

WORLD ECONOMIES BEFORE MODERN ECONOMIC GROWTH (Part 1)

LECTURE 1 - EBH 22/23



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PLAN



1. What Happened
in History?



2. Explanatory
Theories



3. World
Segmented

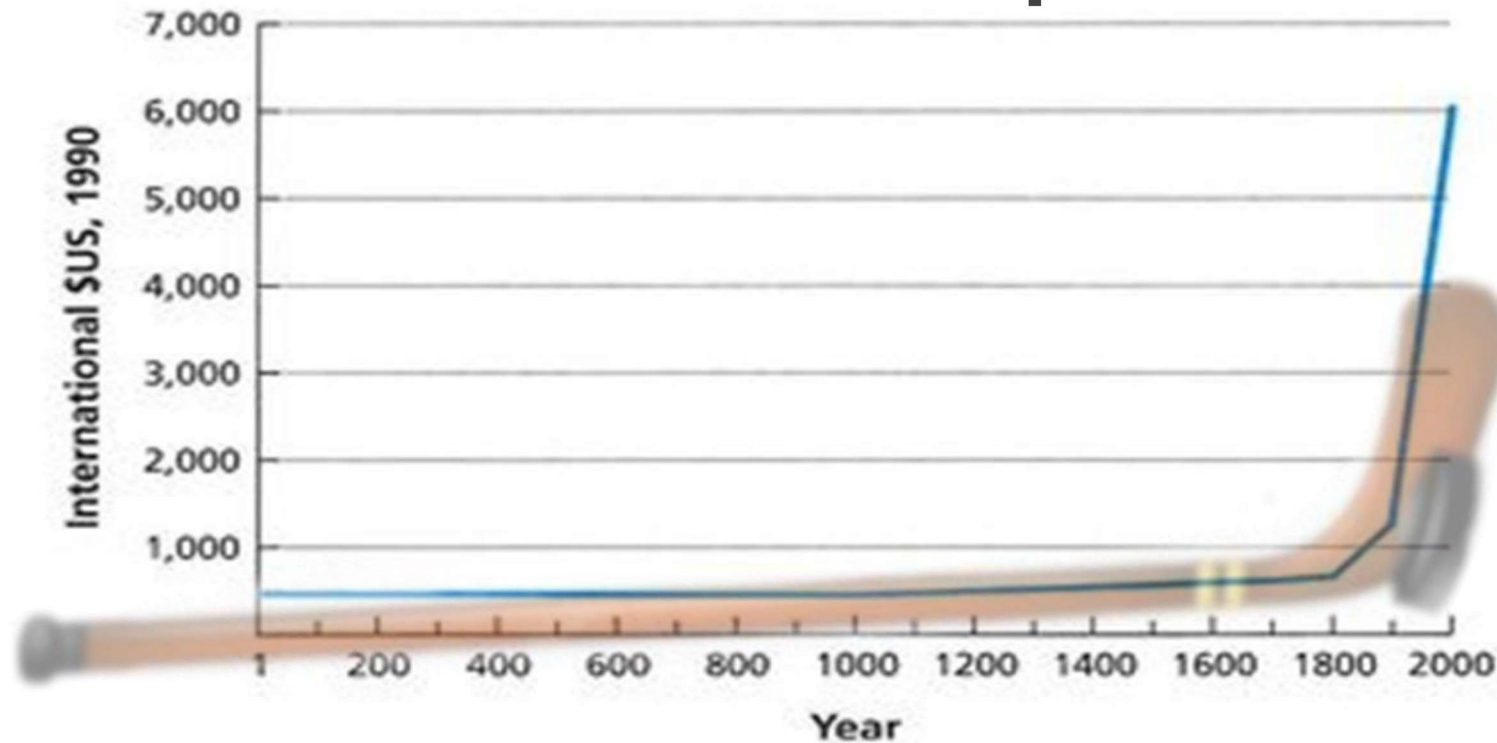
1. What happened in History?



1. What happened in (Econ.) History?

- Not much
- Essentially, a period of low growth rates since the Neolithic was replaced two hundred years ago by a period of high growth rates
- This pattern is known as the ‘hockey stick’ (See Text 1, Figure 1)
- Explaining this shape is the essential question of Econ Hist (the ‘Mystery of Growth’)

Econ Hist in 1 Graph



1.2 Gross world product per capita (1990 International Dollars)

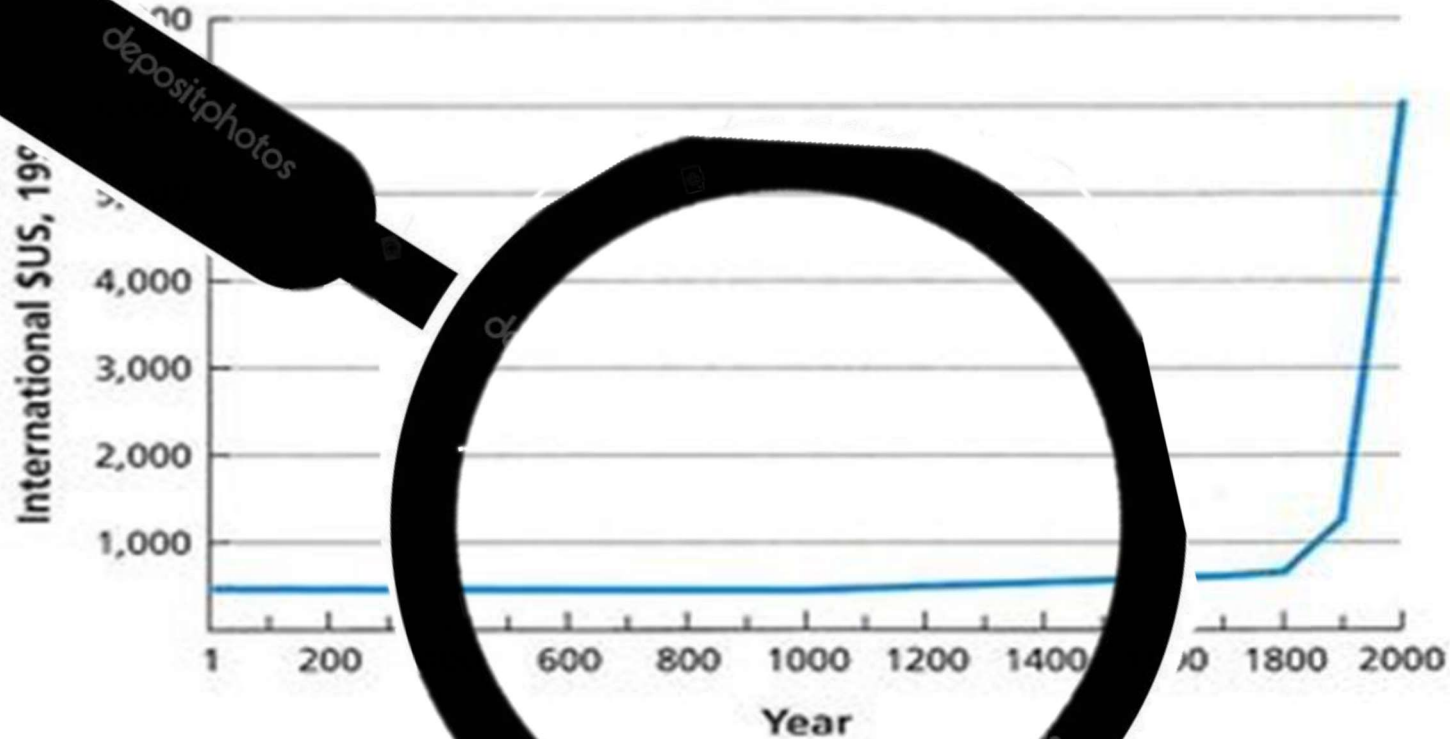
Source: Bolt, J., and J. L. van Zanden. 2013. "The First Update of the Maddison Project: Re-Estimating Growth Before 1820." Maddison Project Working Paper 4.



What happened in (Econ.) History?

- In the words of the Nobel-prize winner Douglass North :
 - “If we make a new 24 hour clock for the time of civilization (...) the last 250 years – just 35 minutes on our new 24 hour clock – are the era of modern economic growth”
- What changed?
- To understand why, we need to go back in time to before c. 1750 and grasp the conditions in the most advanced civilizations of the time.

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 Maddison Project: Re-Estimating Growth Before 1820." Maddison Project Working Paper 4.

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

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

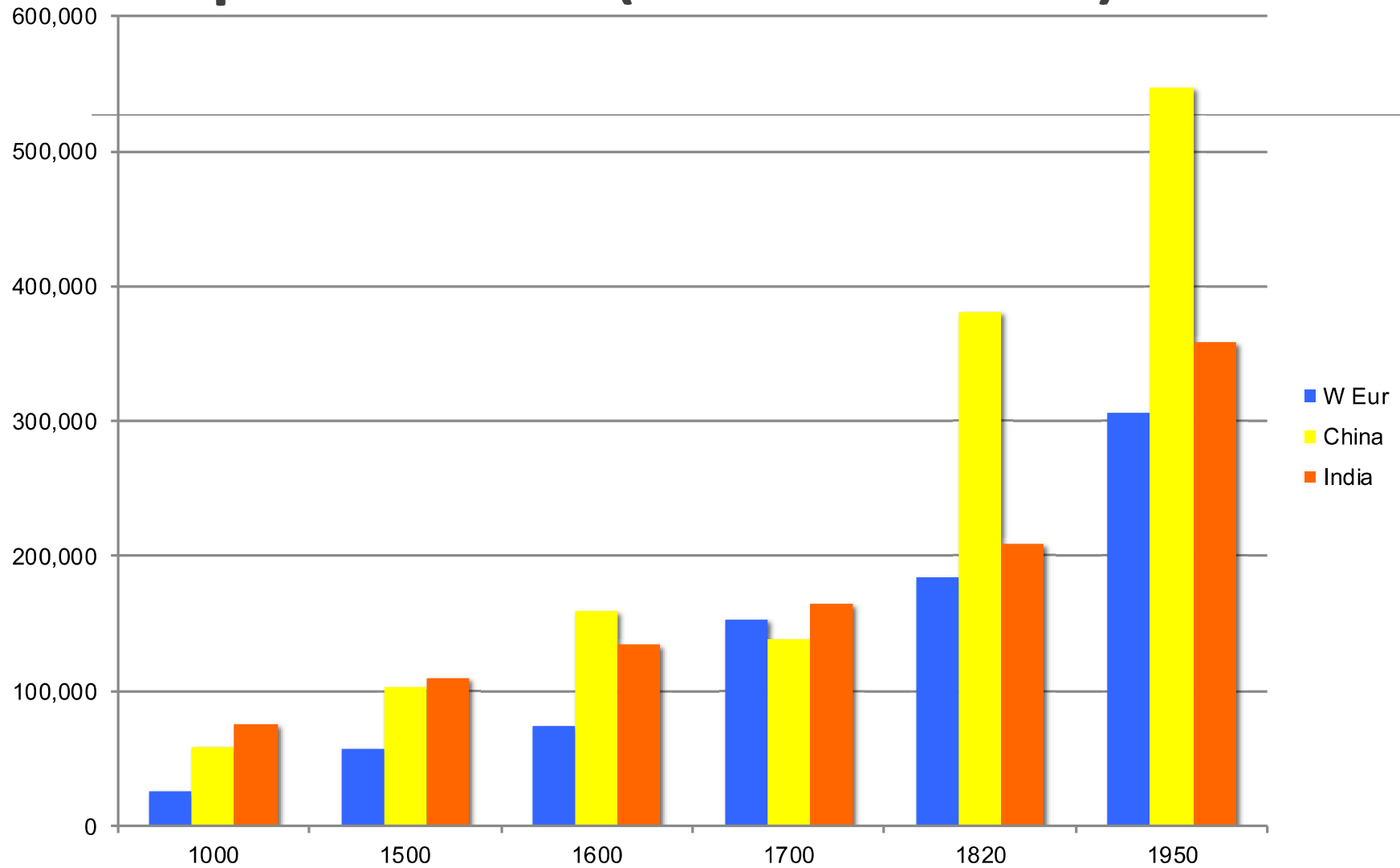
	1	1000	1500	1600	1700	1820
India	450	450	550	550	550	533
China	450	450	600	600	600	600
Europe	576	425	797	888	1.028	1.234

Source: Maddison Homepage;

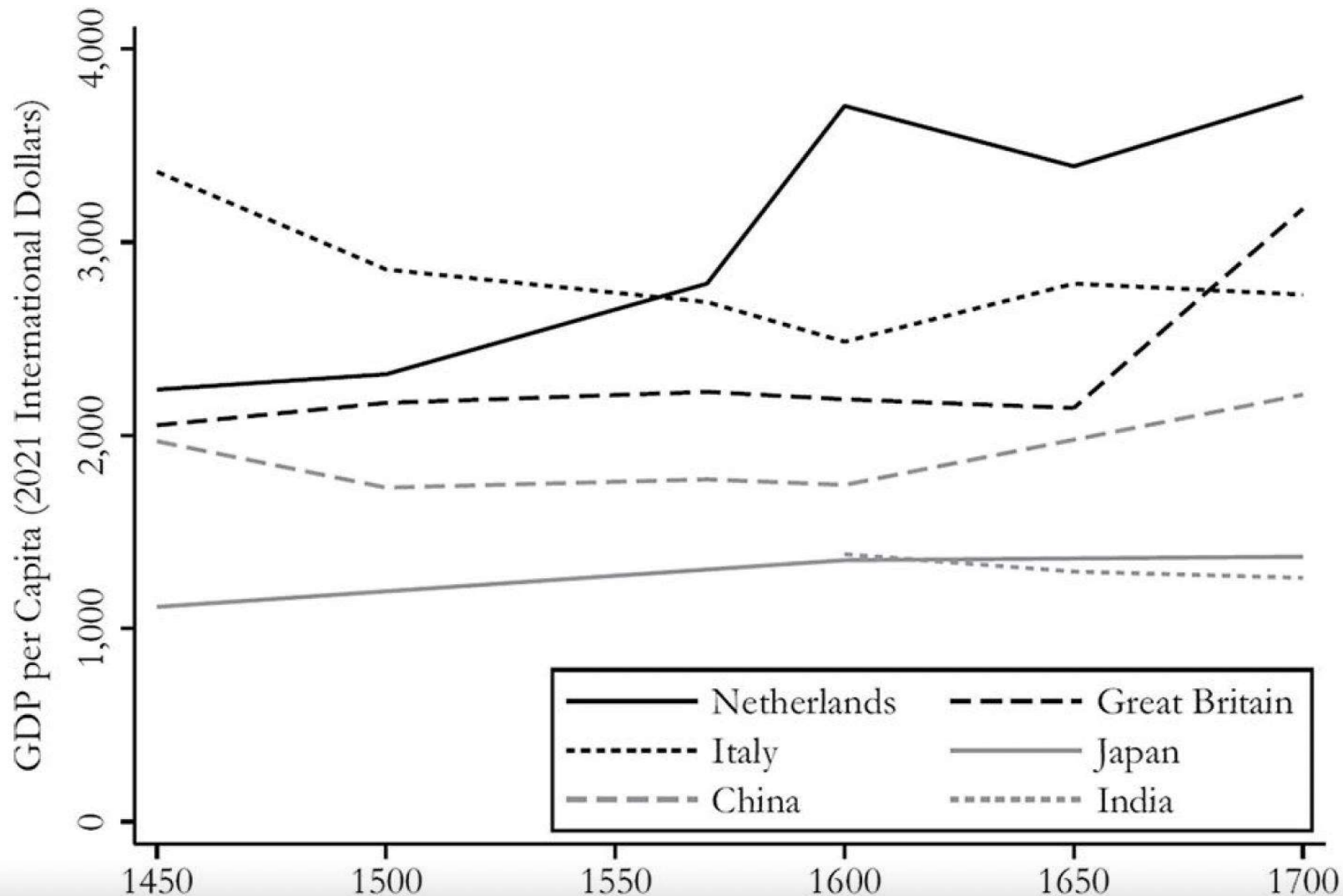
What happened in (Econ.) History?

- The period before 1800 (or 1815 or 1820, depending on the authors) was one of overall growth
 - 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

Population (in millions)



Do alternative datasets confirm this pattern?



2. Explanatory Theories



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
- Here, two models collide: the pessimist and the optimist



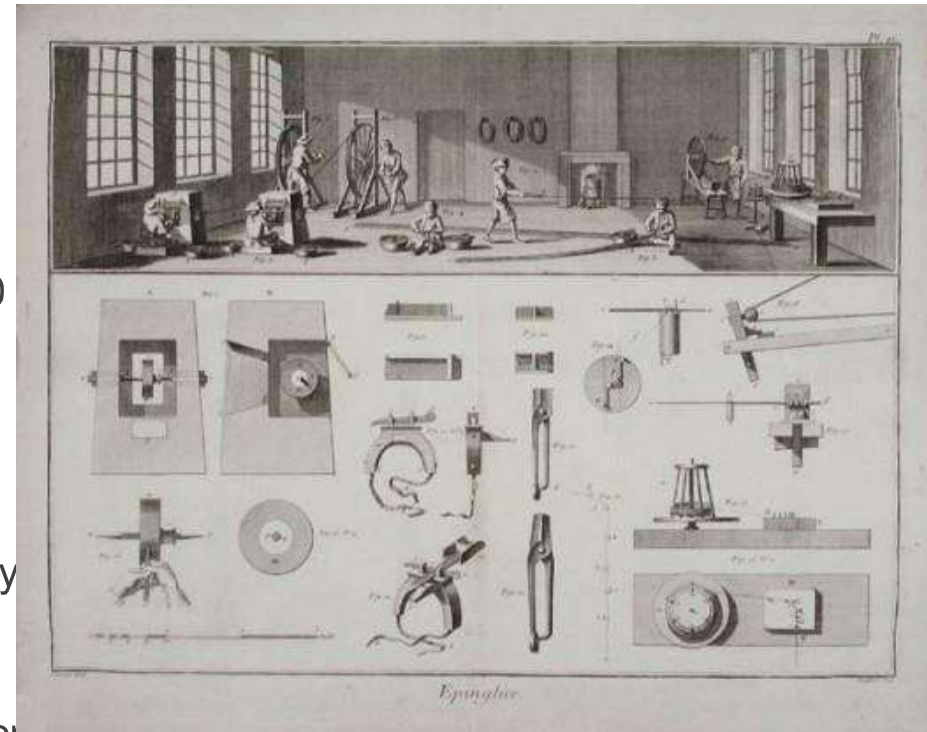
Labour Productivity

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



Labour Productivity (2)

Adam Smith extrapolates the pin factory for an economy as a whole:

- *The separation of different trades and employments from one another, seems to have taken place, in consequence of this advantage.*
- *This separation too is generally carried furthest in those countries which enjoy the highest degree of industry and improvement. The work of one man in a rude state of society [is] that of several in an improved one.*
- *The most opulent nations, indeed, generally excel all their neighbours in agriculture as well as in manufactures; but they are commonly more distinguished by their superiority in the latter than in the former.*
- *Their lands are in general better cultivated, and having more labour and expence bestowed upon them, produce more in proportion to the extent and natural fertility of the ground. But this superiority of produce is seldom much more than in proportion to the superiority of labour and expence.*

So, why no Growth?

~~It's the politicians' fault~~

I mean, the problem is bad institutions. Human nature is always trying to improve productivity, regardless of natural scarcity.

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.

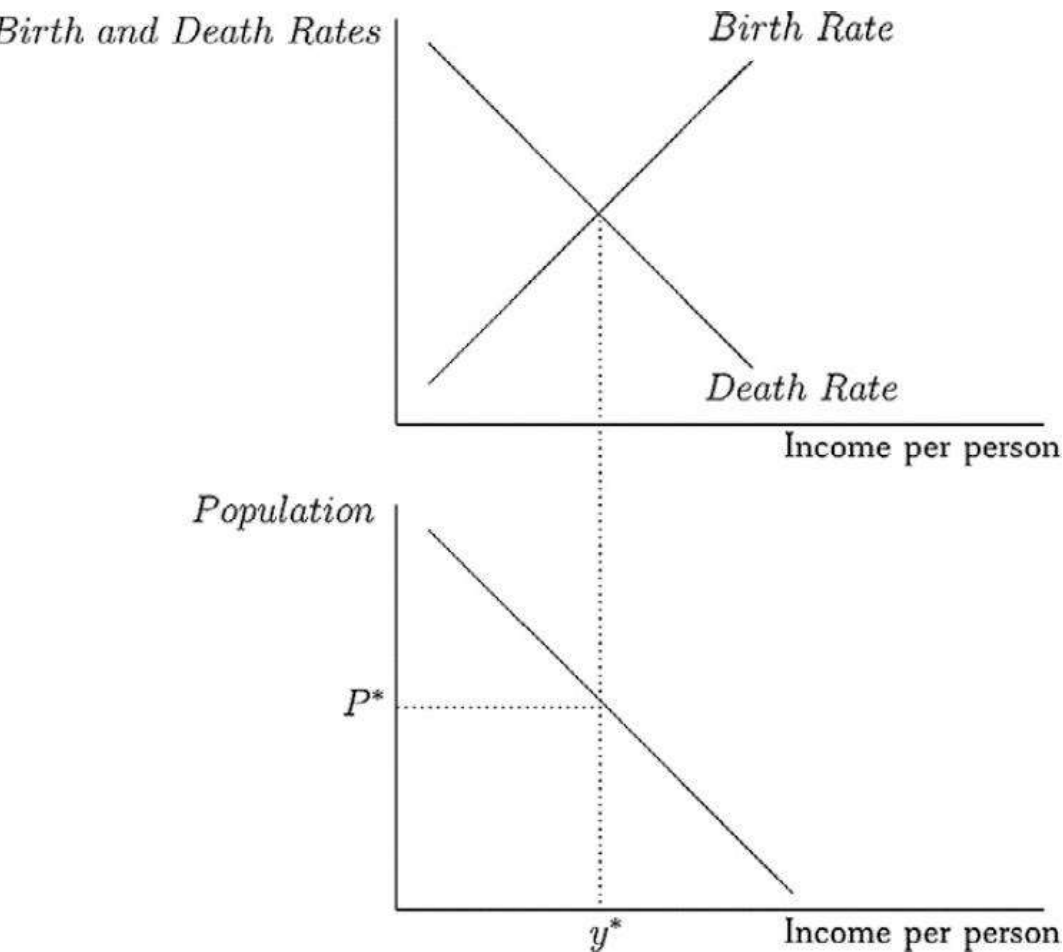




Natural scarcity

- 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

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

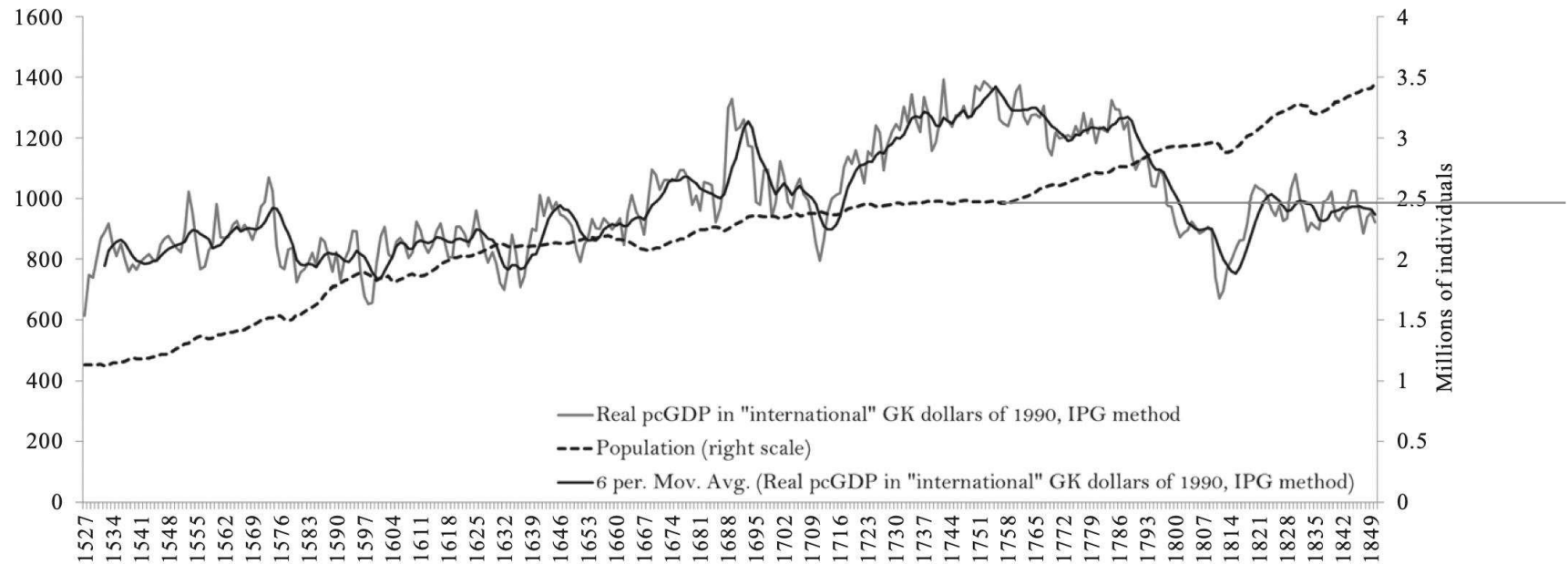


FIGURE 8

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).

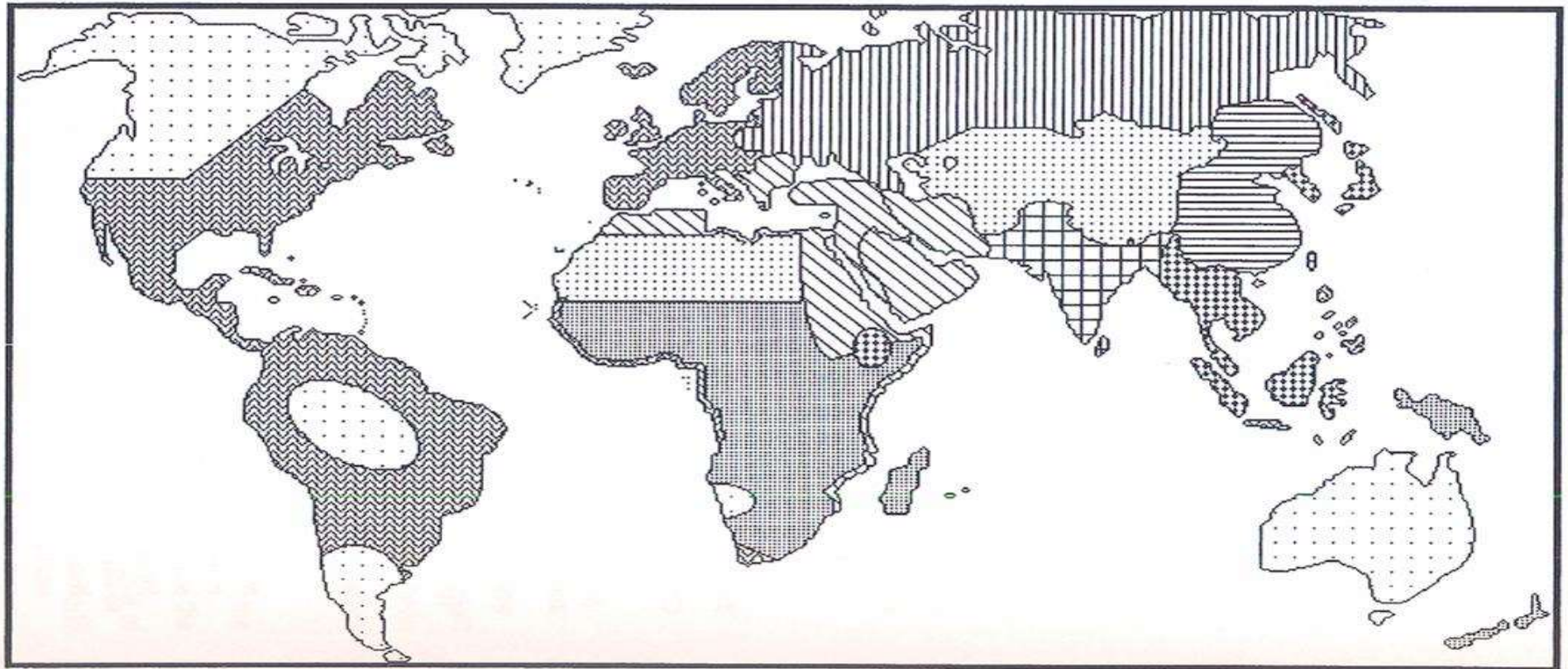
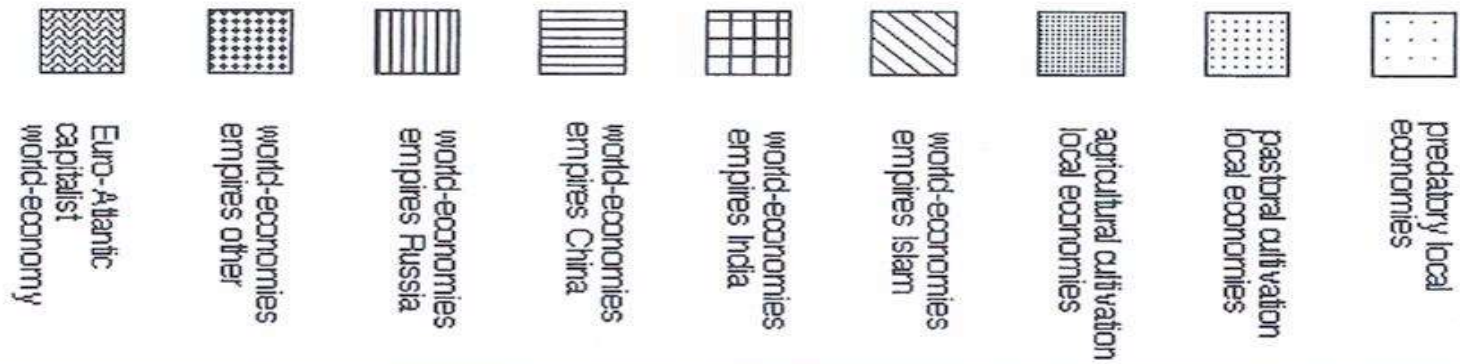
3. A Segmented World



Constrained growth and a World Segmented

- Essentially, natural resources constrained per capita output
 - low GDP pc
 - low wages (i.e. low returns from labour AND low productivity)
- As such, there was little scope for specialization across a world dominated by Malthusian economies
 - What was the largest national economy in 1700 (China), foreign trade (silk, china, tea, lacquer, pearls and some limited imports) represented about 1% GDP

The Economies of the World, c. 1750



The Economies of the Globe

- Until the 19th century, the globe was segmented into several self-sufficient economic spaces
- They were twofold categories
 - Local
 - World
- Some were **Local Economies**, small self-sufficient communities that satisfied their basic economic needs without significant transactions with other communities of other regions.
 - Predatory (hunting and gathering)
 - Agrarian (w/ cultivation)

World Economies

- **World Economies** are ‘self-sufficient with no or too scarce contacts with the other economic systems outside or conduct contacts based on non-essential goods’ (spices, silk and other luxuries)
- They show some advances in labour productivity and division of labour (as manifest in the development of large cities where specialization occurred)

Urbanization Rate in 1800 (% of pop in cities > 10.000 inhab)

		%
1	China	3-4
2	Japan	12
3	Russia	3
4	Europe	8-9
6	Middle East	12
7	India	6
8	Rest of Eastern hemisphere	1.5
9	North America	3
10	South America	7
11	Central America-Caribbean	3.5
	World	5

World Economies

- Most world-economies had a single political authority and were based such specialization on command of the political authority – *world-empires*.
 - China, the largest one in 1500, IMP+EXP meant only about 1% of GDP
 - Lack of stable contact meant that even in advanced economies there was no price integration (like today's commodity markets: oil, wheat, gas, soya, etc)

World Economies

- A world-economy satisfies its basic economic needs in the framework of a regional specialization of productions
- In a world economy, there are hierarchic roles to the different regions
- Most world-economies had a single political authority and were based such specialization on command of the political authority – *world-empires*

Price differences in tradables

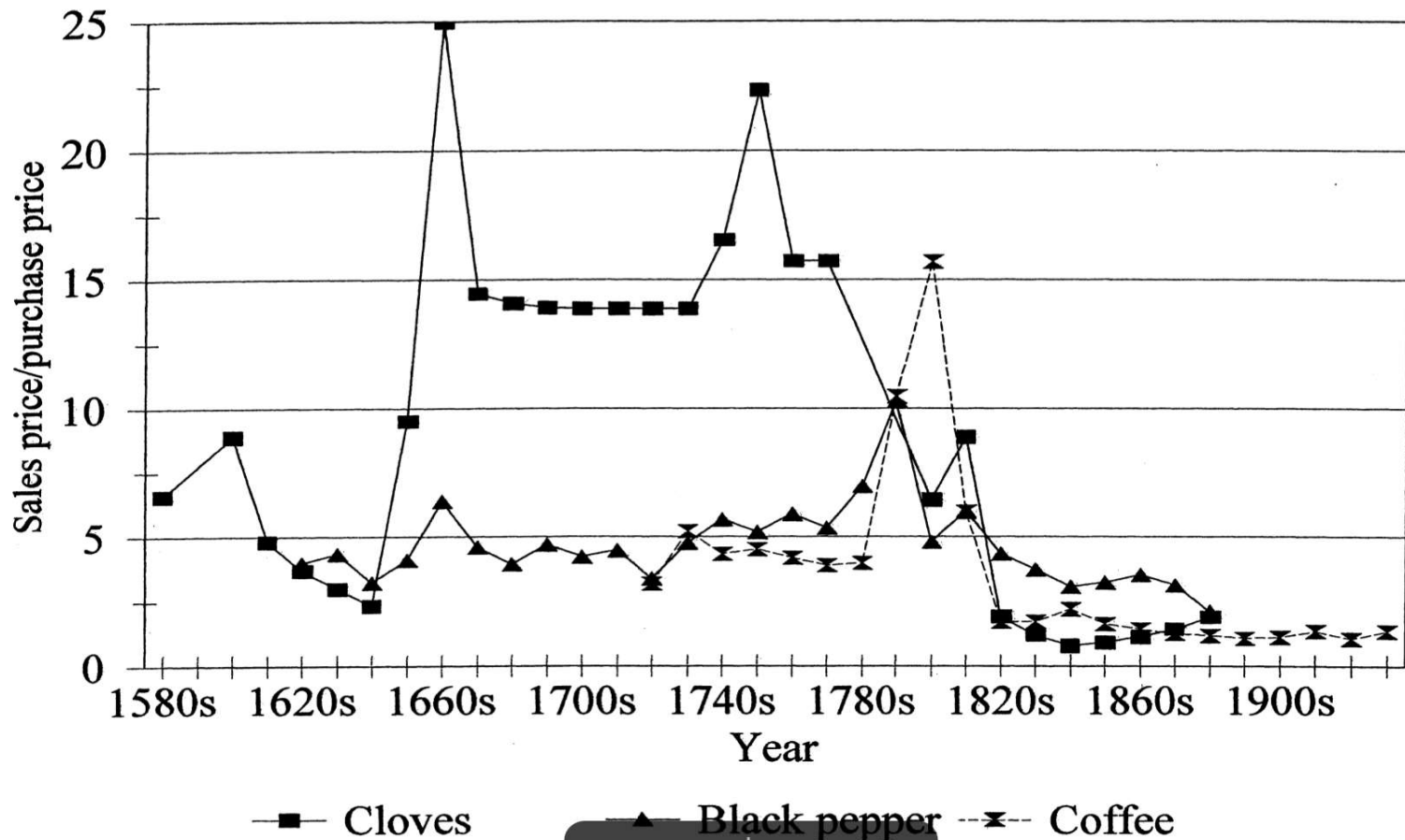


Figure 4. *Spice and coffee mark-ups: Amsterdam vs Southeast Asia, 1580–1920*

World Economies

- Lack of stable interaction meant that even in world economies there was no price integration outside the political boundaries of the world economy (unlike today's commodity markets: oil, wheat, gas, soya, etc)
- There was one world-economy – the **Euro-Atlantic world-economy** – had several independent states steady market transactions allowed for some specialization.
- It also had one different feature: it was capitalist (i.e. based on competitive markets where main players were private investors)

The Atlantic Trade

