Spatial Distribution of Industry
Weber’s Theory of Industrial Location

• Industrialists choose location based on minimizing costs and maximizing profits

• Assumptions
  – Market is fixed
  – Transportation costs proportional to weight and distance
  – Perfect competition exists
Equilibrium Point
Losch Model of Profitability

• Businesses find a location where income exceeds costs
  – Figured using proximity to market, natural resources, costs of new development, etc...
Case Study: British Steel Industry
Agglomeration

• The clustering of industries
  – Based on availability of ancillary (service) industries
  – Build up of infrastructure
  – Mutual benefit of all industries

Top 10 foreign car manufacturing plants in the US

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>NUMBER OF EMPLOYEES</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Toyota</td>
<td>6,904</td>
<td>Georgetown, Ky.</td>
</tr>
<tr>
<td>2 Nissan</td>
<td>6,500</td>
<td>Smyrna, Tenn.</td>
</tr>
<tr>
<td>3 Honda</td>
<td>5,300</td>
<td>Marysville, Ohio</td>
</tr>
<tr>
<td>4 GM-Toyota</td>
<td>5,173</td>
<td>Fremont, Calif.</td>
</tr>
<tr>
<td>5 BMW</td>
<td>4,700</td>
<td>Spartanburg, S.C.</td>
</tr>
<tr>
<td>6 Toyota</td>
<td>4,645</td>
<td>Princeton, Ind.</td>
</tr>
<tr>
<td>7 Honda</td>
<td>4,500</td>
<td>Lincoln, Ala.</td>
</tr>
<tr>
<td>8 Mercedes</td>
<td>4,376</td>
<td>Vance, Ala.</td>
</tr>
<tr>
<td>9 Isuzu-GM</td>
<td>4,075</td>
<td>Moraine, Ohio</td>
</tr>
<tr>
<td>10 Nissan</td>
<td>4,000</td>
<td>Canton, Miss.</td>
</tr>
<tr>
<td>Kia</td>
<td>2,500</td>
<td>West Point, Ga.</td>
</tr>
</tbody>
</table>

*Opens in Nov. 2009

Compiled by Leigh Montgomery and Stephanie Frueh
Early Diffusion of Industrialization

- Eastward to Belgium, Northeast France, and Germany
  - Industrial development delayed due to Napoleonic Wars
- Continued diffusion to Northern Italy, Netherlands, Russia and Sweden by late 1800s
- Diffusion to USA by late 1800s
  - Quickly industrialized
    - 2nd largest industrial power by 1865
Diffusion of Industrial Development
Diffusion within Europe
Major Manufacturing Centers: Europe
Early Diffusion of Industry to the Rest of Europe

- Diffusion initially limited due to political instability
  - Unification particularly a problem
  - Lack of infrastructure
- Rhine-Ruhr Valley
  - Northwest Germany, Belgium, Netherlands, Northeastern France
  - Iron and Steel Manufacturing centers
- Po River Valley
  - Developed textile industry
Industrialization in Europe Today

• Mid Rhine became center of Industrialization after World War II
  – Alsace-Lorraine and Luxembourg became centers of steel
    • Proximity to Iron fields
• Most countries experiencing de-industrialization
Major Manufacturing Centers: North America

Figure 25.3 North America’s Major Manufacturing Regions. North American manufacturing has dispersed westward and southward, but the eastern core area remains dominant.
Industrialization in the United States

• Major Industrialization Era begins after Civil War
  – Tied to water early on
  – Transition to Industrial giant complete by 1880s
  – Canals then railroads used

• Access to Coal fields initial determinant for location
  – Later proximity to markets
Major Industrial Zones

• New England
  – Earliest industrialization
  – Especially around Boston

• Mohawk Valley
  – Specifically Erie Canal and Niagara

• Pittsburg-Lake Erie
  – 19th century center of steel manufacturing
  – Experiencing industrial decay

• Western Great Lakes
  – Rose to prominence due to transportation routes
Major Manufacturing Centers: Russia
Industrialization in Russia

- Primarily agricultural based economy until 20\textsuperscript{th} century
- Joseph Stalin introduced “Five Year Plan” in 1928
  - Forced industrialization
  - Used forced labor “Gulags” to industrialize
  - Moscow main center
    - Rest determined by resources and government planning
Major Manufacturing Centers: East Asia
Industrialization in East Asia

- Industrialization first introduced to Japan in 1860s
  - Major industrial centers destroyed in World War II
    - Quickly re-built
    - Specialization in electronics and automotive sector
  - South Korean industrial boom in 1960s

- Four Asian Tigers
  - Hong Kong, Singapore, Taiwan, South Korea
  - Maintained high industrialization since 1960s
New Industrial Zones

• China taken over as dominant industrial power
  – Begins in 1970s
  – Foreign interest begins in 1990s

• Mexico and Brazil
  – Specifically around Sao Paulo and Mexico City

• Central Europe
  – Poland, Czech Republic, Hungary