

LESSON 1

The Growth of Industrial Prosperity

ESSENTIAL QUESTIONS

- How can industrialization affect a country's economy?
- How are political and social structures influenced by economic changes?

READING HELPDESK

Academic Vocabulary

- transition

Content Vocabulary

- assembly line
- mass production
- bourgeoisie
- proletariat
- revisionists

TAKING NOTES

Key Ideas and Details

Identifying Cause and Effect As you read, use the organizer to show the effects of each innovation.

Steel	»	
Electricity	»	
Internal-combustion engine	»	

IT MATTERS BECAUSE

By the late 1800s, the Second Industrial Revolution transformed most of Europe into industrialized societies. However, the transition was not easy for workers. Many sought reform to improve their lives.

The Second Industrial Revolution

GUIDING QUESTION *What were the causes and effects of the Second Industrial Revolution in Western Europe?*

The first Industrial Revolution had given rise to textiles, railroads, iron, and coal. In the Second Industrial Revolution, steel, chemicals, electricity, and petroleum led the way to new industrial frontiers.

New Products and Patterns

In 1855 Sir Henry Bessemer patented a new process for making high-quality steel efficiently and cheaply known as the Bessemer process. Steel soon replaced iron and was used in the building of lighter, smaller, and faster machines and engines. It was also used in railways, ships, and weapons. In 1860 Great Britain, France, Germany, and Belgium produced 125,000 tons (112,500 t) of steel. By 1913, the total was an astounding 32 million tons (29 million t).

Electricity was a valuable new form of energy. It was converted into other energy forms, such as heat, light, and motion, and moved easily through wires. In the 1870s, the first practical generators of electrical current were developed. By 1910, hydroelectric power stations and coal-fired steam-generating plants connected homes and factories to a common source of power.

Electricity gave birth to a series of inventions. Homes and cities began to have electric lights when Thomas Edison in the United States and Joseph Swan in Great Britain created the lightbulb. A revolution in communications also began. Alexander Graham Bell invented the telephone in 1876. Guglielmo Marconi sent the first radio waves across the Atlantic Ocean in 1901.

By the 1880s, streetcars and subways powered by electricity had appeared in major European cities. Electricity transformed the factory as well. Conveyor belts, cranes, and machines could all be powered by electricity. With electric lights, factories could remain open 24 hours a day.

The development of the internal-combustion engine, fired by oil and gasoline, provided a new source of power in transportation. This engine gave rise to ocean liners with oil-fired engines, as well as to the airplane and the automobile. In 1903 Orville and Wilbur Wright made the first flight in a fixed-wing plane at Kitty Hawk, North Carolina. In 1919 the first regular passenger air service was established.

Industrial production grew at a rapid pace because of greatly increased sales of manufactured goods. Europeans could afford to buy more consumer products for several reasons. Wages for workers increased after 1870. In addition, prices for manufactured goods were lower because of reduced transportation costs. One of the biggest reasons for more efficient production was the **assembly line**, a new manufacturing method pioneered by Henry Ford in 1913. The assembly line allowed a much more efficient **mass production** of goods.

In the cities, the first department stores began to sell a new range of consumer goods. These goods—clocks, bicycles, electric lights, and typewriters, for example—were made possible by the steel and electrical industries.

Not everyone benefited from the Second Industrial Revolution. By 1900, Europe was divided into two economic zones. Great Britain, Belgium, France, the Netherlands, Germany, the western part of the

assembly line pioneered by Henry Ford in 1913, a manufacturing method that allowed much more efficient mass production of goods

mass production production of goods in quantity usually by machinery

GEOGRAPHY CONNECTION

- HUMAN SYSTEMS** *What parts of Europe were the least industrialized?*
- ENVIRONMENT AND SOCIETY** *How do you think the environment was affected in areas of industrial concentration?*





▲ Workers build Model T automobiles at a Ford assembly plant.

► **CRITICAL THINKING**

Making Connections How did the assembly line transform the car industry?

Connections to TODAY

Dependence on Raw Materials

Both the First and Second Industrial Revolution depended on vast imports of raw materials such as cotton (for textile manufacturing) and copper wire (for electricity). One legacy of the invention of the internal-combustion engine during the Second Industrial Revolution is today's dependence on a global trade in oil.

transition changeover; the move from one form, stage, or style to another

bourgeoisie the middle class, including merchants, industrialists, and professional people

proletariat the working class

Austro-Hungarian Empire, and northern Italy made up an advanced industrialized core. These nations had a high standard of living and adequate systems of transportation.

Another part of Europe to the south and east was still largely agricultural. It consisted of southern Italy, most of Austria-Hungary, Spain, Portugal, the Balkan kingdoms, and Russia. These countries provided food and raw materials for the industrial countries and had a much lower standard of living than the rest of Europe.

Toward a World Economy

The Second Industrial Revolution, combined with the growth of transportation by steamship and railroad, fostered a true world economy. By 1900, Europeans were receiving beef and wool from Argentina and Australia, coffee from Brazil, iron ore from Algeria, and sugar from Java.

European capital was also invested abroad to develop railways, mines, electrical power plants, and banks. Of course, foreign countries also provided markets for Europe's manufactured goods. With its capital, industries, and military might, Europe dominated the world economy by 1900.

✓ **READING PROGRESS CHECK**

Stating How were the effects of industrialization uneven across Europe?

Organizing the Working Classes

GUIDING QUESTION How was socialism a response to industrialization?

The **transition** to an industrialized society was very hard on workers. The desire to improve their working and living conditions led many industrial workers to form socialist political parties and socialist trade unions. The theory on which they were based had been developed by Karl Marx. One form of Marxist socialism was eventually called communism.

Marx's Theory

In 1848 *The Communist Manifesto* was published. It was written by two Germans, Karl Marx and Friedrich Engels, who were appalled at the horrible conditions in the industrial factories. They blamed the system of industrial capitalism for these conditions.

Marx believed that all of world history was a "history of class struggles." According to Marx, oppressor and oppressed have always "stood in constant opposition to one another." One group—the oppressors—owned the means of production, such as land, raw materials, and money. They controlled government and society. The other group—the oppressed—owned nothing and depended on the owners of the means of production.

Marx believed he saw a society that was "more and more splitting up into two great hostile camps, into two great classes directly facing each other: Bourgeoisie and Proletariat." The **bourgeoisie**—the middle class—were the oppressors. The **proletariat** (PROH • luh • TEHR • ee • uht)—the working class—were the oppressed.

Marx predicted that the struggle between the two groups would finally lead to a revolution. The proletariat would violently overthrow the bourgeoisie. After their victory, the proletariat would form a dictatorship to organize the means of production. However, because the proletariat victory would essentially abolish the economic differences that create separate social classes, Marx believed that the final revolution would ultimately produce a classless society. The state itself, which had been a tool of the bourgeoisie, would wither away.

Socialist Parties

In time, working-class leaders formed socialist parties based on Marx's ideas. Most important was the German Social Democratic Party (SPD), which emerged in 1875. Under the direction of its Marxist leaders, the SPD advocated revolution while organizing itself into a mass political party that competed in elections for the German parliament. When in parliament, SPD delegates worked to pass laws that would improve conditions for the working class. In spite of government efforts to destroy it, in 1912 the SPD became the largest single party in Germany.

Socialist parties also emerged in other European states. In 1889 leaders of the various socialist parties joined together and formed the Second International. This was an association of national socialist groups that would fight against capitalism worldwide.

Marxist parties were divided over their goals. Pure Marxists thought that capitalism could be defeated only by a violent revolution. Other Marxists, called **revisionists**, rejected the revolutionary approach. They argued that workers must continue to organize in mass political parties and even work with other parties to gain reforms. As workers received the vote, they could achieve their aims by working within democratic systems.

Trade Unions

Another force working for evolutionary, rather than revolutionary, socialism was the trade union, or labor union. To improve their conditions, workers organized in a union. The right to strike was an important part of the trade union movement. In a strike, a union calls on its members to stop work in order to pressure employers to meet their demands for higher wages or improved factory safety. At first, laws were passed that made strikes illegal under any circumstances. In Great Britain, unions won the right to strike in the 1870s. By 1914, there were almost 4 million workers in British trade unions. In the rest of Europe, trade unions had varying degrees of success in helping workers achieve a better life.

READING PROGRESS CHECK

Identifying What issue divided pure Marxist socialists from revisionists?



▲ This German Social Democratic Party poster from 1904 proclaims “Proletarians of the World, Unite!”

► CRITICAL THINKING

Analyzing Visuals What does the poster convey about Marx's ideas?

revisionist a Marxist who rejected the revolutionary approach, believing instead in evolution by democratic means to achieve the goal of socialism

LESSON 1 REVIEW

Reviewing Vocabulary

1. Speculating What social and economic effects did mass production and the assembly line have on the bourgeoisie?

Using Your Notes

2. Making Connections Use your notes to write two paragraphs discussing the effects of technological breakthroughs on daily life and on world trade during the Second Industrial Revolution.

Answering the Guiding Questions

3. Identifying Causes and Effects What were the causes and effects of the Second Industrial Revolution in Western Europe?

4. Inferring How was socialism a response to industrialization?

Writing Activity

5. Informative/Explanatory Write a paragraph describing the obstacles that trade unions faced in their effort to improve labor conditions.