A Brief History of Business and Consumption

Lecture 1

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Economic history

In one picture

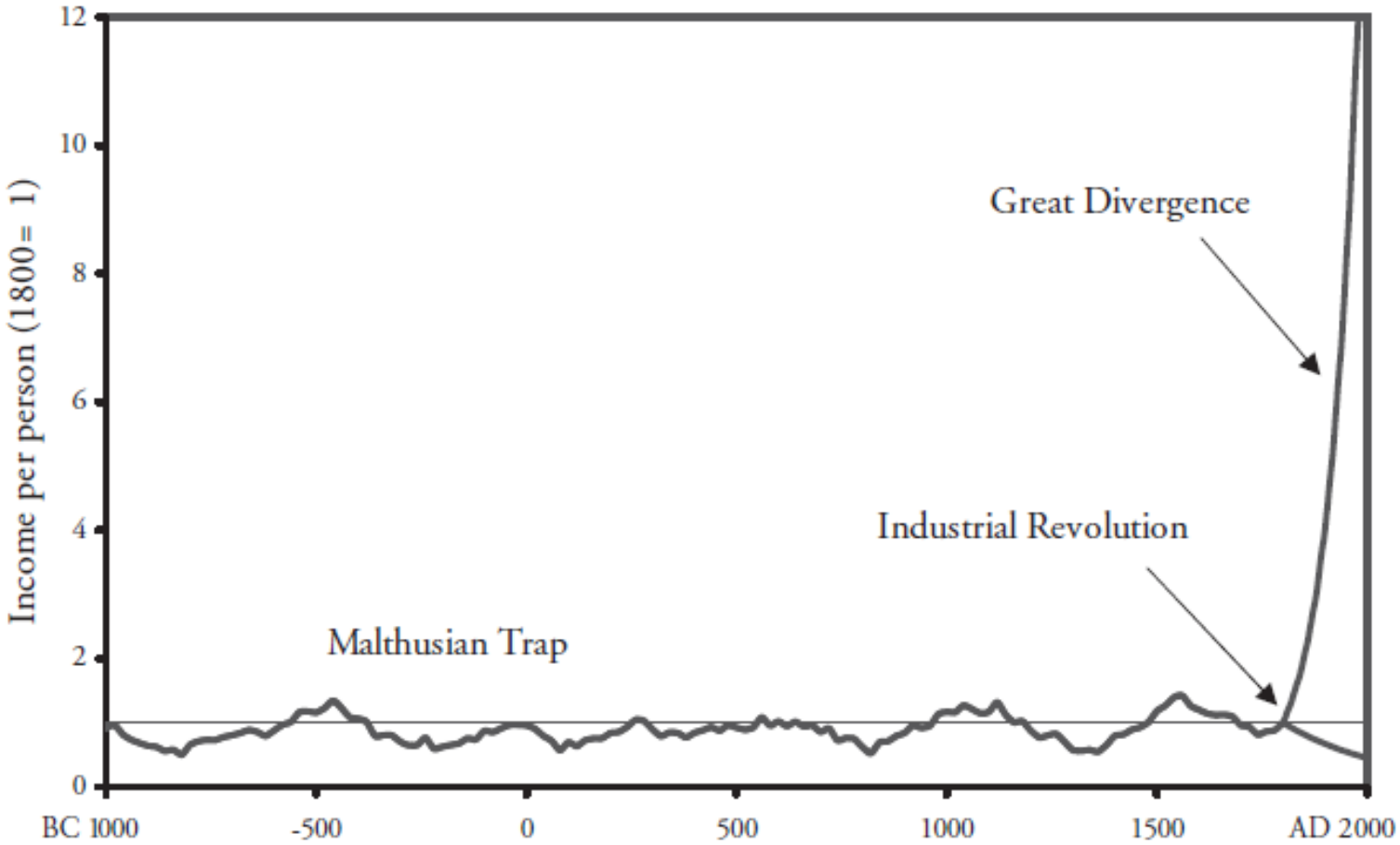

Figure 1.1 World economic history in one picture. Incomes rose sharply in many countries after 1800 but declined in others.

What does the graph tell us?

...and other facts

A few trends:

1. The average person in the world of 1800A.D. was no better off than the ancient person: the Malthusian trap
2. The quality of life also failed to improve
   - life expectancy was no higher in 1800 than for hunter-gatherers: thirty to thirty-five years
   - higher stature in the Stone Age than in 1800

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   - life expectancy was no higher in 1800 than for hunter-gatherers: thirty to thirty-five years
   - higher stature in the Stone Age than in 1800 –> the quality of diet and of children's exposure to disease
   - hunter-gatherer societies are egalitarian: material consumption varies little across the members. <–> Inequality was strong in the agrarian economies of the 1700-1800s.

What does the graph tell us?

The Industrial Revolution changed everything

Core features of the change during the Industrial Revolution:

1. Rapid economic growth fueled by increasing production efficiency –>
2. –> An increase in opportunities for consumption
3. A demographic transition: a decline in fertility which started with the upper classes and gradually encompassed all of society
4. Some countries remained poor while others prospered –> world inequality emerged and persisted: 50 to 1 income difference (the great divergence)

Main questions of the discipline, then, are:

1. Why did the Malthusian Trap persist for so long?
2. Why the technological advance occurred in England? Why exactly around 1800?
3. Why the great divergence?

Approaches to answering these questions

Three broad classes of explanations (models)

The models are:

1. Exogenous growth theories: the Industrial Revolution is rooted in events outside the economic system, such as changes in political and economic institutions, in particular the introduction of modern democracies.
2. Multiple equilibria theories: pre-industrial society was caught in a stable, but stagnant, economic equilibrium. Some shock moved society to a new, dynamic equilibrium.
3. Endogenous growth theories: the Industrial Revolution was the product of a gradual evolution of social conditions *within* the system during the Malthusian era.

Exogenous growth explanations

A close-up

- Douglass North and Barry Weingast: the arrival of the constitutional monarchy in England in 1689 was a key political innovation
- North (1994): Institutions form the incentive structure (the rules of the game) –> underpin economic performance

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Discussion: an economy with no rights to earn profits

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Advantages of exogenous theories:

- they can change suddenly –> can potentially explain sudden changes in productivity growth. Examples: Middle East 2011, Eastern Europe 1989-1991, splitting of Korea in the 1940s, splitting of Europe after the WWII
- go to the basics of human action: incentives to bring change

Disadvantage:

- institutions are not exogenous: they are related to how the economy is doing
- institutions change only gradually

Multiple equilibria theories

A close-up

The question: if an economy is stuck, how to make it move?

- D. Acemoglu: The political economy of institutions view: Bad institutions can persist to the benefit of the few: e.g. the ruling elite
- G. Becker, R.E. Lucas: The human capital view. Richer parents prefer fewer kids –> more attention to each child –> human capital ↑

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Discussion: why does human capital make a difference?

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Discussion: why does human capital make a difference?
Advantages of multiple equilibria theories:

- intuitive
- explains a switch to a good, dynamic equilibrium

Disadvantage:

- does not fit the facts: fertility constant long after the start of the IR; income per capita was rising long before fertility was reduced

Fertility rates

The facts

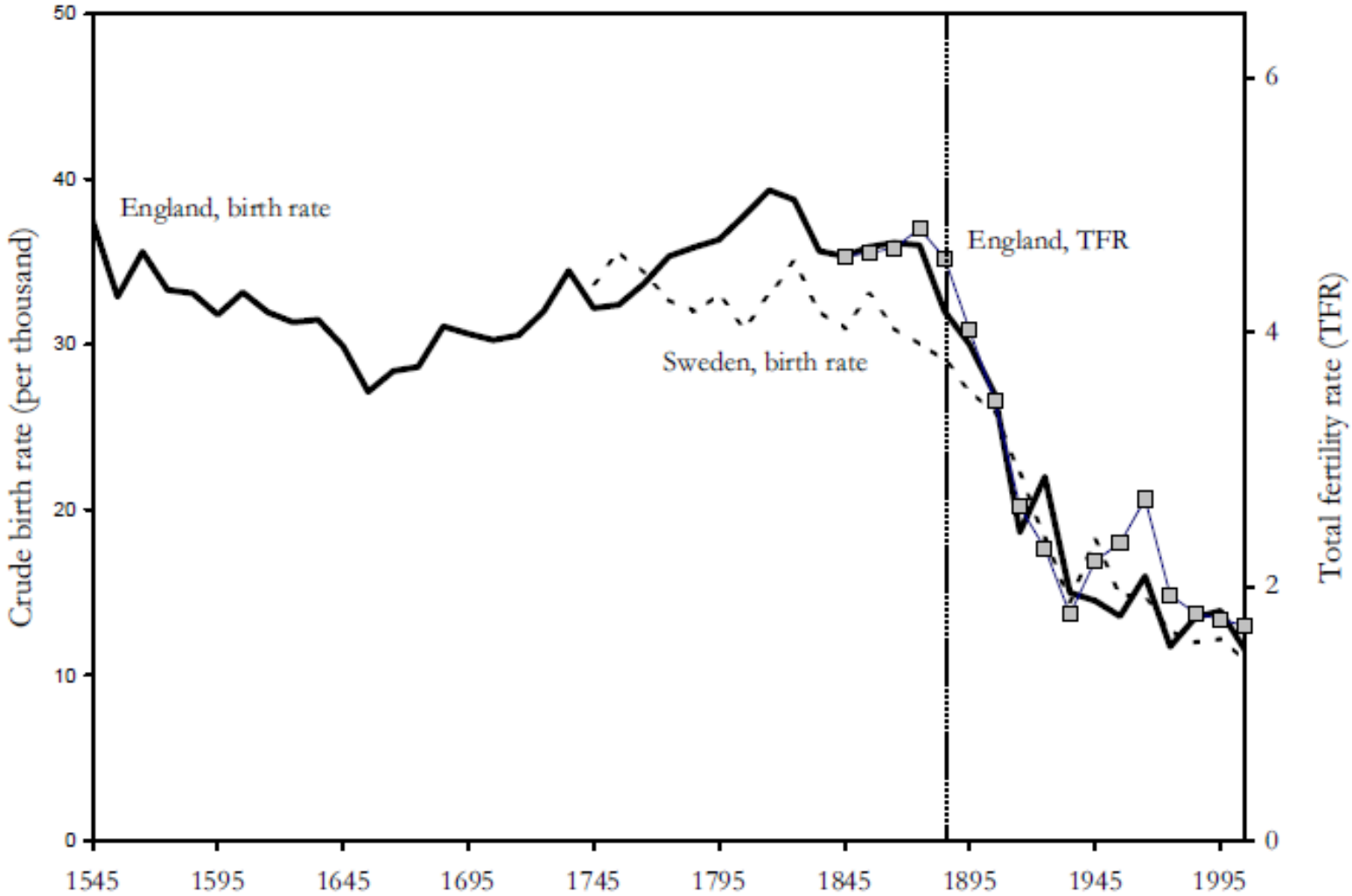

Figure 11.6 The demographic transition in Europe.

Endogenous growth theories

A close-up

The question: not just why the IR took place but why it happened when it finally did?

- internal evolution of the economic system to a new dynamic equilibrium
- the scale: population size and density matters

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Discussion: why does population density matter for exchange of ideas?

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Discussion: why does population density matter for exchange of ideas?
Advantages of endogenous growth theories:

- intuitive
- explain the gradual change to a dynamic equilibrium

Disadvantage:

- do not explain the occasional switches

Why England?

Why not China or Japan?

China, Japan have similar endowments of capital and land per capita in late 18th cent.
Differences in England:

- population growth lower in England
- literacy rates higher in England
- there was no new land to expand agriculture in England <–> in China, cultivated area grew from 62 mln acres (1393) to 158 mln (1770)
- Pomeranz (2000): coal and colonies for England

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Discussion: How do new sources of energy and raw materials from outside the system affect productive efficiency?

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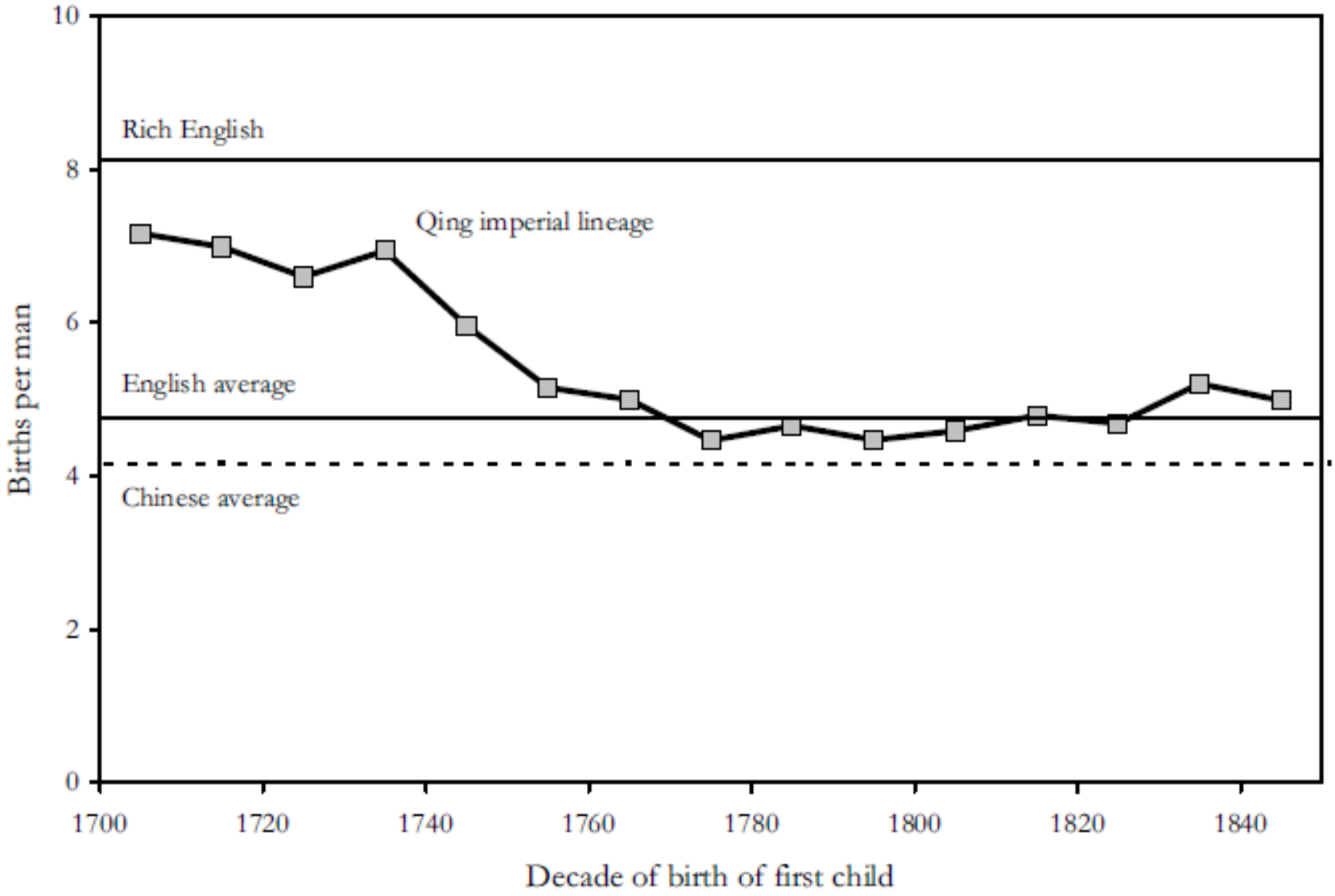
The role of culture:

- the rich: their population growth in England much higher than in China and Japan –> downward mobility of nobility
- the poor: this population gradually declined in England, continued spreading in China and Japan

Fertility of rich vs. poor in England and China



Meanwhile in the US...

How did the IR pan out in the US?

The rise of industry:

- decline in household production
- first cotton factory (1793) + Embargo Act on cotton (1807) –> scarcity of English textiles: so what?

Meanwhile in the US...

How did the IR pan out in the US?

The rise of industry:

- decline in household production
- first cotton factory (1793) + Embargo Act on cotton (1807) –> scarcity of English textiles: so what?
- organizing production under one roof: cotton first, wool second, many other industries followed
- scaling up businesses by raising capital –> corporations + Connecticut General Incorporation Act (1837): incorporation is a right of anyone: so what?

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–> A result: From 1810 to 1860, the manufacturing product increased from $200mln to $2bln (tenfold). The US was now second only to Britain.

The IR in the US

Why so fast?

How did manufacturing rise so fast in the US?

1. Machines and technology: talent and technology transfer from Britain. Once in the US, two innovations occurred:
   - standard parts for the machines rather than custom-made products: so what?

The IR in the US

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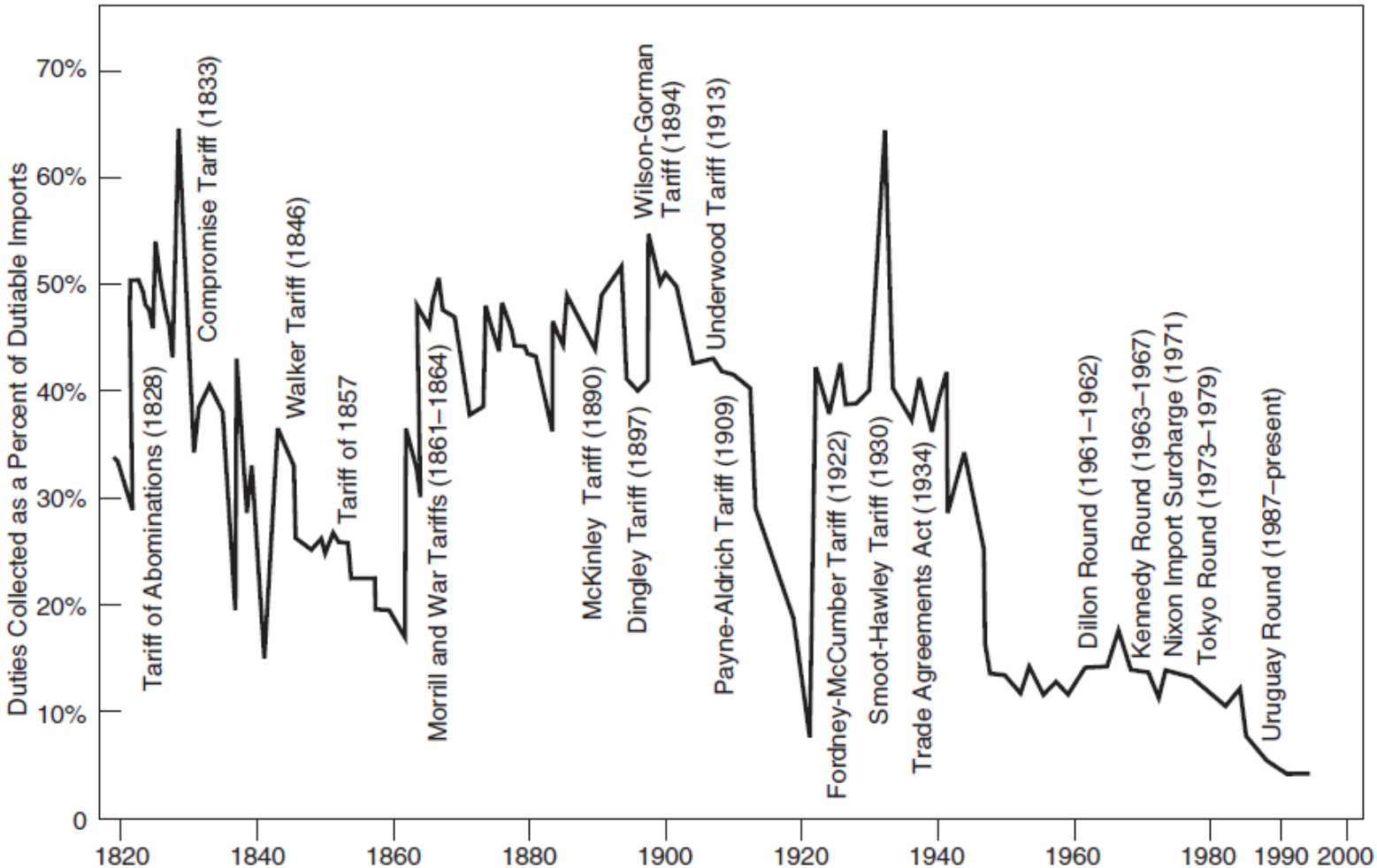
2. power and energy: from the water powering wheel to the steam engine to coal-powered plants to electricity: so what?
3. protectionist laws: The Tariff Act (1816): ad valorem duties of 20-25% on manufactured goods, 15-20% on raw materials.

Protection of manufacturing

Ad-valorem tariffs in the US



Source: *U.S. Department of Commerce.*

The rest is history...

The rise of labor: 3.4 times higher labor force b/w 1860-1910

TABLE 17.1 LABOR FORCE EXPANSION, 1860–1910: SELECT 1910 MULTIPLES OF 1860

Agriculture	2.0
Cotton textiles	3.0
Construction	3.7
Teaching	5.2
Total manufacturing	5.4
Trade	6.0
Mining	6.7
Primary iron and steel	7.1
Railroads	23.2
Total labor force	3.4

Source: *Derived from Stanley Lebergott, Manpower in Economic Growth: The American Record Since 1800 (New York: McGraw-Hill, 1964), 510.*

The rest is history...

The rise of manufacturing: >10-fold increase b/w 1860-1910

TABLE 17.3 THE 10 LARGEST INDUSTRIES, 1860 AND 1910 (BY VALUE ADDED)

1860 VALUE ADDED (IN MILLIONS OF DOLLARS)		1910 VALUE ADDED (IN MILLIONS OF DOLLARS)	
Cotton goods	$ 55	Machinery	$ 690
Lumber	54	Lumber	650
Boots and shoes	49	Printing and publishing	540
Flour and meal	40	Iron and steel	330
Men's clothing	37	Malt liquors	280
Iron	36	Men's clothing	270
Machinery	33	Cotton goods	260
Woolen goods	25	Tobacco manufactures	240
Carriages and wagons	24	Railroad cars	210
Leather	23	Boots and shoes	180
All manufacturing	815	All manufacturing	8,529

Source: *U.S. Bureau of the Census 1861, 733–742; 1913, 40.*

1913: the US has > 1/3 of the world's ind. production. Notice the structural changes: added/dropped industries?

US trends later spreading elsewhere

Urbanization

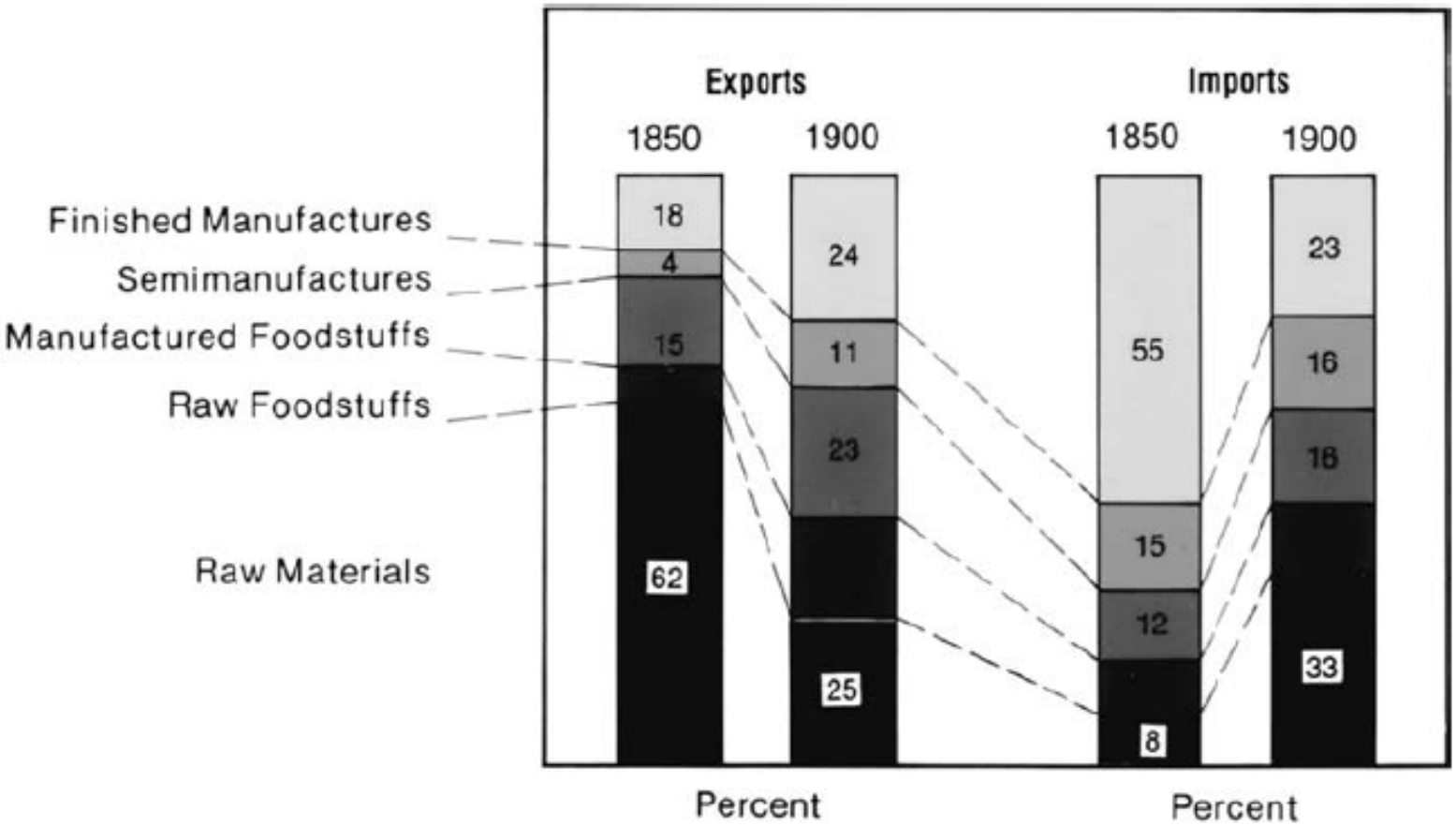
TABLE 20.1 URBAN PERCENTAGES OF THE POPULATION, 1800–1910

YEAR	POPULATION IN TOWNS OVER 2,500	POPULATION IN TOWNS OVER 100,000
1800	6%	0%
1840	11	3
1860	20	8
1880	28	12
1900	40	19
1910	46	22

Source: Historical Statistics, *1975, Series A2 and A57-72.*

US trends later spreading elsewhere

Trade



Source: Historical Statistics of the United States, Earliest Times to the Present, *2006, Table Ee446-457.*

US trends

Other trends

1. Mass marketing: product differentiation and advertising
2. Retailing: department stores still seen today
3. Consumer protection: The Pure Food and Drug Act; Meat Inspection Act: both passed in 1906: quality standards
4. Federal income taxation (1913)
5. Growing military power and ambitions for colonies

The Roaring Twenties

Main trends

1. Social prosperity, consumer well-being
   - continued urbanization
   - universal voting rights
   - emergence of the middle class: a house and a car
   - widespread consumer credit
2. Labor market
   - end of free immigration
   - decline of labor unions
   - rise in high-school attendance
3. The rise of macroeconomic policies
4. Real estate, stock mkt booms and busts

TABLE 22.1 PERCENTAGE OF AMERICAN FAMILIES OWNING VARIOUS APPLIANCES, 1920 AND 1930

	1920	1930
Inside flush toilets	20%	51%
Central heating	1	42
Home lighting with electricity	35	68
Mechanical refrigerators	—[a]	8
Washing machines	8	24
Vacuum cleaners	9	30
Radios	—[a]	40
Automobiles	26	60

[a]Less than 1 percent.

Source: *Lebergott 1976*, 248–299.

High-school graduation rates

The facts

TABLE 22.4 HIGH SCHOOL GRADUATION RATES

	HIGH SCHOOL GRADUATES (as a percentage of children age 17)	
	48 STATES	32 NONSOUTHERN STATES
1910	8.6%	11.1%
1920	16.2	19.9
1928	27.0	32.1
1938	48.2	55.9

Source: *Derived from Goldin 1994a, Table 1.*

TABLE 22.7 THE STOCK MARKET, 1922–1929

YEAR	STANDARD & POOR'S COMMON STOCK INDEX (ALL STOCKS)
1922	100
1923	102
1924	108
1925	133
1926	150
1927	182
1928	237
1929	309

Source: Historical Statistics *1975, Series X479 and X495.*

Manufacturing, Productivity and Labor after WWII

The facts: Employment and Output in Manufacturing

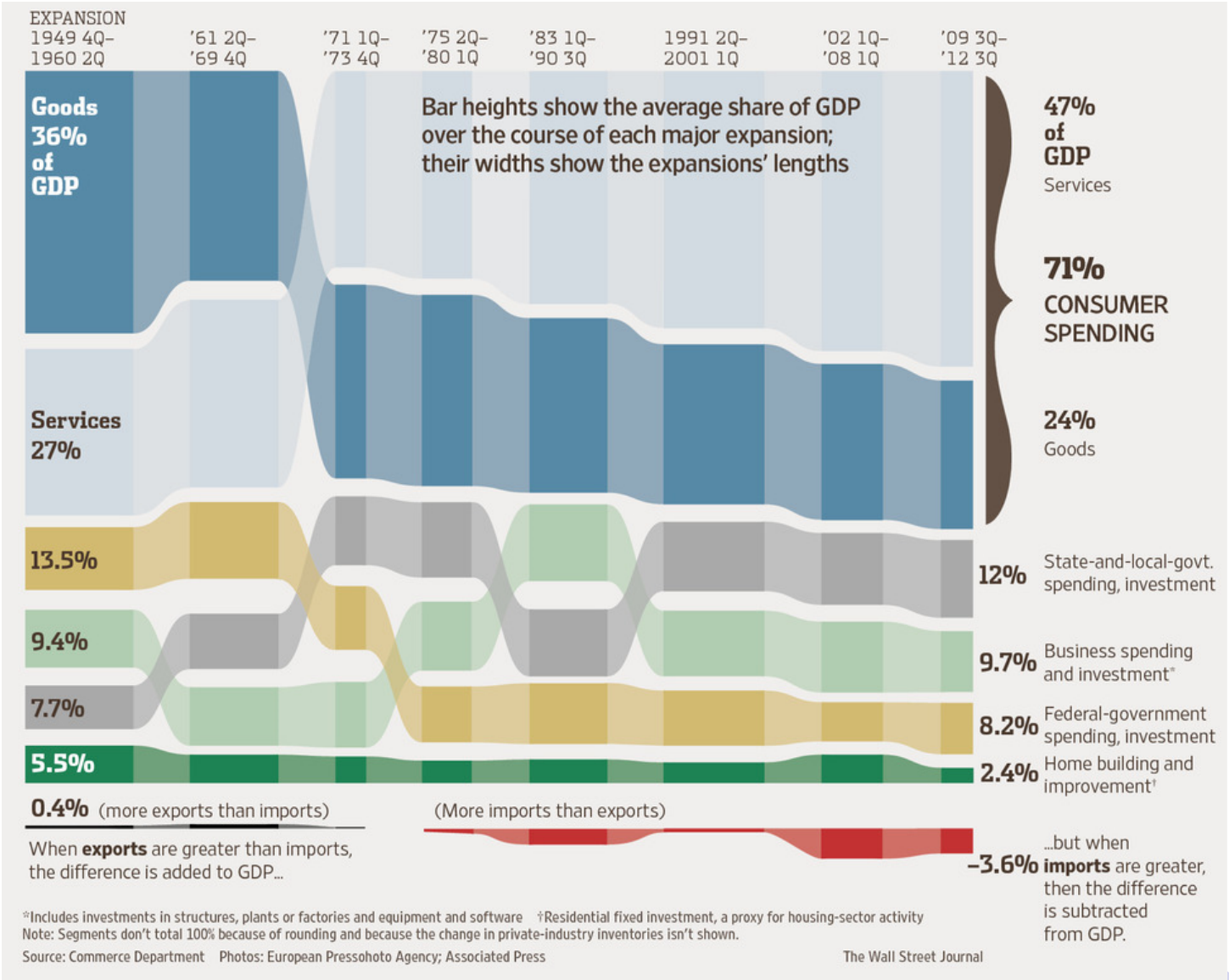
TABLE 28.1 THE CHANGING ROLE OF MANUFACTURING

YEAR	EMPLOYMENT IN MANUFACTURING (millions)	EMPLOYMENT AS A SHARE OF THE LABOR FORCE (percent)	MANUFACTURING OUTPUT AS A SHARE OF GDP (percent)
1950	15.1	25.6%	28.0%
1960	15.4	23.5	26.9
1970	17.8	22.8	23.9
1980	18.7	18.9	20.0
1990	17.7	14.9	16.3
2000	17.3	12.6	14.5
2007	14.0	9.6	11.7

Source: Economic Report of the President 2008, *and previous years.*

Manufacturing, Productivity and Labor after WWII

The Macroeconomy changing



Manufacturing, Productivity and Labor after WWII

Industry distribution of jobs

TABLE 28.3 DISTRIBUTION OF JOBS, 1955–2002, AS A PERCENTAGE OF TOTAL EMPLOYMENT

YEAR	AGRICULTURE	MANUFACTURING, MINING, AND CONSTRUCTION	SERVICES	GOVERNMENT
1955	11.3	35.9	40.7	12.1
1960	9.2	34.3	42.6	14.0
1970	4.7	31.7	46.7	16.9
1980	3.6	27.4	51.7	17.3
1990	2.9	22.1	58.8	16.3
2000	2.4	19.0	63.2	15.3

Source: Economic Report of the President, 2003, *Table B46.*

Consumer well-being correlates

Consumption and GDP per capita

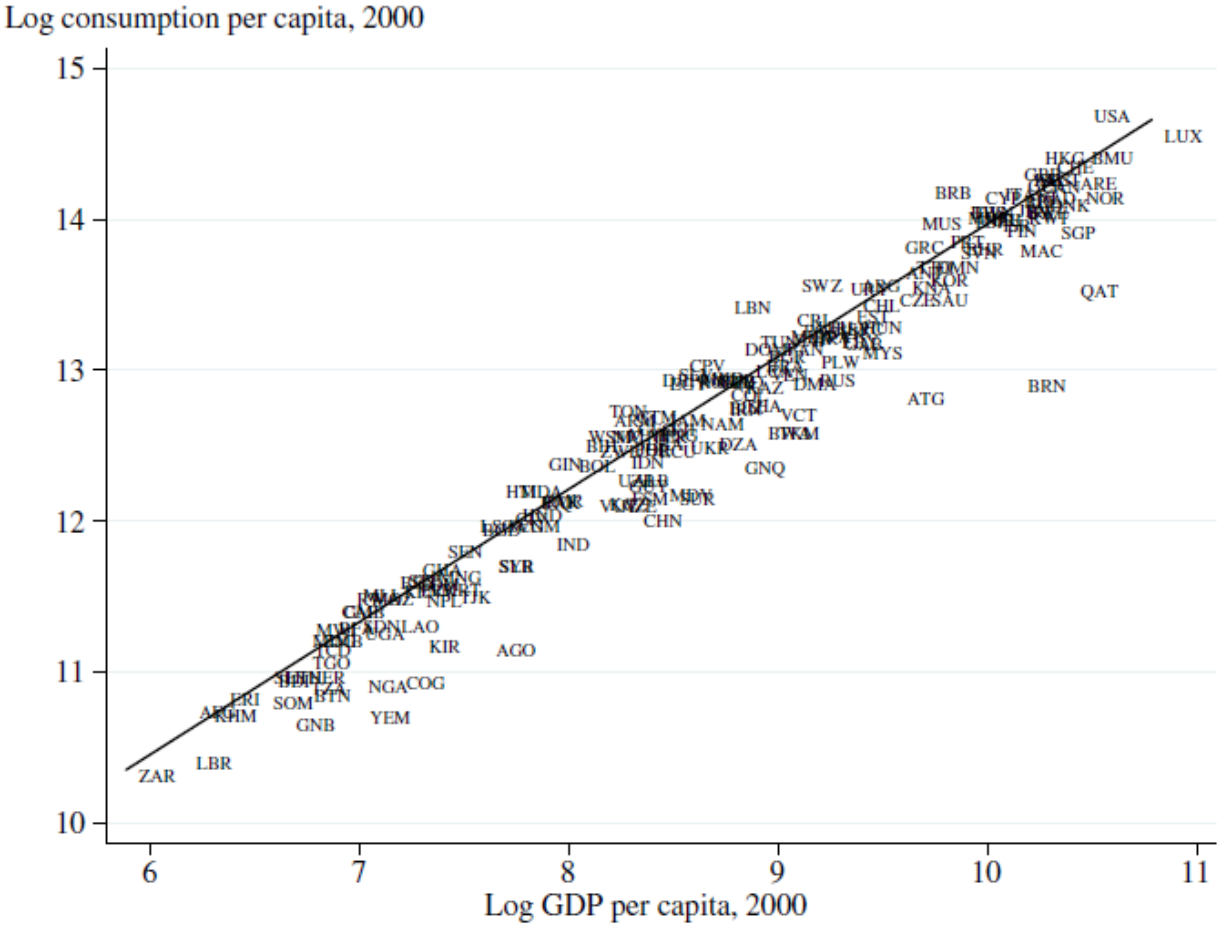


FIGURE 1.5 The association between income per capita and consumption per capita in 2000. For a definition of the abbreviations used in this and similar figures in the book, see http://unstats.un.org/unsd/methods/m49/m49alpha.htm.

Consumer well-being correlates

Life expectancy and GDP per capita

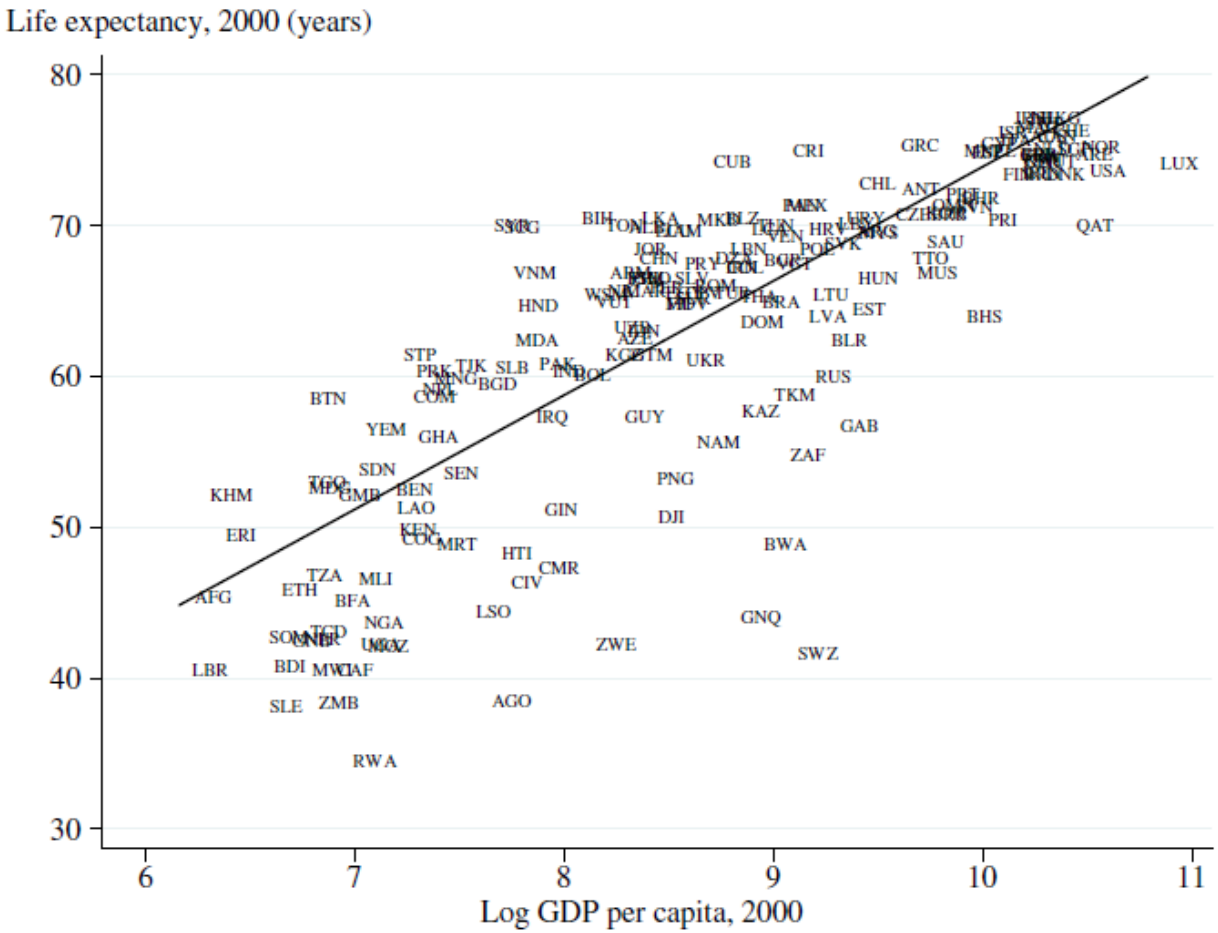


FIGURE 1.6 The association between income per capita and life expectancy at birth in 2000.

Consumer well-being

Gradual vs. dramatic changes

Readings

Week 1 and 2

- *** Clark, Gregory, (2007). A Farewell to Alms. A Brief Economic History of the World. Princeton University Press, Princeton, NJ [Chapters **1**, 11, 12, **13**]
- *** Walton, Gary M., and Hugh Rockoff, (2010). History of the American Economy: Eleventh Edition. South-Western Cengage Learning, Mason, OH [Chapters **10**, 17, 20, 22, 28]
- Means, Howard, (2001). Money and Power. The History of Business. John Wiley & Sons, Inc., New York, NY
- Açemoglu, Daron, and Johnson, Simon and James Robinson (2005). The Rise of Europe: Atlantic Trade, Institutional Change, and Economic Growth. The American Economic Review, Vol. 95, No. 3 (Jun., 2005), pp. 546-579, American Economic Association. Stable URL: http://www.jstor.org/stable/4132729
- Schröter, Harm G. (2005). Americanization of the European Economy. A Compact Survey of American Economic Influence in Europe since the 1880s. Springer, Dordrecht, The Netherlands