ECONOMIC AND BUSINESS HISTORY 22/23

LECTURE 2 – WAS MALTHUS RIGHT?

Was Malthus Right?

Stagnation

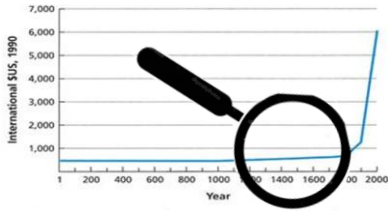Modern Economic Growth

Demographic Transition

ACH @ ISEG

2

---

1. Malthusian Stagnation

3

ACH @ ISEG

Econ Hist in 1 Graph

1.2 Gross world product per capita (1990 International Dollars)

Source: Bolt, J., and J. L. van Zanden. 2013. "The First Update of the Maddison Project: Re-Estimating Growth Before 1820." Maddison Project Working Paper 4.

4 · ACH @ ISEG

GDP (in million 1990 USD): India, China and Europe

	1	1000	1500	1600	1700	1820
India	29	34	61	74	91	111
China	34	27	62	96	83	229
Europe	14	11	44	66	81	159

Source: Maddison Homepage

5 · ACH @ ISEG

GDP per capita (in 1990 USD): India, China and Europe

	1	1000	1500	1600	1700	1820
India	450	450	550	550	550	533
China	450	450	600	600	600	600
Europe	576	425	797	888	1.028	1.234

Source: Maddison Homepage;

6 · HE22, ACH

Stagnation

- The period before 1800 (or 1815 or 1820, depending on the authors) was one of stagnation or, at best, very slow growth (>1%)

  - As measured by the real GDP (the monetary value in real terms of all goods and services produced in a given economy in a given year)

- Yet, this overall growth was not accompanied by growth in productivity, as measured by GDP per capita, which stagnated (India or China) or grew at a low pace

- Thus, GDP growth was a function of population growth

- This observation can be confirmed with alternative datasets

7

ACH @ ISEG

Why did per capita incomes changed little?

- Given that there is no doubt that human societies have the potential for growth, the near-stagnation of per capita incomes is rooted into an obstacle

8

ACH @ ISEG

Classical Theory: Rise Labour Productivity

For Adam Smith, growth was essentially per capita output (roughly equivalent to labour productivity)

The key factor in increasing labour productivity was the Division of Labour.

His example of the Pin factory replacing the isolated pin maker is the bedrock of his reasoning:

- The productivity of 1 pin-maker working solo is inferior to 20 pins/day

- In contrast, 10 specialized laborers working coordinately have a productivity of 480 pins/day

- Capital invested is integral to the argument: the investment of a given capitalist has a multiplier effect on the productivity of the laborer (the Capitalist organizes the productive process and supplies the adequate machinery)

- Increases in productivity also benefit workers, who get better wages and also (while consumers) lower prices

9

ACH @ ISEG

3
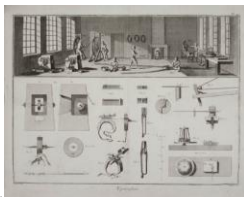
If so, why no Growth?

It's the politicians' fault

I mean, let me rephrase it: the problem is **bad institutions.** Human nature is always trying to improve productivity, regardeless of natural scarcity. Let me quote now the real Adam Smith:

The natural effort of every individual to better his own condition [faces] a hundred impertinent obstructions with which the folly of human laws too often incumbers its operations; though the effect of these obstructions is always more or less either to encroach upon its freedom, or to diminish its security. (The Wealth of Nations, IV, cap. 5)

10

HE2017, ACH E DL

ALternative theory: the problem is natural scarcity

• The Malthusian Model instead states that increases in output lead populations to increased their fertility

• This increased fertility, however, is not sustainable as at some point it will clash with natural resources (food)

• When this happens, mortality will go up and population descend back to a sustainable level

ACHE ISEG

11
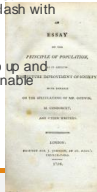
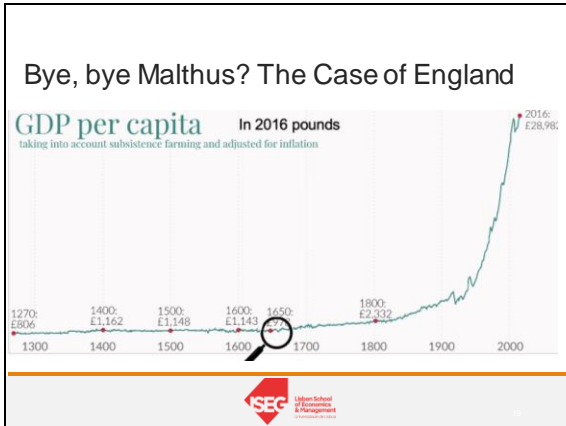## Why did per capita incomes changed little? (2)
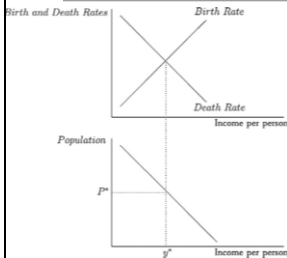
•Alternatively, knowing the outcome of their increase in numbers, populations will diminish their fertility so that population does not grow

• The result is that population remains stagnant as birth and death rates equate (graph above)

•Likewise, given that natural resources constrain output (graph below), per person income ALSO remains static

An example of a Malthusian regime: Portugal, 1527-1850

FIGURE 8
PORTUGAL'S GDP PER CAPITA (IN "INTERNATIONAL" GK DOLLARS OF 1990, LEFT SCALE) AND POPULATION (RIGHT SCALE), 1527–1850

"This shows that Portugal's favorable circumstances by the mid-eighteenth century (...) were not to last. In the very long run, the economy conformed to the predictions of the Malthusian model. Despite variation in response to shocks, income reverted back to what could be interpreted as a long-term "subsistence" level. (...) the forces of convergence to such a steady state did include endogenous fertility and mortality responses in the spirit of Malthus" (Palma and Reis, 2019).

---

2. Modern Economic Growth

14   ACH @ ISEG

Bye Malthus, Hi MEG

- Modern Economic Growth,

    – Rapid Increase in economic output and aggregated income (c. 80-fold from 1820-2020)

    – Rapid Increase in per capita income (21 fold from 1820 to 2020)

    – Population increase (sevenfold from 1820 to 2020)

- Not universal, starting in 1820 and only in the West (with Japan joining very early)

Table 6 Growth of per capita GDP at constant 1990 prices, 1500–2001 (annual average compound growth rate)

	1500–1820	1820–1870	1870–1913	1913–1950	1950–73	1973–2001	1820–2001
Australia	0.08	3.36	1.06	0.99	2.43	1.90	2.09
Austria	0.17	0.85	1.45	0.18	4.94	2.12	1.56
Belgium	0.13	1.44	1.05	0.70	3.54	1.95	1.54
Canada	0.26	1.27	2.27	1.35	2.83	1.72	1.79
Denmark	0.17	0.91	1.57	1.56	3.08	1.83	1.62
Finland	0.17	0.76	1.44	1.91	4.25	2.19	1.82
France	0.14	1.01	1.45	1.12	4.04	1.71	1.63
Germany	0.14	1.08	1.61	0.17	5.02	1.60	1.59
Italy	0.00	0.59	1.26	0.85	4.95	2.10	1.58
Japan	0.09	0.19	1.48	0.88	8.06	2.14	1.91
Netherlands	0.28	0.81	0.90	1.07	3.45	1.83	1.37
Norway	0.17	0.52	1.30	2.13	3.19	2.83	1.73
Sweden	0.17	0.66	1.46	2.12	3.06	1.52	1.58
Switzerland	0.17	1.32	1.66	2.06	3.08	0.72	1.68
UK	0.27	1.26	1.01	0.93	2.42	1.86	1.37
USA	0.36	1.34	1.82	1.61	2.45	1.86	1.73
Arithmetic average	0.17	1.09	1.42	1.23	3.80	1.87	1.66
Weighted average	0.14	1.11	1.57	1.21	3.64	1.92	1.68

Modern Economic Growth, theory by Simon Kuznets

1901 - 1985

17

---

3. Demographic Transition

ACH @ ISEG

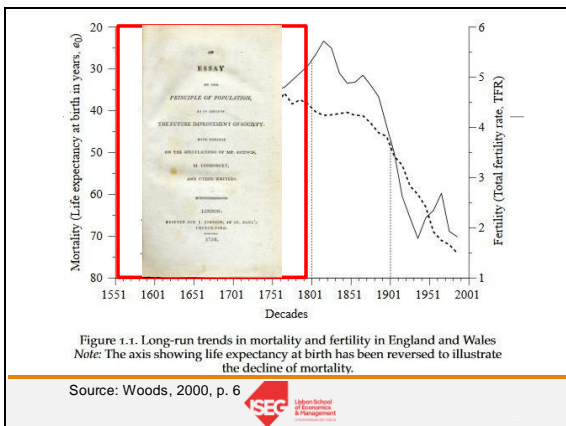## Bye, bye Malthus? The Case of England

Population AND Economic Growth

- Malthusian forces did not prevent growth process c. 1800

- English economic growth went along with population growth via:

 - Decrease in mortality rates

 - Increased fertility

- These two demographic facts were the result of rapidly-improving living conditions, since the 17th century

Figure 1.1. Long-run trends in mortality and fertility in England and Wales
Note: The axis showing life expectancy at birth has been reversed to illustrate the decline of mortality.

Source: Woods, 2000, p. 6

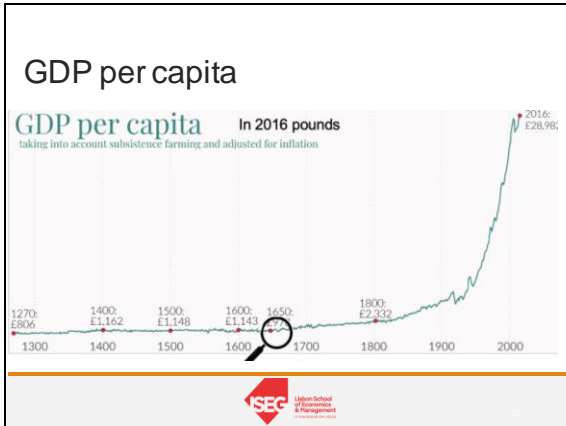## Food Supply per Capita

Life Expectancy

Literacy Rates
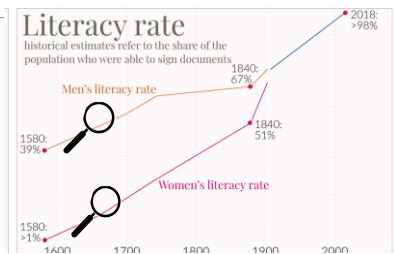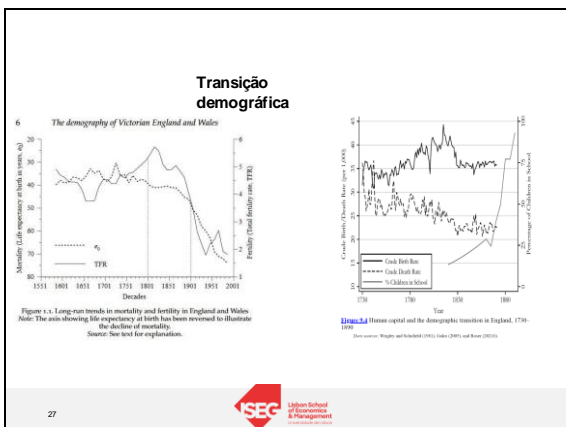
GDP per capita

E a população deixou de travar o aumento do rendimento *per capita*?

Sim. Atravês da transição de um regime de elevadas taxas de mortalidade e de natalidade para um regime de baixas taxas de mortalidade e natalidade.

26

Transição demográfica

27

Objectives

- *Learn the predictions of the Malthusian model and its relevance for pre-1800 performance*

- *Identify the aggregate characteristics of MEG*

- *Learn what is the demographic transition*

28   ACH @ ISEG

Questions

- Were pre-1800 per capita incomes stagnant ?
- What is Kuznetsian growth?
- Did demographic growth affected the earliest, post-1800 period of growth?

29   ACH @ ISEG