL BASIS ACCOUNTING records revenues when earned and expenses when incurred, regardless of the timing of cash receipts or payments.

Revenue principle

Under the **revenue principle,** four criteria or conditions must normally be met for revenue to be recognized. If **any** of the following criteria are **not** met, revenue normally is **not** recognized and cannot be recorded.

1. **Delivery has occurred or services have been rendered.**
2. **There is persuasive evidence of an arrangement for customer payment.**
3. **The price is fixed or determinable.**
4. **Collection is reasonably assured.**

Revenue Principle

Sometimes cash is received before the good or service is delivered

CASH COLLECTED (Goods or services due to customers)	over time will become	REVENUE (Earned when goods or services provided)
Rent collected in advance	→	Rent revenue
Unearned air traffic revenue	→	Air traffic revenue
Deferred subscription revenue	→	Subscription revenue

Revenue Principle

If cash is received before the company delivers goods or services, the liability account *UNEARNED REVENUE* is recorded.

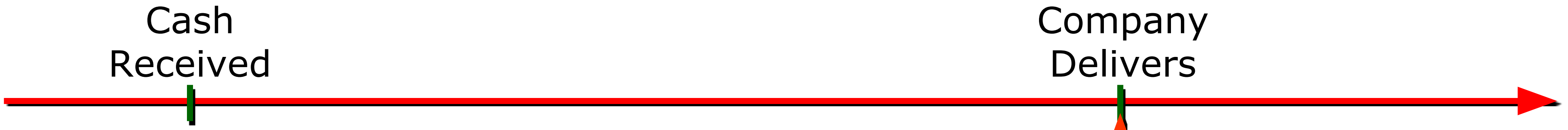
Cash received before revenue is earned -

Cash (+A)	xxx	
Unearned revenue (+L)		xxx

Revenue Principle

When the company delivers the goods or services
UNEARNED REVENUE is reduced and *REVENUE* is recorded.

Cash received before revenue is earned -



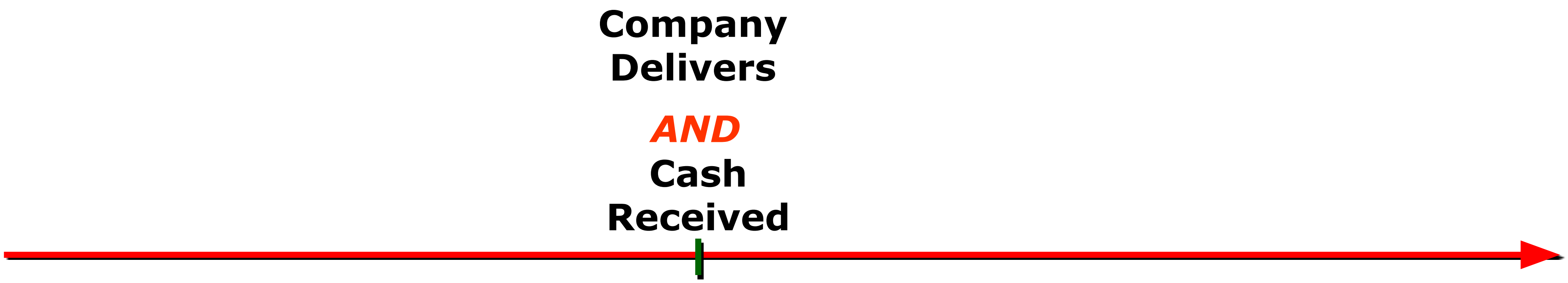
Cash (+A)	xxx	
Unearned revenue (+L)		xxx

Revenue will be recorded when earned.

Unearned revenue (-L)	xxx	
Service revenue (+R)		xxx

Revenue Principle

When cash is received on the date the revenue is earned, the following entry is made:



Cash (+A)	xxx		
Revenue (+R)		xxx	

Revenue Principle

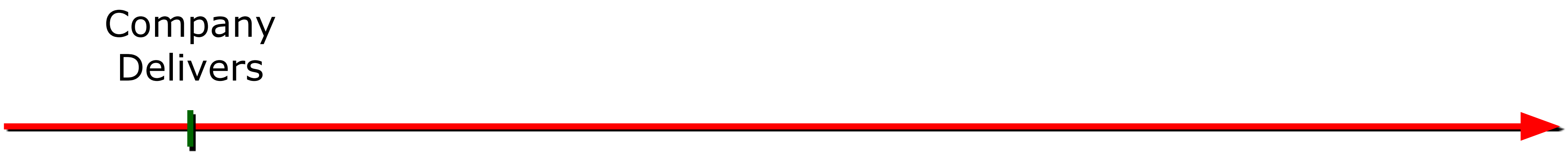
Sometimes cash is received after the good or service is delivered

Interest receivable	→	Interest revenue
Rent receivable	→	Rent revenue
Accounts receivable	→	Sales revenue

Revenue Principle

If cash is received after the company delivers goods or services, an asset *ACCOUNTS RECEIVABLE* is recorded.

Cash received after revenue is earned -

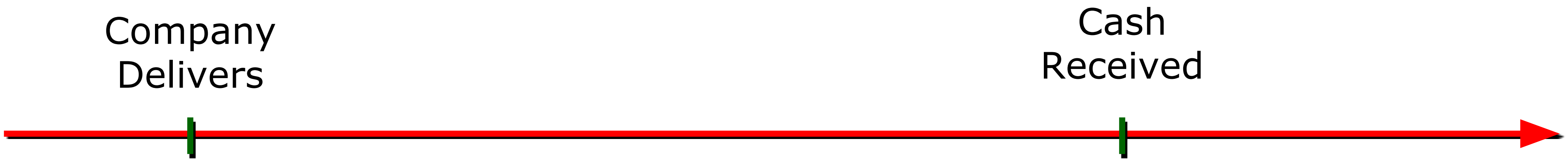


Accounts receivable (+A)	xxx	
Revenue (+R)		xxx

Revenue Principle

When the cash is received the *ACCOUNTS RECEIVABLE* is reduced.

Cash received after revenue is earned -



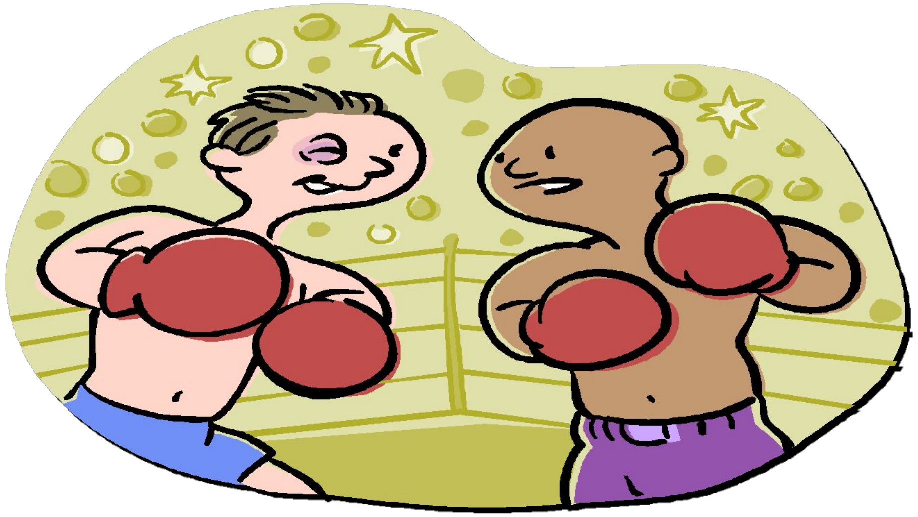
Accounts receivable (+A)	xxx		
Revenue (+R)		xxx	

Cash will be collected.

Cash (+A)	xxx		
Accounts receivable (-A)		xxx	

The Matching Principle

Resources consumed to earn revenues (i.e. expenses) in an accounting period should be recorded in that period, *regardless of when cash is paid*.



The Matching Principle

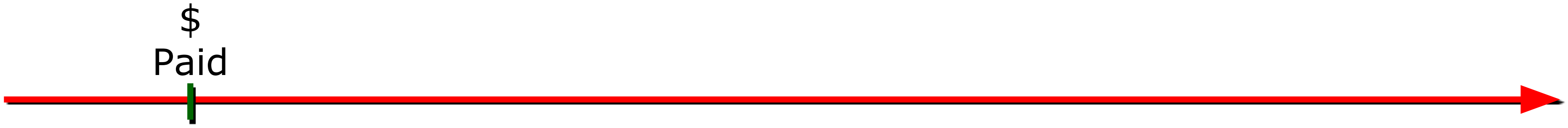
Sometimes cash is paid before the expense is incurred

CASH PAID FOR	as used over time becomes	EXPENSE
Inventory		Cost of goods sold
Prepaid insurance		Insurance expense
Buildings and equipment		Depreciation expense

The Matching Principle

If cash is paid **before** the company receives goods or services, an asset account, *PREPAID EXPENSE* is recorded.

Cash is paid before expense is incurred -



Prepaid expense (+A)	xxx	
Cash (-A)		xxx

The Matching Principle

When the expense is incurred *PREPAID EXPENSE* is reduced and an *EXPENSE* is recorded.

Cash is paid before expense is incurred -

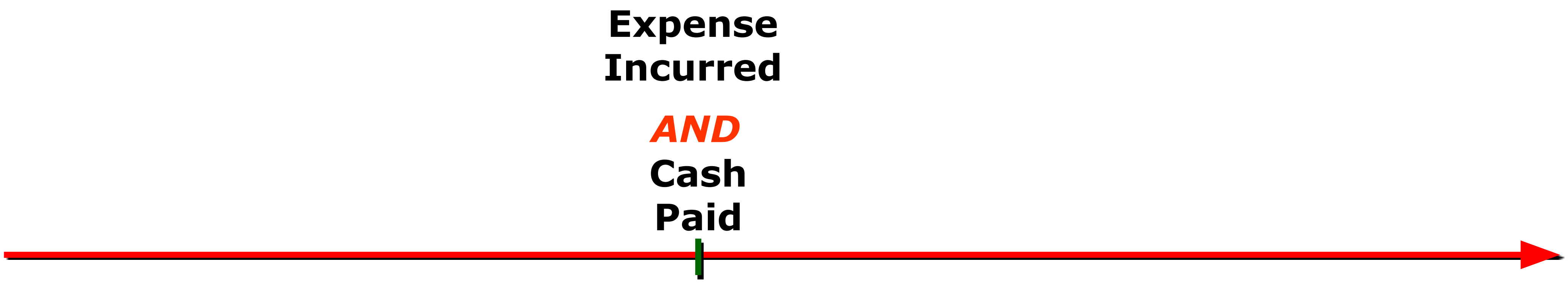
Prepaid expense (+A)	xxx		
Cash (-A)		xxx	

Expense will be recorded when incurred.

Expense (+E)	xxx		
Prepaid expense (-A)		xxx	

The Matching Principle

When cash is paid on the date the expense is incurred, the following entry is made:



Expense (+E)	xxx	
Cash (-A)		xxx

The Matching Principle

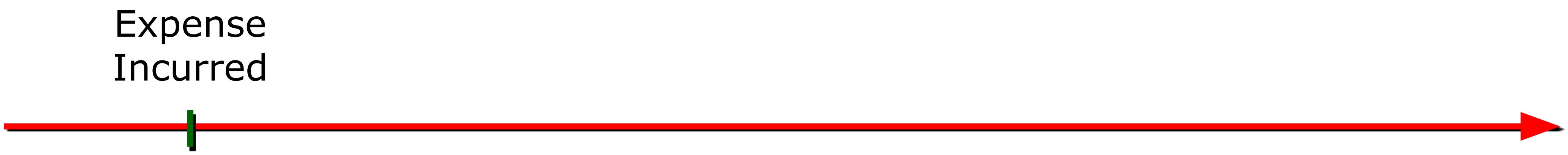
Sometimes cash is paid after the expense is incurred

Utilities expense	→	Accounts payable
Wages expense	→	Wages payable
Interest expense	→	Interest payable

The Matching Principle

If cash is paid after the company receives goods or services, a liability *PAYABLE* is recorded.

Cash paid after expense is incurred -

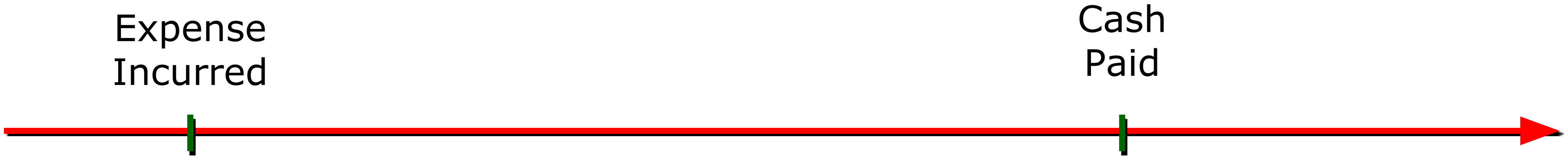


Expense (+E)	xxx	
Payable (+L)		xxx

The Matching Principle

When cash is paid the *PAYABLE* is reduced.

Cash paid after expense is incurred -



Expense (+E)	xxx		
Payable (+L)	xxx		

Cash will be paid.

Payable (-L)	xxx		
Cash (-A)	xxx		

$$A = L + SE$$

ASSETS

Debit for Increase	Credit for Decrease

LIABILITIES

Debit for Decrease	Credit for Increase

Next, let's see how Revenues and Expenses affect Retained Earnings.

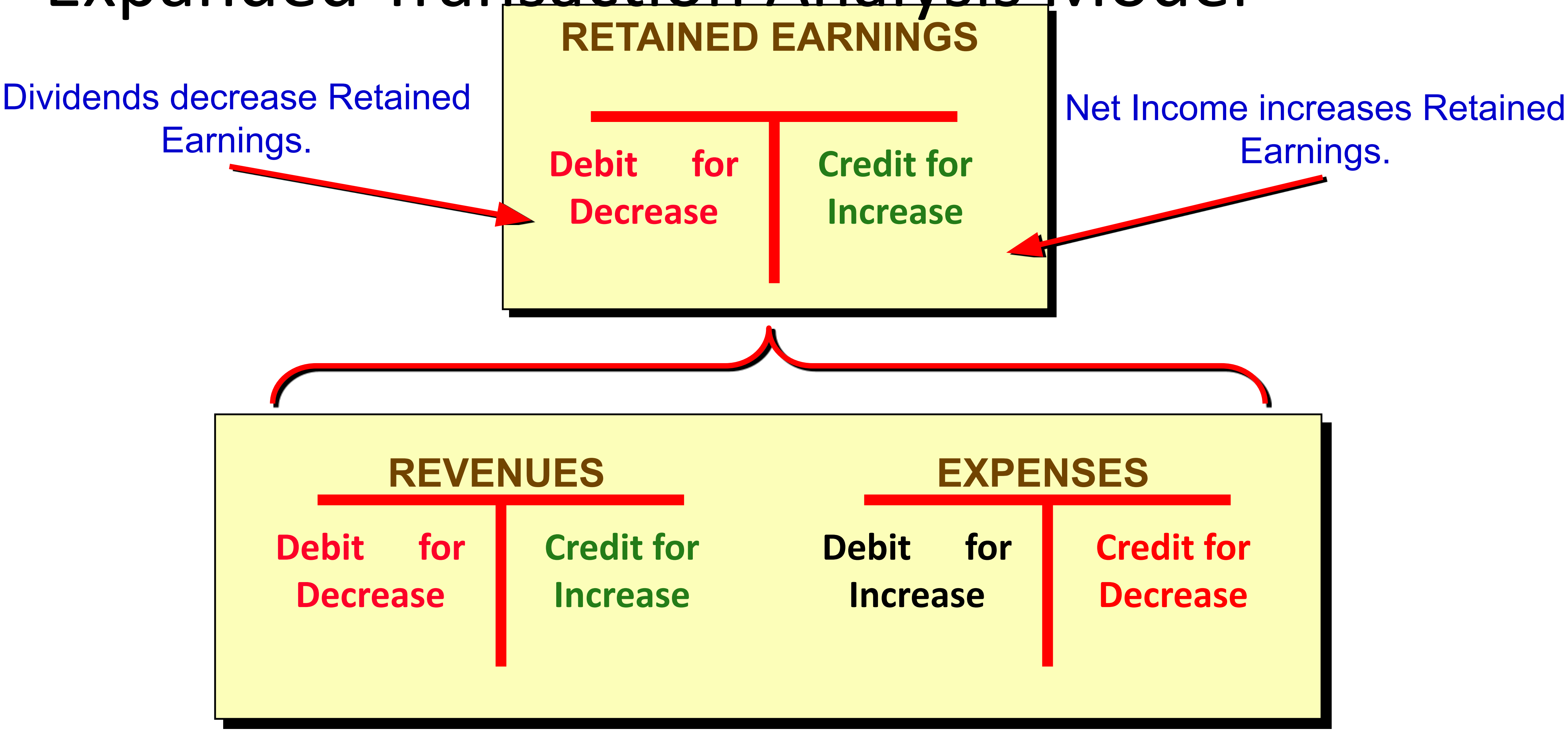
CONTRIBUTED CAPITAL

Debit for Decrease	Credit for Increase

RETAINED EARNINGS

Debit for Decrease	Credit for Increase

Expanded Transaction Analysis Model



Key Ratio Analysis

$$\text{Total Asset Turnover Ratio} = \frac{\text{Sales (or Operating) Revenues}}{\text{Average Total Assets}}$$

Measures the sales generated per dollar of assets.

Creditors and analysts use this ratio to assess a company’s effectiveness at controlling current and noncurrent assets.

Total Asset Turnover Ratio

$$\text{Total Asset Turnover Ratio} = \frac{\text{Sales (or Operating) Revenues}}{\text{Average Total Assets}}$$

(Beginning total assets + ending total assets) ÷ 2

Papa John's Total Asset Turnover Ratio for 2008 (dollars in thousands):

$$\frac{\$1{,}132{,}000}{(\$402{,}000 + \$386{,}000) \div 2} = 2.87$$

Finding Accounting Errors

Determine the out-of-balance amount.
Divide the out-of-balance amount by 2 (a debit treated as a credit or vice versa).
Divide the out-of-balance amount by 9, which may indicate a *slide* or a *transposition*.

Example

- Papa John’s restaurants sold pizza to customers for $36,000 cash and sold $30,000 in supplies to franchised restaurants, receiving $21,000 cash with the rest due on account.
- The cost of the dough, sauce, cheese, and other supplies for the restaurant sales in *(a)* was $30,000.
- Papa John’s sold new franchises for $400 cash, earning $100 immediately by performing services for franchisees; the rest will be earned over the next several months.
- In January, Papa John’s paid $7,000 for utilities, repairs, and fuel for delivery vehicles, all considered general and administrative expenses incurred during the month.

Example

- Papa John's commissaries ordered and received $29,000 in supplies, paying $9,000 in cash and owing the rest on account to suppliers.
- Papa John's paid $14,000 cash to employees for their work in January.
- At the beginning of January, Papa John's paid the following, all of which are considered prepaid expenses when paid:
  - $2,000 for insurance (covering the next four months beginning January 1),
  - $6,000 for renting space in shopping centers (over the next three months beginning January 1), and
  - $1,000 for advertising (to be run in February).

Example

- **Papa John's sold land with an historical cost of $1,000 for $4,000 cash.**
- **Papa John's received $15,500 in franchisee fees based on their weekly sales; $12,800 of the amount was due from franchisees' sales recorded as accounts receivable in December and the rest is from January sales.**
- **Papa John's paid $10,000 on accounts owed to suppliers.**
- **Papa John's received $1,000 in cash for interest earned on investments.**

Homework

- Chapter 3
- Exercises: E3-4 (a-f); E3-6, E3-8; P3-2, E 3-17, P 3-4
- Additional exercises.