The Market Model and World View

The first school of thought that we will address uses the self-regulating market as its underlying world view. As mentioned in the first chapter, Adam Smith was the first to conceptually develop this approach in the latter part of the eighteenth century. Over the course of the nineteenth century, in conjunction with the rise of industrial capitalism, the idea of the market as decision-maker was further refined. The scholars who developed this perspective were philosophically inspired by liberalism, the view that individuals should be free to make their own decisions, especially without interference from the government. The idea of a self-regulating market was highly attractive to them because it meant that the central economic decisions of production and distribution could be made in a purely non-political way. Individual choices would rule, not governments. The intellectual pursuit of this idea resulted in a fully articulated model of how the market works. This chapter presents that model through a discussion of its premises, its internal interactions, and its logical outcomes.

The market model provides not only insight into how a market economy ideally works but also guidelines for setting up an actual market society. The model demonstrates the superior outcomes that follow from market-based decision-making. The basic model as presented in textbooks is known as the purely competitive market model. It is a simplified abstraction of conditions that exist only partially in market societies—conditions that presumably flourished in Western Europe and the United States in the latter part of the nineteenth and the early twentieth centuries. The model was codified into textbook form before World War II by Cambridge University professor Alfred Marshall (Heilbroner, *The Worldly Philosophers*) and after
World War II by MIT professor Paul Samuelson. Marshall was the one who invented those ubiquitous supply-and-demand graphs that appear in all Economics textbooks.

The inventors of the market model believed that they were improving upon Adam Smith’s original formulations. Since they modified a number of the elements of classical political economy, they have been called neoclassical economists. The pioneers in the late nineteenth century were mostly Austrian, but there were important figures in the United Kingdom, the United States, and elsewhere as well.

Some of the key ways in which the neoclassical approach differs from the approach of classical political economy include:

1. **The economic dimension is separated out from the political.** As noted in Chapter 1, neoclassical economics replaces the holistic approach of the classicists with a more specialized and focused division of intellectual analysis. The market system provides a way of achieving purely economic decision-making without the intervention of politics. Government and political decision-making can then be set aside and studied by another discipline, Political Science. Thus, the rise of neoclassical economics split political economy into two realms, each with its own academic discipline.

2. **The market is abhistorical, that is, the analysis is focused on the interactions that are happening in the present.** In neoclassical economics the broader historical context need not be referenced as it will be reflected in the decisions that are made within the market. Implicitly, the cultural context is not relevant either as the market interactions between supply and demand are universal.

3. **The role of labor is diminished.** In classical political economy labor is the basic input to the production process and the underlying source of relative value. That is, prices, or the values of specific goods and services, reflect the amount of labor involved in producing the item. In the neoclassical version, labor is only one of three inputs, the other two being land and capital. Land refers to all natural resources, and capital refers to all things, such as machines, that are used to make other things. Furthermore, and most significantly, the value of anything exchanged in the market reflects only the relative supply and demand for the item. There is no underlying or inherent value.

4. **Supply and demand determine the value of anything at the point where they meet.** This is called determination of value at the margin, or the last item considered in the exchange. Whatever is paid for the last item offered will become the price or the value of all other similar items. That includes inputs, such as labor, as well as outputs, such as goods
and services. The \textit{marginal analysis} of price determination facilitates the application of mathematical reasoning to the neoclassical economic approach.

5 \textit{The logical form of the model is deductive.} Its premises and assumptions about the attributes of the actors in the market and the conditions under which they function are not strictly empirical. The model takes observed proclivities to their fullest extent and transforms them into absolute conditions, or “totally true” statements. For instance, decisions by the actors in the model (who are not real people but “logical entities”) are always based on maximizing their material interests. By assuming that the basic conditions always hold, the model necessarily produces “true” conclusions, or predictable logical consequences. Such is the nature of a \textit{deductive model}.

Within the social sciences the use of a purely deductive model as the core of the discipline is unique to Economics. The more usual approach in the convention of science is “inductive.” With an inductive approach scientists make observations of a sample of things or behaviors and try to formulate generalizations about them. Since they are studying only a sample of a much larger population, they can only guess on a probabilistic basis about whether the generalizations hold for the full population. Conclusions can never be absolutely “true,” as is the case using a deductive approach.

The three aspects of the deductively structured market model that we will look at in this chapter are:

1 \textit{Premises.} These are the conditions that are assumed about the activity in the model. They hold 100 percent of the time. They set out the underlying “truth.”

2 \textit{Internal interactions.} These are the dynamics of the relationships between the actors in the model as they make economic decisions (in accordance with the preset premises of the model).

3 \textit{Outcomes.} These are the logically predictable consequences that inevitably flow from the actors’ decisions in the market. Since the premises are absolutely true, then the outcomes that follow must be absolutely true.
THE SEVEN PREMISES OF THE MARKET MODEL

1. Free, rational individuals

The actors in the market are freely acting independent individuals whose behavior choices in the market context are influenced solely by market criteria. Neither custom (the way it has always been done) nor political dominance (orders from government officials) constrains this freedom. The word “rational” refers to the use of economic (market-defined) calculations in the decision-making process. Irrational behavior involves straying from market-maximizing calculations and actions. This use of the term “irrational” differs from the vernacular, in which it generally refers to behavior based on emotion, passion, or superstition. In the market model irrationality refers specifically and exclusively to not perfectly following market-derived objective criteria. The market is based on this “rational” exercise of free choice, especially by individual consumers. Because the market model is driven by these individual or subject preferences, the value theory of the neoclassical approach is called subjective preference theory.

2. Decision-making via aggregation of individual choices

Decisions in the market are reached by aggregating, or adding up, the innumerable rational choices of all the individual actors in the market. These individual decisions, when summed up into demands (what actors or buyers are willing to pay) and supplies (what price actors or sellers are willing to accept) for all the products and resources in the economy, provide the information that enables the market to answer the production and distribution questions in the society. Economic decisions are not made by some central authority, nor even a democratically elected government, but only by supply and demand. The price or value of anything exchanged is determined at the point where what demanders are willing to pay equals what suppliers are willing to accept. That point is the equilibrium price. But those points in the market model are the sums of many individual decisions.

3. Monetization

All things involved in production and distribution are exchanged through the medium of money, and thus have a monetary value established by the market. By placing a monetary value on all ingredients in the economic process, a simple calculus can be used by which to compare any item
exchanged to any other item, and by which the aggregation process can be made meaningful. Money is the universal solvent by which the market assumes its impersonal form.

Money has three functions. The first function is as a universal **medium of exchange**, one that is accepted by society as a whole, such that it facilitates fluid transactions in the market. Almost anything can serve as money, as long as it is relatively scarce and easily portable. Historically, shells and even cigarettes have served as money. Precious metals, especially gold and silver, have been in widespread use as money. More recently paper notes and bills have been utilized. In modern economies, however, the most frequent form of money is deposit or checking accounts in banks and other financial institutions. Monetary amounts are offered in payment of obligations through checks, debit cards, or electronic account transfers. Credit cards are considered “near-money.” In order for the exchange comparisons that the market model is based upon to be effectively implemented, all economic transactions within its purview must take place in the same unit of account.

The second function of money is as a **measure of relative value**. That is, money provides a universal measuring stick by which all items in the market can be compared with each other. For example, if a leather jacket is priced at $200 and a pair of running shoes costs $100, you could compare the relative value of one jacket as equivalent to two pairs of running shoes. The costs of production—the land, labor, and capital used in producing anything—must be measured by the same monetary measure, so that a business can compare its costs with its sales revenue and determine whether or not it is profitable.

Finally, money is a **store of value** over time—it is not by definition perishable, it can be saved, and it maintains its relative value into the future. By maintaining its value over time it provides businesses with stability and predictability for making future contracts; it enables actors to save funds that can be exchanged for anything of value in the future; and it makes possible a single measure of the price of time (the interest rate). The market values immediacy. Therefore, one should be compensated for delaying pleasure, that is, consumption. Thanks to the market’s single monetary measure, time trade-offs can be priced the same as any other exchanged item.

Since rational decisions in the market depend on an all-pervasive use of stable money, threats to its stability are serious impediments to well-functioning markets. That is why neoclassical economists are very concerned about instability in the average level of prices, either inflation that would raise the average price level or deflation that would lower it.
4. Material gain

All actors in the market model seek the maximum material result from all of their decisions. Because all items transacted in the market have monetary value, it is always possible to calculate which option will provide the highest return. This is the famous “economic man” dictum pronounced by Adam Smith. All other objectives, whether altruistic, sentimental, religious, or social, are subordinate to the material maximization decision-making process. Material objectives are presumed to be insatiable, thus creating a state of relative scarcity in which all actors are trying to get as many of their wants satisfied as possible. Because wants always exceed available material means, choices must be made. The market is the vehicle for making those choices.

5. Mobility

Everything that is exchanged in the market must be free to move from one position to another without any artificial barriers. All of the resources or factors of production (land, labor, and capital) are free to move from one use to another in response to market signals. There are no geographic barriers, and no ethnic or class or gender discrimination barriers. No psychological impediments exist. Anyone is free to set up a business. The latest technology is available to anyone (no patents or copyrights). The actors can purchase anything they can afford. The basic idea is that everything in the market economy should be used where it can provide the most material value, which is only possible when no non-economic barriers exist that might interfere with that objective.

6. Competition

The accepted mode of interaction between individuals in the market model is competition. However, this mode is impersonal, as all actors—necessarily many buyers and sellers in all markets—compete for maximum gain without any noticeable effect on the market from their individual actions alone. Each individual actor is such a small part of the total realm of activity that his/her impact is minuscule and cannot noticeably affect the aggregated outcome. Consequently, individual decisions are independent of each other so that only price affects decisions. A fully competitive environment requires perfect information, open and easy access to productive activity, and no “artificial” distinctions between things exchanged in the market (brand names). Actors need access to all the correct information about the qualities and prices of all feasible options in order to make the best maximizing decisions. No institutional arrangements can exist that
would impede the fullest implementation of competition. Therefore, no monopolies, whether by private producers, governments, or resource controllers (e.g., labor unions), are allowed in the perfect model.

7. Government support

Even though the market is supposed to make the production and distribution decisions for the economy and the role of government is limited, the market model presumes that government will play an essentially supportive role. Government is responsible for (1) establishing the rules—laws on contracts and protection of property, laws against monopoly and discrimination, and so on; (2) interpreting the rules—the judicial system; and (3) enforcing the rules—regulators and police. In addition, government is responsible for ensuring the provision of the essential infrastructure (e.g., energy, water, education, transportation, banking, hospitals, and communications), even though some or even all of the components of the infrastructure may be provided by the private sector. Government also has the responsibility of providing security for its citizens, both within and beyond the borders. Adam Smith recognized that defending the country against external attacks was the special responsibility of the state.

INTERNAL INTERACTIONS OF THE MARKET MODEL

Roles

Based on these premises, a continuous flow of decision-making interactions—exchanges—occurs among the actors as they play their roles in the market. There are three fundamental roles: (1) consumers, (2) controllers of resources, and (3) managers of productive organizations. Individual actors may play all three roles, but each role requires a different orientation and type of activity. Each role involves a different type of material gain objective.

When actors are thinking like consumers, they have to match their preferences with the available goods and services. Their decision-making is constrained by the amount they have to spend (their budget), how much satisfaction they anticipate receiving from consuming the goods and services that they prefer, and the prices of their preferred products. Consumers are then presumed to go about maximizing their satisfaction by obtaining the most preference pleasure possible from the budget available to them.

The term product encompasses both goods and services. Consumer goods can be either durable or non-durable. Durable goods are items
such as computers, refrigerators, and automobiles. Examples of non-durable goods are food and clothing. Consumer services are things such as entertainment, medical care, appliance repairs, banking, and haircuts. Goods are physical in nature whereas services are intangible. In the most economically developed societies, services are the biggest sector in terms of both employment and value.

The market model divides resource inputs into three categories: land, labor, and capital. These are also called factors of production. Land includes all natural resources, from trees to sheep, from uranium to gold, from water to soil. Labor includes all varieties of labor contributions to production, from managers to custodians, from assembly-line workers to teachers, from police officers to nuclear physicists. Capital refers to those human-made things that are used to make or enhance the making of other products. They range from a hammer to a steel plant, from a tractor to an oil refinery, from a grocery store to an airport.

The role of controllers of resources involves the provision of these resources or factors to the production process. These actors provide their resources where they can obtain the best return. Each resource has a specific type of return. Land gets rent; labor gets wages; and capital gets interest. Each return is a form of income, so that one could say controllers of resources seek to maximize their incomes. The control over these resources is seldom distributed equally, so that the only resource that is widely controlled is labor.

The third role is that of the managers of productive organizations. The managers have the complex task of figuring out what consumers are likely to buy on the one hand while on the other hand finding the best combination of resources to make those products at a cost less than what consumers are willing to pay. Therefore, the managers’ maximization objective is to obtain the largest difference possible between their productive organizations’ earnings and costs, or, in other words, to maximize profit.

Market model diagram

The ways in which these roles dynamically interact with one another can be graphically portrayed in what has been called the circular flow diagram of the market model, or the market model diagram (see Figure 2.1).

The flows connect two locations: households and productive organizations. Households contain the actors who play two roles, those of consumers and controllers of resources. The provision of the controlled resource, usually labor, to the market generates the income that provides the budget that the household members use to play the role of consumer. In a basic sense, consuming allows the household to stay alive and capable, therefore, of continuously providing resources to the market.
Productive organizations are places where resources are brought together in order to make goods and services that consumers have an interest in purchasing. The managers need to access the appropriate amounts and types of land, labor, and capital that enable their organizations to meet market demands. Since their profit-maximizing objective requires them to keep their costs as low as possible, they put together their resources in the least-cost combination. If labor is relatively expensive, they will use more capital in their production mix. As economies industrialize, they usually move toward less labor and more capital in their resource combinations, especially in the manufacture of goods.

As can be seen in the market model diagram, the activities of these two locations, households and productive organizations, are connected by two circular flows. One is the flow of things, which moves in a clockwise direction. Resources leave the households on their way to the productive organizations where they are transformed into goods and services, which are then made available to the consumers of the households. The counterclockwise flow is that of money. In the market,
as assumed by the monetization premise, all exchanges are made through the medium of money. Thus, land, labor, and capital are exchanged for monetary incomes. Those incomes become the monetary budget that the households expend on consumer goods and services. The expenditures of the consumers become monetary revenue to the productive organizations, which enables them to pay their costs of obtaining resources. The costs of the productive organizations when paid to the controllers of resources become the controllers’ monetary incomes. So in the circular flow we are back to the location where we started. It’s an ongoing cycle in which things are exchanged for money. But the form and name of the flows differs, dependent on their position in the exchange process. For instance, when money comes in to the productive organization it’s called revenue. When it leaves, it’s called costs. If revenue exceeds costs, then profit is made. Thus, in the market, only productive organizations can receive profit. That is the only circumstance to which the term “profit” correctly applies.

Supply–demand relationships

But we have not discussed two other crucial meeting places in the market, namely, the places where the prices of the things exchanged are determined. These are the market for products and the market for resources. In the market for products, consumer goods and services are supplied by productive organizations in response to the demands of consumers. Consumers express their demands for specific goods and services by indicating how much they are willing to pay for them. Suppliers will respond to those demands as long as their costs do not exceed the prices that consumers are willing to pay. In the market for resources, the suppliers are the controllers and the demanders are the productive organizations. The prices, or exchange values, of resources are established by these supply–demand relationships. Therefore, in the market model, rent, wages, and interest (the prices of land, labor, and capital, respectively) are determined by their relative supply and demand. The higher the demand in relation to supply, the higher the price will be, and vice versa. The market presumes that the incomes determined by the interaction of supply and demand provide an accurate valuation of the contributions that the resources make to the production process.

The interactive flows of the market are very dynamic as any change anywhere causes multiple changes elsewhere. A change in any supply–demand relationship may have repercussions throughout the whole market economy. For instance, if consumers decide that they want to cut their meat consumption to only 10 percent of the previous level, the immediate effect will be a dramatic fall in the price of meat, as supply will be much greater than demand. All of the suppliers of meat, from the butchers, through
the meat-processing plants, to the ranchers, will have their revenues and incomes reduced or eliminated. The only way to replace the lost revenues and incomes is to shift the productive capacities and resources to supplying products for which there is an effective demand. Of course, that will be easier for some than for others. This shifting around of resources will change the supply–demand relationships and therefore the prices of all other resource applications. In turn, that will induce managers of productive organizations to change their calculations of their production cost situations. In the meantime those people who have reduced or lost incomes will have their ability to demand consumer products significantly changed. That changes the production decisions of production managers as well. Although supply–demand relationships throughout the whole market are affected, it is that very interconnectedness that demonstrates the market’s exceptional capacity to adjust the entire range of production and distribution decisions in response to the new prevailing prices. The prices will be accurate reflections of the changing circumstances, as all actors are assumed to be behaving in a rational, fully informed, maximizing, competitive fashion. Note also that the initiating change came from consumers. The market model privileges consumers as the dominant force in the economy. This attribute of the market is sometimes called consumer sovereignty.

Economic growth and capital investment

When the output of an economy increases from one year to the next, then economic growth has occurred. Economic growth is a highly valued objective as it provides the potential for raising the society’s standard of living. The two major methods for obtaining this objective are (1) adding to the capacity of the means of production and (2) improving the efficiency of the means of production. Both of these methods involve the process of capital investment. Capital investment entails making things that produce other things. These producing things are known as “capital products”; and, similar to consumption products, capital products can be either goods or services. Capital goods range from a weaver’s loom to a textile factory, from a windmill to a nuclear power plant. Capital services involve intangible ways in which products and production processes can be improved, such as through research and development, training, education, and so on. Enhancing human knowledge and skills is a capital service, but the benefiting humans are still considered labor. Drawing the line between consumption and capital products is not always easy. The same automobile can be used for both business (capital) and pleasure (consumption). A home computer has the same mixed-uses potential. Though some of the
research and development contracted by the Defense Department is of a capital nature, most military expenditures are consumption.

If an economy is using all of its production capacity to make consumption products, then no capital products can be made until some of that capacity is diverted. The process that enables the freeing-up of that capacity starts with saving. **Saving** occurs when households (or productive organizations when they earn profit) are not using all their claims for consumption, that is, they are not expending all of their budgets. Because not immediately consuming all they could is considered a sacrifice (a reduction in possible satisfaction), the act of saving requires material compensation. The compensation that savers receive is called an **interest payment**. In effect, interest income allows savers to consume more in the future as they get back their saving plus interest. Of course, that works only if the purchasing power of the saving in the future remains essentially the same. Interest is paid by the productive organizations, as they are the ones interested in making the capital investments. Therefore, productive organizations generate the demand for capital-making production capacity while households, through their saving, provide the supply. This set of relationships is portrayed in the market model diagram (Figure 2.1).

There are productive organizations that specialize in bringing savers and investors together. They are called **banks**. Because they play this connecting role, banks are also known as intermediaries. Their revenue is derived from the difference between what they pay savers on the one hand and what they charge investors on the other hand. In the market model that difference is probably best understood as a fee for financial services. That’s because the interest rate that both savers and investors face should be the same as they are on different sides of the same supply–demand relationship. There will be more discussion of the banking system in the section on monetary policy in the next chapter.

**Interest** is the special price of capital investment. It is over and above the other resource costs involved in making a capital product, building a factory for instance. Productive organizations are willing to pay interest as a necessary cost of expanding or improving the efficiency of their operation, which in turn will lower their production costs. If a productive organization does not take advantage of available technology, it will fall behind competitively and eventually be forced out of business. **Technology**, incidentally, is defined as knowledge or ideas about products or production processes. The capital investment process, through research and development, often plays a role in inventing technology. The potential of new technology is not realized until it is actually applied in the production process. Rational managers of productive organizations will not take that step until they have ascertained that the cost of making the capital investment, including the interest paid, will be more than covered
by the revenue flows anticipated. The rate of interest, like all prices in the market, is determined by supply and demand.

**Bonds** and **stocks** are financial instruments that facilitate the saving/investment process. Market actors are willing to exchange their saving for bonds and/or stocks. When bonds or stocks are first issued, they serve as a means of turning saving—claims on productive capacity—over to productive organizations for their use in capital investment. Banks can be involved in bringing buyers and sellers of bonds and stocks together, but not necessarily. When companies, or governments for that matter, borrow savings on a long-term basis (a year or more), they make a contractual commitment to pay back the amount borrowed, called the *principal*, within a stipulated time period and also to pay a certain amount of interest per year for the duration of the contract. These long-term credit contracts are called **bonds**. The ownership of most bonds can be transferred from one party to another. They are, in other words, marketable instruments that are traded in the bond markets. The only way a private issuer of bonds can avoid fulfilling the credit contract is by declaring bankruptcy.

Bond markets are important to a market economy because they serve as a vehicle for determining the market price of borrowing—the *interest rate*. Since bonds are marketable, their prices go up and down according to changes in supply and demand. As the price fluctuates, yield, or the *effective interest rate*, also fluctuates. For example, a $1,000 bond with a ten-year maturity may pay $100 per year to the owner of record. The effective interest rate on the par value, $1,000, is then 10 percent. However, if the demand for bonds increases in reference to supply, the price for this bond will increase, let’s say to $1,100. The effective interest rate will then drop to 9 percent, as the bond holder will still get the contractual $100 per year. The inverse is also true: If the supply were to increase more than demand, the bond price might decline to $900. The effective interest rate would then rise to 11 percent. Therefore, there is an inverse relationship between the price of the bond and its effective interest yield. The effective interest rates of different types of bonds emerge out of the daily trading in the markets.

In contrast to the credit contract that bonds represent, **stocks** are shares in property ownership. For that reason they are called *equities*. In order for a business to be able to issue stocks it must be legally organized as a corporation. Common stockholders may share in the profits of the corporation via dividends paid to them. They also expect their shares to increase in value over time as they are traded in stock markets. However, there is no guarantee that either one of these gains will materialize. Consequently, stocks are a riskier instrument than bonds. Therefore, over time stocks yield a better return than bonds, as savers need an incentive to pick them instead of bonds. In many respects the bond and stock markets resemble the process conceptualized in the market model. However, to
reiterate, only when bonds or stocks are first issued are they a part of the basic saving/investment process that is central to economic growth. All other transactions in the bond and stock markets are transfers of ownership. Consequently, most transactions that occur in the bond and stock markets are speculative in nature. Traders are hoping for movements in prices that will benefit them. Ironically, in financial jargon all of these transactions are known as “investing,” even though from an economist’s point of view only the initial issuance of stocks or bonds has any direct connection to real capital investment. On the other hand, the markets for stocks and bonds provide the “pools of liquidity” that facilitate the connections between savers and investors. Liquidity refers to the degree of funding or credit available.

Stocks and bonds come in many variations, but an especially interesting new development is the sukuk, or Islamic bond. The Koran is generally interpreted as prohibiting interest (earning money on money), speculation, and earning income from immoral business activities such as those dealing with gambling, alcohol, pork, defense, and entertainment. Therefore, if a person or organization wanted to abide by this interpretation, they could buy only financial instruments that were declared by a credible cleric as consistent with these prohibitions. Sukuk are structured so that their returns can be understood as profits on asset performance. As one specialist in the field stated, “Islamic finance tries to replicate the conventional market, but in a structure that uses profits rather than interest” (“Islamic Finance,” Financial Times Special Report, p. 2). The legal structures for accomplishing this objective can be very complex. The major markets for Islamic bonds are in Malaysia, the Persian Gulf states, and London.

Since stocks and bonds, as well as other exchangeable items, are easily sold on a global basis, an intervening market is necessary, namely the foreign exchange market. For instance, in order to buy a bond issued by the U.S. government, the buyer must have U.S. dollars. How much of a foreign buyer’s currency is required in order to acquire the necessary dollars is determined by supply and demand in the foreign currency market. Much of the activity in the foreign exchange market is also speculative. Foreign exchange will be further discussed in the next chapter.

In recent years the financial markets have become more and more complex as a new phenomenon has appeared: derivatives. Derivatives are financial instruments whose value is derived from some underlying asset. The underlying asset could be stocks, bonds, or currencies, but it could also be stock indexes, interest rate returns, or bundles of outstanding debt such as mortgages. Derivatives usually involve the contractual right to exercise some type of option in the future. In order to obtain an option to buy or sell or swap something in the future, the option purchaser must pay a premium. The pricing of option premiums is a tricky business, as the price has to incorporate the expected changes in the value of the
underlying asset over a period of time—not only the general direction, but also the ups and downs. In 1973 two scholars won a Nobel Prize for proposing a mathematical equation that would enable traders to more accurately price options. Options are traded in public exchanges or over the counter. Over-the-counter trades are private deals that are less transparent and individually tailored to the buyer’s needs. Derivatives can be used for conservative purposes, such as hedging, or they can be used for pure speculation. 

Hedging involves protecting oneself from uncertain future movements in prices. An exporter, for instance, might wish to protect future contracted sales from unfavorable changes in currency values. For a premium the exporter could buy an option that allowed for a future exchange of the involved foreign currency at the current price. The exporter would definitely exercise the option if the future decline in the currency value exceeded the cost of the premium (Levinson, *Guide to Financial Markets*).

**Market totals**

The market is a dynamic set of ever-changing relationships. Changing prices send signals to the actors, who are presumed to respond appropriately. Nevertheless, it is important to note that at any point in time the total monetary value circulating around the market is the same anywhere on the circular flow. Thus, a snapshot of the market will reveal that the total value of transactions in the resource market equals the total value of transactions in the product market. Since the market model is an enclosed exchange system with no leakages, other monetary totals that are measuring the same set of transactions from different perspectives at any point in time must necessarily be the same. For instance, the value spent on consumption has to equal the value of consumption products. Also, the total amount spent on capital products (capital investment) has to equal the total amount of savings. All of these equalities or identities are depicted in the circular flow diagram of the market model (Figure 2.1).

**LOGICAL CONSEQUENCES OF THE MARKET MODEL**

Because the market model has a deductive form, the consequences of the supply–demand interaction are fully predictable—at least logically. With the premises 100 percent in place, the internal interactions of the market will create outcomes that can be logically deduced. There are three such logically predictable consequences: (1) the full utilization of all resources and products, (2) a tendency to eliminate profits, and (3) the optimum allocation of resources.
Full utilization of all resources and products

All products (goods and services) and all resources (land, labor, and capital) that are offered in the market will be exchanged at some price. They become part of some supply that will interact with the corresponding demand, and the market will be cleared; that is, all supply will be sold, at the equilibrium price. The resulting prices may not be as high as suppliers would like or as low as demanders would like, but an exchange value that clears the market will be determined. Both suppliers and demanders change their behavior as soon as feasible if they don’t like the prices in the market. Changing behavior is harder in some cases than in others. Consumers who have a strong need for a product (e.g., cigarettes or alcohol) will not readily shift their buying practices even when the price increases substantially. When farmers have made a commitment in the ground to growing a particular crop, they cannot shift to another in the same crop cycle, even when its price falls below their costs of production.

**Full utilization** means that full employment of all resources, including labor, occurs as a “natural” result of the market. Unemployment is logically impossible. Shortages or surpluses can only occur when there is non-market intervention by powerful players such as governments. If a government were to impose price controls in an emergency situation such as wartime, in order to prevent inflated prices from high demand and low supply, **shortages** would occur. Then instead of using the market to allocate the available supply, the government usually resorts to a rationing scheme. Rationing is intended to make the distribution of essentials, such as milk, more equitable. Otherwise, only the rich could afford to pay the inflated market prices. **Surpluses** can occur when the government guarantees a minimum price, as has been done for agricultural products in the United States, the European Union, Japan, and other countries. In such cases the government usually ends up buying the surpluses. But in the unrestricted market model, all offered supply is sold at some price; in other words, it is fully utilized. The ensuing results are not necessarily equitable or fair. Unskilled labor, for instance, could receive a wage that is below subsistence level. The market only ensures that the outcomes reflect supply and demand.

Tendency to eliminate profit

The competitive market drives the prices of all products to the lowest cost. Costs for all firms will tend to become more alike because all resources, including technology, are equally accessible to all. Competition forces firms to continue lowering prices until they have reached their lowest feasible cost point, where profit is eliminated. Beyond that production
point their revenues will no longer cover all their expenses. This outcome is what Adam Smith meant when he called the competitive market “self-regulating.” Competition prevents price-gouging and unseemly profits. The only way to gain a temporary profit advantage is to introduce a new product or a cost-cutting innovation, but since others will quickly copy it, the advantage will be short-lived. However, it is conceivable that profit could still be earned, even in the purely competitive market economy, by the most dynamic and efficient firms. That’s why this outcome is stated as a “tendency.” Those firms that earn profit either spend or save it and thereby return it to the flow of the market.

Because this proclivity to eliminate profit is such a paradoxical result of the competitive market, it is important to note that when economists talk about profit in this context, they are referring to revenue that is over and beyond all costs. It is “pure gravy.” Business accountants have a more inclusive definition of profits. (These differing definitions of the same concept create confusion. In order to deal with this semantic problem, the use of a concept must be related to its context. Business and financial uses and professional economic uses of the same major concepts are sometimes at odds. There may be solid reasons for these differences, but it does make understanding these complex matters more difficult.) Economists presume that all businesses should earn a “natural rate of return,” that is, what the owners would receive if they put their resources into the general market (the prevailing rate of interest) rather than into their own businesses. To an economist this is one of the legitimate costs of running a business. However, although accountants recognize the legitimacy of the return, they still classify it as profit.

**Optimum allocation of resources**

As market prices direct resources (land, labor, and capital) to those applications with the highest possible returns, the **optimum allocation** occurs. That means that resources are being used to make products that provide consumers with the greatest satisfaction possible. They get what they want at the best possible prices. Consumers direct the market by expressing what they want and how much they will pay for it. Producers respond to that demand by using resources in the most cost-effective way. Consequently, the total value of consumption products is the greatest that the economy is capable of producing at that point in time. This result is what economists call **economic efficiency**. The Soviet system provided an example of a non-market economy with quite different results for consumers. The planners decided what consumer products to make available and how much consumers had to pay for them. For example, snow boots were available for a pretty good price if you liked purple and could use a
large size. Blue jeans were not available at all. On the other hand, airplane trips were so cheap that peasants could bring baskets of strawberries to Moscow and make enough selling them informally to cover the cost of the trip. Since consumer demand and actual supply scarcities were not being used in making production decisions, the available resources were not being used in a way that gave Russian consumers what they wanted for the best prices. This misallocation of resources was one of the causes of the eventual disintegration of the Soviet system.

Some proponents of the market system suggest other consequences that they see as connected with its actual implementation. The most significant example would be a non-economic outcome: a democratic political system. Milton Friedman (1912–2006) argued that the free choice and mobility required by the premises of the market model can only happen in a free, democratic society (Friedman and Friedman, Free to Choose). This particular tying together of economics and politics explains why some pundits and politicians discuss democracy and free markets in one phrase as if they were the same thing.

ANSWERS TO BASIC ECONOMIC QUESTIONS

Another way of comprehending the way in which the market model functions is to see how it provides answers to the basic economic questions that all societies must handle in some way or another. These questions come under the headings of production and distribution, the central subject matter of neoclassical economics. Production refers to all those activities involved in making and delivering goods and services to the ultimate consumers. Distribution refers to how the products that are made are divided among the different components of the society. The basic production and distribution questions are posed and answered below.

Production

1 What products are going to be made? In the market productive organizations make the products, but they will make only those goods
and services for which consumers and other productive organizations express an effective demand. **Effective demand** is represented by the number of consumers who are willing to pay a price for a product that at least covers the cost of production. Therefore, those consumers with the means to realize their preferences determine which products are actually made. That holds for consumption products as well as capital products. That’s because effective demands for capital products are reliant on anticipated effective demands from consumers for the products that would be made with the capital investment. Again we see the importance of consumer sovereignty in the market model.

2 **How many of each of those products are going to be made?** Consumers may be interested in buying a product, but producers will make only as many as there are buyers who are willing to actually pay the price that at least covers the cost of making it. **Demand schedules** (which can be expressed as curves on a graph) are made up of expressed wishes to buy a product, from those people willing to pay the most to those willing to pay the least. Production stops when demand equals supply, or when willingness to buy a certain quantity equals the cost of producing that same quantity. That is the point of equilibrium. That is where price is set. Achieving equilibrium is considered a tendency because getting it exactly right in dynamic circumstances is highly unlikely.

3 **By what means are the products to be made?** Essentially, managers of productive organizations decide how to produce everything. But they are driven by the competitive necessity to seek the lowest cost of production. They look at the available technology and the relative costs of land, labor, and capital, and then they decide which combination is the least expensive. If the society has a large supply of labor (such as India or China) in relation to demand, labor will be relatively cheap. The production combination in that situation, therefore, will likely use more labor relative to other resources. In other words, the combination will be **labor-intensive**. As labor gets more expensive, it makes market sense to begin replacing it with capital, as happened, for instance, in the economic development of the United States. These least-cost combination considerations on the part of rational managers will determine how products will be produced.

**Distribution**

1 **How are the claims on products (incomes) divided among the resource contributors?** So how much do controllers of resources receive for contributing their land, labor, or capital to the production process?
Like everything else in the market, the answer is provided by supply and demand. The market declares that the true scarcity value of any factor of production can be known only by the free interplay of supply and demand. Laborers, for instance, should move around according to market signals, that is, wherever they can get the highest wages. Attempts to “second guess” the market by collective bargaining or government programs, such as a minimum wage, reduce economic efficiency and interfere with the incentive dynamics and true-value determination by the market. In other words, the distribution of income determined by the market provides controllers of resources with what they really deserve. Other societies have used customary status, class standing, or sheer power to determine who gets what of the production pie. According to its advocates, the market provides a much fairer system of distribution. People benefit according to the value of their contribution, which, of course, is determined impersonally by the market. The underlying assumption of the market model is that all households have at least one member with a resource to contribute.

2 How is the production of the society divided between private and public purposes? Or how much of the society’s income should be diverted from private persons and spent by the government on public projects? Taxes are the means by which governments divert some of the private income into public budgets for spending on such things as schools, police, roads, parks, defense, and social security programs. Societies make very different decisions through their respective political processes about what proportion of the nation’s income goes into the public budget. In the United States it is about one-third. Western European countries average almost 50 percent. Those who believe that private individuals in the market always make more appropriate decisions than the government strongly resist the imposition of taxes and the public programs that they pay for. This is a political struggle that should be familiar to anyone who follows current events. Even when the political process determines that there is a need for a government program, market proponents argue that market criteria should be utilized in determining expenditures. For instance, they think that public works projects should be evaluated by benefit–cost measures that are based on market prices. Only those projects with the highest projected net returns should be built, not those with the most influential politician behind them (pork barrel projects). Furthermore, production should not be carried out by government enterprises, because with the absence of the discipline of the competitive market, inefficiency and even corruption will prevail. This type of reasoning supports smaller government budgets,
privatization, and deregulation. It was the approach of the structural adjustment programs imposed on indebted developing countries by the World Bank and International Monetary Fund in the 1980s and 1990s.

3 How is the production of the society divided between the present and the future? Another distribution decision that societies must make involves how much of their resources to use for the present, that is, for immediate consumption, and how much for the future. In the market the present vs. the future decision is manifest in how much saving is done in relationship to spending. Saving enables capital investment that makes possible more production in the future. And the return on saving—interest—enables the recipients to enjoy more consumption in the future than they would have with immediate spending. This is delayed, but greater, satisfaction. The amount of saving, or production capacity set aside for the future, is determined by the market in the relationship between the supply of saving by households and the demand for saving by productive organizations wishing to invest. In the conventional market model the interest rate ties together the saving and investment decisions. The demand of investors for saving is limited by the relationship between expected rates of return (profit) and the prevailing interest rates. Therefore, only those investment opportunities whose expected returns exceed the interest rate will attract productive organization managers. But this relationship is subject to several changing variables. Households might change their saving behavior, affecting the supply of saving one way or the other. The availability of new technology might encourage productive organizations to increase their demand for saving. If that leads to a higher interest rate, more saving might be forthcoming. Where the interest rate settles will depend on the relative magnitudes of the supply–demand changes.

All of the foregoing should reinforce the importance of the supply-and-demand relationships in the market model. All prices, that is, the relative values of all things exchanged, are determined solely by supply and demand. In the most elemental sense the overriding answer to all questions of relative worth in the market model is supply and demand! It’s the heart of value theory for the market. However, since the entire network of supply-and-demand relationships is driven ultimately by the individual preferences of consumers, the value theory has been labeled subjective preference. Supply and demand set prices at their intersection, that is, where the monetary amount of the last or marginal product or resource offered (supply) equals the same monetary amount of the willingness to buy that last or marginal item (effective demand). In basic textbooks in Economics this equilibrium
relationship at the margins is depicted graphically as the point where the upward sloping cost or supply line crosses the downward slopping demand line. Furthermore, rational consumers will allocate their spending so that the last dollar that they spend on every product they buy will generate the same amount of satisfaction. The same principle holds for resource allocation, though there the objective is equal productivity from every last dollar spent. In this fashion the market achieves peak efficiency.

**COMMENTS**

The great majority of European and American economists see the world through the filter of this basic market model. It is an elegant and powerful intellectual tool. It provides coherence to Economics that is lacking in other social science disciplines such as Political Science. Even though neoclassical economists certainly recognize other patterns, the standard against which these patterns are compared is the market model. The underlying assumptions about human nature are clear. The normative implications or preferred rules of conduct are not difficult to infer from the premises. Individual decision-making in a free market is the generally preferred approach. Freely expressed supply and demand determine “true value.” Government intervention is perceived as appropriate only when it is supportive of market-organized decision-making. Economic efficiency is the desired objective. Economists call non-maximizing behavior “irrational” and institutional conditions diverging from these premises “market imperfections.” The moral views implicit in these labels are not very subtle.

Neoclassical economists differ on how strictly they apply the pure model to policy issues. Some see the model as only an analytical device, but others see it as an ideal, even an ideology. Libertarians (those who follow nineteenth-century free market liberalism), such as the late Nobel laureate Milton Friedman, adhere the closest to its principles when discussing public policy. In the 1980s when the free market ideas of President Reagan and Prime Minister Thatcher dominated the global public policy arena, the whole package of associated programs was known as neoliberalism. Because the Washington-based World Bank and International Monetary Fund also advocated the free market approach during this era, neoliberalism was also called the Washington Consensus. Any policy that is based on a free market approach, such as free trade, draws its intellectual rationalization—in fact, its inspiration—from the market model and the perceived benefits of its expected outcomes, especially economic efficiency.

The next chapter will look at several institutions that are organized around the conceptual framework of the market model. Most members of the public may not be aware of how deeply ingrained the market way of
organizing our reality is in influencing how we perceive our choices, how we measure our success, and how we set our public policy.

**REVIEW QUESTIONS**

1. What are the major differences between classical political economy and neoclassical economics?
2. What is it about the deductive form of the market model that gives it a unique quality in the social sciences?
3. Define briefly each of the premises or assumptions of the market model.
4. Describe the three roles that drive the decisions within the market.
5. Discuss the interactions among households and productive organizations in the market model.
6. Explain how the markets for products and resources are central to the decision-making processes of the market.
7. Explain how the process of economic growth works in the market. Include the roles of banks, bonds, stocks, and derivatives.
8. What are the outcomes of the market model, and why do they necessarily follow?
9. Discuss how the market answers the basic economic questions.
10. Why is the value theory of the market model called “subjective preference”?
11. What are the conceptual similarities and differences between nineteenth-century liberalism and twentieth-century neoliberalism?

**BIBLIOGRAPHY**


