



5

Early and Classical Economics

CHAPTER CONTENTS

- » Introduction
- » Adam Smith (1723–1790)
- » Thomas Robert Malthus (1776–1834)
- » David Ricardo (1772–1823)
- » Karl Marx (1818–1883)
- » Thinking like an Economist
Investigating Cause and Consequence Relationships to Support Hypothesis Testing
- » Consolidation Activities

INTRODUCTION

The very first deep thinker of economic activities was Xenophon, the Greek citizen turned military general who was granted a family estate around 395 BCE. His past experiences led him to theorize about estate management, the division of labour between husband and wife, and the accumulation of personal wealth. His work, entitled *Oeconomicus* (published in 362 BCE), is recognized as one of the richest primary sources of the social, economic, and intellectual history of classical Greece. Among its numerous subjects, the *Oeconomicus* provides insight into the successful operation of an estate farm in ancient Greece. It reveals the value of marital partnership, appropriate treatment of workers (and slaves), the importance of agriculture to further civilization, and the shrewd use of productive resources, including enemies or competitors.

The **oikos** , the basic unit of classical Greek society, was a household or a large family estate, including land, crops, a house, family members, slaves, animals, and accumulated wealth. The economy of Greece was based on agriculture, and society consisted of two distinct, yet complementary, spheres. The public (or political) sphere was a world where men were dominant, and the private (or domestic) sphere was the realm of women.

Economic thinking started making significant advances during the second half of the eighteenth century with the progressive writings of Adam Smith, Thomas Robert Malthus, and David Ricardo. Karl Marx strongly reacted to the exploitation of workers during the second half of the nineteenth century. In this chapter, we will explore the ideas of these classical thinkers. For each featured economist, or “worldly philosopher,” as the economic historian Robert L. Heilbroner calls them, our presentation will include the following: a brief biography, an account of the historical context in which the economist’s ideas developed, and an explanation of some of the economist’s major ideas and their political and economic impacts.

LEARNING GOALS

Once you have completed this chapter, you should be able to:

- Understand the major ideas and economic theories of Adam Smith, Thomas Robert Malthus, David Ricardo, and Karl Marx
- Understand how economic thinking has helped change the world
- Recognize cause and consequence relationships
- Begin thinking like an economist by testing hypotheses

KEY TERMS

- oikos
- physiocrat
- laissez-faire
- mercantilism
- protectionist
- tariff
- Industrial Revolution
- self-interest
- invisible hand
- division of labour
- law of accumulation
- law of population
- geometrical progression
- arithmetical progression
- positive check
- preventive check
- Corn Laws
- absolute advantage
- comparative advantage
- bourgeoisie
- proletariat
- labour value
- surplus value
- hypothesis

Adam Smith (1723–1790)

Ideas that are significant enough to change the world usually emerge during turbulent times. Generally speaking, the more radical the idea, the more troubled the society it originates from, if only because it is during times of extreme crisis that people are most willing to listen to radically different ideas.

Adam Smith is known today as both the “father of modern economics” as well as the “founder of capitalism.” He was the first thinker to outline in detail the characteristics and benefits of a complete economic system—in his case, the free-market economy. He did this in a two-volume work called *An Inquiry into the Nature and Causes of the Wealth of Nations*. Published in 1776, the same year that the American colonies declared their independence from Great Britain, this work is usually referred to as *The Wealth of Nations* and is recognized as the foundation of modern economic theory.

BIOGRAPHY

Adam Smith was born in 1723 to a middle-class family in a fishing village near Edinburgh, Scotland. He entered the University of Glasgow at 14 and, at 17, won a scholarship to Oxford University.

At the age of 27, Smith was offered a position as professor of logic at the University of Glasgow. Shortly afterwards, he earned the more prestigious position of professor of moral philosophy; in 1758, he became dean of the university. With his eccentric personality, the deep-thinking but absent-minded professor became Glasgow's most illustrious citizen.

In 1759, Smith's first book, *The Theory of Moral Sentiments*, made him famous throughout Great Britain. He accepted a lucrative offer in 1764 to become the private tutor of a young English aristocrat. This new position gave him the opportunity to live in France for two years. While visiting Switzerland, he met French philosopher Voltaire, and back in Paris he became acquainted with a new school of economic thought whose leaders were known as the **physiocrats** .

The physiocrats reasoned that if unchangeable natural laws governed the physical world, then natural laws also governed human behaviour and, therefore, the social, economic, and political worlds. They argued that if all human behaviour was controlled by natural laws, then all the artificial laws created by humans were unnecessary and ineffective. Since people have a natural tendency to serve their own best interests and to acquire wealth, the pursuit of self-interest would ultimately benefit all individuals if they were left alone to create more wealth. This doctrine of non-interference became known by the French term **laissez-faire**, which means literally "leave to do," or leave things alone so that matters can work themselves out naturally.

While travelling as a tutor, Smith began his most important project, *The Wealth of Nations*, which took him 12 years to complete and have published. Smith was greatly influenced by American politician and writer Benjamin Franklin, who provided much information about the economic situation in the American colonies. In 1778, Smith was appointed commissioner of customs for Edinburgh, where he lived for the rest of his life.

THE TIMES

Adam Smith was born into a world where **mercantilism** was the prevailing economic system. This system is based on the state's control of economic production and trade, with the goal of exporting as many goods as possible for sale abroad while, at the same time, importing as few foreign goods as possible. When this system is successful, it means that gold and silver from abroad (the money paid for the exported goods) are flowing into the country while very little money is flowing out of it. At the time, gold and silver reserves were thought to constitute the real wealth of any country.

To make mercantilism work, a country's government adopts a **protectionist** policy to safeguard its gold and silver reserves by limiting the entry of foreign goods. As a result, authorities impose stiff taxes, or **tariffs**, on imported goods to make them more expensive than the goods produced in the country. Problems arise, however, as more and more countries adopt this strategy. Trade between countries drops off, and prices of all but the most common domestic products go up. Mercantilism, a product of the Middle Ages, did not sit well with the established merchant class, the growing industrialist class, and the heavily burdened working class. All of these classes were feeling increasingly handcuffed by government regulations and taxes.

Laissez-faire philosophy provided a strong argument for replacing state control of the economy with a reliance on natural laws to regulate economic activity. This idea contributed to the political ferment in France that led, in turn, to the French Revolution. Smith learned from Benjamin Franklin that the growing mood of rebellion in the American colonies was a direct reaction to interference by the British government, through various taxes and regulations, in the economic life of the colonists. This interference led to the Declaration of Independence in 1776 and the American Revolution during the years 1775–1783.

Many of Smith's ideas developed in response to the rapid economic changes he observed in Great Britain. The Enclosure Movement broke up the large plots of land that towns had held in common since the Middle Ages and redistributed them in small plots to individual landholders. Owners began to run these farms for profit rather than subsistence. Inventions such as the spinning jenny, the power loom, and the steam engine made it possible for factory owners to increase both the scale of their operations and the level of their profits. In the new factories that sprang up, workers performed increasingly specialized tasks and used a variety of machines. This period of technological innovation and new means of production, which started during Adam Smith's lifetime, came to be known as the **Industrial Revolution** .

IDEAS THAT ADVANCED ECONOMIC THOUGHT

Self-Interest

Adam Smith believed that human beings are motivated primarily by what he called **self-interest**, or the desire each of us has to better our condition in life. This means that the profit motive provides the major stimulus for economic growth and prosperity. When society requires greater production to satisfy its wants, it does not appeal to the generosity of producers, but rather to the desire of producers to increase their own profits.

The trick is to ensure that this desire for greater profits does not completely overwhelm a producer's sense of obligation to the rest of society. For this reason, in a free market, there is competition among many producers, none of whom can raise their prices too high without losing customers. In this way, self-interest and competition work together to advance the common good. Government regulation is not necessary to control the economy because the forces of market competition will serve, in Smith's famous phrase, as an **invisible hand**, or a natural control. To see how this works, let's consider a hypothetical situation.

Suppose an ambitious farmer decides to charge three times the going rate for a bushel of potatoes. Buyers will naturally do business with one of the many other farmers who sell their potatoes at lower market prices. The first farmer will have to reduce the price of his potatoes or face the economic consequence of lost sales. Even if all Ontario potato farmers conspire to sell their potatoes for exorbitant prices, entrepreneurs will bring potatoes into Ontario from other markets, such as Prince Edward Island, to realize a profit. At the same time, when local farmers realize that growing potatoes has become more profitable, they will replace some of their crops with potatoes. This increased supply of potatoes will naturally force the price of potatoes back down again. Smith believed that these natural "laws of the market" are at work in all openly competitive marketplaces.

Ongoing Progress and Prosperity

After reflecting on the substantial increases in wealth that had occurred in Britain during the previous 100 years, Smith outlined three reasons for the country's continued economic growth and increasing prosperity: the division of labour, the law of accumulation, and the law of population.

For Smith, the **division of labour**, or the specialization of workers in a complex and mechanized production process, led to increases in levels of production. These production increases provided greater profits for investors, more consumer goods for workers, and ultimately greater economic efficiency for society.

The **law of accumulation** worked naturally to fuel further rounds of growth and prosperity. The accumulated profits that industrialists invested in additional capital goods, such as factories and machinery, permitted increases in total production and efficiency for the economy as a whole. These increases in turn led eventually to greater profits for investor industrialists. The increased profits could then be reinvested in additional capital goods, providing the stimulus for further rounds of economic growth.

According to Smith, the **law of population** also contributed to the maintenance of this steady rate of growth and prosperity. The accumulation of capital naturally increases the demand for labour to operate the additional machinery that the industrialists purchase. To attract more workers, competing industrialists must offer higher wages. Wage increases lead to improved living conditions for workers, which in turn reduce mortality rates. As a result, there is an increase in the population and, therefore, in the labour force. Increases in the labour force mean that workers must compete with one another to find jobs, and this competition tends to keep wages from increasing. Thus, industrialists continue to make healthy profits.



A monument to Adam Smith on the Royal Mile in Edinburgh, Scotland.

Thomas Robert Malthus (1776–1834)

Recognized historically as the first professional economist, Thomas Robert Malthus was a mild-mannered cleric whose shyness was compounded by a severe speech impediment. He challenged Adam Smith's view of a world governed by natural laws that provided ever-increasing prosperity, and he predicted inevitable poverty and famine for the masses. Malthus first presented his pessimistic views in a book he published in 1798 called *An Essay on the Principle of Population, as It Affects the Future Improvement of Society*. He revised and expanded the text five times between 1803 and 1826. Although he softened his views slightly over the years, his pessimistic conclusions did not change. After reading Malthus, English writer Thomas Carlyle referred to economics as "the dismal science."

BIOGRAPHY

Malthus was born into an English upper-middle-class family in 1766. He was admitted to Jesus College at Cambridge University in 1784, where he studied a wide range of subjects and took prizes in Latin and Greek before earning a master of arts degree in 1791. In response to a religious vocation, Malthus took holy orders in the Anglican Church in 1797 and pursued the quiet life of an English country curate.

He was named professor of history and political economy at the East India Company's college at Haileybury, Hertfordshire, in 1805. This was the first time that the term *political economy* was used for an academic position, so Malthus can rightly be identified as the first professional economist.

THE TIMES

Malthus's thoughts and writings were greatly influenced by the existing economic conditions in Britain. The country was in the midst of the Industrial Revolution, a period when great numbers of workers left their farms and crowded into cities, where they hoped to find jobs in factories. They lived in congested and unsanitary quarters, struggling to survive on minimal wages. At the same time, a prolonged, expensive, and bloody war against Napoleon Bonaparte's France added to the misery of the British working class. Poor crop yields and a simultaneous population boom further aggravated the situation. It began to look as if Britain's once-rich farmlands could no longer feed the country's people.

IDEAS THAT ADVANCED ECONOMIC THOUGHT

Population and Food Production

Malthus based his ideas about population and food production on what he thought were two self-evident premises. The first is that food is necessary to sustain human life. The second premise is that human sexual instinct is constant. Starting with these two premises, Malthus built an argument that the population, if left unchecked, would double every 25 years (about one generation). This doubling effect meant that the population grew in what statisticians call a **geometrical progression** .

Food production, on the other hand, can only grow in an **arithmetical progression** . As more land is required for food production, less-fertile tracts of land will be employed out of necessity, and these less-fertile lands will yield fewer crops. At the same time, as more and more workers cultivate the lands more intensively, the productivity of the added workers also declines. Malthus used the economic principle of the law of diminishing returns (see Chapter 2) to explain why growth in food production would be limited to arithmetical increases from one generation to the next. That is, each generation's food production increases by an amount equal to the original quantity. Figure 5.1 illustrates what became known as the "Malthusian dilemma."

Malthus had a very pessimistic outlook. He thought that if wages went up, workers' improved standard of living would reduce infant mortality rates, which would lead to an increase in the population at a faster rate than the means of subsistence. Where Adam Smith saw a world of steadily increasing prosperity, Malthus believed that wages and the standard of living should hover around the subsistence level to keep the population from growing out of control.

Although Malthus admitted that two types of population control existed, he did not think they would prove strong enough to check the geometric progression of the world's population. **Positive checks**, which increase the death rate, include war, famine, disease, and epidemics. **Preventive checks**, which reduce the birth rate, include moral restraints such as late marriage and sexual abstinence.

In the end, Malthus failed to predict two developments that had major impacts on his theories of population. In the twentieth century, a series of technological breakthroughs in the field of agriculture, known collectively as the Green Revolution, increased food production rates beyond anything Malthus might have imagined. Also, continued urbanization has had a negative effect on the birth rate. Whereas additional children in farm families have always been seen as assets to help with the work, this has never been the case in urban families. Average family size in urban industrial countries continues to decline, to the point where several countries in the world today have reached zero population growth. Does this mean Malthus was wrong? Two hundred years after the publication of his ground-shaking text, the debate continues.

FIGURE 5.1**The Malthusian dilemma**

A balanced economic system (in which 1 unit of food is available for 1 unit of population) naturally transforms—if left unchecked—into an economically unbalanced situation. After 10 generations (or 225 years), 512 units of population must subsist on only 10 units of food. Unless population growth is controlled, famine awaits the entire human race!

Generation	1	2	3	4	5	6	7	8	9	10
Year	1	25	50	75	100	125	150	175	200	225
Population	1	2	4	8	16	32	64	128	256	512
Food	1	2	3	4	5	6	7	8	9	10

Note: Each 25-year period refers to one generation. Each generation, the population doubles. Every 25 years, food production increases by an amount equal to the original quantity produced during the first year.

To keep this table simple, constant units of population and food production are used instead of actual figures. One unit of population might represent 1 million people, and 1 unit of food might represent enough wheat to sustain 1 unit of population from one harvest to the next.

David Ricardo (1772–1823)

Adam Smith's notion of humankind living in a harmonious world governed by natural laws was most effectively assailed by David Ricardo, the articulate son of a Dutch merchant banker who had immigrated to Britain and made a fortune on the London Stock Exchange.

BIOGRAPHY

David Ricardo was born into a prosperous family in London in 1772. At 14, he went to work in his father's investment business, but by the time he turned 22, he had established his own business with a capital base of £800. He retired 20 years later with over £1 million.

Recognizing that most investors tend to overreact and exaggerate the importance of events, Ricardo was able to use his knowledge of different kinds of securities to make great profits. For example, in the panic following Napoleon's return to power in France—and with the increased likelihood of war—the market for British government securities declined sharply. Ricardo, however, invested heavily in government securities prior to the Battle of Waterloo. When the Duke of Wellington defeated Napoleon's armies at Waterloo, Ricardo's profits were significant.

When Ricardo retired to the country at the age of 42, he devoted his attention to the new science of political economy. His most famous book, *On the Principles of Political Economy and Taxation*, exposed the bitter class conflicts at the heart of any society structured around free-enterprise capitalism. Published in 1817, it challenged the power of the aristocratic landlord class by questioning the contributions of this class to society. The book was hailed by the rising industrialist class and became an influential document of political reform.

Elected to the House of Commons in 1819, Ricardo argued on behalf of free trade and carefully outlined the complex laws of land rent that allowed the idle landlord class to exploit land, labour, and capital. In 1823, he died suddenly at the age of 51, before he could witness first-hand the full impact of his economic ideas.

THE TIMES

Ricardo lived during a period of great social conflict and political unrest in Britain. The British population grew rapidly, putting a strain on food supplies. The Napoleonic Wars and successive years of poor crops further drained food reserves.

Not surprisingly, where Adam Smith saw society as a family making great progress together, Ricardo saw clear divisions between conflicting groups. He identified the three main groups in British society as the working class, who lived on modest wages; the industrialist class, who made healthy profits by operating the factories they owned; and the aristocratic landlord class, who received substantial rent from the land titles they held. One group, Ricardo argued, could prosper only at the expense of the others.

Ricardo reasoned that, given their hold on the land, landlords were best positioned to compete effectively against the other classes. The working class would always struggle to live at or near subsistence levels. The rising industrialists had new-found riches but lacked sufficient representation in Parliament. Therefore, the powerful and entrenched landed aristocracy would always prevail.

To illustrate his case, Ricardo used the example of the landlord-dominated Parliament forcing through legislation known as the **Corn Laws**. These measures imposed stiff taxes on grains imported from other countries. Since there was a shortage of grain in England at the time, the taxes drove up the price of domestic grain to levels usually seen only in times of famine. By 1813, a bushel of wheat sold for twice the average worker's weekly wage. This forced the industrialists to pay higher wages (to ensure that their workers would survive), which, in turn, cut into their profits. High grain prices, however, guaranteed the payment of high rents to the landlords. When the industrialists finally succeeded in repealing the Corn Laws in the 1840s, they effectively broke the power of the landed aristocracy and slowly began replacing them as the dominant class in British society.

IDEAS THAT ADVANCED ECONOMIC THOUGHT

The Iron Law of Wages

Ricardo reasoned that, because of the working class's unchecked rate of reproduction, labour's natural wages would always remain at the subsistence level. Higher wages would increase the population by ensuring lower rates of infant mortality but would not raise living standards because the higher wages would have to be distributed among larger families.

Greedy industrialists seized on this economic principle to justify keeping their workers' wages at the lowest level possible, in some cases claiming that they were thereby performing a public service. Low wages became the figurative leg irons that shackled the working class to their slums. This was never Ricardo's intent. He always believed that wages should be determined by free-market conditions.

The Theory of the Comparative Advantage of Trade

It is a commonly accepted principle that when one community can produce grain more efficiently than another, while the other community can produce wool more efficiently, trade will provide an obvious or **absolute advantage** to both communities. Ricardo was the first person able to recognize and explain that even when one community can produce both wheat and wool efficiently, there remains a **comparative advantage** to be shared when both communities trade the products they can each produce most efficiently. (We'll explore both concepts in Unit 6.)

As a result of his belief in comparative advantage, Ricardo became a strong advocate of free trade at a time when Britain imposed high tariffs on many imports precisely to discourage trade with other countries. While these taxes often protected the earnings of the rich landlords, they hurt the workers and the industrialists. Once again, argued Ricardo, the interests of the landlords ran counter to the interests of the rest of the economy. From Ricardo's perspective, the landlord class grew very rich while others performed all the work and assumed all the risks. Ricardo quickly became the parliamentary champion of the previously unrepresented industrial capitalist.

Karl Marx (1818–1883)

According to Karl Marx, all of human history is governed by economic laws and a series of struggles between people of different social classes. Marx believed that economics is central to people's lives. He held that people's need to eat, drink, and have shelter (the material means of existence) comes before other pursuits in life, such as politics, science, art, and religion.

In collaboration with his friend, wealthy capitalist Friedrich Engels, Marx founded an international workers' movement intended to overthrow the corrupt ruling class of industrial capitalists and aristocratic landlords. Marx called the ruling class the **bourgeoisie**. In 1848, Marx and Engels published the *Communist Manifesto*, in which they incited all exploited workers (whom they called the **proletariat**) to rise up against their oppressors: "Let the ruling classes tremble at a Communistic revolution. The proletariat have nothing to lose but their chains. They have a world to win. Workers of all countries unite!" And so was born the international revolutionary socialist movement of communism. Several rebellions followed in European countries, but none of them succeeded until the Russian Revolution in 1917.

For his radical views, Marx has come to be known as either “the prophet of the proletariat” or “the demonic philosopher.” Either way, it is undeniable that he left an indelible mark on the science of economics and on the course of human history.

BIOGRAPHY

Karl Marx was born in the German Rhineland in 1818. An excellent scholar, he attended Bonn University, where he studied philosophy. Marx became the editor of a small, middle-class liberal newspaper. One of the first editorials to get Marx into trouble with the government denounced a new law that prevented peasants from exercising their traditional right to gather fallen timber in the forest for firewood. The authorities first censored and then closed down the newspaper. Marx became more and more outspoken as, one by one, the papers he edited were suppressed by the state.

As his views became more radical and even revolutionary, Marx had to flee Germany. He moved first to Paris and then to Brussels, but his troubles with the state followed him until he moved to London in 1849. Marx and his family lived in London in relative poverty for the rest of his life.

His most comprehensive work, *Capital* (*Das Kapital* in the original German text), was published in three volumes in 1867, 1885, and 1894. In this cold and complex critique of economics, Marx explained why capitalism would ultimately destroy itself. The book was completed by Engels after Marx died in 1883.

THE TIMES

Living in the second half of the nineteenth century, Marx witnessed first-hand the ill effects of the Industrial Revolution on the working class. By the time of Marx's death, England had been transformed from an agricultural and artisan-based economy to one in which the dominant mode of production was the steam-powered factory.

Workers lived in the slums of crowded cities and worked 18-hour days in unsafe and unclean factories. Since there were no laws against child labour, working-class children had to endure these same hardships. After working long hours, children rarely had the time to acquire the education that might lift them out of such deplorable circumstances.

To Marx, the capitalist system was immoral and the people who exploited it unspeakably evil. He saw a world in which all wealth was achieved on the backs of the workers. Yet, the working class received few of the benefits of their labour. Marx believed capitalism, as an economic system, was morally bankrupt and that its moral bankruptcy would one day bring about its own demise.

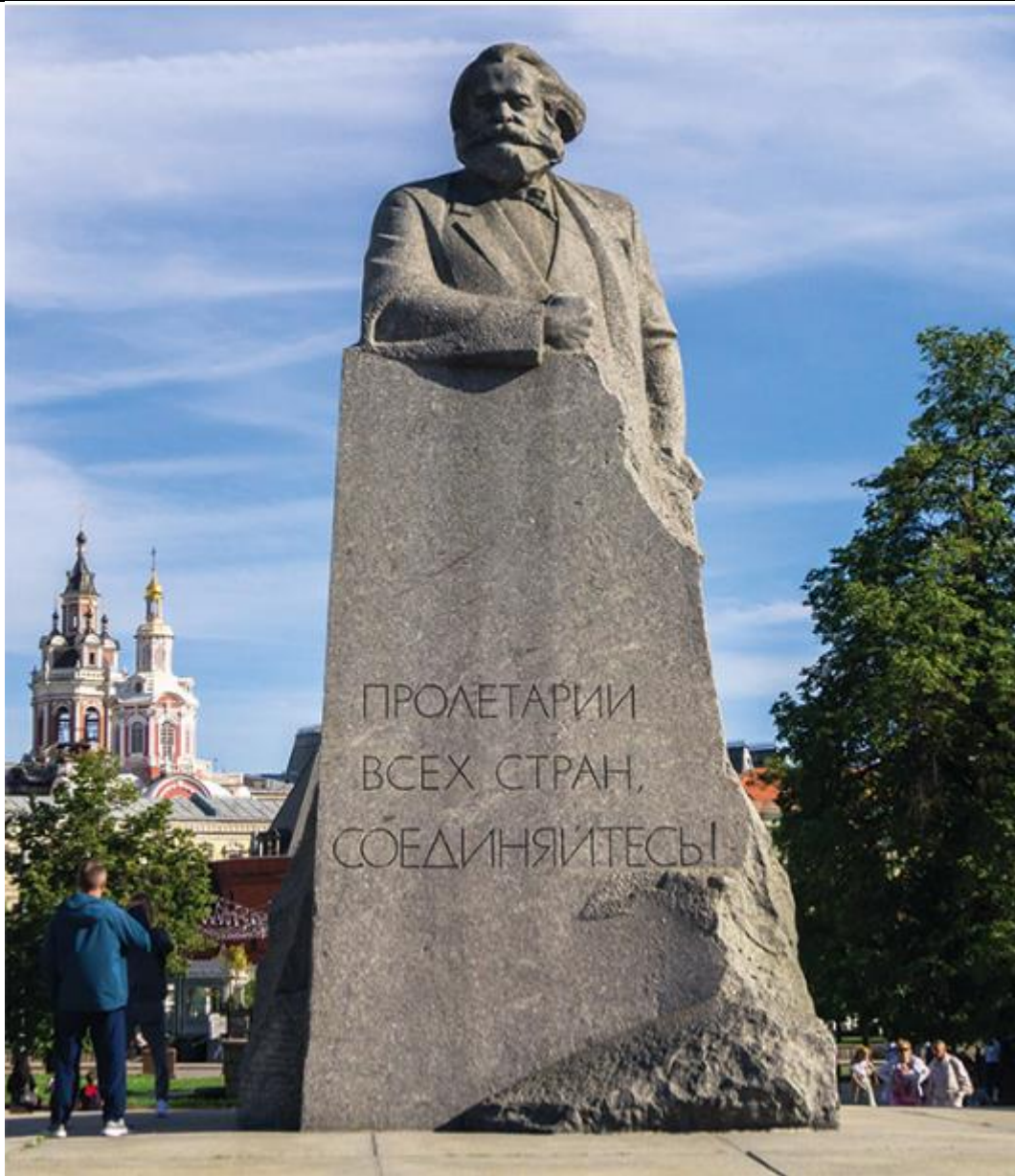
IDEAS THAT CHANGED ECONOMIC THOUGHT

The Economic Interpretation of History

Marx thought that the laws of economics determine the course of human history. He believed history was an ongoing series of class conflicts between exploiters and the exploited: free citizens against slaves, patricians against plebeians, lords against serfs, guild masters against journeymen, and industrial capitalists against workers. Whenever conditions become unbearable, the oppressed rise up in open rebellion against their oppressors. The capitalist system, based on exploitation and self-gratification, has sown the seeds of its own destruction. Capitalist exploitation will continually worsen the living standards of workers. Immersed in misery, workers will eventually unite to overthrow the corrupt ruling class.

The International Communist Revolution (Revolutionary Socialism)

According to Marx, this revolution would begin in the most industrialized countries of Western Europe (where capitalism was strongest and where workers were exploited most severely) and then would spread throughout the world. The violent overthrow of capitalism would lead to international socialism based on the common ownership of land and capital. Socialism, once fully evolved, would be transformed into its ideal state of communism: a worker-governed society based on the guiding principle "from each according to ability, and to each according to need."



A monument to Karl Marx at Teatralnaya Square, Moscow, Russia. The inscription reads: "Proletarians of all countries, solidarity!"

The Labour Theory of Value and the Impact of Marx

For Marx, the value of any item is the value of all labour used in its production (**labour value**). This includes the direct labour supplied by workers in the manufacturing process as well as the amount of indirect labour—that is, the labour embodied in the machinery and buildings used in the manufacturing process. In a capitalist system, workers receive only a portion of what their labour is worth. The difference, which Marx called **surplus value**, is stolen from the worker in the form of profit for the capitalist.

To better understand this concept, let's use a simple example. Assume that the production of a wool sweater requires \$40 worth of labour, \$5 worth of materials, and \$5 worth of wear and tear on machinery (depreciation). If the industrial capitalist can sell the sweater for \$80, then a surplus value of \$30 is created in the form of profit for the capitalist. This surplus value arises from the market's determination that the real value of each sweater is \$80. Since the value of the indirect labour is \$10 (\$5 + \$5), the value of the direct labour must be \$70. Since workers are only paid \$40 for knitting the sweater, \$30 represents the amount of worker *exploitation*.

Worker employment in a capitalist system is based on the premise that the worker will always produce more for the employer than the employer will have to pay in the form of wages. Workers are forced to sell their labour to capitalists for less than it is truly worth because there is always what Marx identified as a “reserve army of the unemployed.” Capitalists always have the option of hiring desperate unemployed workers at lower wages, which ensures that wages will never rise above the subsistence level.

The impact of Marxian thinking was so pervasive that it eventually became a separate and distinct school of economic thought. From 1917 to 1991, communist movements grew to eventually include one-third of the world’s population.

In economics today, we clearly distinguish between *Marxist* thinking and *Marxian* thinking. *Marxist thinking* is intended to refer to his revolutionary political ideology, focused on the overthrow of the existing ruling class by a united working class. *Marxian thinking* is intended to refer to his socialist economic ideas and theories, based on equality and social justice.

Self-Reflect

1. Explain in your own words Adam Smith's concept of the "invisible hand" and how it relates to self-interest and competition as the primary economic motivators.
2. Explain the Malthusian dilemma in your own words. How did the law of diminishing returns contribute to the pessimistic conclusion of Malthus?
3. According to Ricardo, what are the main three classes in any free-enterprise society? How does self-interest result in bitter class conflicts?
4. Do you agree with Marx that all capitalists exploit workers? Support your position by explaining the relationship between surplus value and exploitation.

Thinking like an Economist

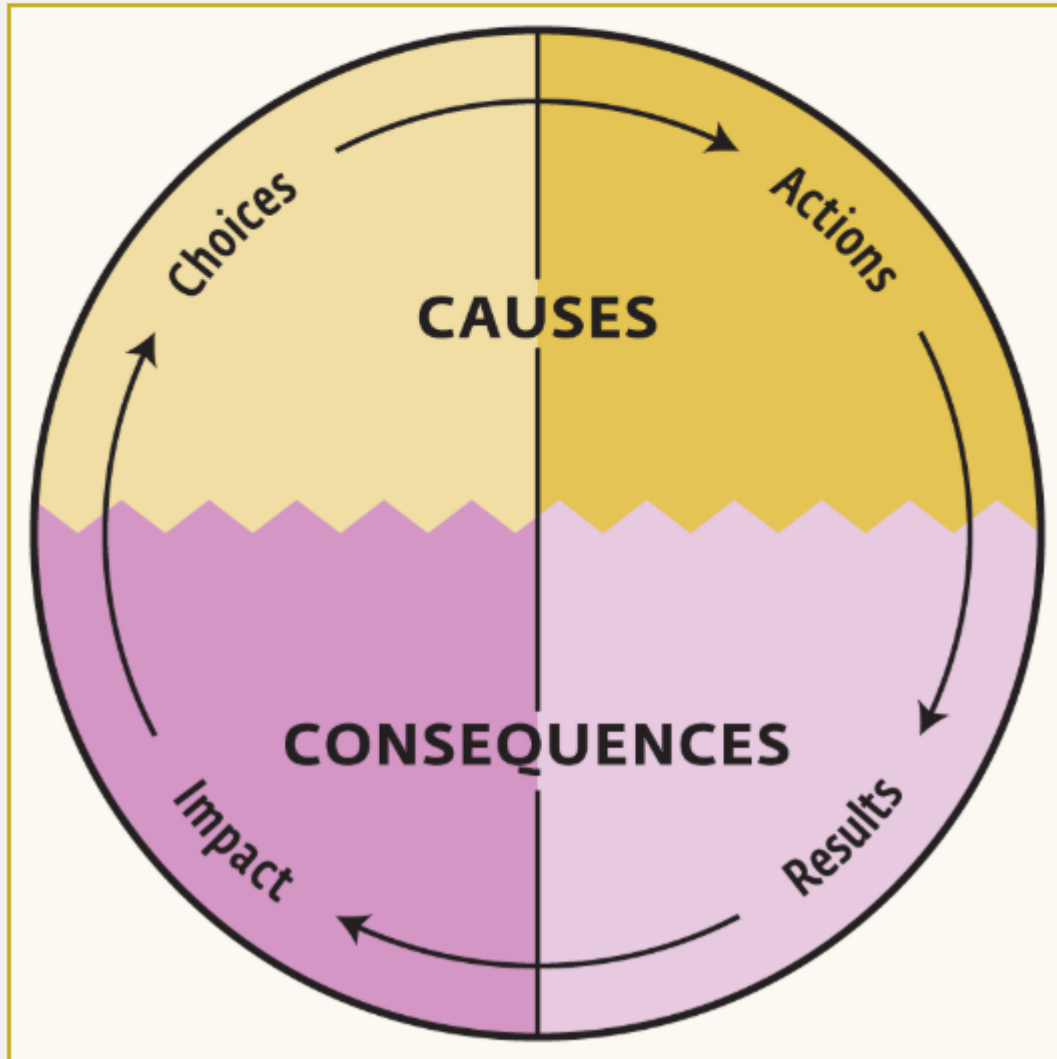
Investigating Cause and Consequence Relationships to Support Hypothesis Testing

Parents constantly remind their children that actions (including doing nothing) have consequences. This reality is only magnified in the economic world, which contains many interacting stakeholders with diverse interests. Choices lead to actions (often to protect the interests of decision makers), and these actions or events cause change. The results of an action and the impact (or significance) of an event or happening can be seen as the consequences. These consequences may impact different stakeholders in different ways, causing problems for some and benefits for others. Unbalanced results often trigger a new cycle of economic thinking to prioritize choices and actions to address new problems. (See Figure 5.2.) Serious economic problems are not politically or economically sustainable. Economic thinking must clearly distinguish between causes and consequences.

FIGURE 5.2

A cyclical pattern of causes and consequences in economic decision making

As this diagram shows, *choices* are driven by interests, *actions* reflect priorities, *results* are determined by outcomes, and *impact* reflects the significance of consequences.



Economists are sometimes called upon to identify patterns and relationships in a set of data or facts and to use this information to gain insight into an economic problem in need of appropriate attention. To better understand the problem being addressed, economists must identify the consequences most in need of attention. Doing so will reveal evidence of a problem's harmful nature and extent. Next, economic analysis must determine the causes of the problem. Once this cause and consequence relationship is established, options can be hypothesized as potential remedies to improve the situation by addressing the causes.

A **hypothesis** is a speculative theory that requires proof or verification. Supporting evidence is required to confirm a hypothesis as viable. Let's work with some hypotheses to practise the economic thinking required. What cause and consequence patterns have you noticed so far in the evolution of economic thought? Use the information in this chapter, and any additional information that you have researched, as supporting evidence to assess each of the following hypotheses:

- **Hypothesis A:** Prosperous times create great economists.
- **Hypothesis B:** The advancement of economic thought reinforces the pattern of economic trade-offs. Very often, solving one economic problem creates another.
- **Hypothesis C:** A great economic thinker is more of a reactionary than a visionary.



The colonists of New England loved their tea, consuming some 544 000 kg each year. So why did they raid British ships, disguised as Indigenous Americans, to dump 342 chests (40 800 kg) of fine tea in Boston Harbour on December 16, 1773? This protest became known as the "Boston Tea Party." How did the British parliament respond to this defiance, and what happened in 1775 to change the course of North American history?
