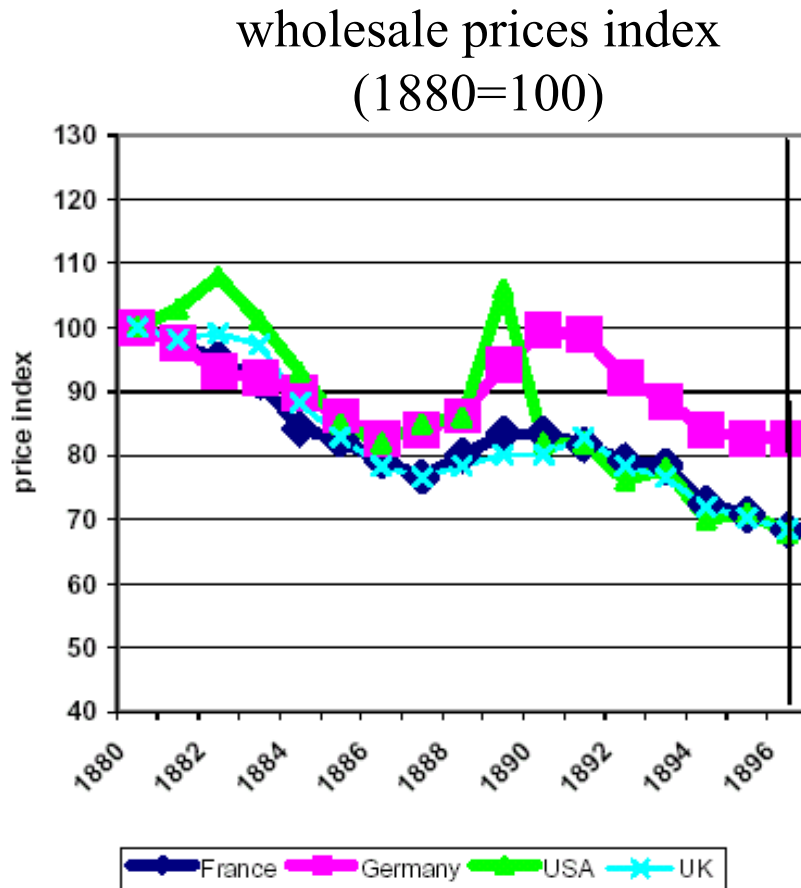


Lecture 8: Opposition to Globalization

Lecture Outline

1. Common international pressures, but varied national responses
 - Int'l conditions: great depression of 1873-96, deflation/fall in grain prices, European Grain Invasion.
 - Varied national responses (e.g. Free trade in England, protectionism for farming and manufacturing in Germany) were due differences in endowments, interests and institutions
2. Case study: Coalition of “Iron and Rye” in Germany

Figure 1: “Great Depression of 1873-1896” characterized by worldwide fall in prices



Causes included:

1. Increased demand for gold/decreasing supply as new countries joined the gold std (e.g. Germany in 1871, France in 1876, U.S. in 1878).
2. End of the industrial boom of the 1850-60s. The railway-building boom was over, and it was only in the late 1890s, with the development of new industries and techniques - electrical engineering, internal combustion engine, synthetic textiles – that the 'second industrial revolution' gave opportunities for fresh industrial expansion

Figure 2: Agricultural prices fell the most

ANGLO-AMERICAN COMMODITY PRICE CONVERGENCE				
Commodity	Markets	Price Gap by Year		
		1870	1895	1913
Wheat	Liverpool/Chicago	0.576	0.178	0.156
Meat	London/Cincinnati	0.925	0.923	0.179

In 1870, the price of wheat in Liverpool was 58% higher than in Chicago; by 1913, the price difference had fallen to about 16%. Meat prices in London fell even further.

Why? To repeat (for about the 10th time, now), the worldwide transportation revolution (combination of railroads, steam shipping, and refrigeration) allowed farm products from vast new grain (and cattle) growing lands in the U.S., Canada, Australia and South America to enter European markets, exposing farmers there to severe competition.

Before this “grain invasion”, Prussia and E. Europe had been the “bread basket” of Europe, and many other countries had substantial numbers of farmers producing grain. Low-cost grain imported grain made threatened grain farmers in Europe with extinction.

Another Int'l factor: technological revolution in farming

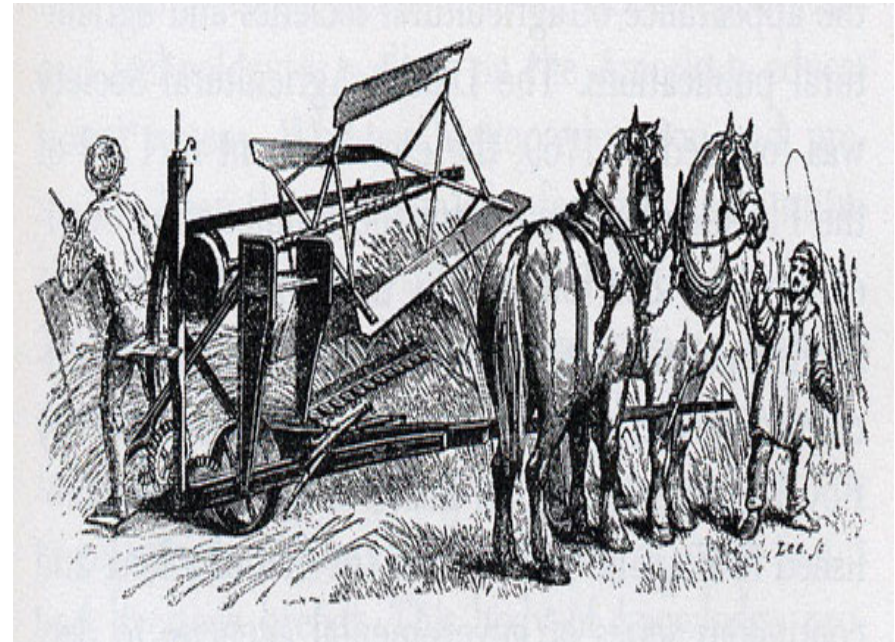
- Agricultural technology allowed for dramatic improvements in productivity.
 - Cyrus McCormick's Mechanical Reaper (Figure 3).
 - Development of chemical fertilizers, by German chemist Justus von Liebig, the father of modern agricultural chemistry, boost output.
- All this technology advantaged the U.S. and disadvantaged European agriculture, since US farmers had greater incentives to mechanize (Figure 4)

Figure 3: Cyrus McCormick's Mechanical Reaper

Cutting grain with scythes



McCormick's first reaper, 1831



Before the reaper, a farmer could harvest only 1/2 acre a day using a scythe. With the invention, a farmer and a helper could harvest 12 acres a day. Due to productivity improvements effected by the reaper, the acreage sown to wheat in the US doubled from 1866 to 1878.

Sales of the reaper were stimulated by the emergence of an international grain market as expanding railroad and steamship networks allowed the shipment of wheat over great distances.

Figure 4: Indices of European and American Agricultural Productivity

From 1810 to 1910

Annual net output per agricultural worker (male)
measured in million of calories

COUNTRY	1810	1840	1860	1880	1900	1910
Britain	14.0	17.5	20.0	23.5	22.5	23.5
France	7.0	11.5	14.5	14.0	15.5	17.0
Germany		7.5	10.5	14.5	22.0	25.0
Russia		7.0	7.5	7.0	9.0	11.0
U.S.A		21.5	22.5	29.0	31.0	42.0

Source: Paul Bairoch, 'Niveaux de développement économique de 1810 à 1910,' *Annales: Économies, sociétés, civilisations*, 20 (1965), 1096, Table 1.

America's edge in farm productivity was due to the fact that US agriculture was much more extensively mechanized than was European: in 1910, US agriculture was about 80% mechanized, while British was only 50% mechanized.

Why? Relative Endowments: The US was abundant in (flat, fertile) land but scarce in labor. Relatively cheap land and high wages on U.S. farms provided incentives to mechanize and increase the scale of operations.

Domestic Responses to Int'l Conditions

- England: Maintained free trade policies in both ag and industry; adjusted to the grain invasion by shifting away from grain into livestock and dairy farming. What survived of British agriculture was highly efficient.
- Germany, France, Sweden (most of continent): switched course and adopted protectionism for both agriculture and industry.
- U.S.: raised tariffs on manufactured goods but not on agricultural goods

Case Study: Explaining the German Response

- Background: The years following the 1860 Cobden-Chevalier trade treaty between Britain and France were characterized by comprehensive trade liberalization in Europe. Inclusion of most-favored-nation clauses in these trade treaties made the spread of free trade easier. Germany, or more correctly its economic predecessor, the Zollverein, was also liberalizing its trade.
- Then, in 1879, Germany changed its course and adopted the “iron and rye” tariff. From this point until the outbreak of WWI there was a gradual return to protectionism in continental Europe.
- The “iron and rye” tariff was the first in a series of European tariffs resulting from demands for protection from the effects of increasing integration in the international economy. It is an early example of a backlash against globalization.

Coalition of “Iron and Rye”

- Endowments (apply Heckscher-Ohlin):
 - Until the mid-1870s, Germany had been relatively abundant in land and relatively scarce in capital. Prussia was the farm belt of Europe and grain grown there was among the lowest cost in the world.
 - Falling transportation costs allowed the massive entrance of land-abundant countries (such as the US) into the international grain market, making Germany relatively scarce in both land and capital.
 - No longer land-abundant relative to the US (etc), Prussia lost its comparative advantage in grain and the Junkers (pronounced ‘yunkers’: the large agricultural estate owners of East Elbia) could no longer produce grain at competitive prices.
 - Capital was also scarce (relative to Britain’s endowment), so German heavy industry was also uncompetitive

Coalition of “Iron and Rye” (cont.)

- Interests (apply Stolper-Samuelson):
 - The Junkers, as landowners, naturally desired protection to save themselves from extinction. Agriculture in Germany faced a massive adjustment problem (shift out of grain to other activities (like animal husbandry) that only high tariffs could forestall.
 - German capitalists still desired protection from British competition (and this was intensified due to the economic depression, which meant lower demand)
 - German Chancellor Otto von Bismarck (a Prussian aristocrat) thus brokered a marriage of capital and land - the infamous “iron and rye” coalition - that got the German government to institute high protective tariffs

Coalition of “Iron and Rye” (cont.)

- Institutions

- Germany was nominally a parliamentary democracy but power rested within the Bundesrat, which the Prussian state controlled by virtue of its large number of votes.
 - The dominant position of Prussia in German politics gave the Junkers a central role in policy decisions.
 - In brief, landowners appear to have been overrepresented in late 19th century Germany.
- By contrast, England, which did not raise tariffs, had a political system that balanced rural with urban representation, thanks partly to the 1832 Reform Act.
 - When Britain repealed the protectionist Corn Laws in 1846, industrial and mercantile districts had gained seats in Parliament, a number of agricultural districts had lost seats, and many industrialists and merchants had acquired the right to vote.