INDUSTRIALIZATION AND THE RISE OF BIG BUSINESS

Three major questions:

1. **What caused or helped facilitate the incredible economic expansion?**
2. **How Did the Process Happen? (The 4 "C"s)**
3. **What Was the Effect on the American People? (How did they react? Who wins? Who loses?)**

1. What Caused/Helped It?

A. The Railroad nurtures Economic Expansion:

- consumes resources: steel, timber, coal, iron, oil

  (The railroads create a guaranteed market for these goods, providing an incentive to those in these fields to expand their businesses.)

- links raw materials to processing centers

  (coal and iron ore are transported to steel mills; cattle to slaughterhouses; copper to metal goods manufacturers; trees to lumber yards and paper mills)

- links agricultural products to urban consumers

  (people eat better and *cheaper*; plus they are healthier – and more efficient workers; they have more money left over after buying food to spend on other goods and services, thereby stimulating the economy)

- speeds the development and population of the West

  (the railroads move people to where there were no people previously, creating a wider scope for goods and services – hotels, stores, materials to furnish new homes, etc.)

- creates markets for newly mechanized agriculture

  (farmers grow more crops with aid of newly invented machines – railroads enable them to access a larger market in which to sell their crops)

- enables farmers to expand their production; more food sustains cities where industrial production takes off due to increased population

- expands the demand for employees; more jobs draw more people (immigrants); railroads help them settle in the West where they take new jobs

- expands the demand for manufactured goods in the west because the railroad brought people west; railroads now transport goods west to satisfy the demands of new residents – the very people the railroad had brought west in the first place

- shows how big business is managed: integrating operations, managing goods, people, money, and information – the railroad becomes the model that other big businesses imitate

- even creates time zones and changes people's expectations for what can be accomplished in a certain amount of time (makes time more valuable)

B. The abundance of **natural resources** (fossil fuels like oil and coal, minerals, timber, iron, gold, cattle, copper – American has a wide variety of natural resources, all in great supply. The material basis for a prosperous economy already exists – the latent resources just need to be monetized.)

C. **Foreign investment** – particularly from Great Britain.

(British investors are those who have profited from the industrial revolution in Great Britain, which began a generation before it began in the U.S. They now are looking for projects in which they can invest the money they have made.)

D. **Tariffs** provide government with money, but raising the tariff also helps *protect* developing American industries from foreign competition

E. **Processes** for manufacturing

1- economies of scale – by doing something bigger, one could do it cheaper

if you produce a mass quantity of a particular product (or raise crops on a large scale) each unit you produce can be produced at less cost, in part because you have figured out how to produce it efficiently.

2- economies of scope – broader market for products

if you can transport your goods quickly and cheaply longer distances, you then have a chance of reaching more customers → the *scope* of your market has increased

[Sometimes, when producers have a market with a larger *scope*, they decide they can now produce *more* (and therefore take advantage of economies of scale). In this sense, economies of scale and scope – though two different things – can be related. (Given larger scope, one can produce on a larger scale.)]

(Also, to convince consumers to buy new products that they did not have access to before, the science of "marketing" develops to help create new demand.)

3- division of labor – break down a process into various component parts

doing so makes each job require less skill; once you have unskilled workers handling only one component of a larger process, each of those workers is easier to replace

(As a result of deskilling of labor, workers do not identify as producers – shoemakers, for example – but rather as wage earners. Status comes not from one's *skill* but rather from what one can buy with one's wages. This marks the shift from a *producer* to a *consumer* economy. In this way, economic changes also produce changes in the culture.)

4- continuous flow – keeping the machines running all the time is more efficient

(Carnegie steel plants keep their blast furnaces running 24/7 since shutting them down and starting them up every day is actually more costly than continuous flow. Continuous flow was more economically efficient, but it could also wreak havoc on the environment. At the time, however, continuous flow was a symbol of "progress" and economic health, not environmental degradation – as we might see it today.)

F. New methods of *financing* companies and *administrating* them

1- limited liability (investors only liable for the amount they invest – if you invest $100 in a company and the company goes bankrupt, the company's creditors can only demand $100 from you. This meant is was much easier for start-up companies to attract investors and to raise funds.)

2- more sophisticated accounting methods enable businessmen to determine how to make the most profit by keeping better track of long- and short-term expenses. They also helped companies figure out the best price points and production targets (how much to charge and how much to make)

3- rudimentary management information systems enable you to make more informed decisions on inventory, purchasing, price points, etc. at a moment's notice. Good management of inventory, for example, cuts opportunity costs. You want to sell as much of a product as fast as possible, so you figure out where the demand is greatest and then offer those products.

2. How did the Process Happen?

Rockefeller and "THE 4 C's"

1. COMPETITION

Drives down prices so no one makes a good profit. The company with the most capital (i.e. money in the bank) can hold out longer without making a profit, but, even so, this is more about losing money than making money.

2. COOPERATION

Fix prices; divide up the market; agree to keep costs of production the same for all those who are cooperating

Companies form “pools,” but it always seems like someone “cheats” by lowering prices

Also, there is a chance that a new competitor – who does not belong to the group of companies who are cooperating – can enter the market and undercut the pool’s prices

Pools raise suspicions of illegal price fixing – threat of government intervention. Therefore, nothing is put in writing, but absent written, legally binding contracts, cheating becomes even more likely.

3. CONSOLIDATION

Horizontal Integration
(one oil refinery buys the other competing oil refineries)

Concentrates resources and takes advantage of economies of scale

-- you only need one accounting department or human resources department, rather than six

-- not only do you need fewer accountants, you don’t need highly skilled accountants to do all the work; the easier work can be delegated to less skilled accountants to whom you can pay a lower salary, leaving the highly skilled accountants to work on the most complicated problems.

-- the “brand” becomes more recognized and respected

-- easier to secure deals with railroads since you are shipping in bulk; easier to buy needed materials since you are purchasing in bulk (In Rockefeller’s case, he demanded railroads pay him the profits they made shipping other companies’ oil – thereby removing the incentive they might have to transport oil that wasn’t his.)

(Horizontal integration doesn’t work as well in low-tech/low-capital intensive industries such as salt and cord because it is easy to start up a new salt company or cord company and enter the market as a competitor since in these and similar industries, there is not much start-up capital needed. Capital intensive businesses – like oil refining are more likely to benefit from horizontal integration.)

Rockefeller as a case study in Consolidation:

Standard Oil takes over 24 firms in 1876

35 in 1877

Three years later – up to over 100