

The Industrial Revolution

Context

	1840	1860	1880	1896
Great Britain	620	2,450	7,600	13,700
All Europe	860	5,540	22,000	40,300
U.S.A.	760	3,470	9,110	18,060
Rest of world	30	90	1,300	7,740
World total	1,650	9,380	34,150	66,100

Year	Index number
1850	10
1870	24
1891-95	48
1901-05	67
1911-12	96
1913	100

	Europe and U.S.A	Non-industrial Countries	Other Countries
1820	60	32	8
1840	30	67	4
1860	19	73	8
1880	10	82	8
1900	7	86	7


	1830	1850	1913
Britain	700	2,716	9,792
France	244	1,262	4,664
Russia	167	231	3,870
Germany	111	245	14,836

	1820	1900
Britain	40	50
Average all Western Europe	36	46
United States	39	47
Japan	34	44
Russia	28	32
Average all Latin America	(27)	(35)
Average all Asia	(23)	(24)
Average all Africa	(23)	(24)
World	26	31

Causation


Availability of Natural Resources

- ▶ British Coal Production
 - ▶ 1750 – 2.5 million tons
 - ▶ 1828 – 15 million tons



Coal Technology

- Originally
 - muscle power
- Later
 - animal power/carts
 - gunpowder



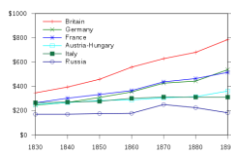
Coal Mining in Britain: 1800-1914


1800	1 ton of coal	50,000 miners
1850	30 tons	200,000 miners
1880	300 million tons	500,000 miners
1914	250 million tons	1,200,000 miners

Demographic Changes

	1700	1750	1800	1850
Belgium	1.75	2.25	3.25	4.50
Britain	5.75	6.00	9.25	18.00
France	22.00	24.00	29.00	36.00
Germany	13.00	15.00	18.00	27.00
Italy	13.00	15.00	19.00	25.00

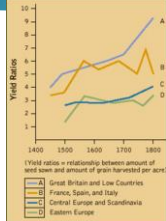
Urbanization

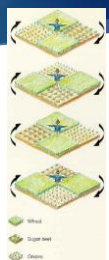




Agricultural Productivity Increase

- New techniques and practices
 - enclosure movement
 - crop rotation
 - use of horses
- New technologies
 - treating farming as science
 - seed drill
 - metal farm implements






Enclosure Movement

- Purpose – protection of private property
- fencing (enclosing) land under one owner
 - ended communal farming, grazing



Rivers and Canals

- canals



Accumulation of Capital

