

# **Formação do Sistema Internacional**

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(4-0-4)**

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**Aula 8**

**4ª-feira, 26 de junho**

## Para falar com o professor:

- São Bernardo, Bloco Delta, sala D-322, **4as-feira, das 14h00-16h30 e 18h30-1930** (é só chegar)
- Atendimentos fora desses horários, combinar por email com o professor: [demetrio.toledo@ufabc.edu.br](mailto:demetrio.toledo@ufabc.edu.br)

# **A grande divergência: a primeira revolução industrial e a hegemonia britânica**

## **Aula 8 (4ª-feira, 26 de junho): A grande divergência: a primeira revolução industrial e a hegemonia britânica**

### **Texto base:**

POMERANZ, K. (2001) “Introduction”, p. 3-27.

### **Textos complementares:**

MOKYR, J. (1992) “China and Europe”, p. 209-238.

MADDISON, A. (2001) “The impact of Western Development on the Rest of the World”, p. 49-123.

# A grande divergência: a primeira revolução industrial e a hegemonia britânica

- A Revolução Industrial marcou uma inflexão profunda na vida das sociedades humanas.
- Efeitos demográficos e econômicos são evidentes, ainda que se possa disputar (e de fato se disputa!) quais os fatores mais e menos importantes responsáveis pelas transformações associadas à Revolução Industrial.

# A grande divergência: a primeira revolução industrial e a hegemonia britânica

- **Menor denominador comum:**

A Revolução Industrial foi um processo de mudança estrutural da base material das sociedades em que ela ocorreu, que passou de predominantemente agrária (e rural) para predominantemente industrial (e urbana), incorporando a mudança tecnológica e fontes inanimadas de energia ao processo de crescimento econômico.

## A grande divergência: a primeira revolução industrial e a hegemonia britânica

- Em sua obra *An Essay on the Principle of Population* (1798), Thomas Robert Malthus (1766-1834), economista político inglês clássico, relacionou o crescimento demográfico à produção dos bens básicos para a sobrevivência humana (alimento, roupa, combustível e material de construção).
- “Population, when unchecked, increased in a geometrical ratio, and subsistence for man in an arithmetical ratio”. (Malthus 1998/1798: 6)
- Noções centrais: crescimento malthusiano, armadilha malthusiana, era malthusiana e era pós-malthusiana e...

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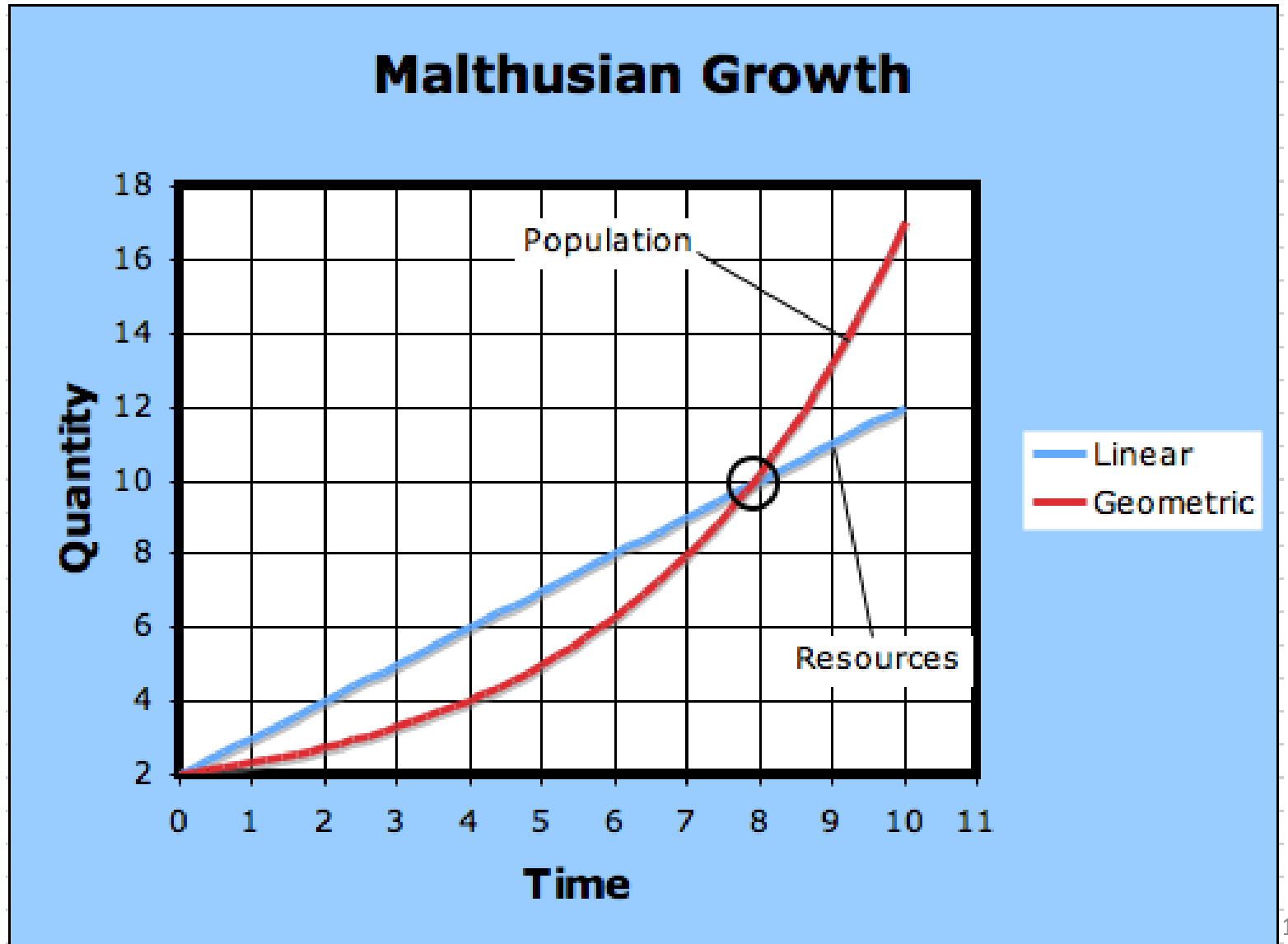
# **Produtividade**



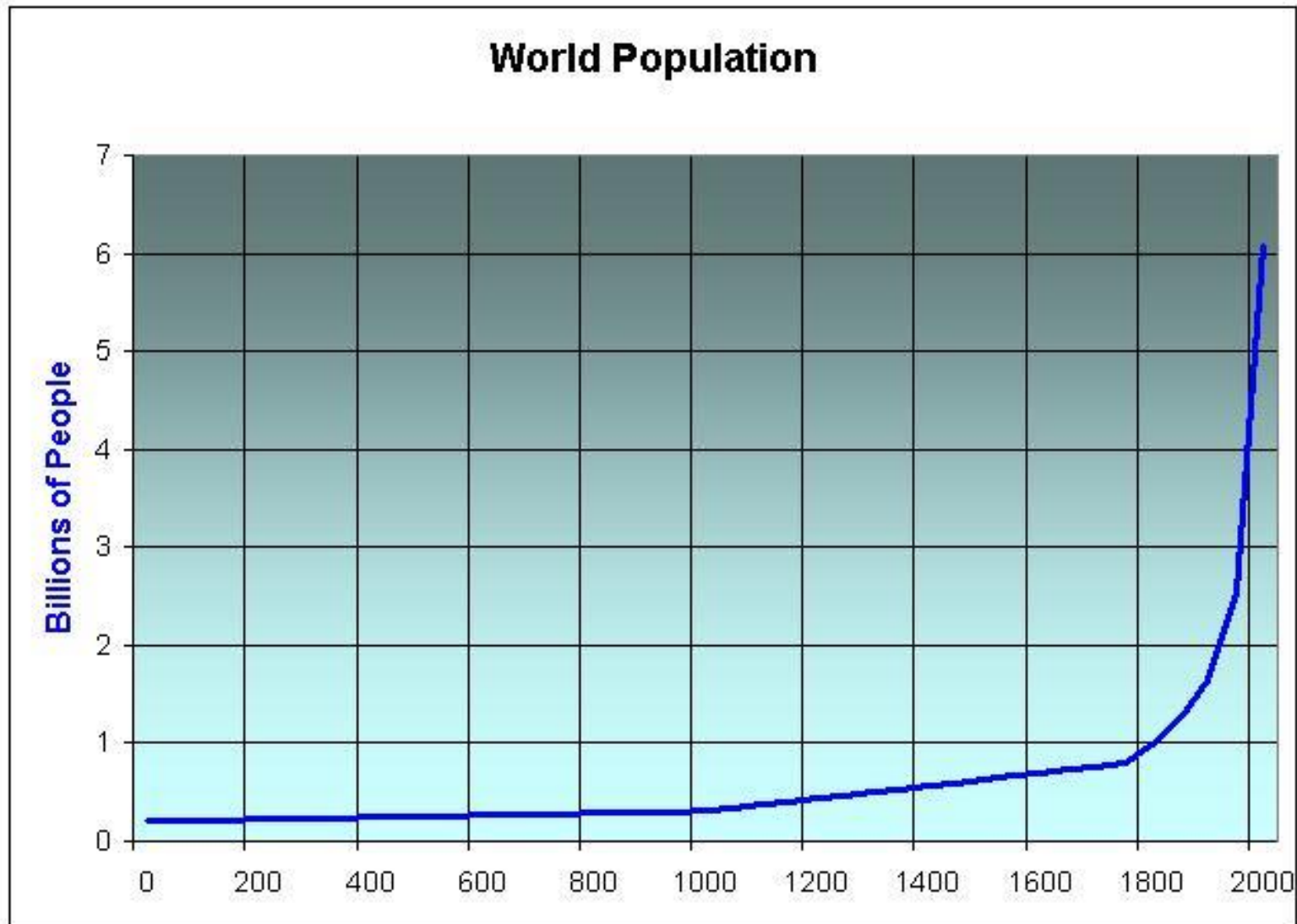
## **A grande divergência: a primeira revolução industrial e a hegemonia britânica**

- A discussão sobre a grande divergência pode ser compreendida como a discussão a respeito da transição entre dois regimes de produtividade (no sentido de mudanças na qualidade e quantidade dos constrangimentos e possibilidades de acumulação, ou seja, de transformação da natureza): do regime malthusiano de produtividade ao regime pós-malthusiano.

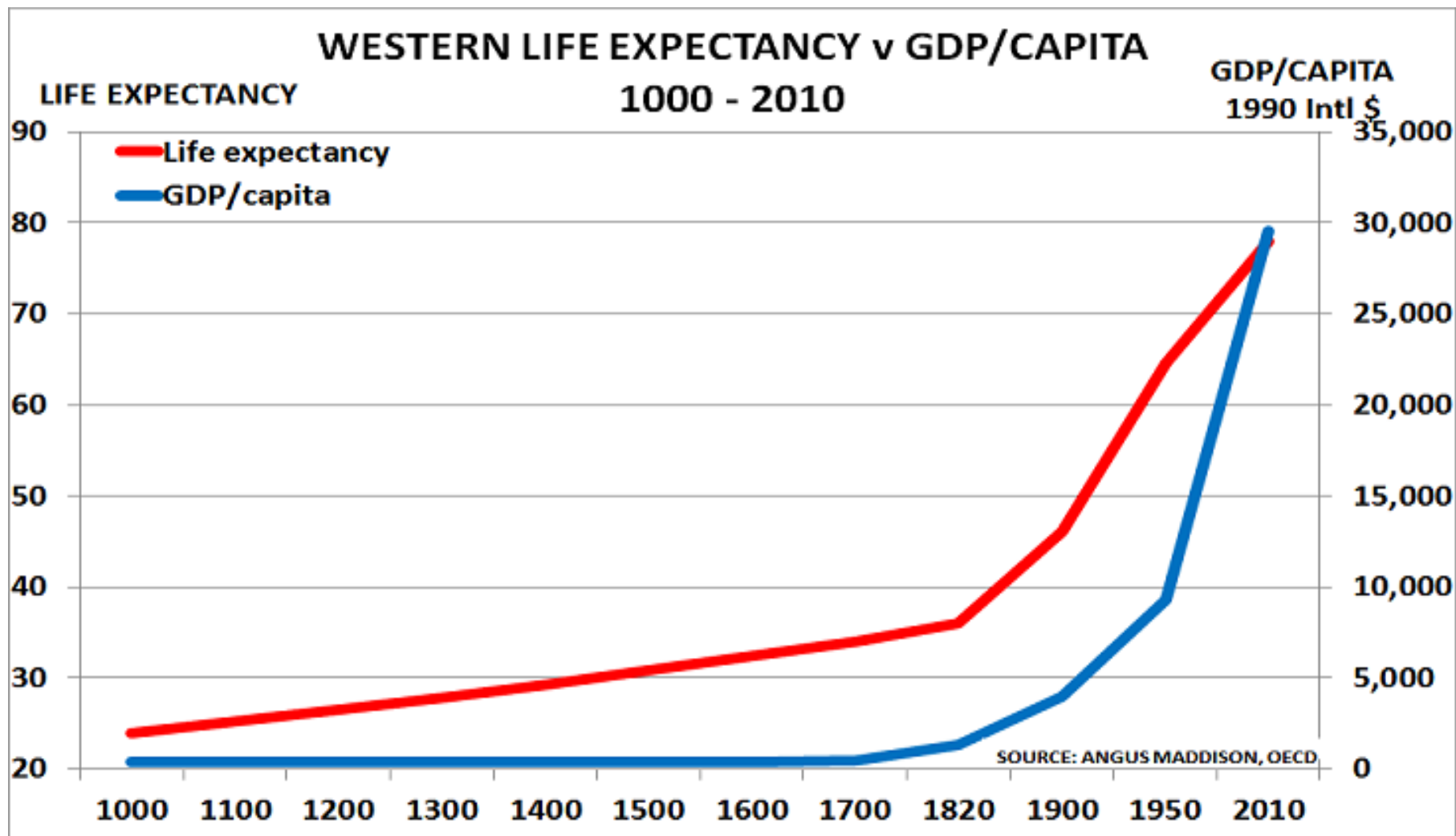
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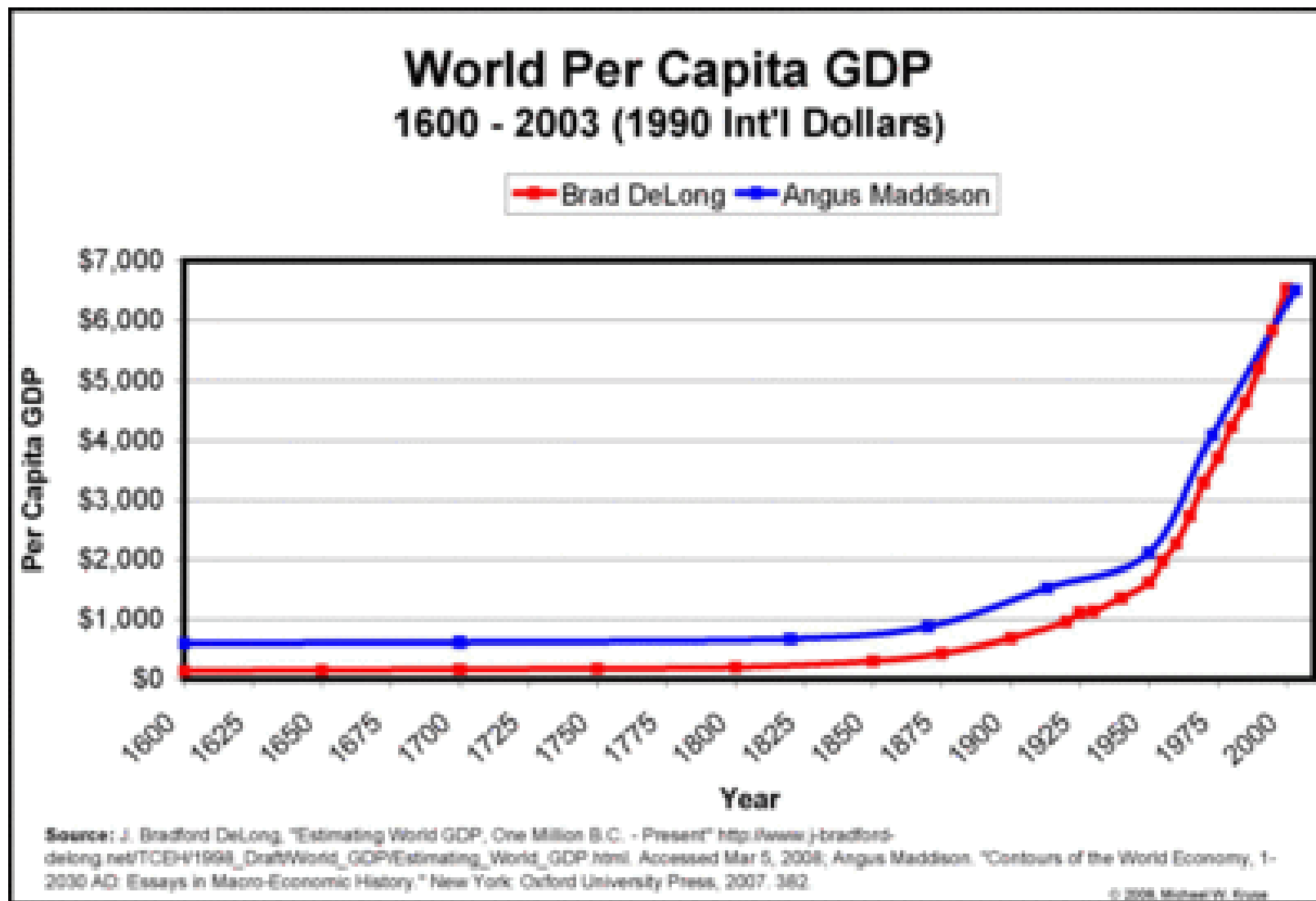
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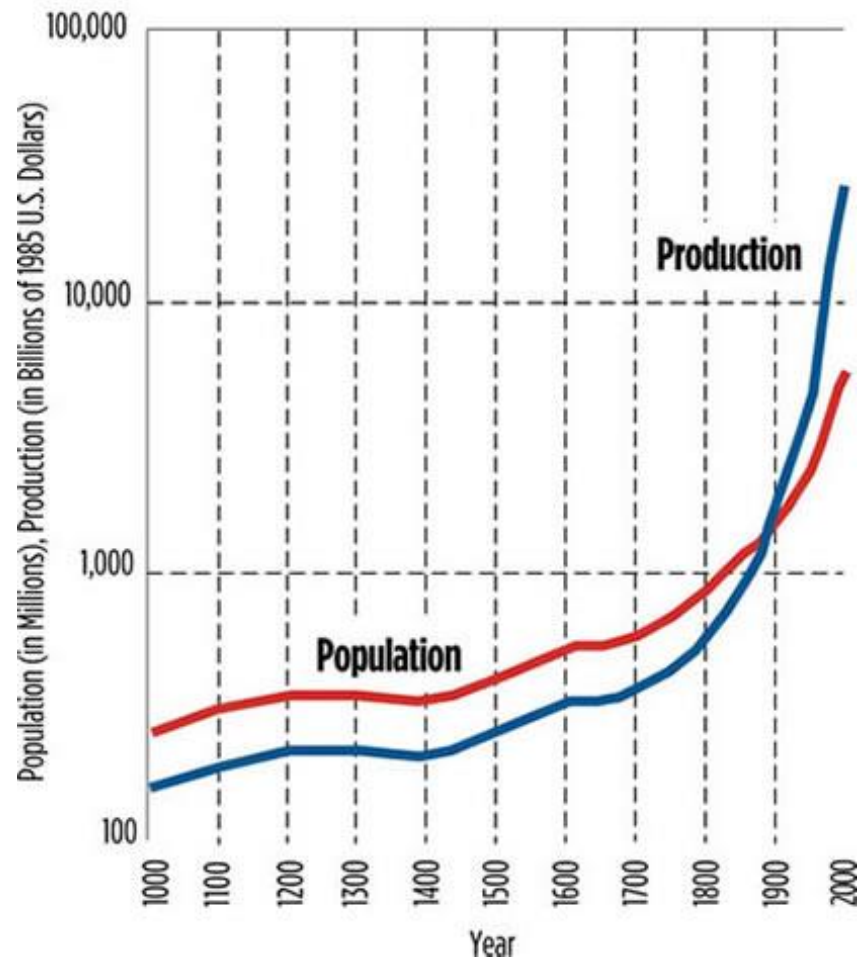
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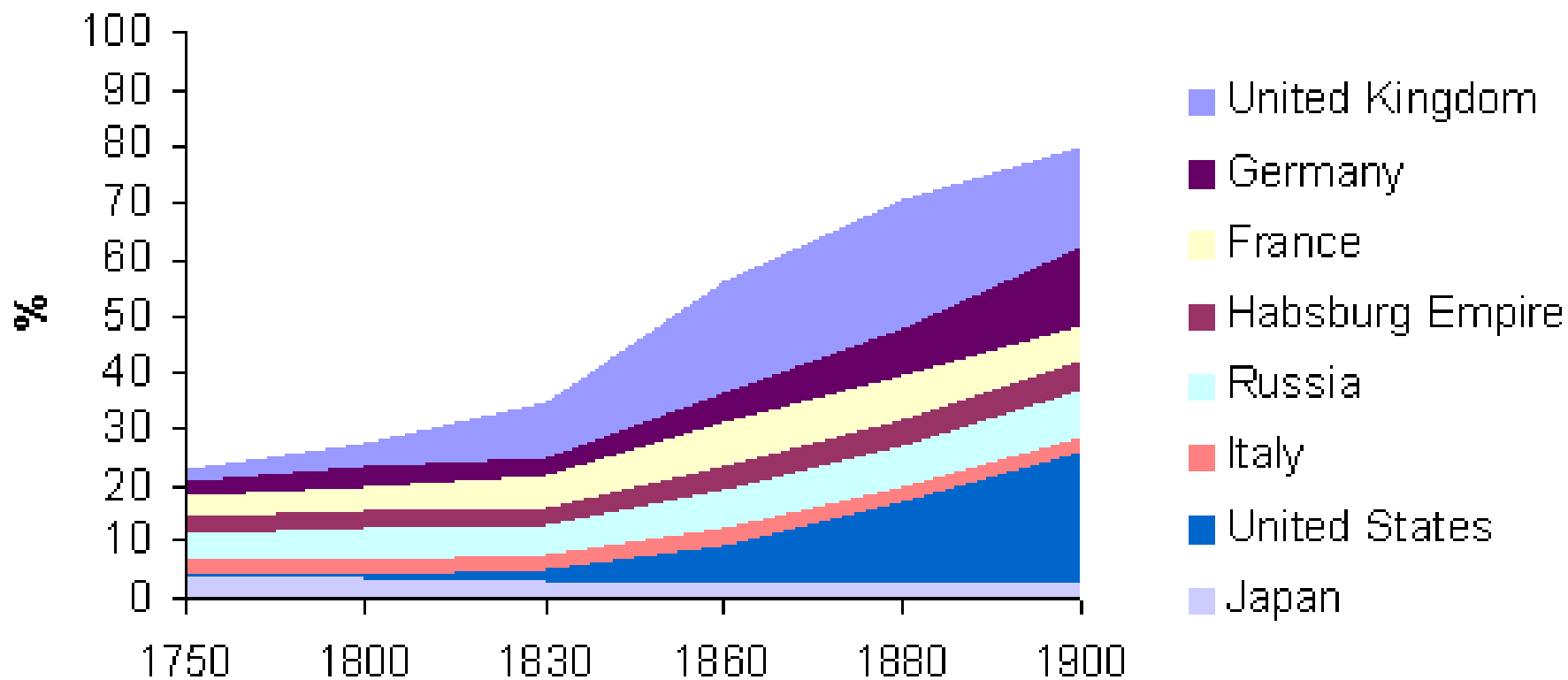
Figure 2

## World Population and Production

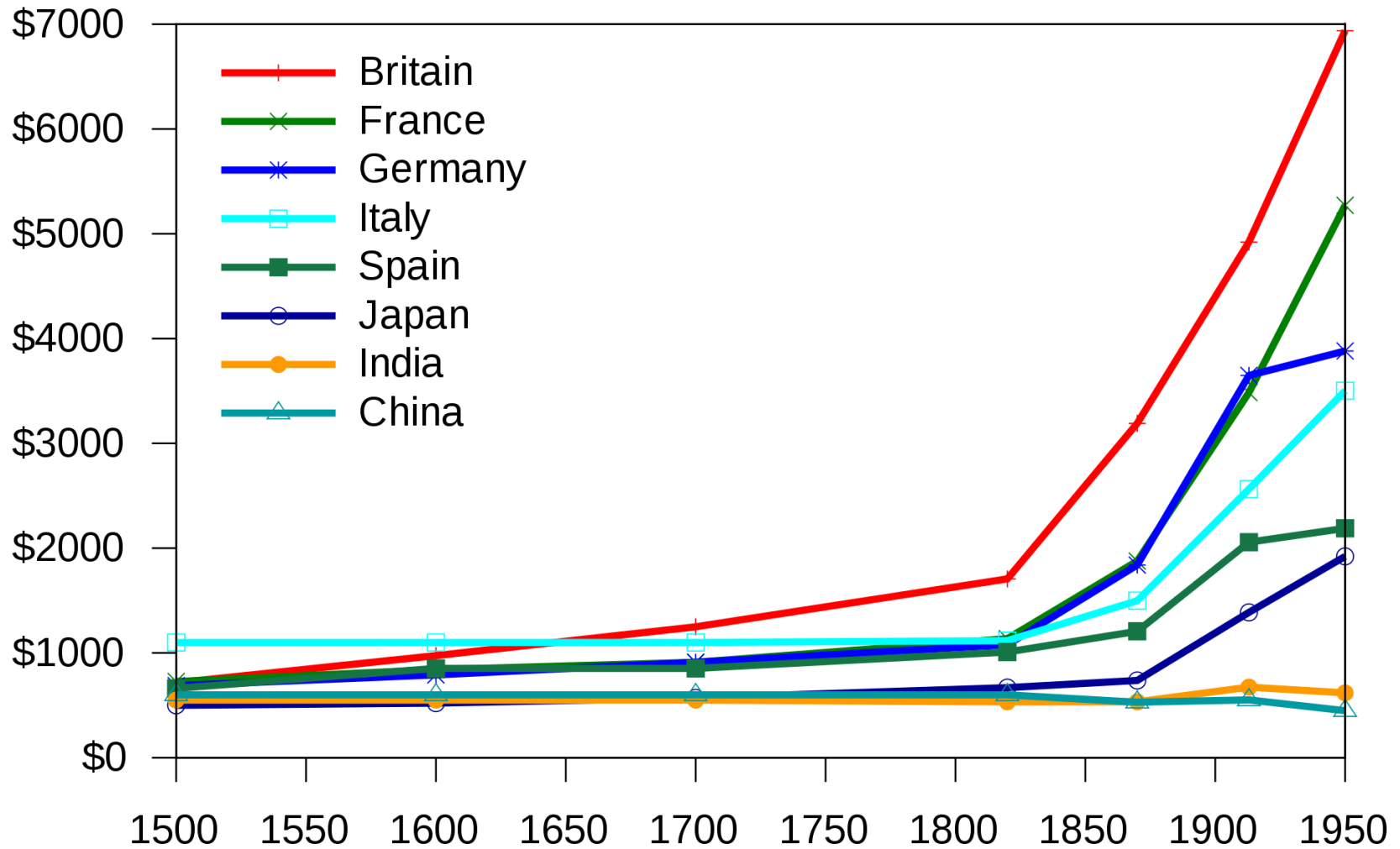


# A grande divergência: a primeira revolução industrial e a hegemonia britânica

## Relative Share of World Manufacturing Output, 1750-1900



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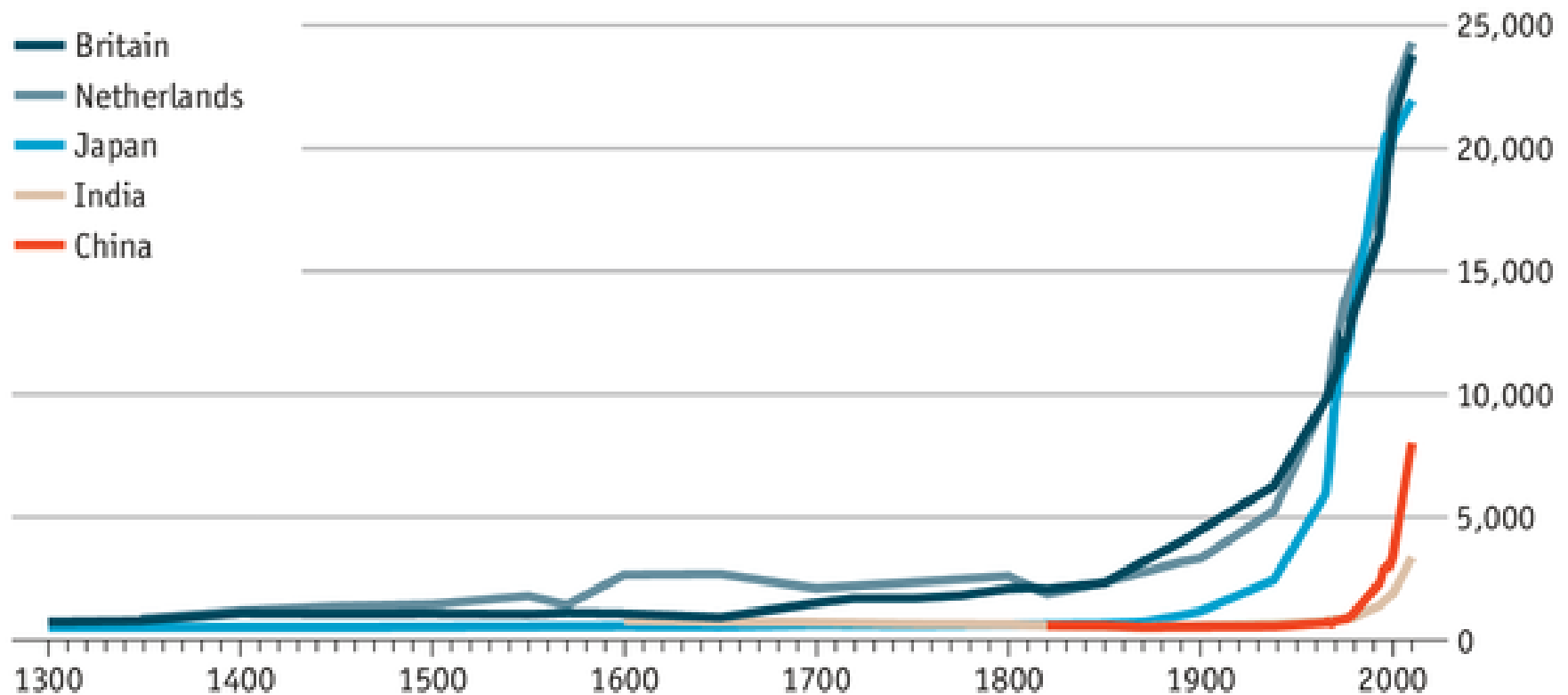




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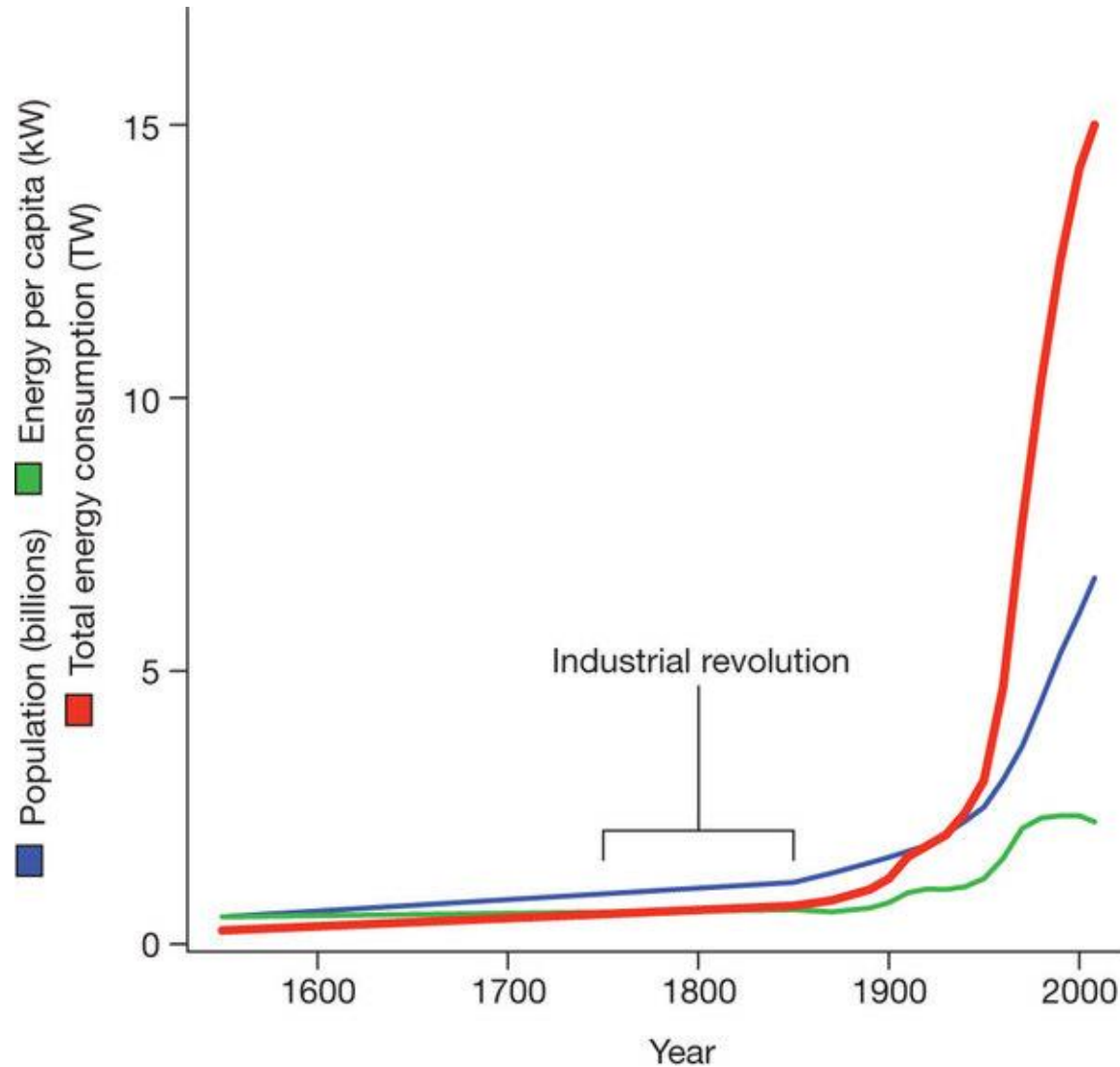
## The Great Divergence

GDP per person, 1990 constant \$

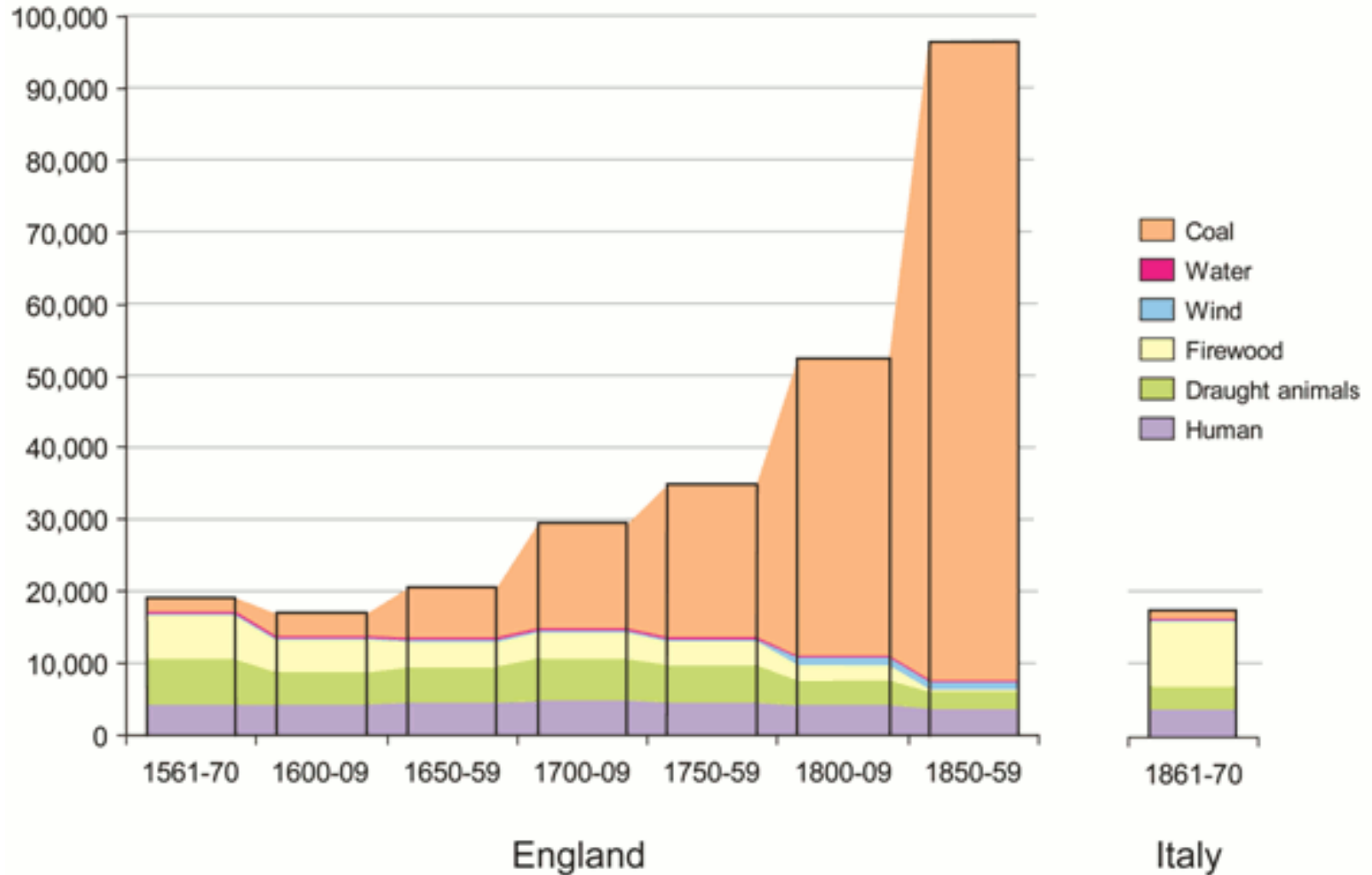


Source: Maddison Project

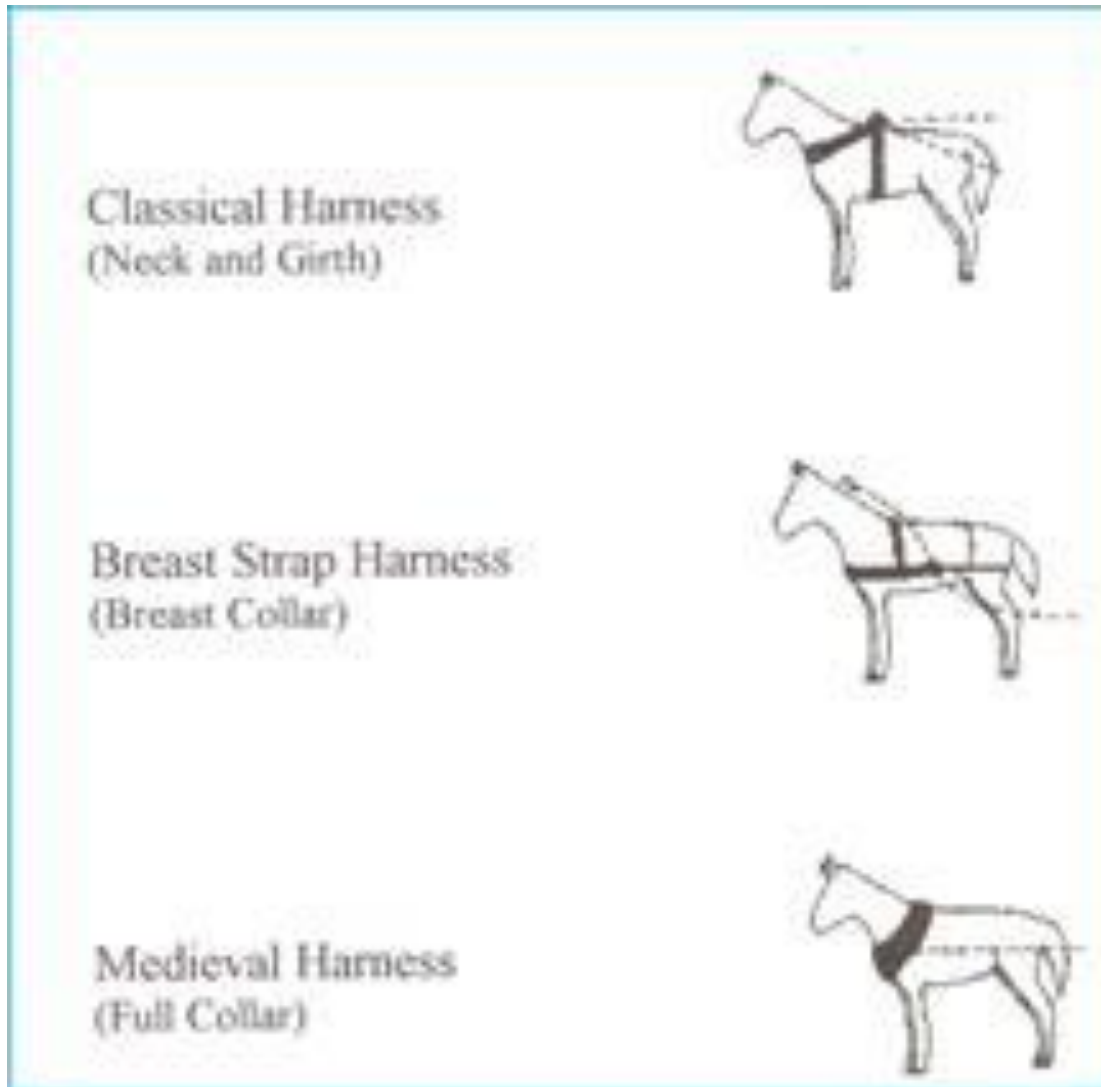
# A grande divergência: a primeira revolução industrial e a hegemonia britânica



# A grande divergência: a primeira revolução industrial e a hegemonia britânica



# Ganhos de produtividade devido à mudança tecnológica: evolução dos arreios de tração animal



Antiguidade clássica

Século VI

Século IX

## A grande divergência: a primeira revolução industrial e a hegemonia britânica

- A Revolução Industrial é um tema central do pensamento social moderno e contemporâneo. Grande parte de nossas noções de moderno e modernidade foram articuladas com referência ao mundo criado pela Revolução Industrial.
- Nos mais de 200 anos que se passaram desde seus primórdios, muitas, variadas e com frequência divergentes interpretações sobre a Revolução Industrial foram apresentadas, debatidas, criticadas, abandonadas, retomadas, reinterpretadas, modificadas.

## Revolução Industrial, Revoluções Industriais

- Joseph Schumpeter cunhou a noção de “revoluções industriais sucessivas”.
- Carlota Pérez propôs o conceito de paradigma tecno-econômico.
- Chris Freeman e Luc Soete usaram a noção de ondas sucessivas de progresso técnico.

# A grande divergência: a primeira revolução industrial e a hegemonia britânica

- Ondas sucessivas do progresso técnico (Freeman e Soete 2008, p. 47):
  - 1ª RI (1780-1840): produção em fábricas de têxteis, energia hidráulica, algodão, canais e estradas carroçáveis;
  - 2ª RI (1840-1890): máquina a vapor, ferrovias, telégrafo, carvão e ferro;
  - 3ª RI (1890-1940): eletricidade, siderurgia, ferrovias, telefone, aço;
  - 4ª RI (1940-1990): fordismo, automóveis, materiais sintéticos, auto-estradas, R&TV, aviões, petróleo e derivados;
  - 5ª RI (1990-?): microeletrônica, computadores, redes cibernéticas, gás e petróleo.

# A grande divergência: a primeira revolução industrial e a hegemonia britânica

- Por que a 1ª Revolução Industrial ocorreu na Inglaterra e não na França, no Japão, na China ou na Índia?
- Em que aspectos essas regiões diferiam umas das outras?
- Quais foram os fatores que deram vantagem à Inglaterra em relação a outras partes do mundo que compartilhavam características muito semelhantes com a Inglaterra?



## Pomeranz (2000), *The great divergence*

- “This book will also emphasize the exploitation of non-Europeans – and access to overseas resources more generally – but not as the sole motor of European development. Instead it acknowledges the vital role of internally driven European growth but emphasizes how similar those processes were to processes at work elsewhere, especially in East Asia, until almost 1800. Some differences that mattered did exist, but I will argue that they could only create the great transformation of the nineteenth century in a context also shaped by Europe’s privileged access to overseas resources.” (Pomeranz 2000: 4)

## Pomeranz (2000), *The great divergence*

- “The book calls upon the fruits of overseas coercion to help explain the *differences* between European development and what we see in certain other parts of Eurasia (primarily China and Japan) – not the whole of that development or the differences between Europe and *all* other parts of the Old World.” (Pomeranz 2000: 4)

## Pomeranz (2000), *The great divergence*

- “We cannot understand pre-1800 global conjunctures in terms of a Europe-centered world system; we have, instead, a polycentric world with no dominant center. (...) Only after nineteenth-century industrialization was well advanced does it make sense to see a single, hegemonic European ‘core’”.  
(Pomeranz 2000: 4-5)

## Pomeranz (2000), *The great divergence*

- “Most of the existing literature, however, has remained set in an either/or framework – with either a Europe-centered world system carrying out essential primitive accumulation overseas or endogenous European growth called upon to explain almost everything.” (Pomeranz 2000: 5)

## Pomeranz (2000), *The great divergence*

- “I argue - in keeping with the finding of surprising similarities as late as 1750 (...) – that Europe, too, could have wound up on an ‘east Asian’, labor-intensive path. That it did not was the result of important and sharp discontinuities, based on both fossil fuels and access to New World resources, which, taken together, obviated the need to manage land intensively.”  
(Pomeranz 2000: 13)

## Pomeranz (2000), *The great divergence*

- “No matter how far back we may push for the origins of capitalism, *industrial* capitalism, in which the large-scale use of inanimate energy sources allowed an escape from the common constraints of the preindustrial world, emerges only in the 1800s. There is little to suggest that western Europe’s economy had decisive advantages before then, either in its capital stock or economic institutions, that made industrialization highly probable there and unlikely elsewhere. (...) European industrialization was still quite limited outside of Britain until at least 1860. Parts of this book call into doubt various contentions that Europe had an internally generated economic edge before 1800” (Pomeranz 2000: 16).

## Pomeranz (2000), *The great divergence*

- “Europe had not accumulated a crucial advantage in physical capital prior to 1800 and was not freer of Malthusian pressures (and thus more able to invest) than many other large economies. (...) It is unclear whether whatever differences existed in the *degree* of technological inventiveness were crucial to exiting a Malthusian world (...) but it is clear that the differences in global context that helped ease European resource constraints (...) were significant.”  
(Pomeranz 2000: 16-17)

## **Pomeranz (2000), *The great divergence***

- “In sum, core regions in China and Japan circa 1750 seem to resemble the most advanced parts of western Europe, combining sophisticated agriculture, commerce, and nonmechanized industry in similar, arguably even more fully realized ways.” (Pomeranz 2000: 17)



## **Pomeranz (2000), *The great divergence***

- “Capital was not a particularly scarce factor of production in the eighteenth century. Constraints connected to energy, and ultimately to quantities of land (...) were a far more important looming impediment to further growth. The essence of development was that both labor and capital became more plentiful relative to land, but producing any of Malthu’s four necessities of life – food, fiber, fuel, and building materials – still required land.” (Pomeranz 2000: 19)
- “The shift from wood to coal [and] (...) the ecological relief provided by Europe’s relations with the New World.” (Pomeranz 2000: 20)

## Pomeranz (2000), *The great divergence*

- “A crucial part of this complementarity, up through the early industrial era, was the result of slavery. Slaves were purchased from abroad by New World plantations, and their subsistence production was often limited. Thus, slave regions imported much more than, say, eastern Europe and southeast Asia, where the producers of export crops were born locally, met most of their basic needs, and had little cash with which to buy anything else.” (Pomeranz 2000: 20)

## Pomeranz (2000), *The great divergence*

- “Thus, a combination of inventiveness, markets, coercion, and fortunate global conjunctures produced a breakthrough in the Atlantic world, while the much earlier spread of what were quite likely better-functioning markets in east Asia had instead lead to an ecological impasse.” (Pomeranz 2000: 23)
- “The significance of the Atlantic trade not in terms of financial profits and capital accumulation, nor in terms of demand for manufactures (...) but in terms of how much they relieved the strain on Europe’s supply of what was really scarce: land and energy.” (Pomeranz 2000: 23)

## Pomeranz (2000), *The great divergence*

- “And because it helped ease these fundamental, physical constraints, Europe’s extraction deserves to be compared with England’s turn to coal as a crucial factor leading *out* of a world of Malthusian constraints (...) And, indeed, a preliminary attempt to measure the importance of this ecological windfall suggests that until well into the nineteenth century, the fruits of the overseas exploitation were probably roughly as important to at least Britain’s economic transformation as its epochal turn to fossil fuels.” (Pomeranz 2000: 23)

## Pomeranz (2000), *The great divergence*

- “What Blaut refers to as ‘uniformitarianism’ – the idea that at a certain point (in his analysis, 1492), many interconnected parts of Afro-Eurasia had roughly similar potential for ‘dynamism’ in general, and thus for ‘modernity’ – is a useful point of departure, but has limits we must discover empirically. It would be a remarkable coincidence if it turned out to be applicable everywhere, and there is much evidence that it is not. My own guess, as made above, is that population density will turn out to be extremely important, and thus it is more likely that, say, north India will turn out to belong with China, Japan, and western Europe than, say, central Asia or even the Ottoman Empire” (Pomeranz 2000: 27)

**Explicação  
predominantemente  
intraeuropeia**

**Explicação  
predominantemente  
extraeuropeia**



**Kennedy**

**Arrighi**

**Hobsbawn**

**Blaut  
Abu-Lughod**

**Dussel**

**Pomeranz**

