Spread of Industrialization

INDUSTRIALIZATION AND URBANIZATION IN EUROPE, C. 1850

- Industrialized area
- Industrial center
- Pop. over 500,000
- Pop. over 1,000,000
- Railroads
- Canals

Map showing the spread of industrialization and urbanization in Europe around 1850, with major cities and industrial centers highlighted.
Europe in the 1700s

• Like Britain, Continental Europe also experienced:
  – Population growth
  – Agricultural improvements
  – Foreign trade growth
  – Cottage industry growth
Why did the Continent fail to industrialize in the late 18\textsuperscript{th} century?

• Continental Europe lacked the key advantages that Britain possessed:
  – Lack of efficient transportation
  – Internal tariffs increased costs and prices
  – Existence of guilds hampered the growth of entrepreneurs
  – Continental entrepreneurs were more thrifty and took less risks than did their British counterparts
Why did the Continent fail to industrialize in the late 18\textsuperscript{th} century?

• Most importantly, though:
  – The French Revolution and Napoleonic Era brought political and economic instability to Europe!
    • Disrupted trade
    • High inflation rates
    • Social anxiety
Challenges to Overcome

• By 1815, Continental Europe had to overcome four main challenges:
  – Britain’s dominance of the market
  – Britain’s technological superiority
  – Lack of capital
  – Resistance to change
The Agents of Industrialization

- The Continent had 3 key agents of industrialization:
  - New technology did not need to be developed, but only “borrowed” from Britain
  - Strong governments capable of encouraging industrial growth
  - Creation of corporate banks that also encouraged industrial growth
1) “Smuggling” Industrialization to the Continent

• British law forbid the export of skilled laborers and technology
  – However, British workers moved to the continent to start their own businesses
    • William Cockerill
  – Some British workers were recruited to the continent by foreign entrepreneurs
    • Fritz Harkort
2) Crucial Government Support

- European governments actively encouraged industrialization
  - Set up protective tariffs to help infant industries survive in a market full of British goods
    - Friedrich List’s economic nationalism attacked the liberal policies of the British
    - German Zollverein promoted free trade within Germany but not outside of Germany
  - Improved the transportation system
    - Railroads!!!
3) Corporate Industrial Banks

• With gov’t support, banks began to be established as corporations:
  – Shareholders had limited liability (they wouldn’t lose all of their money)

• Due to LL, everyone began to invest in these banks
  – Growth in capital was then used to invest in industrial companies, especially those building railroads!
    • Example: Credit Mobilier
Variations in Continental Industrialization

- Centers of Industry:
  - France
  - Belgium
  - German States

- Europe’s textile technology was about a generation behind that of Britain
  - Hand looms still in use in 1849

- Europe’s IR mostly occurred in the heavy industry of iron!
  - Germany’s Ruhr valley contained a massive amount of coal, which serves to build up the strength of Prussia!