The Circulation of Economic Activity

We revisit the two fundamental economic institutions: the household and the firm. In a **private enterprise** economy, scarce **factors of production**—land, labor, capital, and entrepreneurship—are privately owned by people who live in households. A **household** could be a person living alone, a nuclear family composed of one or more adults with or without children, or an extended family with three or more generations. The household is the basic consumption unit, which also **supplies** the **services** of scarce factors of production to the business sector. In primitive economies, households were typically both consumers and producers, growing crops and raising animals, and trading any surplus for goods produced by other households. In **market economies** like the United States, commodity production takes place in **firms**—business institutions that hire factors of production and buy the products of other firms—to earn revenue selling their output to members of the household sector. There is still some **household production** that involves combining human time, raw materials (e.g., food), and appliances (e.g., microwaves) to produce the final good (a meal).

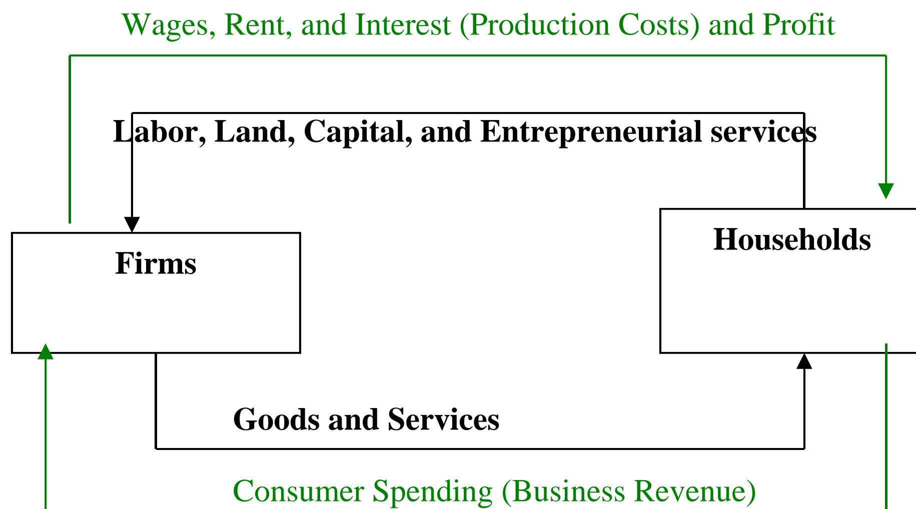

Figure 3-1

Figure 3-1 depicts a simple flowchart of economic activity. The inner flow of activity (indicated by the bold, black print) depicts the ultimate interaction of an economic system—the transformation of scarce resources into goods and services. Households supply **land, labor, capital,** and **entrepreneurship**[1] **services** that they own to the business sector, and the business sector turns those scarce factors into valuable outputs—goods (tangible commodities) and services (commodities that are consumed the moment of production). Households acquire factors of production two ways: **endowments** that are bestowed upon a household through inheritance or gifts, and through **accumulation** such as saving a portion of one's income to acquire land or capital, or by allocating time to ac-

[1] The word *entrepreneurship* comes from the French *entrepreneur*, the person who organizes production and assumes the risk of failure in the hopes of obtaining a profit. Often, for simplicity, we will include entrepreneurship as a form of labor, since assuming risk requires the expenditure of time and energy.

quire education or other job-related skills. This inner flow of *real* economic activity (land, labor, and capital into goods and services), depicted as flowing in a counter-clockwise direction, is matched by a monetary flow (in green) that moves in the clock-wise direction. In exchange for factor services, households receive *money income* in the form of wages (for labor), rent (for land), interest (for capital), and profit (for entrepreneurship). They exchange this money income for the goods and services that they desire. The spending by households represents revenue to businesses; the income of households represents costs to businesses.[2] Economists assume that business owners attempt to maximize profit—the difference between revenue and factor payments to others (i.e., wages, rents, and interest).

In Chapter 2 we briefly discussed the three types of economic organization: tradition, command, and market. In Figure 3-1, markets operate at the interface between the household sector and the business sector. We use markets to procure food, clothing, shelter, transportation, entertainment, medical care, and most other commodities we consume. It does us no good to beg for food at the grocery store, or to order a gas station operator to fill up the tank unless we are prepared to pay. Yet children beg for food all the time, albeit typically not the healthy food their mothers would prefer that they eat. Households typically function as traditional economies. Parents and children accept roles dictated by biology and affection; however, when affection fails, parents and even children have been known to revert to threats and punishment, which characterize a command economy. The typical business functions under a well-defined command structure; you might have been hired through a labor market, but your day-to-day interaction with the boss is one of fear or loyalty.

In order for a market system to function, scarce resources must be privately owned. **Ownership** gives owners the **right to exclude**. Every right implies a duty by others; the right to exclude by property owners corresponds to a duty of non-owners seek permission. This land is *my* land because I can evict you if you trespass. When land is not privately owned, **the tragedy of the commons**[3] occurs. During medieval times, landless peasants had the right to graze their flocks on *common* pasture land, often nominally owned, but not controlled, by the Church. No one—neither peasant nor noble nor cleric—had the right to exclude anyone else from using common pastureland. This may sound egalitarian, but the commons creates a **free-rider problem**. Any grass that my sheep do not eat, your sheep will eat later. Therefore, I have no incentive to preserve the grass—I allow my sheep to consume not only the grass, but the roots as well. Before long, the commons is a grassless, muddy field. Any public-spirited peasant who planted grass on the commons would watch in dismay as someone else's flock munched the tender emerging shoots. The commons works in theory only in a population of altruists; family farms thrive, but communal farms lead to famine.

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[2] One factor service, entrepreneurship, yields profit. Technically, profit is the difference between revenue and (opportunity) cost. We treat profit as a cost because (1) it is the payment for a factor service, and (2) it ultimately ends up in the household sector.

[3] Garret Hardin, "The Tragedy of the Commons," *Science* (December 1968), 1243–1248.

The North American version of this tragedy occurred on the open range where cattlemen and shepherds competed for grassland.[4] Since no one owned the prairie, no one had the legal right to police its use. That did not stop the cattlemen from resenting the encroachment of the shepherds (and vice versa). Nor did that did stop cattlemen and shepherds from shooting each other. But until the invention of barbed wire, which allowed owners to mark off their property and post no trespassing signs, the American West continued its reputation as a lawless, chaotic place.

Government and the Market Economy

This discussion highlights an important omission from Figure 2-1. In order to facilitate the transformation of resource services into commodities, a third entity—the government—must define and enforce property rights. A market economy cannot operate in a state of anarchy (literally, "no government"), where households and businesses spend so much time defending their property that they have little time to use it productively. If someone has the strength and ability to exclude you from using his property, he probably has the strength and ability to prevent you from using *your* property. The importance of property rights is that *all owners* have the right to exclude, even if they do not have the muscle to enforce those rights themselves. To be effective, the government must defend the property rights of the weak and the strong alike. Otherwise, loot and pillage is likely to prevail.

According to one version of the genesis of private property, enlightened and reasonable people understand that communal access to scarce resources is inconsistent with the efficient allocation of resources. They unanimously agree to respect the **de facto** property rights of each person in the community. The group allows each member to keep his or her own production and to arrange a mutually advantageous exchange of property rights with anyone else. Without the **right to exclude**, there can be **no right to exchange**. Only if you must obtain my permission to use my property (because society will punish you if you take it without my permission) will you be willing to give me something in exchange if I transfer my property right to you. Since exchange is voluntary—either party can cancel the exchange if the **terms of trade** are not to his or her liking—both parties gain from trade, as long as each is adequately informed and consents to the exchange.

Another fable from economic mythology is less egalitarian but also illustrates the superior incentives of property rights over the commons. A band of marauders, operating under the "might makes right" principle of social interaction, discover the flaw of loot and pillage. As long as it seems easier to take what someone else has produced than it is to produce for oneself, the strong will specialize in plunder. The weak learn that production is futile when the strong take what the weak make. The weak gravitate to a hand-to-mouth subsistence, gathering only what food they can immediately swallow. Before long, with the gatherers eating all they find, the looters will have nothing to plunder.

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[4]As hunter-gatherers, Native Americans relied on religion and custom to avoid the tragedy of the commons; the fact that Native Americans had considerably less population density also helped avoid conflicts within tribes, although inter-tribal conflicts, essentially involving property disputes, were common.

Our story continues with a warlord riding at the head of his men into an apparently deserted village, with no domestic animals or crops in sight. "Not again!" moan his hungry and rebellious followers.

The warlord has a flash of insight. "Loot and pillage is not working very well; we need to try a new system" he proclaims. "No longer will a person's property be seized by those stronger than him! From this day forward, a man may keep what he produces with his own effort and his own tools and his own land. And everyone, be he rich or poor, strong or weak, soldier or peasant, must pay for the use someone else's property. We will call this system *private enterprise*!"[5]

"Huh?" exclaim his confused followers, who are much more used to action than to words. He patiently explains the intricacies of private property and voluntary exchange by having his band read *Naked Economics*. They are disappointed that there are no pictures.

Slowly the peasants emerge from the edge of the forest, where they have warily been stuffing their mouths with roots and berries. "What a wonderful idea! No more starvation! Oh, wise lord, return to us our property that we may get back to our planting!"

"What do you mean *your* property?" replies the warlord, with a dismissive shrug. "We stole your farmland fair and square under the loot-and-pillage system. We will start the new free enterprise system where the old system left off. Only now, when we take your crops, we will no longer call it plunder. We shall now call it *rent.*"

Not surprisingly, libertarians use the first fable to extol the efficiency gains of private property over the commons, while statists cite the unfairness of initial **endowments** to challenge the fairness[6] of a system that bases a person's or family's ownership on wealth rather than on effort or merit. But the efficiency gains of a private property system do not imply, nor do they depend upon, an equitable distribution of property. The incentives for efficient resource use created by a system of property rights can exist even when the distribution of property rights is grossly unfair. Indeed, slavery involves property in human beings, yet the system is very unfair, not only for the slave, but also for property-less free workers, who find it difficult to sell their labor in a slave economy.

Accordingly, Figure 3-2 expands economic interactions by inserting a government between households and firms. I have also added the box labeled "factor market" in the flow of resource services and income at the top of the diagram and the box labeled "product market" in the flow of goods and services from the business sector to the household sector. Markets occur at the economic interface between buyers and sellers. Households exchange land, labor, capital, and entrepreneurial services for rent, wages, interest, and profit, not because they like pieces of paper with dead politicians, but because this **money income** gives them access to goods and services. And firms do not sell

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[5] Notice that my warlord is much more articulate than the characters in either *Conan the Barbarian* or the HBO series, *Deadwood.*

[6] Economists have trouble with the concept of *fairness*, which is difficult to define in a way that everyone can accept and still be consistent with the concept of scarcity. In twenty-four years as parents, neither Regina nor I have ever heard one of our three children complain: "It's not fair, I got too much!" Alas, the operational definition of *fairness* always comes down to *more for me*! But in a world of scarcity, where giving more to one person usually implies giving less to someone else, it is simply impossible to be fair.

goods and services to the household sector because the owners of firms are **altruistic**. Economists assume that the owners and firms are **egoists** who seek to maximize the one particular type of income, namely profit, which is the difference between the revenue and the **opportunity cost** of resources used to produce those goods.

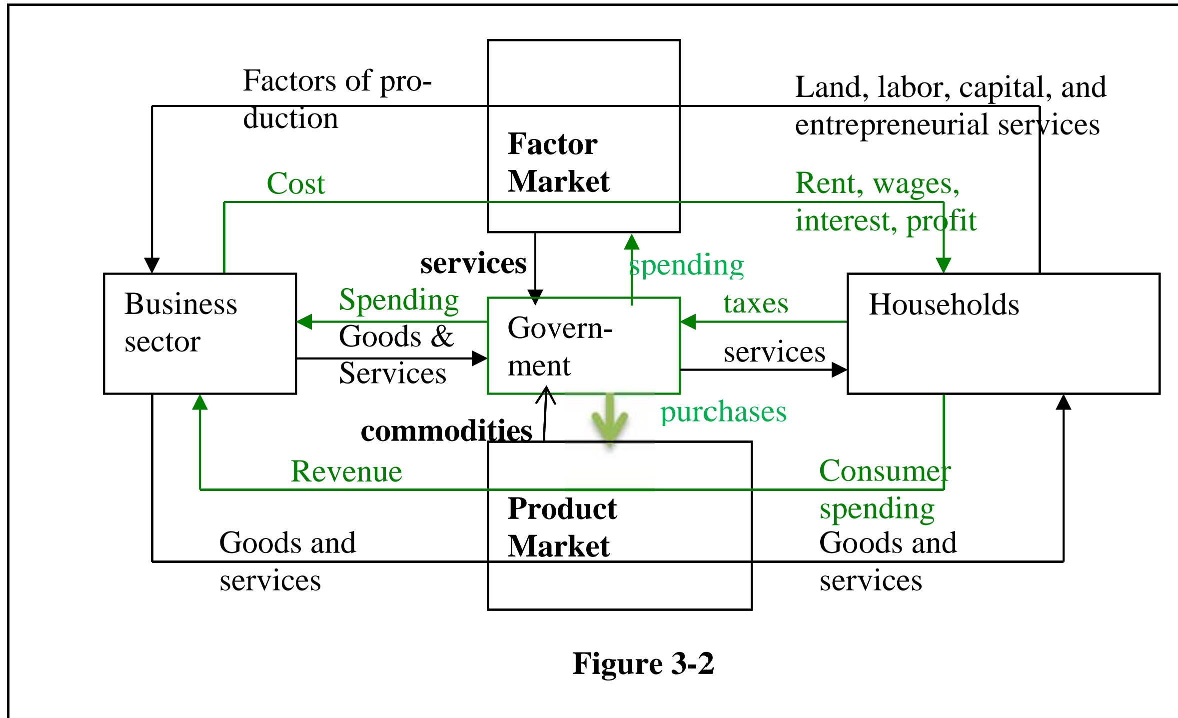

Figure 3-2

Exchange is a **quid pro quo** (something for something [else]) principle. Private goods and services bought and sold in markets are subject to exclusive use. My labor *time* is scarce because I cannot be in two places at once, and rarely can I accomplish more than one task at a time. If a business wishes to use my time for its[7] own ends, then it must pay me, or I will take my labor elsewhere. And, if the employer is to continue to pay me, I must continue to perform, or our relationship is terminated. Similarly, households have limited savings to lend to businesses (banks), limited land to rent to tenants, and limited reservoirs of risk-taking and organizational talent (entrepreneurship). Stores (businesses) can sell apples because it is easy to withhold the merchandise if I do not pay the price. However, businesses cannot sell property rights, contract enforcement, or national security directly to households.

The relation between households and governments is different from the relation between households and firms, however. For the most part, government services are not bought and sold like most other commodities. One important government service is the protection of property rights (essentially, police functions) and must be available to all, without regard to ability to pay. Indeed, paying police for "fair" (more for me!) protection is illegal. Similarly, paying for judicial services, at least before the verdict is ren-

[7] Note, to avoid gender confusion, I will treat the business firm as an "it," even though the person giving orders could be "he" or "she."

dered, constitutes bribery and is illegal.[8] Government services are financed by tax revenue, by which households[9] are required to pay money lest the government cease enforcing property rights (that is, the government will confiscate money, lands, or time by sending tax evaders to jail). In "exchange"[10] for their tax payments, households receive public goods such as police and fire protection, a "just" court system, national defense, and public health. Education is a government service that could be privately produced but is subsidized by tax payments to break the link between educational attainment and household wealth.[11] Nevertheless, when it comes to employing land, labor, and capital, governments largely participate in factor markets as buyers. The exceptions are the military draft (the government confiscates labor for a submarket wage) and eminent domain, whereby the government confiscates land for just compensation.

When governments[12] acquire resources to produce public goods, they typically hire land, labor, capital, and entrepreneurial[13] services much as a business would. Hence, we treat government enterprises as if they were part of the business sector, financed by tax revenue. Economics implies that public goods must be *financed* by government, since businesses could not sell these services, since exclusion is impossible, difficult, or undesirable. However, government finance does not (necessarily) imply government production. Since schools can exclude students who do not pay tuition, the government *could* foster equal educational opportunity by dispensing tuition vouchers to parents who send their children to private schools. On the other hand, most citizens are uneasy with governments hiring mercenaries to fight wars or police their streets.[14]

Monetary Flows versus Commodity Flows

We emphasize again that there are two *circular flows* in Figure 3-1 and Figure 3-2. The more important flow is shown moving clockwise and involves the movement of

[8] In a civil court case, wherein a business or person (the plaintiff) sues another business or person (the defendant), court costs are assigned to the losing party in certain circumstances to discourage nuisance suits and to encourage parties to settle out of court. However, these costs are uniform across cases and are a payment for resources used, not for the (in)justice rendered.

[9] While some taxes are nominally levied on businesses, economists believe that all taxes are ultimately paid by members of the household sector, either as consumers (e.g., sales taxes are added to the purchase price of merchandise) or resource supplies (workers receive lower wages because employers must pay Social Security and Medicare taxes).

[10] Note, the word *exchange* is set off by quotes—a literary device I try to use sparingly—because people are able to "enjoy" (there I go again) government services whether they pay for them or not. However, there are many services that have restricted distribution—students in state colleges must satisfy admission requirements, drivers pay fee to register their car, and one's day in court is predicated upon listing on the court calendar.

[11] Obviously, this link may be weakened by public education, but it is not broken.

[12] The United States and Canadian systems of *federal, state* (*provincial*), and *local* governments allow limited choice in service level and tax rate combinations, as people *vote with their feet*, moving to high service jurisdictions when their children are in school, and moving to low tax jurisdictions when they retire.

[13] Note that politicians provide entrepreneurial services by running for office, risking impeachment, recall, or forced retirement. The controversy over campaign finance reform is whether these entrepreneurial services should be for sale to the highest bidder.

[14] One of the features of *The Gangs of New York* was that street gangs often coalesced around fire departments that competed to be the first on the scene by violent clashes. Alas, it was a small step between competition for business and arson. A more comical version of privatized warfare is presented in the movie *War, Inc.*

factor services from the household sector, through factor markets, to the business (or government) sector, and the movement of commodities (goods and services) from the business sector, through product markets, to the household sector or directly from the government sector to the household sector. Without the flow of food, clothing, and shelter, members of the household sector would not survive. Furthermore, it is precisely the process of deciding *which* goods to produce, *how to* produce them, and *who* will receive those goods that society confronts the problem of scarcity.

It would be possible, albeit very difficult, for an economic system to function without money. Trade without money is called **barter**, whereby people trade one commodity for another directly. For instance, rural patients often paid their doctors bills with chickens[15] or pigs. Medieval students paid their professors in firewood, clothing, or food. Even today, some *tax evaders* avoid the paper trail of their purchases by bartering through the *underground economy*.[16] The major drawback of barter is the **double coincidence of wants**. If I am an economist with a sore tooth living in a barter economy, I must find a dentist willing to fill a tooth in exchange for an economics lecture. It is much easier to sell my services to UNLV in exchange for a paycheck and then to spend the money out of my checking account on things I want, such as paying money to a dentist to fix the cavity in my aching tooth.

Another name for the monetary flow is *finance*, literally the study of how to pay for goods or services, particularly investments (see chapter two). While financing is very important, do not mistake money used to pay for goods and services with those goods themselves. The goal of a business is *not* to make money – unless the business is a bank (which makes or creates money when it makes a loan), or a counterfeiter, which (attempts) to create fraudulent money. One of the most important *public goods* a government provides is the stability and integrity of the economy's financial sector. Furthermore, much of the financial market has more in common with a casino than a commodity market. When a business finances investment, it can issue debt (bonds; literally, IOUs) or sell shares of the business itself (stock). The investment is financed as part of the *initial public offering*. Unless the company issues new stock, the day-to-day trades in those shares are merely transfers of financial assets for money among financial speculators; the former hope to receive capital gains if the price of their shares increase, while the latter are cashing in their prior gambles. Whether the stock market rises or falls only affects business investment only to the extent that businesses are encouraged to issue additional debt to finance new investments. Money, then, is nothing more (or less) than a financial asset which earns no income, but is easiest to exchange for goods, services, or income-earning financial assets.

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[15] Recall that nostalgia for chicken-health care barter may have been instrumental in dooming one Republican's bid for her party's Senate nomination in 2010.

[16] Most criminal activity does not involve barter, but cash. How many chickens would it cost to bribe a politician or to hire a professional killer? Most money is deposited in bank accounts and financial transactions involve bookkeeping and electronic movements of money from one account to another. The advantage of bank accounts for legal transactions—that they maintain a clear record or paper trail of money transmissions—is a disadvantage for illegal transactions. Hence, drug dealers trade illicit drugs for cash, which they must secure and launder before they can spend it.

Money plays three important functions in a market economy. Money is a **medium of exchange**, meaning that people can exchange the services of factors of production they own for *money*, and then they can spend that money income on goods and services they desire. Another important function of money is as the **unit of account;** by translating factor services and commodities into their monetary equivalents, we can add them together to compute total household income, the total household budget, business revenue, business costs, and ultimately, business profit.

Without money as a medium of exchange, there would be fewer exchanges because rarity of the double coincidence of wants would require lengthy search time. Even if I were lucky enough to find a dentist who was willing to fill my tooth in exchange for an economics lecture, exactly how long a lecture would she be willing to accept or would I be willing to give? And how much longer would I have to talk to receive Novocain? Using dollars in exchange for dentist services, I can receive an immediate quote via a phone call or Internet visit from a large number of dentists and eventually find the best deal. Nevertheless, $500 is not the same as having a tooth filled. It is important that we not mistake the medium of exchange for the goods and services that money buys.

The third use of money, as a **store of value,** blurs this distinction between ends (commodities) and means (money) a bit more. One of the desirable aspects of money is that it is durable—this is why coins are made of durable metal, paper money is treated with preservatives, and banks keep permanent records of deposits. Farmers who harvest their crops in the fall can use money to buy commodities as they need them, rather than having to store everything they need at the farm. Both households and businesses require a certain amount of *money balances* to facilitate their transactions.

When there is a sudden and unexpected decrease in the amount of money available (e.g., due to bank failure between 1929 and 1933, and the financial collapse of 2007-2009), the entire economic system may grind to a halt. This insufficiency of the money supply results in **deflation**[17] (generally falling prices), which is associated with widespread unemployment and business failure. When the supply of money increases faster than the flow of goods and services, the economy experiences **inflation**—the deterioration in the value of money that manifests as an increase in average prices. Despite the critical role of money in the circular flow of economic activity, money is a means rather than an end. Business owners want monetary profit for the stuff that they can buy with that money; households want money for the goods and services that money can buy.

The Goals of Firms

We pause a moment from our description of the circular flow of economic activity to address motivation. Since economics is about how individuals and groups allocate scarce resources, it is crucial that we have some notion of what motivates households and firms. We start with an assumption that is essentially uncontroversial—we assume that

[17] Economists measure inflation and deflation with the consumer price index, which is currently based on average consumer prices between 1982 and 1984. In October, 1929, when the Stock Market crashed, the consumer price index was 17.3; by May 1933, the consumer price index had declined to 12.6, an overall decrease of 27.16%, constituting an annual deflation rate of 8.85% per year. In July 2008, the consumer price index was 219.964; by January 2009, the consumer price index had fallen to 211.143, a 4.01% decline over a six month period, constituting a deflation rate of 8.19% per year.

the owners of firms (proprietors, partners, or shareholders) wish to **maximize profit**. Economists define profit as total revenue (price times number of units sold) minus **opportunity cost.** It is not unusual for business owners and accountants to confuse profit with taxable income. Profit is revenue minus the cost of generating that revenue, while taxable income is revenue minus *deductible* costs of generating that revenue. For instance, a proprietor is the sole owner of a business, and therefore has any claims on the profit that firm generates. Typically, the proprietor uses his or her own labor, capital, land, and entrepreneurial talent to generate the company's revenue at the lowest feasible cost. The proprietor may pay herself rent,[18] wages, and interest or may simply lump everything into profit. The proprietor doesn't reduce her tax liability by explicitly paying herself a wage, so she typically lumps all income together as profit.[19]

When accountants compute tax liability, it is appropriate to define profit as revenue minus tax-deductible costs. Economists use the concept of profit to predict how resources move *between* industries or markets. Accordingly, **economic profit** is defined as revenue minus the cost of generating that revenue, whether that cost is *out of pocket* (tax deductible) or realized in the form of foregone income (e.g., working for my consulting firm instead of earning a salary from UNLV).

While the distinction between **economic profit** and **accounting profit** may seem strange, our assumption that business proprietors *attempt* to maximize profit is not particularly controversial. But it is important to distinguish between profit maximization as a goal, and maximum profit as an outcome. Maximum profit means that there is nothing the business can do to increase profit. Maximizing profit first requires using resources efficiently. Maximizing profit also means making no mistakes. Maximizing profit means never being diverted by other goals—love or hate; kindness or cruelty.

The economic theory of the firm (microeconomics) prescribes what business owners should do to maximize profit. The theory does a very good job predicting how business decision makers change their behavior as profitable opportunities are discovered or lost. Nevertheless, since life is rarely perfect and people are rarely single-minded, whether businesses achieve maximum profit is another issue entirely.[20]

The assumption that businesses attempt to maximize profit goes back at least to Adam Smith, who states eloquently in *The Wealth of Nations*:

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[18] Unfortunately, the English language evolved in a less enlightened era when masculine pronouns were typically used for individuals of indeterminate gender. While I decry this practice, always using "him or her" gets stilted, and no one would buy this book. Therefore, I will use male and female pronouns more or less arbitrarily, but I hope, consistently.

[19] By way of evidence, self-employed respondents to the March 2003 *Current Population Survey* reported labor earnings that were, on average, 65.8% lower than the earnings reported by other respondents to the survey. By contrast, the total income (including rent, dividends, interest, and profits) by the self-employed were only 27% less than the income reported by equivalent respondents who worked for someone else. Therefore, we can conclude that "being one's own boss" is apparently a good thing, since people are willing to give up 27% of their potential earnings to work for their favorite employer. I doubt, however, that being one's own boss is really worth 65.8% of potential salary.

[20] A moment's pause should convince us that this distinction between what firms ought to do to maximize profit, and what firms actually do in realizing profit below potential is precisely how economists are able to parley their theory into income. So, just as accountants earn an income by advising clients on how to reduce tax liability, economists earn an income by advising business clients on how to increase profit.

> As every individual, therefore, endeavors as much as he can both to employ his capital [i.e., money] in the support of domestic industry, and so to direct that industry that its produce may be of the greater value; every individual necessarily labors to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in some many other cases, *led by an invisible hand* to promote an end which was no part of his intention.[21]

This is Adam's Smith's famous *invisible hand* metaphor; the most important feature of markets competition. The market mechanism is an admirable and effective means of allocating scarce resources because it works when people care only about their own self-interest. Communism, by contrast, is based on the premise that people are essentially altruistic. I find no fault with Karl Marx's noble sentiment "From each according to ability, to each according to needs," but as a basis for allocating scarce resources, it leads inevitably to the tragedy of the commons. If what I (or my family) receive is independent of my effort, I will do only what I have to do to avoid punishment. It is not surprising that communist societies quickly lapsed into dictatorship. Unless someone punishes shirking, people will shun work. Economists teach that voluntary exchange through competitive markets achieves efficiency through self-interest and **incentives**.

We will return to the theory of *how* firms maximize profit in later chapters. Nevertheless, this is a good point to introduce an important concept that will punctuate the rest of the text, the **agency problem.** Note that Adam Smith's invisible hand refers to a proprietor—an individual who takes all the risk in a business and can claim the gain or experience the loss. Hence, a profit-maximizing proprietor could be considered an *egoist*, a person who cares only about his own welfare and gives not a damn[22] for anyone else's welfare. As we will see, a businesswoman could attempt to maximize profit and be altruistically inclined towards members of her family—the greater the profit, the better her husband's and children's standard of living. Don't assume that because private enterprise allows egoists to function, that it necessarily *requires* that economic agents be interested in no one but themselves.[23]

But consider what happens to the profit maximization assumption when we confront businesses with multiple owners. Partners are each liable for the entire debts incurred by the business. Would not a self-interested partner pursue their own happiness at

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[21] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (New York: Modern Library, 1994). (Originally published in 1776.) My spell-checker made me get rid of the English spellings.
[22] In this context, *damn* refers to a tinker's damn, as evident in this quote from famous entrepreneur Henry Ford: "History is more or less bunk. It's tradition. We don't want tradition. We want to live in the present and the only history that is worth a tinker's damn is the history we make today." Microsoft® Encarta® Reference Library 2003. © 1993–2002 Microsoft Corporation. All rights reserved.
[23] Similarly, proprietors may be malevolent, incurring personal costs to make other people worse off. They may wish to maximize profit to provide more resources to support their wicked ways.

the expense of her partners?[24] Or consider corporations, which are owned by a large number of stockholders, but actually run by a much smaller group of executives, who typically own only a tiny fraction of the company's stock. In the infamous Enron case, nefarious executives looted the business and bilked stockholders, putting their own *short-term* interests ahead of the *long-term* interest (and profits) of shareholders. Economists do not find it unusual that executives steal from shareholders; they find it odd that it does not happen more frequently.[25]

Agency problems exist when one person acts on behalf of another. Corporations have a large number of shareholders because the financial requirements of "big business" exceed the personal fortunes or credit of most people. The advantage of corporations to shareholders is that corporations are "legal persons," able to incur and discharge debt on their own, thereby limiting the liability of individual shareholders to their outlay for the stock.[26] Stockholders are passive owners in that they have a claim on future profits though dividends.[27] They delegate the running of the business to corporate executives, under the guidance of a board of directors. Either executives are altruistic in putting the interest of shareholders ahead of their own financial well-being, or they calculate that the benefits of embezzlement are less than the expected costs of detection.[28]

Entrepreneurship, Profit, and Economic Discrimination

In Chapter 1 we learned that "discrimination" can have good, bad, or neutral connotations. A successful entrepreneur is able to distinguish between profitable and unprofitable ideas, productive and unproductive investments, productive and unproductive workers, and between good and bad credit risks. Such discrimination is a key to business success. Indeed, many businesses fail because a would-be entrepreneur operates on faith rather than on skepticism. He believes the owner of a failing business who assures him that the motive for selling the business is retirement, rather than incipient bankruptcy. He believes his wife that his brother-in-law has turned over a new leaf and will be a conscientious employee. He believes the supplier that a hand shake is a sufficient foundation for a business relation; friends don't bother with contracts.

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[24] If partners can so easily cheat each other and escape the full cost of their own inefficiency, why would so many professionals form partnerships? The answer is *the agency problem in reverse*; doctors, lawyers, and accountants working in partnership with each other are saying "You can trust us because we trust each other!"

[25] Apparently, the Enron looting was a rational decision: The billions stolen exceeded the fines and jail sentences meted out to Enron executives by at least three orders of magnitude.

[26] Corporations receive funds for their startup through an *initial public offering*, whereby shares are sold directly to the public. Those who buy those shares have no right to recover their money from the corporations; they can turn their shares back into cash by selling them to another "investor." Hence, nearly all the day-to-day activity in financial markets involves the buying and selling of *used* ownership shares (stocks) or *used* IOUs (bonds). The impact of the ups and downs in the stock market on business operation is only indirect, indicating how the market values their business and determining the *cost of capital* should the business wish to expand in the future.

[27] People often buy stocks and bonds in the hopes of *capital gains*, which result from selling a financial asset for more than what you paid for it. Note that capital gains usually do not result from company purchases of stock, but from other "investors' " beliefs that the future dividends and capital gains are greater than in the past.

[28] We will have more to say about decision making under uncertainty later.

Because business owners are human, they often make bad decisions, often relying on prejudice and stubbornly refusing to modify their views of the business world or the people in it. Before the Civil War, Southerners and many Northerners believed that black people were suited only to slavery. After the Civil War, the former slave owners knew that their God mandated the exploitation of share croppers. Many blacks, and some whites, died in chain gangs, when southern businesses and government contractors literally worked convicts to death. Ironically, because slave owners bore the economic cost of mistreating their "property," physical abuse of slaves was the exception, rather than the rule. A poor white was no more likely to abuse a rich man's slave than he would abuse that rich man's horse. After the end of the Civil War, the North eventually grew weary of protecting the civil rights of freed slaves, and the Ku Klux Klan and other violent organizations (including southern governments) increased the incidence of lynching and other racist atrocities.

We shall learn throughout this course that economic discrimination often involves the central conflict within free-market economics—property is exclusive whereas markets are inclusive. The end of slavery left former slaves as independent agents without property and without a corresponding duty by former slave owners and other whites to recognize the few rights blacks were supposed to have. Rights without enforcement are not rights at all. Because the end of slavery left many freed slaves in a state of anarchy, the economic advance of blacks, along with those of Native Americans, Asians, and Mexicans, and women, was retarded. Poverty also retarded the accumulation of capital and other property, meaning that minority populations have smaller endowments than non-Hispanic whites do.

Not-for-Profit Firms and Government Enterprise

Not all businesses are organized to earn profits, let alone attempt to maximize them. An increasingly important group of firms are designated as "not-for-profit" institutions. Private schools, such as Harvard, Yale, or Stanford, do not limit student enrollment to the children of the rich who can pay the highest tuition. Instead, they redistribute economic opportunity by charging high tuition to rich students of average intelligence in order to subsidize low-income students with above-average ability and who improve the intellectual climate and contribute to the institution's diversity. That religious institutions cater to rich but evil contributors is an aberration, rather than consistent profit-maximizing behavior. Hospitals bear the name of rich donors, whose gifts are used to improve the health care of the less fortunate.

What do not-for-profit firms actually do? First, they typically have well-defined, often altruistic, missions, fostering education, salvation, health, culture, or social justice. Second, they rely on voluntary contributors (including government grants) to cover the difference between revenue (tuition, tithes, patient fees, and ticket sales) and expenses. Third, they rely on employees who often have their own agendas, which conflict with the announced goals of the institutions that employ them: lazy professors, abusive clergy, quacks, and prima donnas. Accordingly, these institutions have a long apprenticeship program (tenure track), intended to weed out the incompetent or nonconformists before they are granted tenure. Of course, this presupposes that those who grant tenure are themselves committed to the institution's mission.

So we reach the issue of government. The oldest form of government is proprietary—monarchs who make the decisions and reap the rewards. Indeed, this form of government is still prevalent in the world today. Needing allies and to secure their claim to power, monarchies often give rise to oligarchy—rule by the few. Note how oligarchy—the Roman Senate—often gives rise to corruption (a manifestation of agency problems), which leads back to monarchy—the Roman Empire.

The other side of government—that closest to the commons—is pure democracy, in which citizens vote directly on important matters. Athens birthed democracy, although women and slaves were precluded from voting, and the system frequently lapsed into oligarchy. We live in a representational democracy, or republic, in which voters select representatives and executives who make day-to-day governmental decisions. A major debate continues to rage about whether politicians—governmental entrepreneurs—are public-spirited altruists or power-mad meddlers concerned only with feathering their own nests. Indeed, Democrats and Republicans agree that their own party is described by the former and the other party is described by the latter. Apparently, voters believed the Republicans in 1994 and the Democrats in 2006 and 2008, and then Republicans again in 2010. While Democrats retained the presidency, added to their majority in the Senate, and received more votes for the House of Representatives, Republicans maintained control of the House through gerrymandering; that is, by cheating.

Summary

1. The three major institutions of the market economy are **households,** which own scarce factors of production; **firms**, which turn factors of production into final goods and services; and **government,** which maintains an environment conducive to economic freedom and voluntary exchange.
2. The factors of production are **land, labor, capital,** and **entrepreneurship**. These factors are privately owned by people who reside in the household sector. Households provide the **services** of factors of production in exchange for money income: rent (for land), wages (for labor), interest and dividends (for capital), and profit (for entrepreneurship).
3. Households acquire factors of production through **endowments** (what they are given by nature or ancestors) and **acquisition** (through saving and investment).
4. In exchange for goods and services, sold to the household sector, businesses receive **revenue.** Economists assume that (the owners of) firms attempt to maximize **profit,** the difference between revenue and **opportunity cost.**
5. In order for a market to exist, people must have **property rights**—the legally enforced right to exclude others from using one's property without permission. The **right to exclude** gives rise to the **right to exchange** whereby people trade property rights for other forms of **wealth**.
6. Without **government** to enforce property rights and contracts, the market cannot exist. Government provides **public goods** (services) to households and firms collectively. The government hires factor services through markets, financing this expenditure by **taxes** or by borrowing money (selling bonds).

7. In **factor markets**, the services of land, labor, or capital are exchanged for rents, wages, or interest, respectively. The entrepreneur assumes the risk of receiving profit if revenue is sufficient to cover all factor payments, but will incur a loss if revenue is inadequate. In factor markets, households are sellers and firms are buyers.
8. In **product markets**, firms sell commodities (goods and services) to households in exchange for revenue (expenditure).
9. Money is a means to an end and not an end in itself in the circular flow diagram. Money serves as a **medium of exchange, unit of account,** and **store of value.**
10. When there is an inadequate amount of money to facilitate transactions, the economy experiences **deflation** (too little money) or **inflation** (too much money).
11. There is an important distinction between **accounting profit** that is defined as a measure of tax liability for businesses, and **economic profit** that is defined to predict whether firms will enter or exit a particular market. **Economic profit** equals **accounting profit** minus the opportunity cost of all inputs owned by the owner(s) of the firm.
12. The **agency problem** exists when people making decisions are different from those who benefit from that decision. An important agency problem exists within corporation, where executives make critical business decisions while the owners of corporate stock nominally own the firm. The agency problem exists because the interests of executives may run contrary to the interests of the stockholders.
13. **Not-for-profit** institutions, including government, are organized to achieve goals other than profit. Typically, these institutions engage in **altruism** but agency problems often lead employees or contributors to pursue their own **egoistic** goals.
14. **Economic inequality** results from unequal effort and unequal endowments. Government policies meant to mitigate the former often compromise the latter.

Glossary

Production function: An equation, a table, or a diagram that shows how the output of a commodity is related to the amount of factors of production used to produce that commodity.

Consumption goods: Commodities used by households to generate immediate utility.

Capital goods: Commodities that produce other commodities.

Investment: The diversion of scarce resources from producing consumption goods into the production of capital goods.

Factors of production: Land, labor, capital, and entrepreneurship that can be used to produce goods and services.

Land: A non-human factor of production that is not produced—includes space, location, and raw materials. The owner of land receives rent in exchange for land services.

Labor: Human time allocated to producing goods and services; workers receive wages or salaries for their labor time.

Capital: A factor of production that was produced in the current or a previous year. Students should take care to distinguish between *capital goods*, which are factors of production, and "capital," which is often used interchangeably with a person's *wealth*.

Entrepreneurship: The factor of production that involves the taking of risk to organize and run a business firm. The **entrepreneur** receives any economic profit, or incurs any economic loss that the firm experiences. In the government sector, entrepreneurs are called **politicians.**

Endowments: Things of value that are given to an individual by relatives or nature.

Acquisition or accumulation: The addition to wealth or ability by using scarce resources for "investment" rather than for "consumption."

Ownership: The legal **right to exclude** that means that a person or household can command an income for supplying a factor service, because, unless the person receives payment, they have the legally enforceable ability to refuse to supply that service.

Right to exclude: The ability to prevent others from using land, labor, capital, or entrepreneurship services unless they make an income payment.

Right to exchange: The legal ability to exchange the property right to a scarce resource or commodity to another in exchange for something of value (money or another commodity).

The tragedy of the commons: The ironic consequence of the inefficient use of resources when no one has the right to exclude or the right to exchange those resources.

Endowment: The starting point for a person or household, including the same amount of time for everyone, but very different amounts of non-labor factors of production.

Money income: The sum of factor payments—rent, wages, interest, and profit—expressed in monetary terms, also known as the **budget constraint.**

Opportunity cost: The true (or economic) cost of using a scarce resource for one activity is the goods or services that must be sacrificed (e.g., the opportunity cost of studying economics is not studying another subject, not sleeping, not earning an income, or not having fun, whichever is greatest).

Money: The medium of exchange between buyers and sellers that facilitates transactions by avoiding the **double coincidence of wants.**

Double coincidence of wants: The fortunate but unlikely event when a seller of a commodity finds a buyer who is willing to trade of the commodity he or she ultimately wants, making it unnecessary for either party to use money.

Barter: The direct exchange of one commodity for another, without the use of money.

Medium of exchange: The most obvious function of money, whereby a seller exchanges a good or service for currency or a checking deposit, and then later can exchange the money for the goods or services that he intends to buy.

Unit of account: The role of money as the common denominator to add up income, revenue, or cost.

Store of value: The characteristic of money that it can be held for some time before it is spent. **Inflation** causes money to lose value over time; **deflation** causes money to accumulate value.

Deflation: A general decrease in average prices, caused by too little money in circulation. Deflation is accompanied by widespread unemployment and business failure known as **depression** (severe) or **recession** (milder).

Inflation: A general increase in average prices, caused by too much money in circulation.

Economic profit: Revenue minus opportunity cost.

Agency problem: A conflict of interest created when one person acts on behalf of another. That Enron executives stole from stockholders (including employee pension funds) is an example of an agency problem.

Not-for-profit institution: A firm or other organization with a goal other than profit maximization. Examples of not-for-profit institutions are schools and universities, hospitals, religious organizations, museums, symphony orchestras, and most government agencies.

Utility: An abstract concept used by economists for that which households seek to maximize. We know that utility increases when people are better off, and utility decreases when people are worse off.

Marginal utility: The change in satisfaction due to one more unit of some commodity or activity. Economists believe that as consumption of a good increases, marginal utility tends to decrease. In the extreme, marginal utility can become negative, at which point the "good" becomes a "bad" (literally, too much of a good thing).

Egoism: The condition whereby people experience utility only from their own material well-being. Whether other people are better off or worse off does not affect them.

Altruism: The condition of feeling better off when someone else is better off; parents are altruistic towards their children.

Malevolence: The condition of feeling worse off when someone else is made better off (and vice versa). Racism is a form of malevolent behavior.