

Chapter 1



Introduction *to* Finance

After reading this chapter you will understand the following:

1. What is finance and how is it related to accounting, economics and mathematics?
2. What careers are available in finance?
3. What are the most common licensure and certifications in the field of finance?
4. What are the primary and alternative forms of business?
5. What is the primary goal of a financial manager?

1.1 Finance

finance

the management of a company's financial resources to accomplish their short-term, intermediate-term, and long-term goals

Finance is the management of a company's financial resources to accomplish their short-term, intermediate-term, and long term goals. Short-term goals are those goals lasting less than one year. Intermediate goals last from one year to five years. Long terms goals are goals that are set for more than five years. Finance integrates many other disciplines, however; accounting, economics and mathematics are probably the most important. The economic environment is a key component in determining what source of funding should be utilized; the accounting discipline provides the framework for financial calculations; and mathematical formulas are utilized to carry out the financial calculations. Financial managers are tasked with financial planning, asset acquisition, making capital expenditure, and setting forth the capital structure of the firm to accomplish their stated goals and objectives. Finance managers usually serve as Chief Financial officers (CFO), or treasurer. Accountants usually serve as controllers in the private sector and comptrollers in the governmental sector.

Controllers and treasurers are both financial managers. For the most part, they have similar backgrounds and skills, though their duties and job descriptions are very different. The controller is considered the head accountant for the company. They supervise other accountants and manage the company's books. Treasurers, on the other hand, are more like full-time financial advisers for their companies. A controller is one of the top-level accountants in a company. They report directly to the Chief Financial Officer, if the company has one. They often develop and implement accounting policies for companies and are in charge of the audit, accounting and budget departments. One of their main jobs is to put together financial reports. These reports assess the current state of a company's finances and make predictions about the financial future. They give presentations to chief executives about finances and forecasts, and advise executives on accounting matters. Treasurers are in charge of the finance or treasury departments, and they may also be called vice presidents or officers of finance. They are the people who are in charge of helping a company grow its funds and invest those funds. They do this by issuing stock through public initial offerings, issuing debt securities—like bonds, or negotiating loans from lenders.

1.2 Finance and Accounting

Accounting and Finance can be describes as first cousins. They are closely related and offer each other useful information. Accounting is the discipline that tracks the financial resources and creates financial statement based on the use of those financial resources. The results obtained by conducting ratio analysis on financial statements assist the financial manager in making prudent decisions. The two primary types of accounting are **financial accounting** and **managerial accounting**. Financial accounting is used to present the financial health of an organization to its external stakeholders. Financial accounting presents a specific time period in the

past and enables the users of the information to see how the company has performed. Financial accounting reports must be filed on an annual basis, and for publicly traded companies, the annual report must be made part of the public record. Managerial accounting is used by managers to make decisions concerning the day-to-day operations of a business. It is based not on past performance, but on current and future trends, which does not allow for exact numbers. Because managers often have to make operation decisions in a short period of time in a fluctuating environment, management accounting relies heavily on forecasting of markets and trends. Management accounting is presented internally, whereas financial accounting is meant for external stakeholders. Although financial management is of great importance to current and potential investors, management accounting is necessary for managers to make current and future financial decisions. Financial accounting reports must adhere to Generally Accepted Accounting Principles (GAAP), but management accounting is often more of an estimate, since most managers do not have time for exact numbers when a decision needs to be made. Accountants sometimes pursue professional designations such as the Certified Public Accountant (CPA) and the Certified Management Accountant (CMA) designations. To become a CPA in Texas an individual must possess a baccalaureate degree. However, there is a total of 150 semester hours requirement with a minimum of 30 hours upper-level Accounting courses, of which at least 15 hours must be from traditional face-to-face courses and 2 hours of accounting or tax research, 24 hours of upper level related business courses which must include 2 hours of accounting or business communications, and 3 hours board-approved ethics course. The Uniform CPA Examination consists of four sections which includes, auditing and attestation (AUD) 4 hours, business environment and concepts (BEC) 4 hours, financial accounting and reporting (FAR) 3 hours, and regulation (REG) 3 hours. The Examination is composed of testlets—groups of 24 or 30 multiple-choice questions, or task-based simulations (condensed case studies). The current requirement is one year of full-time non-routine accounting work experience under the direct supervision of a licensed CPA. One year of experience is required and shall consist of full- or part-time employment that extends over a period of not less than one year and not more than three years and includes not fewer than 2000 hours of performance of services described in Board Rule 511.122. Work experience must be reported in years and months. To become a CMA you must obtain a bachelor's degree in accounting, finance or economics. The CMA designation requires 2 years of continuous work experience. Your work needs to be in a CMA-related field. These jobs include accounting, auditing, financial analysis or budgeting. Apply for membership in the Institute of Management Accountants. The CMA requires you to pass two exam parts. Each part has a multiple-choice section and an essay portion.

Another key accounting position is an **Internal Auditor**. An internal auditor performs and controls the full audit cycle including risk management and control management over operations' effectiveness, financial reliability and compliance with all applicable directives and regulations. Additionally, they prepare and present reports that reflect audit's results and document process while acting as an objective source of independent

advice to ensure validity, legality and goal achievement. The CIA (Certified Internal Auditor) designation is the only globally accepted designation for internal auditors. CIA candidates are required to have a 4-year post-secondary degree (or higher). This degree must come from an accredited university that is recognized by the IIA. Once you have fulfilled your education requirements, you must complete a certain amount of work experience.

Two options are available to complete your pre-CIA exam requirements.

- First, if you have a 4-year degree and no experience, you must complete 24 months of verified work experience as an internal auditor or the equivalent. Examples of work experience that could be classified as “equivalent” include compliance, external auditing, internal control, and quality assurance.
- Second, if you choose to complete a master's degree, you will only have to complete 12 months of verified work experience because your masters degree program will be considered the equivalent of 12 months of experience.

Given that your future career as a CIA rests on displaying a high level of integrity and morality in addition to professionalism, you are required to submit a character reference. This reference must be signed by a CIA, CGAP, CCSA, CFSA, CRMA, or your supervisor. Lastly, you must pass all 3 parts of the exam, within 4 years.

1.3 Finance and Economics

Economic conditions play a major role in the decision-making process of a financial manager. There are two primary branches of economics that must be understood. The two primary branches of economics are microeconomics and macroeconomics. Microeconomics is the study of decisions faced by consumers, households and the firms based on scarcity. Macroeconomics is the study of the factors that affect the economy as a whole. Factors such as the unemployment rate, inflation and the gross domestic product (GDP), are very important to investors and businesses. In addition to the two primary branches of economics financial managers must be aware of managerial economics, econometrics and international economics. Managerial economics is a discipline that combines economic theory with the practice of management. Econometrics is the application of statistical and mathematical theories to economics for the purpose of testing hypotheses and forecasting future trends. Econometrics takes economic models and tests them through statistical trials. International economics study the flows of money across countries. The field of international economics concerns itself with the interaction of economic agents across borders. Common topics for inquiry in international economics include foreign trade, free trade, exchange rates and tariffs.

1.4 Finance and Mathematics

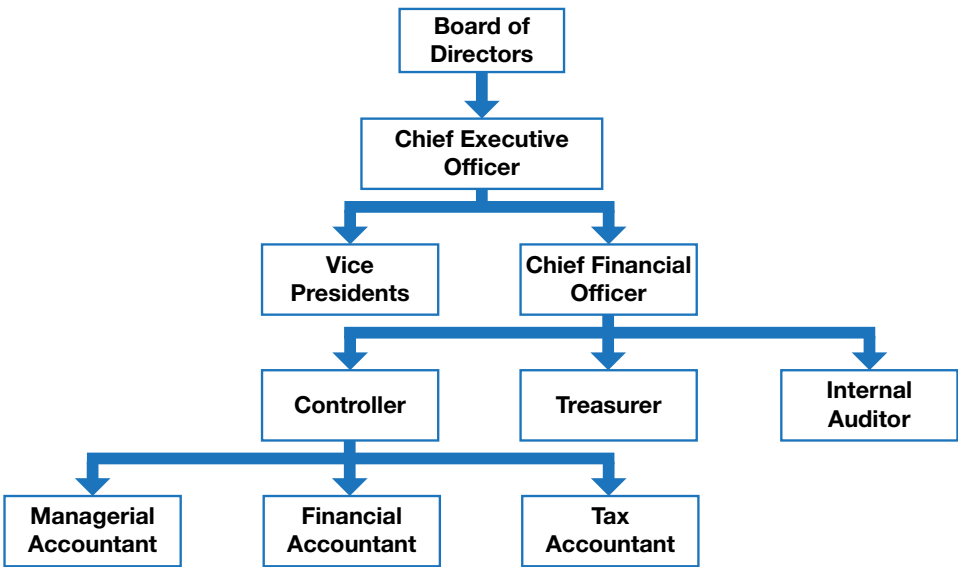
There are many mathematical formulas used in conducting financial analysis. The most common types of math used in finance involve algebra and calculus. Other topics include fractions, decimals, ratios, statistics, roots, percents, exponents, derivatives, and negative numbers.

1.5 Finance Careers

Finance careers focus on three primary areas: financial services, finance related and corporate finance. There may be features that are similar in each area, but the distinction calls for three separate areas. Financial services jobs have a direct relationship with cash, or cash equivalents such as banking, stock broker and financial planning. Finance related occupations include insurance agents and real estate agents and the corporate finance area explores the role of the cash manager, credit analyst and financial manager. This textbook focuses on corporate finance and the responsibility of the financial manager. There are a few names used for the financial manager. The financial manager is also known as the **Chief Financial Officer (CFO®)**, Director of Finance (DOF) or treasurer. The chief financial officer is a corporate officer primarily responsible for managing the financial risks of the corporation. This officer is also responsible for financial planning and record-keeping, as well as financial reporting to higher management. Financial managers plan a company’s budget, raise funds and also evaluate and select long-term capital budgeting projects. Figure 1.1 depicts the relationship between the typical corporate finance and accounting personnel.

Also known as the Chief Financial Officer (CFO) or Director of Finance (DOF) or treasurer.

KEY CORPORATE FINANCE AND ACCOUNTING PERSONNEL CHART



Certified Financial Planner (CFP)

The CFP is issued by the Certified Financial Planner Board of Standards Incorporated. In addition to passing a CFP certification exam after taking seven financial planning courses; an individual must possess a bachelor's degree or higher and have at least three years of full-time personal financial planning experience.

Financial Industry Regulation Authority (FINRA)

Regulates securities firms in the U.S.

1.6 Finance Certifications and Licensure

There are many licenses and certifications that can be earned for financial services or financial analysts careers. However, there are a few certifications that are considered more important. The **Certified Financial Planner Certification (CFP)**, Certified Financial Analyst (CFA), Chartered Financial Consultant (ChFC), Certified Investment Management Analyst (CIMA), Chartered Retirement Planning Counselor (CRPC), and the Chartered Mutual Fund Counselor (CMFC) designations require an education component and experience in the finance industry. The CFP® is issued by the Certified Financial Planner Board of Standards Incorporated. There are 8 principal topic areas which make up the CFP® curriculum. The 8 principal topic areas includes A., Professional conduct and regulation, B. General financial planning principles, C. Education planning, D. Risk Management and Insurance Planning, E. Investment planning, F. Tax planning, G. Retirement Savings and Income Planning, and H. Estate planning. In addition to passing a 6 hour, 170 question computer based CFP® certification exam and taking seven financial planning courses; an individual must possess a bachelor's degree or higher and have at least three years of full-time personal financial planning experience. The CFA Institute issues the CFA. In addition to passing three exams; an individual must possess an undergraduate degree and have four years of professional experience. The ChFC is issued by the American College of Financial Services. Candidates must complete nine required courses to include their corresponding exams and three years of full-time business experience. The CIMA is issued by the Investment Management Consultants Association. In addition to taking two exams, an individual must have two years of financial services experience. The CMFC® and CRPC® are both issued by the College for Financial Planning. In addition to taking a self-study course comprised of nine modules, an individual must pass a proctored exam at an approved testing site. In addition to holding a designation, there is usually a licensure requirement. The **Series 7—General Securities Representative Exam (Stockbroker)**, Series 6—Investment Company and Variable Contracts Exam (Mutual Funds/Variable Annuities) Series 63—Uniform Securities Agent State Law Exam Series 65—Uniform Registered Investment Adviser Law Exam (RIA), Series 66—Uniform Investment Adviser—Combined State Laws Exam (Combined 63 and 65) and the Series 79—Investment Banking Exam are the most common. The licenses require intense study and the exams are administered at an approved testing site. Securities firms in the U.S. are regulated by the **Financial Industry Regulatory Authority (FINRA)**. FINRA is the largest self-regulatory organization (SRO) in the securities industry in the United States. An SRO is a membership-based organization that creates and enforces rules for members based on the federal securities laws. SROs, which are overseen by the Securities and Exchange Commission (SEC), are the front line in regulating broker-dealers. The Securities and Exchange Commission (SEC) is a government commission created by Congress to regulate the securities markets and protect investors. In addition to regulation and protection, it also monitors the corporate takeovers in the U.S. The SEC is composed of five commissioners appointed by the U.S. President and approved by the Senate. The statutes administered by the SEC are designed to promote full public disclosure and to protect the investing public.

against fraudulent and manipulative practices in the securities markets. An applicant must currently be working for a member firm in order to sit for most securities examinations. Prior to receiving approval to sit for an exam a background check must be conducted to ensure the individual seeking licensure has not committed any financial industry related crime.

1.7 Primary Business Forms

Finance is used by individuals in their personal lives to manage their income in pursuit of their personal financial goals. Finance is also used in all forms of businesses; regardless of size. There are at least 30 million businesses in the United States. There are three primary types of business formations and a few hybrid types of business formations. The primary forms of business formations are sole proprietorships, partnerships and C-corporations. The hybrid business forms that seek to take advantage of the attractive features of the primary forms; are S-corporations, limited liability companies and limited liability partnerships. Sole proprietorships make up approximately 72%, partnerships make up approximately 8% while corporations make up the remaining 20%.

1.7a Sole Proprietorship

A sole proprietorship is a form of business that is owned by an individual. The sole proprietor makes all of the business decisions and takes all the risk of success or failure. The sole proprietorship type of business is the least expensive to start and the easiest type to dissolve. There a few common advantages and disadvantages to owning a sole proprietorship.

sole proprietor

A form of business that is owned by one individual

TABLE 1.1 SINGLE INDIVIDUAL TAX RATE

Sole Proprietorship Advantages	Sole Proprietorship Disadvantages
100% Decision Making Power	Unlimited Liability
Chance to Make all Revenue	Business may not be profitable
Simple taxation (Taxed as Personal Income)	Limited ways to raise money
Inexpensive to start	Business dies with the owner

Taxation of a sole proprietorship is one the advantages of this form of business. Sole proprietor's business earnings are taxed along with other sources of income at the individual rate. The IRS publishes the tax rates each year. The more income earned by the individual is taxed at a higher rate which is considered **progressive taxation**. For 2012, the tax rates are in Table 1.2 below:

progressive tax

The more income earned by the individual is taxed at a higher rate

TABLE 1.2

Marginal Tax Rate	Taxable Income
10%	\$0 – \$8,700
15%	\$8,701 – \$35,350
25%	\$35,351 – \$85,650
28%	\$85,651 – \$178,650
33%	\$178,651 – \$388,550
35%	\$388,551+

Example 1: A sole proprietor earns \$200,000 in taxable income. What is the individual's tax liability?

Answer:

Taxable Income	\$ 200,000		
\$ Taxed at 10%	\$ 8,700	× 10%	\$ 870.00
\$ Taxed at 15%	\$ 26,650	× 15%	\$ 3,997.50
\$ Taxed at 25%	\$ 50,300	× 25%	\$ 12,575.00
\$ Taxed at 28%	\$ 93,000	× 28%	\$ 26,040.00
\$ Taxed at 33%	\$ 21,350	× 33%	\$ 7,445.50
\$ Taxed at 35%	\$ 0	× 35%	\$ 0
		Total Taxes	\$ 50,917.00

Example 2: In the above example what is the average tax rate?

Answer: **Average tax rate** = Tax Liability/Taxable Income
 $\$50,917/\$200,000 = 0.2546$ or **25.46%**

1.7b Partnership

A partnership is a type of business that is owned by two or more individuals. There are two primary types of a partnership, which are general partnerships and limited partnerships. Partnerships are formed with articles of partnership which spell out the terms of the agreement. Partnerships are taxed in the same manner as sole proprietorships. Since general partners carry unlimited liability, another form of partnership was created. The limited liability partnership is an arrangement where one partner is the general partner who carries out the day to day operations of a business while the limited partner acts more like an investor. The limited partner's losses are limited to the amount invested.

TABLE 1.3

Proprietorship Advantages	Proprietorship Disadvantages
Decision making power held by a few	Unlimited liability
Chance to make all revenue	Limited fund borrowing ability
Simple Taxation (Taxed as Personal Income)	Difficult to transfer ownership
Inexpensive to Start	Partnership ends with death of a partner

1.7c C-Corporations

A corporation is a separate legal entity that is created by filing for articles of incorporation creating a corporate charter. A corporate charter contains information about the name, business type, stock amount, and information about the directors. The founders are required to develop bylaws which establish how the corporation elects its directors, establish preemptive rights, and how the bylaws can be changed or amended. A corporation has legal rights and is separate from its owners (shareholder). Companies form corporations for the protection of limited liability. Shareholders vote for members of the corporate board. The board of directors chooses the officers such as the President, Chief Executive Officer (CEO) and Chief operating Officer (COO), who will run the corporations day to day operations.

C-corporation

A corporation is a separate legal entity that is created by filing for articles of incorporation creating a corporate charter

TABLE 1.4

C-Corporations Advantages	C-Corporations Disadvantages
Protection—limited liability	Double taxation
Ability to raise large sum of money	Cost of establishment
Transferability and Perpetual Life	Legal Requirements

One of the disadvantages of a corporation is what is known as double taxation. The owners of a corporation are taxed on their capital gains and the corporations pay taxes on revenue. Table 1.4 displays the current corporate tax rates.

TABLE 1.5 CORPORATE TAX RATES AS OF JANUARY 2012

Over	But not over	Base Tax		Tax is:	Amt Over
\$0	50,000			15%	0
50,000	75,000	\$7,500	+	25%	\$50,000
75,000	100,000	13750	+	34%	75,000
100,000	335,000	22250	+	39%	100,000
335,000	10,000,000	113900	+	34%	335,000
10,000,000	15,000,000	3400000	+	35%	10,000,000
15,000,000	18,333,333	5150000	+	38%	15,000,000
18,333,333				35%	0

Example 3: A corporation earns \$1,200,000 in taxable income. What is the corporation's tax liability? What is the average tax rate?

Answer: First, determine base taxes.

Base taxes are \$113,900

Next, compute marginal taxes.

$$1,200,000 - 335,000 = 865,000 * .34 = \$294,100$$

$$\text{Total tax liability } \$113,900 + \$294,100 = \$408,000.00$$

$$\text{Average tax rate} = \text{Tax Liability} / \text{Taxable Income}$$

$$\$408,000 / \$1,200,000 = 0.34 = 34\%$$

1.8 Hybrid Business Forms

1.8a Limited Liability Company

A limited liability company is combination of partnership and c-corporation. A limited liability company is formed by filing articles of organization and its owners are called members. The members adhere to the governance set forth in the operating agreement. There is no board of directors.

TABLE 1.6

Limited Liability Company Advantages	Limited Liability Company Disadvantages
Limited Liability	LLC statute inconsistencies
Managed by members	Some states tax LLC as a business entity
Simple Taxation (Taxed as Personal Income)	Annual fees and filing requirements
Inexpensive to Start	Limited Liability exceptions (fraud, debt, etc.)

1.8b Subchapter S (S-Corporation)

In order to take advantage of the limited liability benefits of a corporation and the tax structure of sole proprietorship or partnership, some small businesses form S-corporations. The business income is reported as personal income by its stockholders. **S Corporation** is a form of **corporation** that meets the IRS requirements to be taxed under Subchapter **S** of the Internal Revenue Code. This gives a **corporation** with 100 shareholders or less the benefit of incorporation while being taxed as a partnership.

TABLE 1.7

S-Corporation Advantages	S-Corporation Disadvantages
Limited Liability	Complexity of establishment
Simple ownership transferability	Complexity of record keeping requirement
Tax passed through owners avoid double taxation	State fees and other reporting requirement

1.8c Limited Liability Partnership

A limited liability partnership (LLP) is a partnership in which some or all partners (depending on the jurisdiction) have limited liabilities. It therefore exhibits elements of partnerships and corporations. In an LLP, one partner is not responsible or liable for another partner's misconduct or negligence.

TABLE 1.8

Limited Liability Partnership Advantages	Limited Liability Partnership Disadvantages
Limited Liability	Complexity of establishment
Flexibility	Not recognized by every state as legal entity
Tax passed through owners avoid double taxation	Partners may act without consent of other partners

1.9 Goal of the Financial Manager

Financial managers must make decision related to capital budgeting, capital structure and working capital management. Capital budgeting decision relate to long-term capital intensive projects. Decisions related to capital structure involve deciding what sources of financing (i.e. debt, or equity) should be used to finance capital budgeting projects. Working capital management involves short term decision related to managing current assets to carry out day-to-day operations.

Regardless of the type of business, the goal of a financial manager should remain the same. When given a choice between wealth maximization and profit maximization; wealth maximization should be the goal. A shareholders wealth can be increased by a corporation paying dividends and/or causing the stock price per share to increase. Profit maximization is a short sided view that can be used to manipulate cost. Sometimes managers, will lay off employees prematurely or take shortcuts in production to make profits look more attractive. However, wealth maximization is a long-term view that focuses on all stakeholders. Stakeholders' are those individuals or entities that rely on the business for either, income, services or support. Examples of stakeholders include employees,

agency problem

The misalignment of goals between the owners and managers

owners (shareholders), suppliers, and customers. Companies that solely focus on profits may lower the cost at the expense of employee safety or negative externalities. When the goal of the managers (agents) are not aligned with the goals of the (owners) shareholders, a problem may arise. The misalignment of goals between the owners and managers is known as the **agency problem**. To correct the agency problem, usually the manager's compensation is tied to the stock price. This can be accomplished through the use of stock options or bonuses based on stock performance. Financial managers have a fiduciary responsibility and must act in an ethical manner when making decisions.

Many corporations develop a formal code of ethics and hire an Ethics and Compliance Officer to oversee their ethics program. Ethics is defined as a moral philosophy or code of morals practiced by a person or group. An ethics officer is someone who aligns the practices of a workplace with the stated ethics and beliefs of that workplace, holding people accountable to ethical standards. Ethics officers perform a number of important tasks. They can help their employers develop codes of ethics so that a clear standard is created, and they also establish clear consequences for violations of these codes, so that everyone at a company understands that he or she will be held ethically accountable. Ethics officers may also enforce ethical codes, and make adjustments to the code as needed. Ethics programs are usually addressed in a corporation corporate governance. Corporate governance is the system of rules, practices and processes by which a company is directed and controlled. Corporate governance essentially involves balancing the interests of the many stakeholders in a company—these include its shareholders, management, customers, suppliers, financiers, government and the community. Since corporate governance also provides the framework for attaining a company's objectives, it encompasses practically every sphere of management, from action plans and internal controls to performance measurement and corporate disclosure.

Chapter 1 Summary

1. **What is finance?** Finance is the management of a company's financial resources to accomplish their short-term, intermediate-term, and long term goals. Short-term goals are those goals lasting less than one year. Intermediate goals last from one year to five years. Long terms goals are goals that are set for more than five years.
2. **What are some common finance careers?** Finance careers focus on three areas, financial services, finance related and corporate finance. There may be features that are similar in each area, but the distinction calls for three separate areas. Financial services jobs have a direct relationship with cash, or cash equivalents such as banking and financial planning. Finance related and the corporate finance areas include insurance and real estate agents and the corporate finance explore the role of the financial manager.
3. **What are the most common finance certifications and licensure?** The **Certified Financial Planner Certification (CFP)**, Certified Financial Analyst (CFA) is considered to be the most important finance certifications. Along with certifications, there is usually a requirement for licensure.
4. **What are the three primary business formations?** The primary types of business formations are sole proprietorships, partnerships and corporations. Sole proprietorships make up approximately 72%, partnerships make up approximately 8% while corporations make up the remaining 20%.
5. **What is the primary goal of the financial manager?** When given a choice between wealth maximization and profit maximization; wealth maximization should be the goal. Profit maximization is a short sided view that can be used to manipulate cost. Wealth maximization is a long-term view that focuses on all stakeholders.

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Chapter 1 Problems

PR-1 MoLamb Corporations has \$345,000.00 of taxable income. What is MoLamb's tax liability?

PR-2 Using the information from questions 2, what is MoLamb's average tax rate?

PR-3 MoLamb Corporations has \$1,460,000.00 of taxable income. What is MoLamb's tax liability?

PR-4 Using the information from question 3, what is MoLamb's average tax rate?

