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Economics 303Y1

The Economic History of Modern Europe to 1914

Topics No. 13: Barriers to Industrialization and the Role of the State in the National Economy: The Case of Germany, 1815 - 1914

Within each section, readings are listed in chronological order of original publication (except for some collections of readings).

READINGS:

** and * indicate readings of primary importance.

I. GENERAL READINGS: for the European Continent

1. Werner Conze, 'The Effects of Nineteenth-Century Liberal Agrarian Reforms on Social Structure in Central Europe', translated from Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte, 38 (1949), and republished in François Crouzet, W.H. Chaloner, and W.M. Stern, eds., Essays in European Economic History, 1789 - 1914 (London: Edward Arnold, 1969), pp. 53 - 81.
- * 2. Hugh G.J. Aitken, ed., The State and Economic Growth (New York, 1959). See in particular: William Parker, 'National States and National Development: A Comparison of Elements in French and German Development in the Late Nineteenth Century.'
3. W. W. Rostow, The Stages of European Growth: A Non-Communist Manifesto (1960), chapters 2, 3, and 4.
- ** 4. Alexander Gerschenkron, Economic Backwardness in Historical Experience: A Book of Essays (New York, 1962; reissued in paperback in 1965): in particular
 - (a) 'Economic Backwardness in Historical Experience', pp. 5-30. [From Bert Hoselitz, ed., The Progress of Underdeveloped Countries (1952).]
 - (b) 'Reflections on the Concept of 'Prerequisites' of Modern Industrialization', pp. 31-51. [From L'industria (Milan, 1952), no. 2]
 - (c) 'Social Attitudes, Entrepreneurship, and Economic Development', pp. 52-71. [From Leon H. Dupriez, ed., Economic Progress: Papers and Proceedings

of a Round Table Held by the International Economic Association (Leuven, 1955).]

5. W. W. Rostow, ed., The Economics of the Take-Off into Sustained Growth (1963). Essays by various authors for the principal European economies.
- * 6. Barry E. Supple, ed., The Experience of Economic Growth: Case Studies in Economic History (New York, 1963):
 - (a) Part I: 'Introduction', by B.E. Supple, pp. 1-46.
 - (b) W.W. Rostow, 'The Take-Off into Self-Sustained Growth', pp. 81-110. [Reprinted from his The Stages of Economic Growth (Cambridge, 1960), pp. 17-58, with some omissions.]
 - (c) H.J. Habakkuk, 'The Historical Experience on the Basic Conditions of Economic Progress', pp. 111-27. [Reprinted from Leon Dupriez, ed., Economic Progress: Papers and Proceedings of a Round Table Held by the International Economic Association (Louvain, 1955), pp. 149-69, with some omissions.]
7. Maurice Lévy-Leboyer, Les banques européennes et l'industrialisation internationale dans la première moitié du XIXe siècle (Paris, 1964).
8. Paul Bairoch, 'Niveaux de développement économique de 1810 à 1910', Annales: Économies, sociétés, civilisations, 20 (1965), 1096, Table 1.
- * 9. H.J. Habakkuk and M. M. Postan, eds., The Cambridge Economic History, Vol. VI: The Industrial Revolutions and After, Parts I and II: Technological Change and Development in Western Europe (Cambridge, 1965), in particular the following:
 - (a) W.A. Cole and P. Deane, 'The Growth of National Incomes: The Late-Comers to Industrialization in Europe', in Part I (chapter 1), pp. 10-28.
 - (b) David Landes, 'Technological Change and Industrial Development in Western Europe, 1750-1914' in Part I (chapter 5), pp. 274 - 601, especially pp. 353-420. [Republished in an a revised, expanded version below in Landes (1969).]
 - (c) Folke Doving, 'The Transformation of European Agriculture', in Part II (chapter 6), pp. 604-72.
- * 10. David Landes, The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present (Cambridge University Press, 1969), pp. 1-40 (introduction), and chapter 3: 'Continental Emulation', pp. 124-92.

Apart from the Introduction, a revised edition of chapter 5, 'Technological Change

and Industrial Development in Western Europe', in H.J. Habakkuk and M. M. Postan, eds., The Cambridge Economic History, Vol. VI: The Industrial Revolutions and After, Parts I and II: Technological Change and Development in Western Europe (Cambridge, 1965).

- * 11. Tom Kemp, Industrialization in Nineteenth-Century Europe (London, 1969), chapter 1: 'British and European Industrialization', pp. 1-33; chapter 4, 'The Rise of Industrial Germany', pp. 81-118.
- * 12. Steven L. Barsby, 'Economic Backwardness and the Characteristics of Development', Journal of Economic History, 29 (1969), 449-72.
- 13. E.J.T. Collins, 'Labour Supply and Demand in European Agriculture, 1800 - 1880', in E.L. Jones and S.J. Woolf, eds., Agrarian Change and Economic Development (1969).
- 14. Jean Bouvier, 'Systèmes bancaires et entreprises industrielles dans la croissance européenne au XIXe siècle', Annales: Économies, sociétés, civilisations, 27 (Jan-Feb 1972).
- 15. François Crouzet, 'Western Europe and Great Britain: Catching Up in the First Half of the 19th Century', in A.J. Youngson, ed., Economic Development in the Long Run (London, 1972).
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- 17. Sima Lieberman, ed., Europe and the Industrial Revolution (Cambridge, Mass., 1972):
 - (a) Alexander Gerschenkron, 'Reflections on the Concept of `Prerequisites' of Modern Industrialization', pp. 9-29. [Reprinted from L'industria (Milan, 1957).]
 - (b) A.K. Cairncross, 'The Stages of Economic Growth', pp. 29-41. [Reprinted from Economic History Review, 2nd ser., 13 (April 1961).]
 - (c) H.J. Habakkuk, 'Population Problems and European Economic Development in the Late 18th and 19th Centuries', pp. 277-90. [Reprinted from American Economic Review, 53 (1963).]
- * 18. Sidney Pollard, 'Industrialization and the European Economy', Economic History Review, 2nd ser. 26 (1973), 636-48.
- 19. David F. Good, 'Backwardness and the Role of Banking in 19th-Century European Industrialization', Journal of Economic History, 33 (1973), 845-50.
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 - (a) 'The European Economy in the Late Eighteenth Century', pp. 25-117.

- (b) 'Population Growth and Migration', pp. 118-170.
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 - b) Charles Feinstein, 'Capital Formation in Great Britain', pp. 28-96.
 - c) Sidney Pollard, 'Labour in Great Britain', pp. 97-179.
 - d) Peter Payne, 'Industrial Entrepreneurship and Management in Great Britain', pp. 180 - 231.
 - e) Maurice Lévy-Leboyer, 'Capital Investment and Economic Growth in France, 1820 - 1930', pp. 231 - 295.
 - f) Yves Lequin, 'Labour in the French Economy Since the Revolution', pp. 296 - 346 (to p. 318, up to 1914).
 - g) Claude Fohlen, 'Entrepreneurship and Management in France in the Nineteenth Century', pp. 347 - 381.
 - h) R. H. Tilly, 'Capital Formation in Germany in the Nineteenth Century', pp. 382 - 441.
 - i) J. J. Lee, 'Labour in German Industrialization', pp. 442 - 491.
 - j) Jürgen Kocka, 'Entrepreneurs and Managers in German Industrialization', pp. 492 - 589.
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 - (b) A. G. Ford, 'International Financial Policy and the Gold Standard, 1870 - 1914', pp. 197 - 249.
 - (c) D. E. Schremmer, 'Taxation and Public Finance: Britain, France, and Germany', pp. 315 - 494.
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 - (e) T. Kemp, 'Economic and Social Policy in France', pp. 691 - 751.
 - (f) Volker Hentschel, 'German Economic and Social Policy, 1815 - 1939', pp. 752 - 813.
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Table 1 **GERMAN AGRICULTURE IN THE 19th CENTURY****Distribution of Farm Lands****GERMANY: 1907 (In terms of post 1919-frontiers)**

Category	Percentages of the Total Arable Area per Category of Farms by Area		
	East Elbia*	Rest of Germany	All Germany
Under 5 hectares	8.7%	21.0%	16.2%
5 - 20 hectares	21.3%	41.0%	33.4%
20 - 100 hectares	29.5%	29.9%	29.8%
Over 100 hectares (250 acres)	40.5%	8.1%	20.6%
Over 20 hectares	70.0%	38.0%	50.4%

*East Elbia: Posen and West Prussia, East Prussia, Pomerania, Brandenburg-Berlin, Silesia, Mecklenburg.

Table 2. Output of Principal Grain Crops of Selected European Countries, in millions of quintals, in decennial averages, 1871-90 to 1905-14

Decade	Great Britain	France	Germany	Russia
1781-90	35.0	85.3		
1800-13	43.0	94.5		268.6
1815-24	49.5	104.0		n.a.
1825-34	n.a.	116.3		n.a.
1835-44	n.a.	131.4		310.1
1845-54	64.0	146.6	122.6	363.3
1855-64	68.0	158.5	153.7	381.2
1865-74	70.0	160.1	204.8	410.1
1875-84	n.a.	161.8	248.4	451.0
1885-94	56.9	160.1	304.6	515.4
1895-1904	52.5	172.1	391.0	479.3
1905-14	51.7	171.9	457.9	543.1

1 quintal = 100 kilograms = 0.10 metric ton = 220.46 lb.

Source: Carlo Cipolla, ed., *Fontana Economic History of Europe*, 4 vols. (London, 1973), Vol. IV:2, pp. 752-53.

Table 3. CROP YIELDS IN FRANCE, BRITAIN, AND GERMANY, 1906-10**Kilograms of Output per Hectare of Land: Five-Year Means****(1 hectare = 2.47 acres)**

Crop	France	Britain	Germany
Wheat	135	221	201
Rye	106	182	170
Barley	130	196	196
Oats	126	189	197
Potatoes	86	138	136

Source: J.A. Perkins, 'The Agricultural Revolution in Germany, 1850-1914', *Journal of European Economic History*, 10 (Spring 1981), p. 115.

Table 4. WHEAT-TONS PER LABOUR-UNIT IN AGRICULTURE IN SELECTED COUNTRIES: FRANCE, BRITAIN, GERMANY, AND U.S. IN 1880 AND 1930

Country	1880	1930
France	7.4	13.2
Great Britain	16.2	20.1
Germany	7.9	16.0
United States	13.0	22.5

**Table 5. 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.

Table 6. THE POPULATIONS OF SELECTED EUROPEAN COUNTRIES IN MILLIONS, IN DECENNIAL INTERVALS, 1800-1910

Year	Great Britain	Belgium	France	Germany	Russia
1800	10.7	3.1	27.3	n.a.	35.5
1810	12.0	n.a.	n.a.	n.a.	n.a.
1820	14.1	n.a.	30.5	25.0	48.6
1830	16.3	4.1	32.6	28.2	56.1
1840	18.5	4.1	34.2	31.4	62.4
1850	20.8	4.3	35.8	34.0	68.5
1860	23.2	4.5	37.4	36.2	74.1
1870	26.0	4.8	36.1 ^a	40.8 ^b	84.5
1880	29.7	5.3	37.7	45.2	97.7
1890	33.0	6.1	38.3	49.4	117.8
1900	37.0	6.6	39.0	56.4	132.9
1910	40.9	7.4	39.6	64.9	160.7

^a Excluding Alsace-Lorraine.

^b Including Alsace-Lorraine.

Sources: B.R. Mitchell and P. Deane, *Abstract of British Historical Statistics* (Cambridge, 1962), pp. 8-10.

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Table 7. Decennial Averages of the Output of Pig Iron and of Steel in France, Germany, Russia, and the United Kingdom, in millions of metric tons,

1830-9 to 1910-3 (iron) and 1870-9 to 1910-3 (steel)

Average of 1880-9 = 100. 1 metric ton = 1000 kg. = 2,204.6 lb.

Decade	France	Index	Germany	Index	Russia	Index	United Kingdom	Index
IRON								
1830-9	0.286	16	0.129	4	0.172	31	0.921	11
1840-9	0.442	25	0.172	5	0.192	35	1.625	20
1850-9	0.731	25	0.334	5	0.243	44	3.150	39
1860-9	1.164	66	0.813	25	0.304	56	4.602	57
1870-9	1.337	75	1.678	52	0.400	73	6.648	81
1880-9	1.772	100	3.217	100	0.547	100	8.040	100
1890-9	2.192	124	5.155	160	1.539	281	8.090	101
1900-9	3.028	171	9.296	289	2.786	509	9.317	116
1910-13	4.664	263	14.836	461	3.870	707	9.792	122
STEEL								
1870-9	0.260*	52			0.080*	33	0.695	30
1880-9	0.500	100	1.320	100	0.240	100	2.340	100
1890-9	1.015	203	3.985	302	0.930	388	3.760	161
1900-9	2.175	435	9.505	720	2.490	1038	5.565	238
1910-13	4.090	818	16.240	1230	4.200	1750	6.930	296

*1875-9 only.

Table 8. AGGREGATE AND PER CAPITA INDICES OF INDUSTRIAL PRODUCTION (UNITED KINGDOM IN 1900 = 100), AND PERCENTAGE SHARES OF WORLD INDUSTRIAL PRODUCTION, FOR VARIOUS COUNTRIES: IN 1860 AND 1913

Country	Total Industrial Output		Per Capita World Industrial Output		Percentage Shares of Production	
	1860 Index	1913 Index	1860 Index	1913 Index	1860 %	1913 %
United Kingdom*	45	127	64	115	20%	14%
Germany	11	138	15	85	5%	15%
France	18	57	20	59	8%	6%
Russia	16	77	8	20	7%	8%
ALL EUROPE	120	528	17	45	53%	57%
United States	16	298	21	126	7%	32%
Canada	1	9	7	46	--	1%

Source: Paul Bairoch, 'International Industrialization Levels from 1760 to 1980', *Journal of European Economic History*, 11 (Fall 1982), 269-333, tables 4 - 13.

* The United Kingdom of Great Britain and Ireland: the values for its aggregate and per capita industrial outputs for 1900 are taken as the base 100 for all the indices in columns 1 to 4. Note that columns 5 and 6 are percentages of total world industrial output.

Table 9. INDICES OF INDUSTRIAL OUTPUT*: IN THE UNITED KINGDOM, FRANCE, GERMANY, AND THE UNITED STATES IN QUINQUENNIAL MEANS, 1860-4 TO 1910-13

Mean of 1870-4 = 100

Period	United Kingdom	France	Germany	United States
1860-64	72.6			
1865-69	82.8	95.8	72.6	75.5
1870-74	100.0	100.0	100.0	100.0
1875-79	105.5	109.5	120.8	111.4
1880-84	123.4	126.6	160.6	170.4
1885-89	129.5	130.3	194.9	214.9
1890-94	144.2	151.5	240.6	266.4
1895-99	167.4	167.8	306.4	314.2
1900-04	181.1	176.1	354.3	445.7
1905-09	201.1	206.2	437.4	570.0
1910-13	219.5	250.2	539.5	674.9

* Excluding construction, but including building materials.

Source: W. Arthur Lewis, *Growth and Fluctuations, 1870 - 1913* (London, 1978), pp. 248-50, 269,