

The So Called “Great Divergence”

Development of International System

Chulalongkorn University

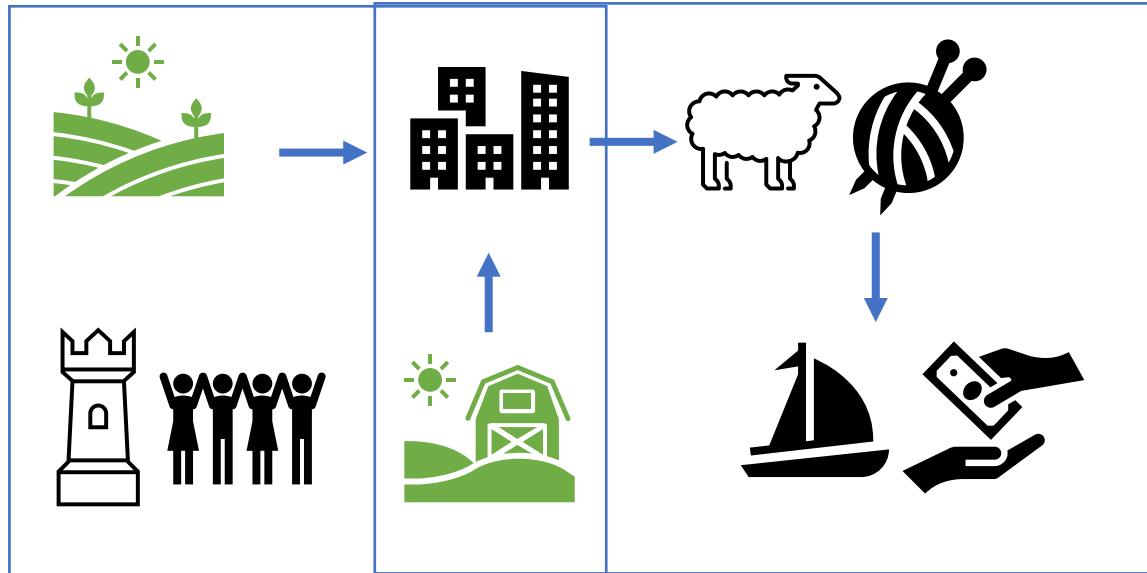
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“You can be democratic at home
and ruthlessly imperial abroad”

Jeffrey Sach, Athens Democracy
Forum 2022

Malthusian Growth Smithian Growth



- Agrarian
 - Population linked to resources → positive and negative checks
 - Per capita income typically leads to population growth rather than sustained per capita growth
 - Malthusian trap
- Trade Expansion
 - Development of market institutions
 - Better productivity through organization and labour division
 - Market mostly self-regulated → mercantilism

Industrialization Intensive versus Extensive Growth

- Technology driven
- Rapid industrialization → mass production
 - NA versus Europe
 - Sustained economic growth

Understanding “Growth” [Capital Accumulation] – pre-20th century edition

- Capital Stock propels changes, and capital accumulates with productivity increase.
 - Labour productivity
 - Capital productivity
- Technology
- Trade and Resources
- Institutions
 - R&D Investments
 - Capital Market
 - Communications and Legal

Why understanding the 'Great Divergence' is important?

Explains Global Inequality

- Political economic imbalances

Impact of Institutional and Cultural Differences

- Local versus Colonial Legacies

Future Economic Development

- Discourses surrounding 'path to wealth and prosperity'

Challenging Eurocentric Narratives

- Finding new ways to integrate agencies





CODE DU TRAVAIL DE LA PRÉVOYANCE SOCIALE

Loi du 1er juillet 1884.

Archives Nationales des Anciens Ministres de l'Intérieur. 1884
P. 10, folio 107 v.

Le 1er juillet 1884 présente un double caractère : une protection importante contre les dérives et les abus de l'industrie moderne, et une amélioration de la condition sociale des travailleurs dans l'agriculture. Celle-ci consiste dans deux améliorations très distinctes : une amélioration des conditions d'exploitation pour le travail rural et une amélioration des conditions de vie pour le travail urbain.

Le travail rural a été mis en évidence à l'origine par plusieurs lois qui ont favorisé la concentration des exploitations, mais depuis plusieurs années, sous divers prétextes, certains propriétaires ont été tentés d'en faire faire au travail rural une sorte de prison. Ces lois sont toutes d'interminables lois de préparation, qui doivent être remplacées par des lois plus simples et directes, qui doivent donner au travail rural le développement de ses besoins naturels et lui donner la force de résister aux maléfices.

Les deux dernières dispositions de la loi dérogent à tout autre droit réglementaire ou précaution, et peuvent être facilement appliquées sans déroger à aucune autre loi.

La loi sur la liberté de la presse a été adoptée dans un esprit tout à fait différent de celle de 1875. Ses principes sont tout à fait différents, mais son objectif est le même : la sécurité de l'opinion publique et l'assurance que toute personne peut exprimer librement son opinion.

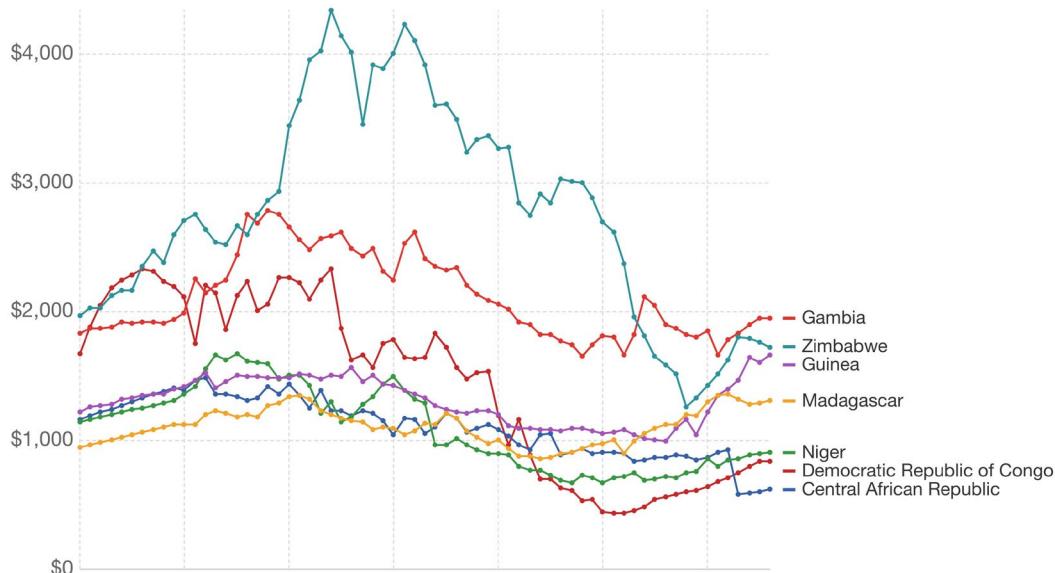
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Rights and All the
Wealth



GDP per capita

Real GDP per capita is measured using US\$, inflation adjusted at prices of 2011. Multiple benchmarks allow cross-country income comparisons.

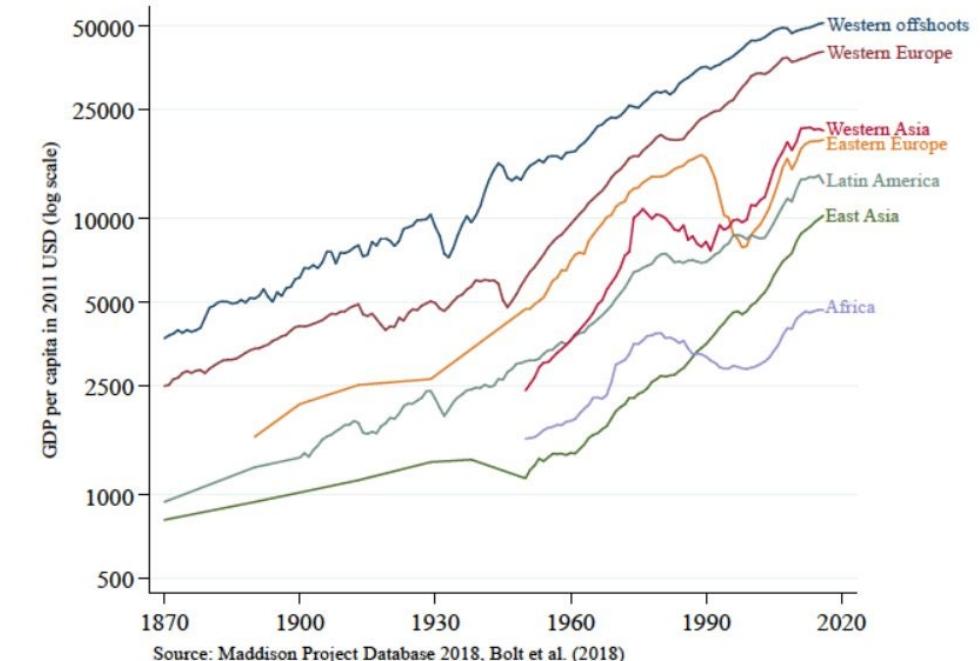


Source: Maddison Project Database (2018)

OurWorld
in Data

OurWorldInData.org • CC BY-SA

Figure 2 Average real GDP per capita across regions, 1870-2016



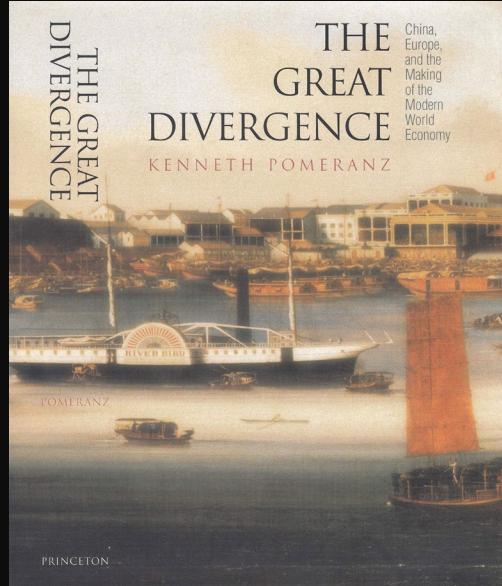
Source: Maddison Project Database 2018, Bolt et al. (2018).

The long 18th century....

- Colonialism and Mercantilism
- Political Unrest
- Expansion of Wealth
- Beginning of Independence



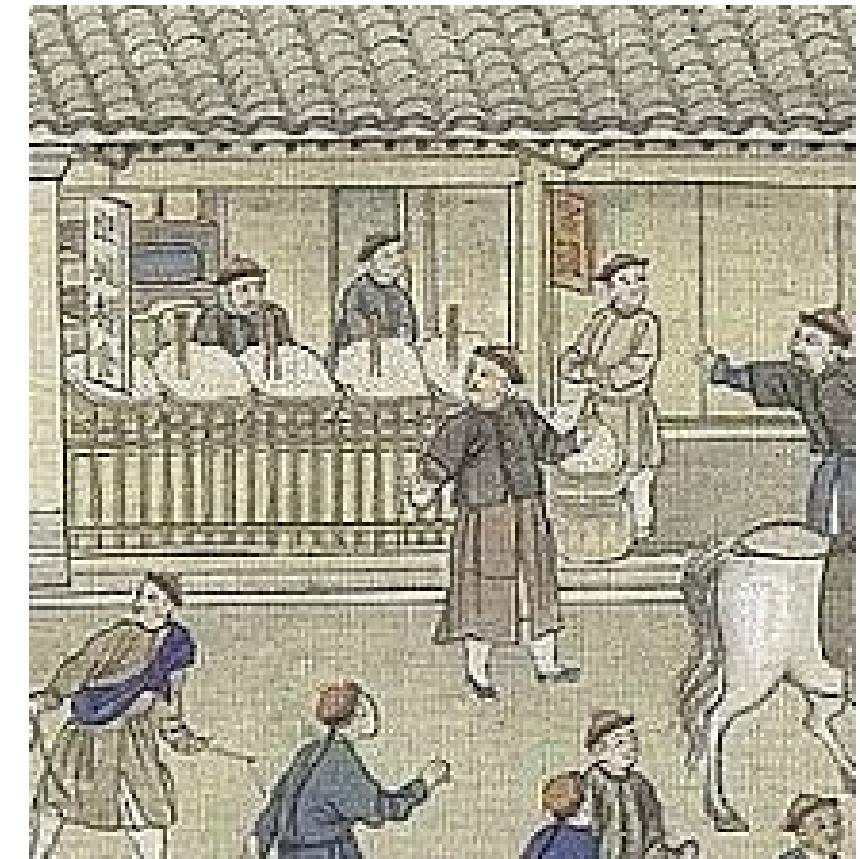
- Measuring the “standards of living”
- The China Question:
 - How and when did Chinese glorious ascendency culminate into relative decline?
- Growth and Development
 - Extensive Growth (Factor of Production Input)
 - Intensive Growth (Productivity Expansion)



GDP per capita, 1950	
US	9,561
UK	6,907
USSR	2,834
Bolivia	1,919
Ghana	1,122
Afghanistan	645
India	619
China	439
Tanzania	379

Gap

- By the mid-19c a gap seemed clear. Humiliation of the Opium Wars and Unequal Treaties
- Britain offset payments deficit with China by producing opium in India and exporting it to China.
 - 1839 China resists, seizing cargo of opium in Canton (Guangzhou).
 - Britain sends in the navy, inflicting crushing defeat.
 - China signs "unequal" treaty of Nanking allowing new ports open to foreign trade (incl. Shanghai). Opium trade continues. Britain gets Hong Kong.
- Adam Smith Wealth of Nations (1776)
 - "The accounts of all travellers, inconsistent in many other respects, agree in the low wages of labour, and in the difficulty which a labourer finds in bringing up a family in China. If by digging the ground a whole day he can get what will purchase a small quantity of rice in the evening, he is contented." ...
 - "The poverty of the lower ranks of people in China far surpasses that of the most beggarly nations in Europe. In the neighbourhood of Canton many hundred, it is commonly said, many thousand families have no habitation on the land, but live constantly in little fishing boats upon the rivers and canals. The subsistence which they find there is so scanty that they are eager to fish up the nastiest garbage thrown overboard from any European ship. Any carrion, the carcase of a dead dog or cat, for example, though half putrid and stinking, is as welcome to them as the most wholesome food to the people of other countries. Marriage is encouraged in China, not by the profitableness of children, but by the liberty of destroying them. In all great towns several are every night exposed in the street, or drowned like puppies in the water."



The Great Divergence: Finding the causes in the age of “Superior”

Western thinkers drew the lesson that this heritage wasn't enough to guarantee modern prosperity, power, development. It made them ask: what was exceptional about Europe?

Culture? Politics? Legal system?
Capitalism? (How to define capitalism?)

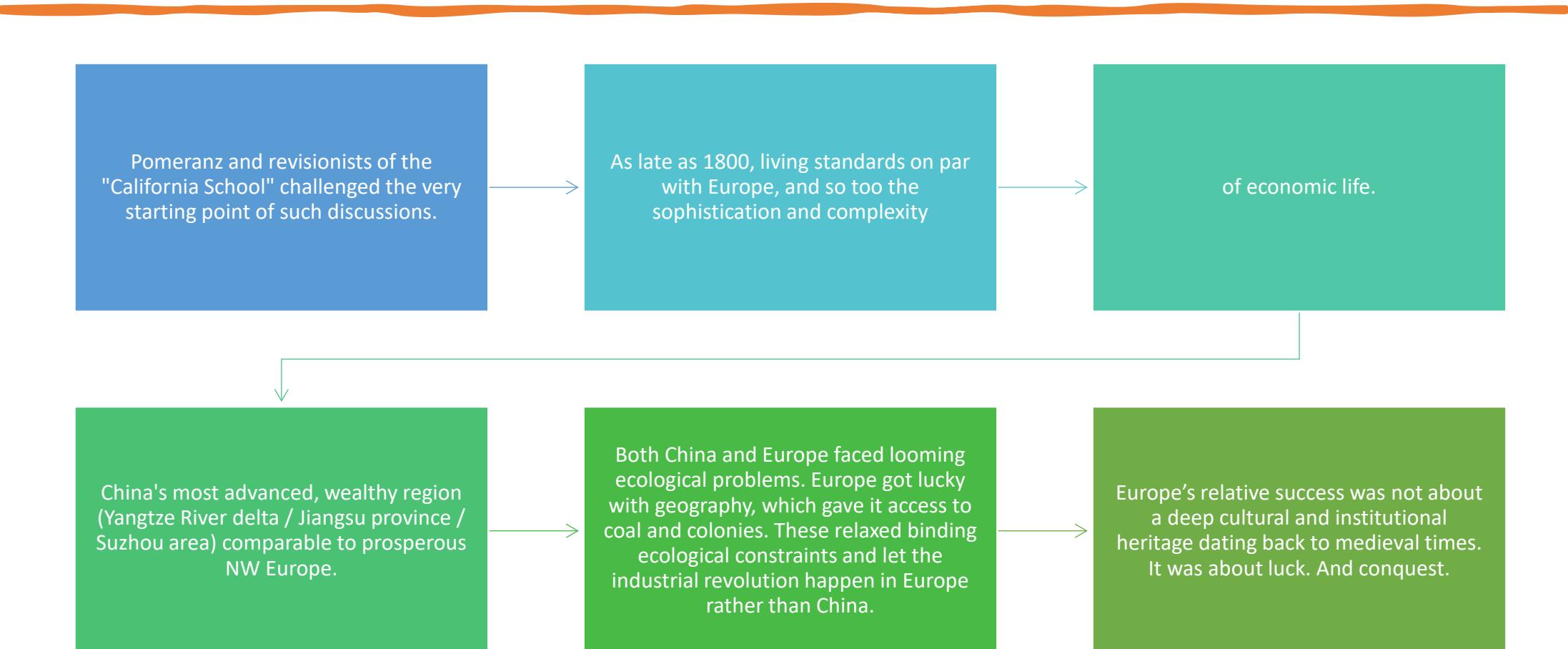
Montesquieu: China is “a despotic state, whose principle is fear.”

Malthus: uncontrolled reproduction is the problem.

Marx speculated about an Asiatic mode of production. Hot climate => irrigation important => large bureaucratic state => initiative stifled. (Wittfogel built on this idea. "Oriental despotism" was the consequence of large scale water control projects.)

Weber thought it was about capitalism, which in turn had to do with both culture (think of The Protestant Ethic and the Spirit of Capitalism) and the legal and political framework of social life (in which free cities played an important role).

The Great Divergence



The Great Divergence

- Western ideas of China based on ignorance, assumptions, hindsight
 - challenge evidence on life expectancy
 - challenge interpretation of technology
 - China tech economized on resource use (not labour)
 - China close to inventing spinning jenny, flying shuttle in textile production. Europe too had failed to come up with these for at least 150 years – not a failure in either case.
 - China agriculture didn't *need* as much animal power as European (hence not failure), used other forms of fertilizer, perfected crops
 - Only European military and seafaring technology really superior
 - challenge claim of immobile culture
 - spread of the novel in China as in Europe active scientific, intellectual community
 - not hostile to commerce any more than Europe
 - challenge claims about markets, which in fact functioned well.

Numbers and Social Scientists

- Numbers favoured
- Size matters: How big is a certain effect? How fast did something grow?
- Thinking is disciplined by numbers. If trade is shown to be a very small part of the economy (even if it made some individuals very rich), a story that makes it central to economic development must elucidate some mechanism by which small things have big effects.
- Numbers reduce things to common magnitudes that can be compared
- Numbers can be aggregated to describe representative experience, and deviations from it
- Numbers such as wages or prices, which prevail throughout a market, will be the same for all participants, even if we directly observe only one.
- Numbers correspond to the variables in mathematical models
- IN CONTRAST
 - Historically, numbers sometimes recorded for other purposes than what historians do with them – less subject to misrepresentation e.g. keepers of manorial accounts didn't know we'd estimate real wages or yields from the data centuries later...



Problems with Numbers

- numbers give a false sense of precision
- numbers have too much rhetorical power for economists – everything else "just an anecdote", or "the plural of anecdote is not data"
- researchers let the availability of quantitative information determine their agenda
- not everything is quantifiable!

Chinese consumption baskets

Table 3. *Subsistence lifestyle: baskets of goods in China*

	Suzhou/Canton			Beijing		
	Quantity per person per year	Nutrients/day		Quantity per person per annum	Nutrients/day	
		Calories	Grams of protein		Calories	Grams of protein
Rice	171 kg	1,677	47	179 kg	1,667	55
Sorghum						
Polenta						
Beans/peas	20 kg	187	14	20 kg	187	14
Meat/fish	3 kg	8	2	3 kg	21	2
Butter						
Oil	3 kg	67	0	3 kg	67	0
Soap	1.3 kg			1.3 kg		
Cotton	3 m			3 m		
Candles	1.3 kg			1.3 kg		
Lamp oil	1.3 kg			1.3 kg		
Fuel	3 M BTU			3 M BTU		
Total		1939	63		1,942	71

1,940 calories/day from cheapest carbohydrate - barely enough for adult male
+ Consumption surveys in Japan and China, 1920s-30s.

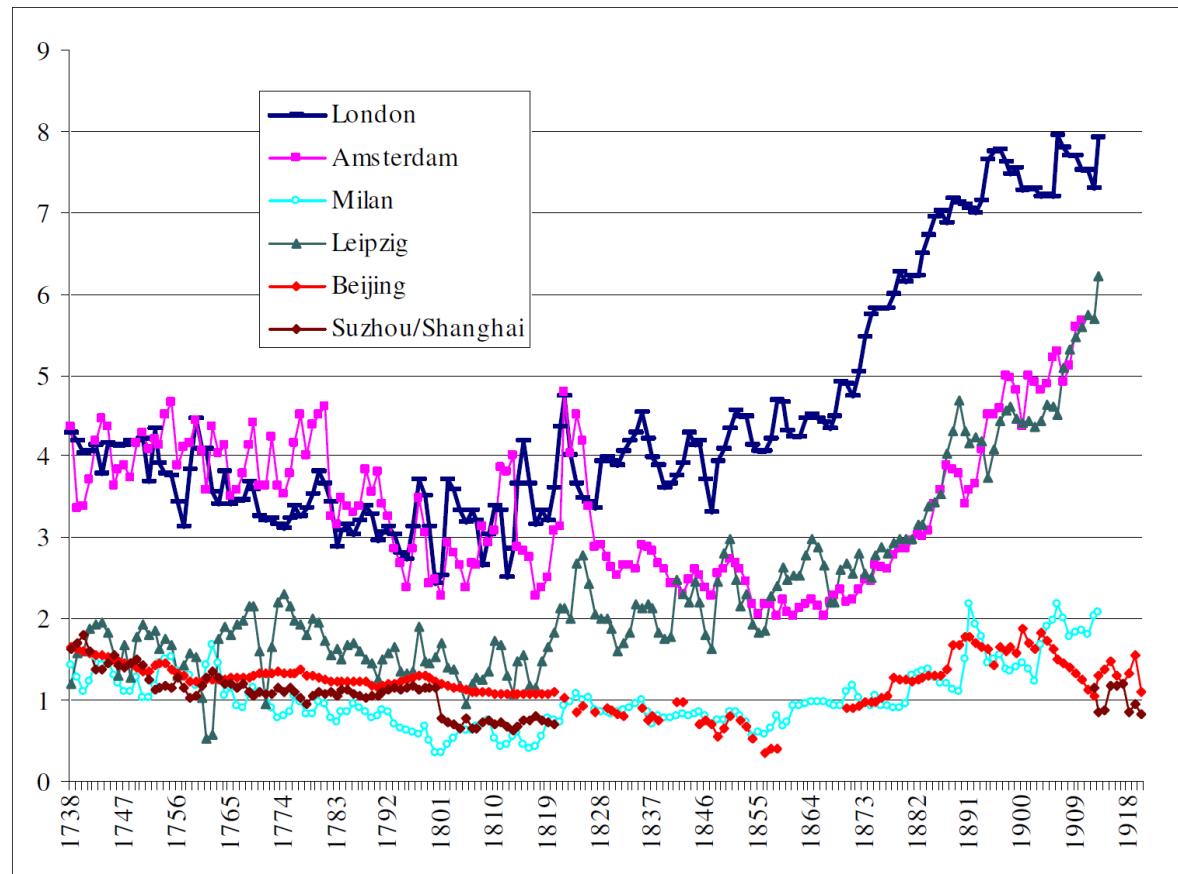
European consumption baskets

Table 4. *Subsistence incomes: baskets of goods in Europe*

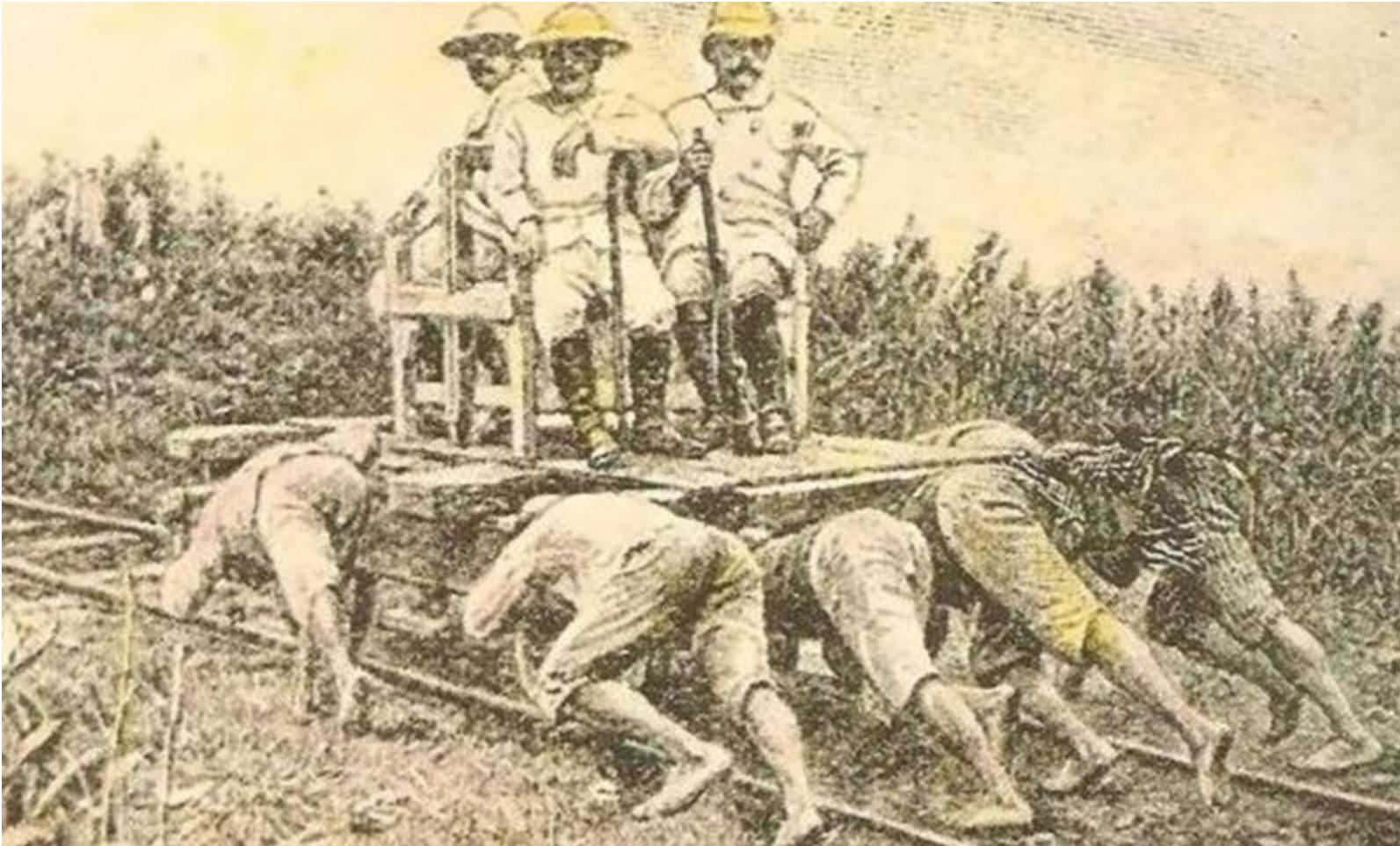
	Northern Europe			Milan		
	Quantity per person per year	Nutrients/day		Quantity per person per annum	Nutrients/day	
		Calories	Grams of protein		Calories	Grams of protein
Oats	155 kg	1,657	72			
Sorghum						
Polenta						
Beans/peas	20 kg	187	14	165 kg	1,655	43
Meat/fish	5 kg	34	3	20 kg	187	14
Butter	3 kg	60	0	5 kg	34	3
Oil						
Soap	1.3 kg			1.3 kg		
Cotton	3 m			3 m		
Candles	1.3 kg			1.3 kg		
Lamp oil	1.3 kg			1.3 kg		
Fuel	3 M BTU			3 M BTU		
Total		1,938	89		1,936	60

Health and Measurement of Power and Economics: Measuring relative power and economics in the eyes of wages and consumption power

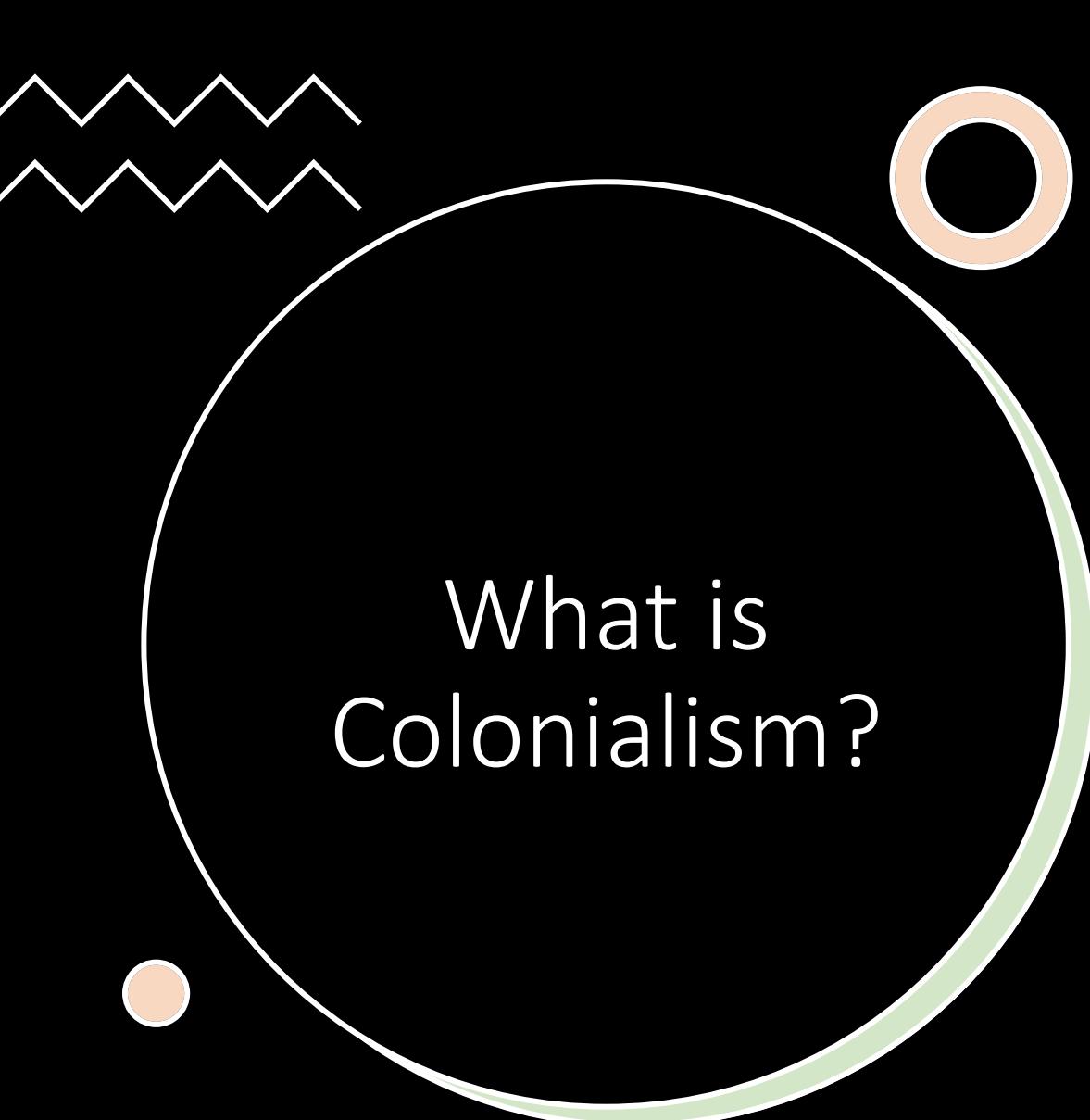
Welfare ratios of unskilled labourers in China and Europe, 1738-1925



Allen et al. *Economic History Review* 2011



Age of Extractions and Co-opting Benefits



What is Colonialism?

“a distinct mode of domination that involves the extended subjugation and political control of one people by another, typically manifesting through a foreign power establishing direct sovereignty, settling populations, and enforcing legal, economic, and social hierarchies in the colonised territory”



Differences from 'Conquests' of the pre-1500s

- Driven by Mercantilism and Naval Technology
 - Off-shore control of borders and settlements
 - Extractive and exclusionary
- Reasons:
 - Raw Materials → Access to silver and crops plantation (cotton, tin, and oil)
 - Captive Markets
 - Religion: Civilising Mission
 - Prestige



What did colonialism look like?

Aspect	Colonialism	Territorial Conquest
Key Feature	Extended domination & transformation	Acquisition through force
Population Settlement	Frequent and systemic	Rare or absent
Governance	New legal/social/economic orders	Typically pre-existing structures
Ideological Foundation	Racial, civilising, superiority	Military/political ambition
Experience of Ruled	Long-term subjugation & dispossession	Often short-term or transitional

Why do we need to understand the impact of colonialism?

 Institutional legacy and economic development
Structures that benefited the colonisers at the expense of local population

 Political Stability and Governance

 Social Structures and Inequality

 Legal institutions and legal system

Key Features of Colonialism

 Permanent Settlement

Population Settlement
Land Use

 Imposed Borders

Local Conflicts
Long-term Effects

 Economic Exploitation

Raw Materials
Cheap Labor
Market Access

 Cultural Superiority Claim



Colonialism

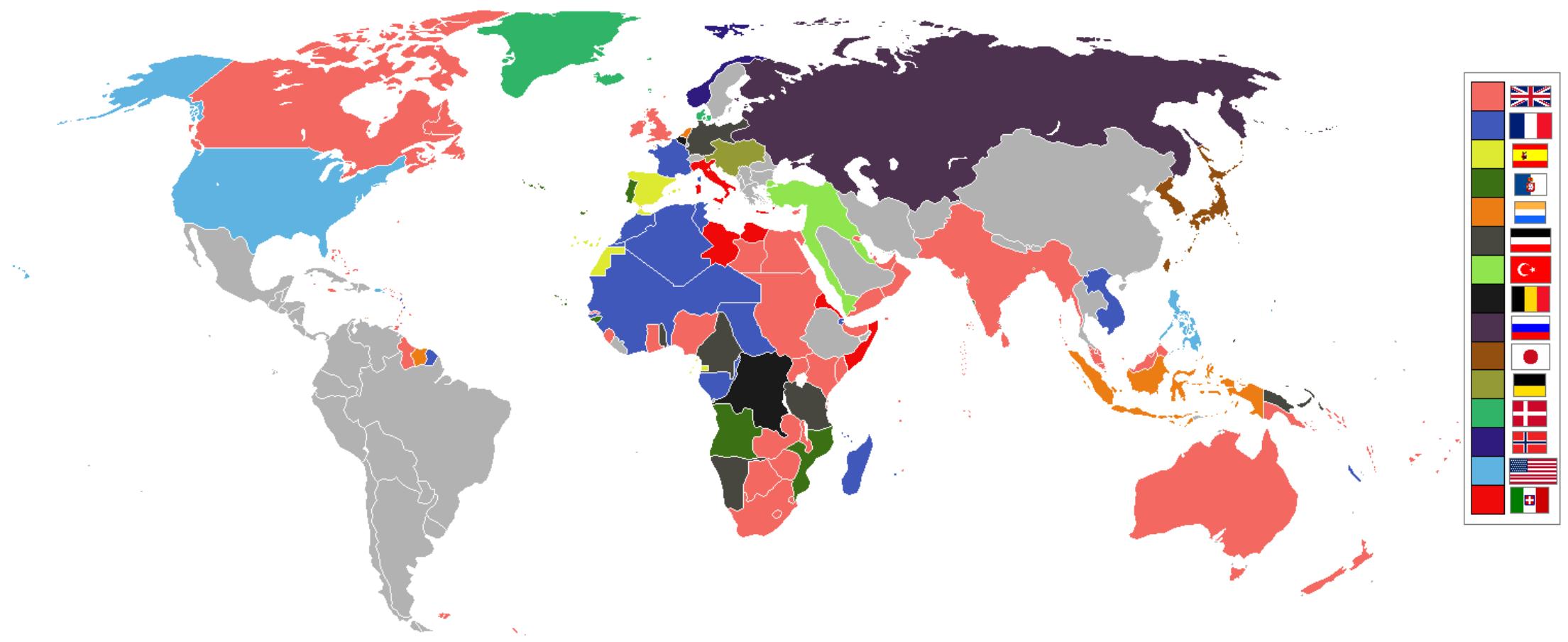
 Foreign Rule

Government Control
Legal System

 Military Domination

Military Conquest
Suppression Tactics

Colonialism and Imperialism



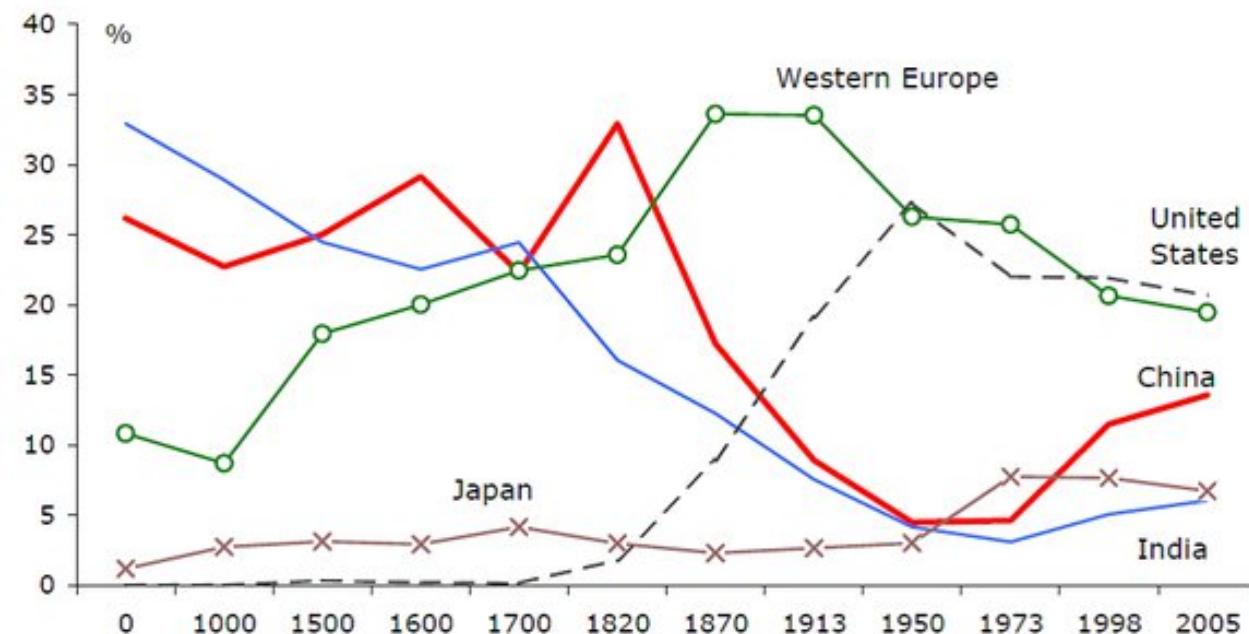
1914



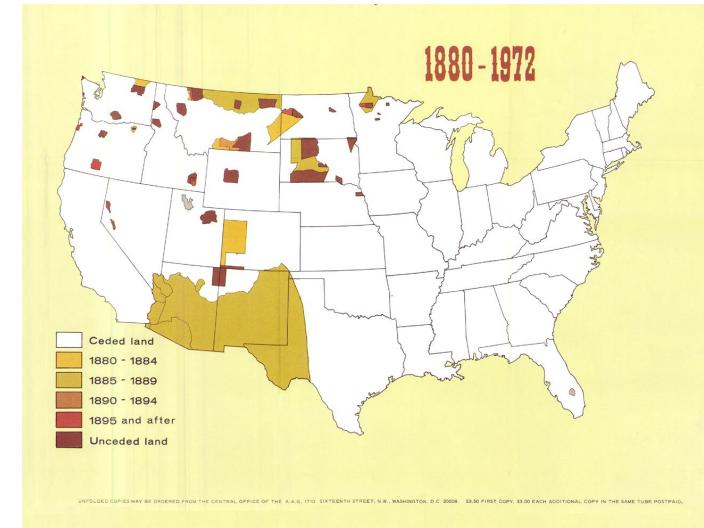
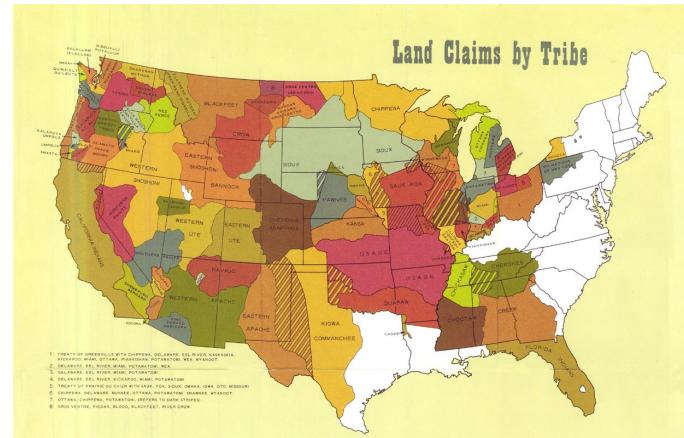
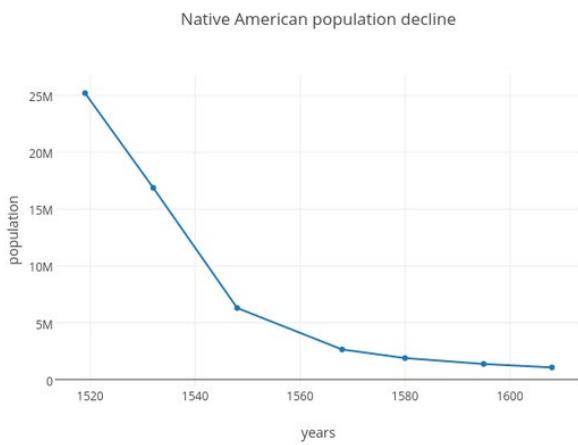
Breaking down transformation of the colonial systems

- From Colonialism to Imperialism
 - Early colonization: tax and tribute
 - The American Colonies!
 - Columbian Exchanges and Silver-Gold Extracts
 - Arbitrage trade network dominated by Maritime European ships
 - 1850s onwards
 - Core and peripheral industrialization zones
- 18th and 19th century
 - Cost of Colonialism versus Benefits over Imperial Monopolies
 - Transformation of local institutional responses
 - Castes, socio-economic power, production, institutions

Chart 1: Major economies' share of global GDP, 0 - 2005



Sources: Angus Maddison, *The World Economy: A Millennial Perspective*, OECD Development Centre, 2001; IMF, *World Economic Outlook Database*, 2005.



Game Changer: The Americas

The Americas: Resource, Land, and Market Powerhouse

- From Mercantilism to Resource intensive industrialization
- New markets
- Birth of different types of ‘colonies’
 - White colonies
 - Administrative colonies

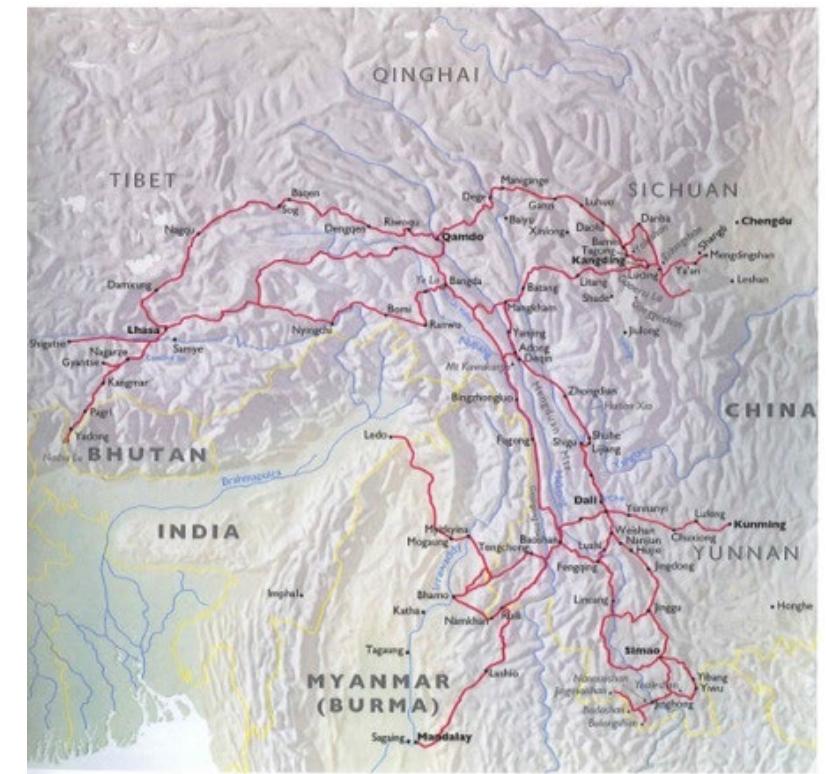




THE ATLANTIC **SLAVE TRADE**



Impact on old Eurasian Trade

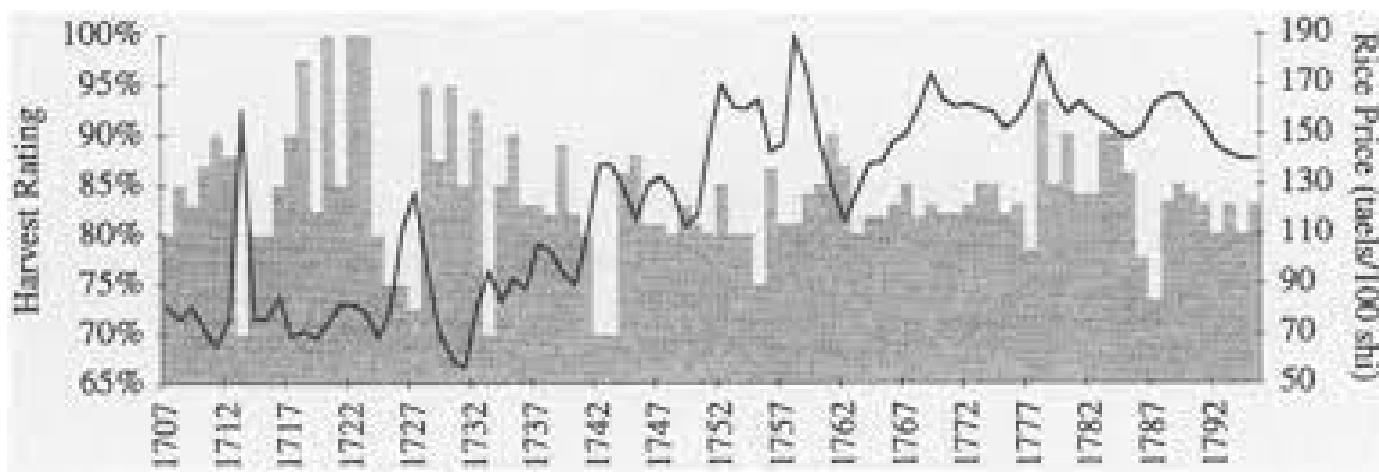


Sokoloff and Acemoglu Debates on Systems

- Geographic Determinism (Engerman and Sokoloff)
 - Geography creates conditions for institutional preferences
 - Prevalence of European Institutions in areas
 - Natural resource traps
 - Long run economic development impact
- North-South Division
- Institutional Determinism (Acemoglu, Johnson and Robinson)
 - Regimes are created as a response to institutions → institutional resilience against geography
 - Growth inducing institutions are only set up in areas where the disease environment was favourable (to Europeans).
 - Non-favourable areas result in the set up of extractive institutions

Colonialism in Asia the race for manufacturing, markets, and resources





Inflation in
the old
Empire

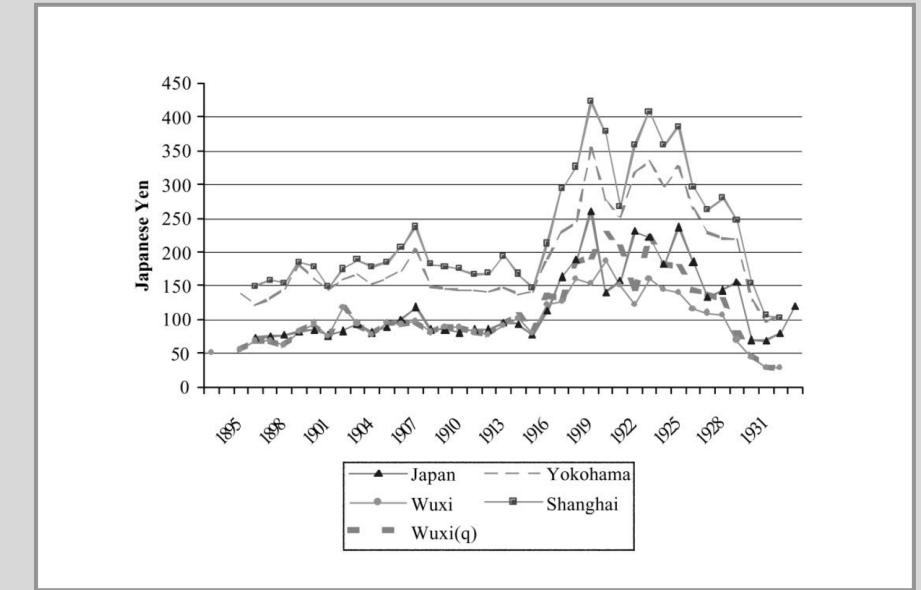
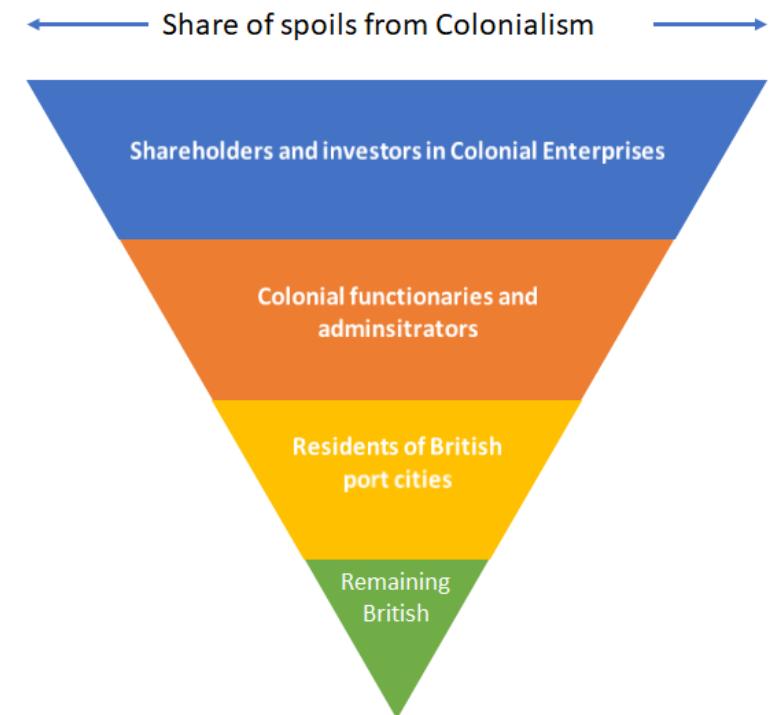
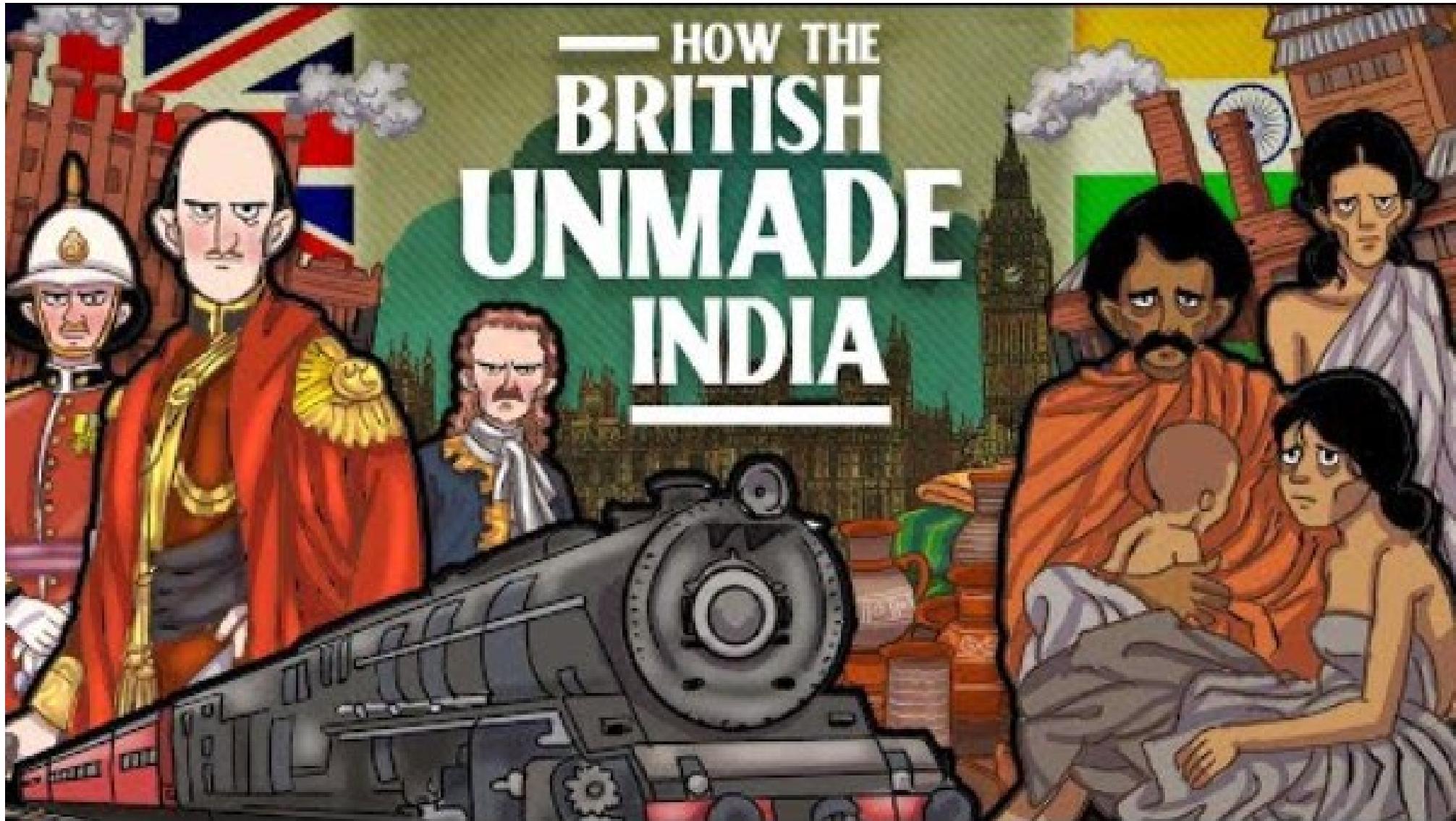


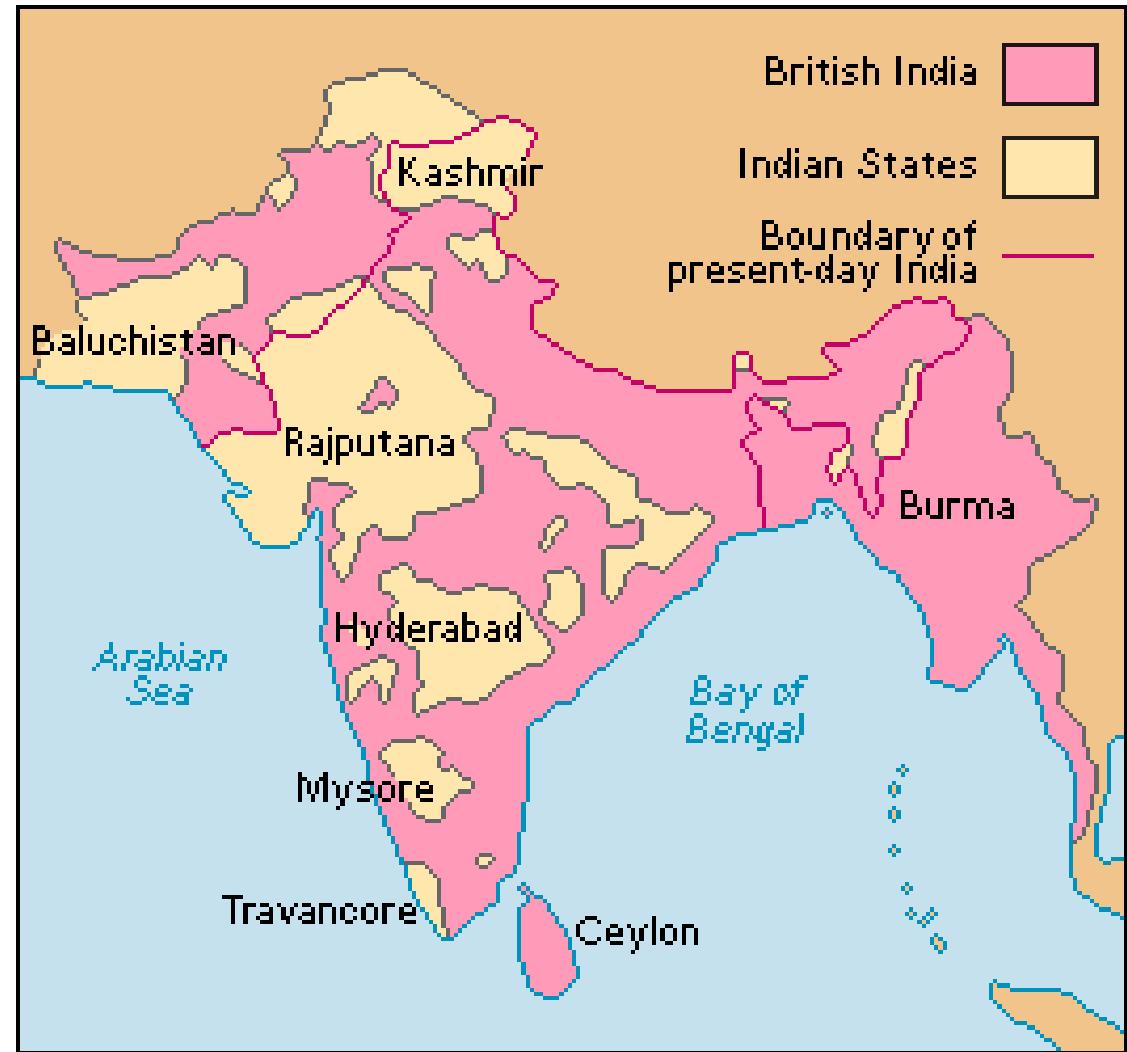
Photo JP Devolze, avec l'autorisation de Mr Vervy

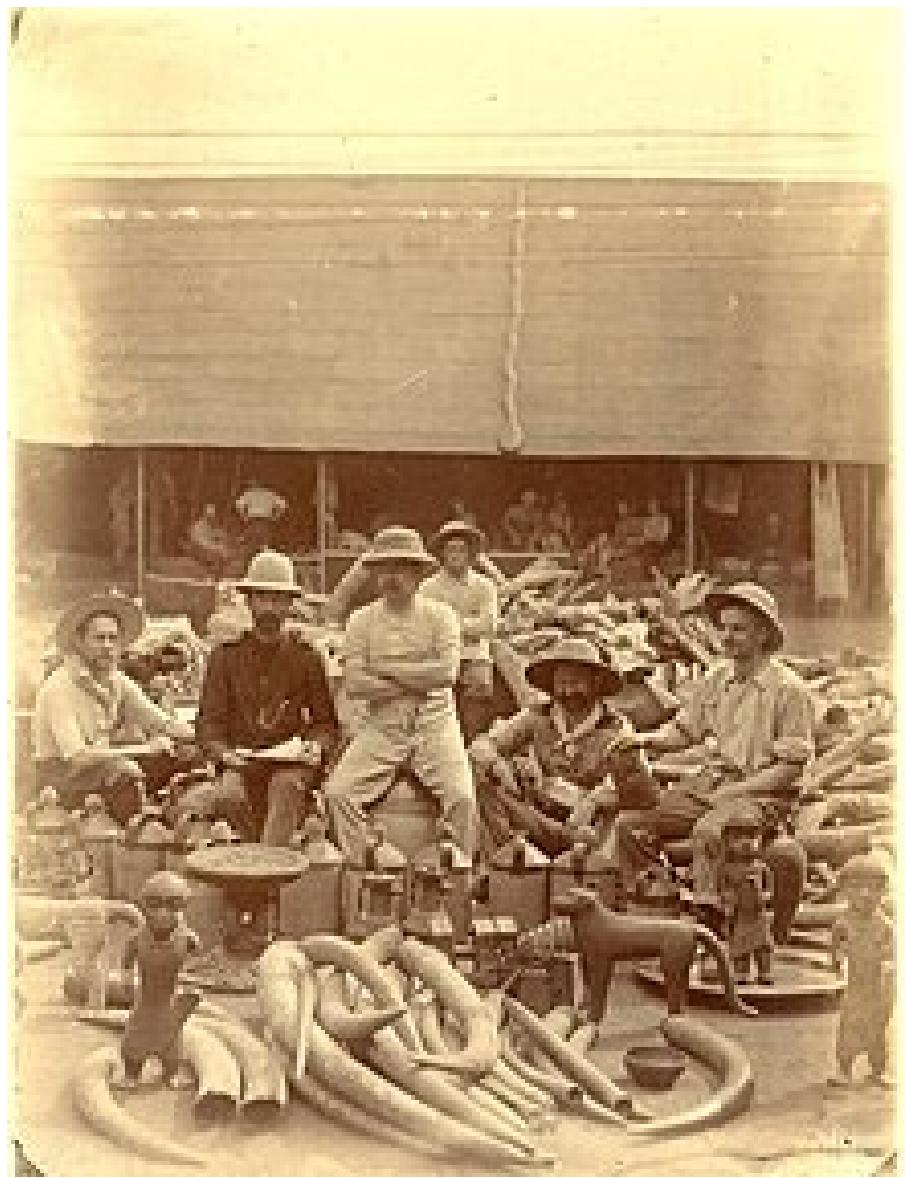
Wealth and Estates



The race for ‘textiles’

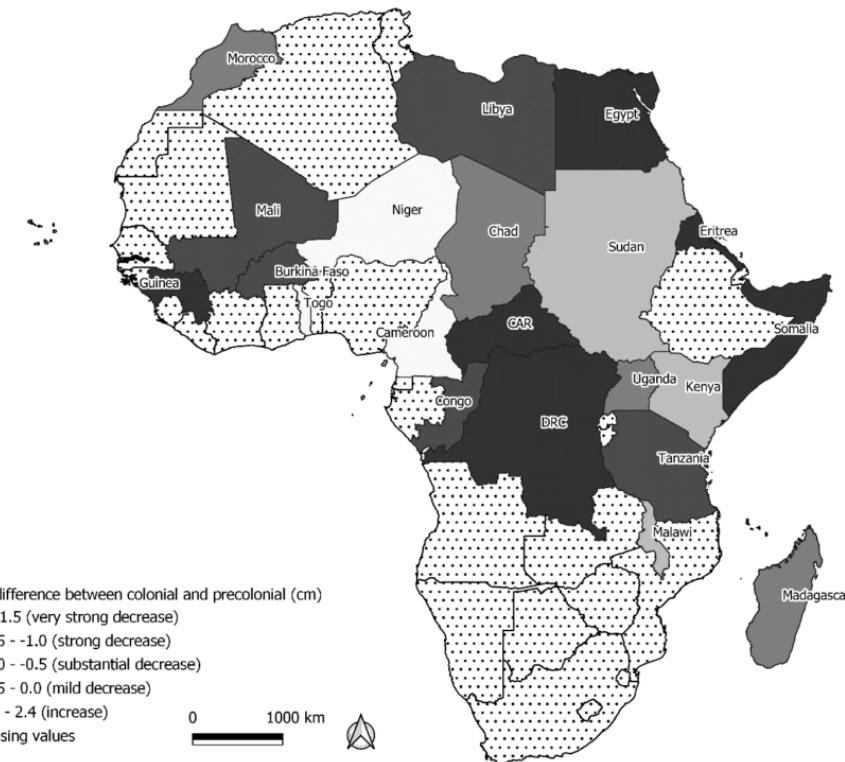
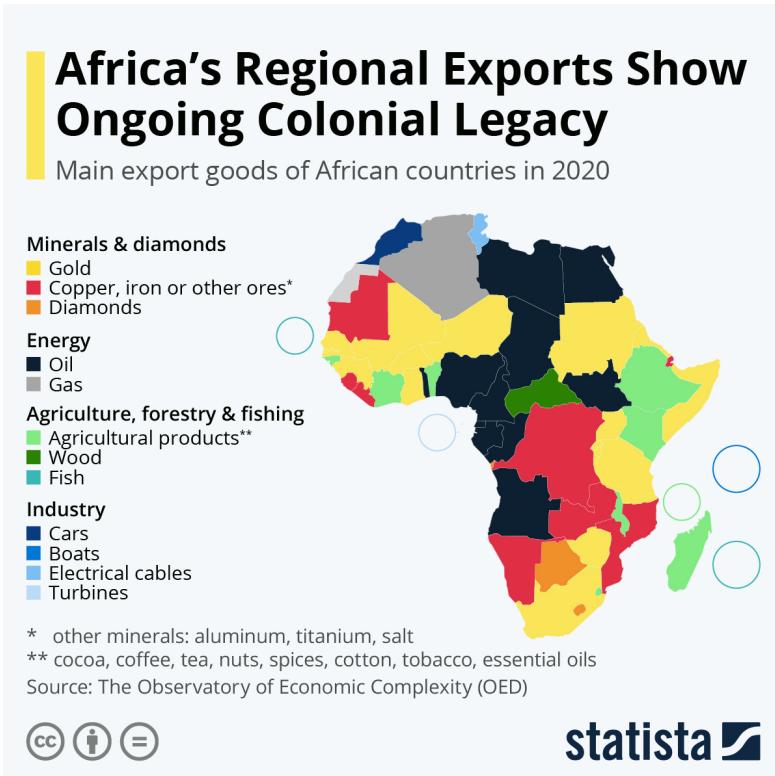






Africa

- Loss of resources
- Disruption in political systems
- Cultural and ethnic oppression of population







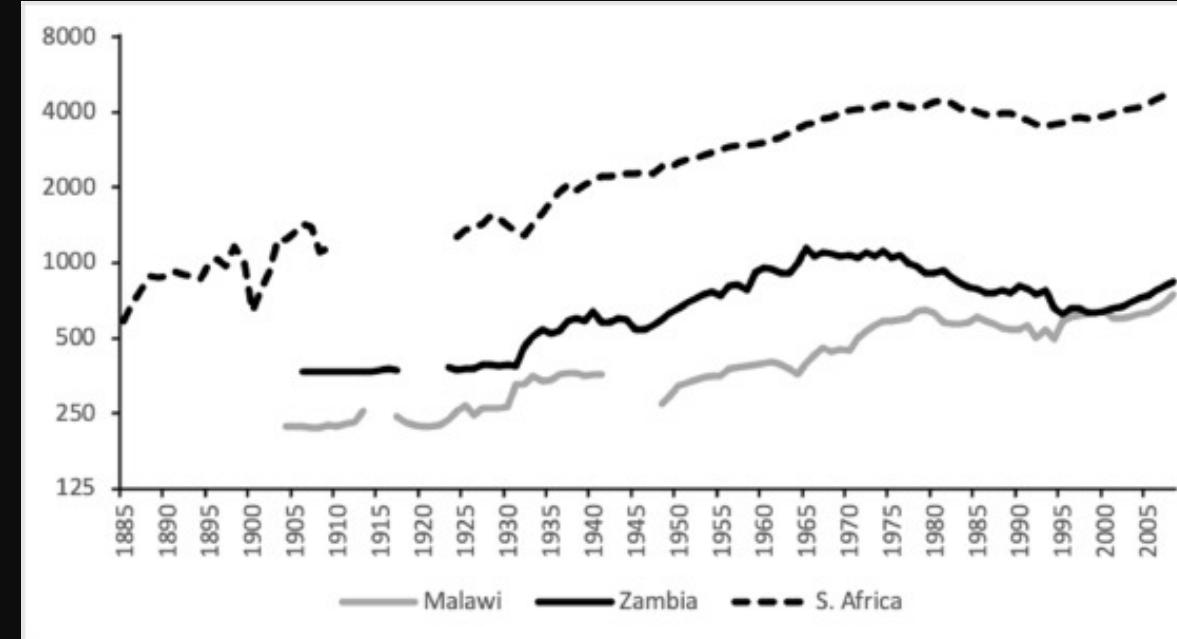
UGLY HISTORY: IRISH POTATO FAMINE

Legacies of Extractive Industries

- One economic and political institutions are extractive this can easily lead to a vicious circle.
- Imagine economic institutions lead to slave exports. The dynamics this set up perpetuated and even intensive extractive institutions.
- 1 Colonial institutions made slavery more intense in Africa and human rights very insecure.
- 2 Colonial institutions destroyed states and created others which were based on rent (slave) seeking.
- 3 Colonial institutions created political instability.
- James

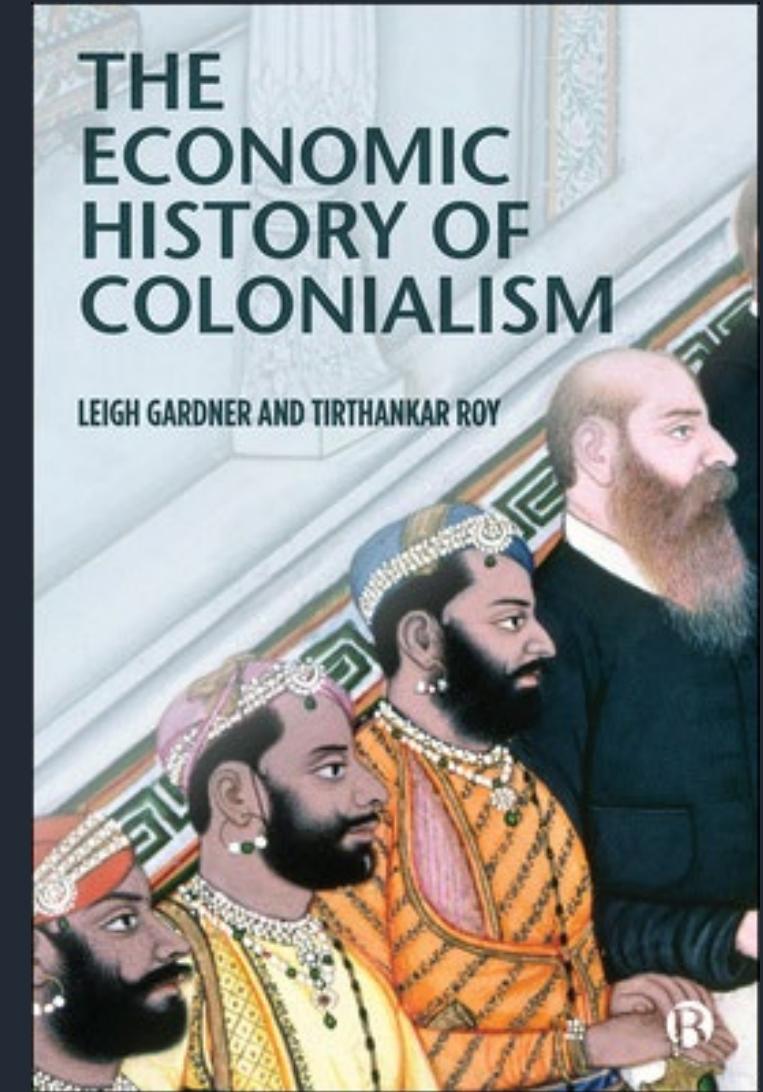
Nuances in colonial history

- Military versus Economies
 - Imbalances of military and economic may be offset by differing intensities
- Indigenous Institutions and interactions with ‘differing colonial institutions’

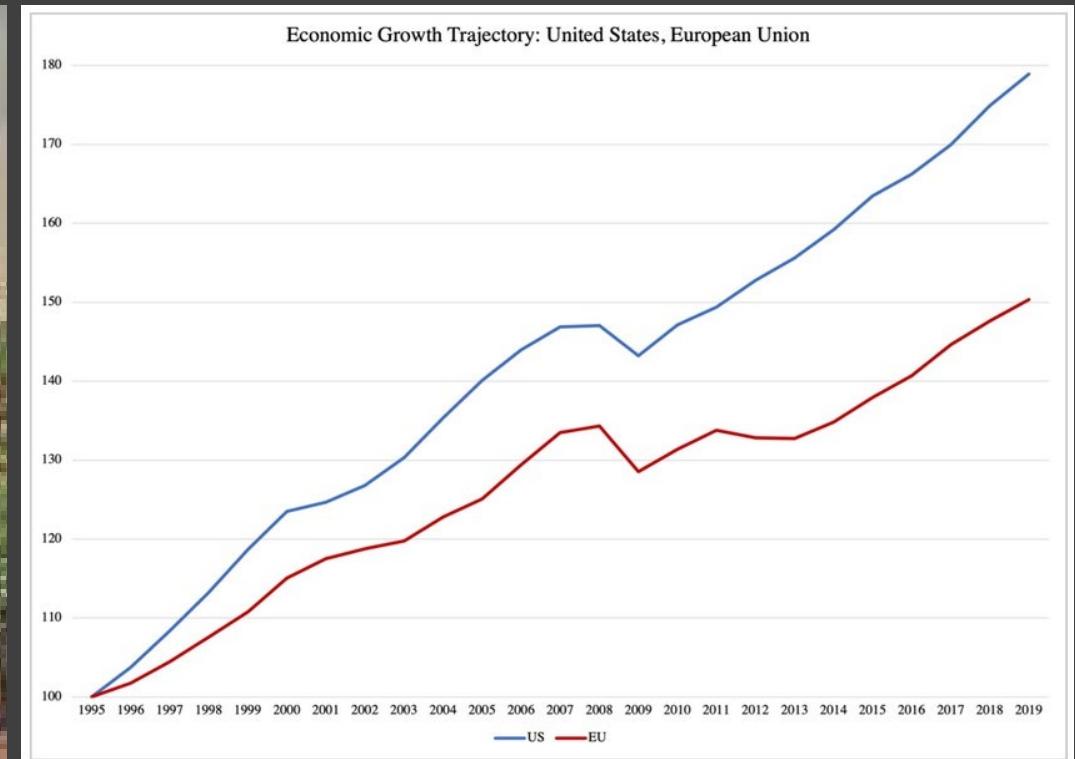


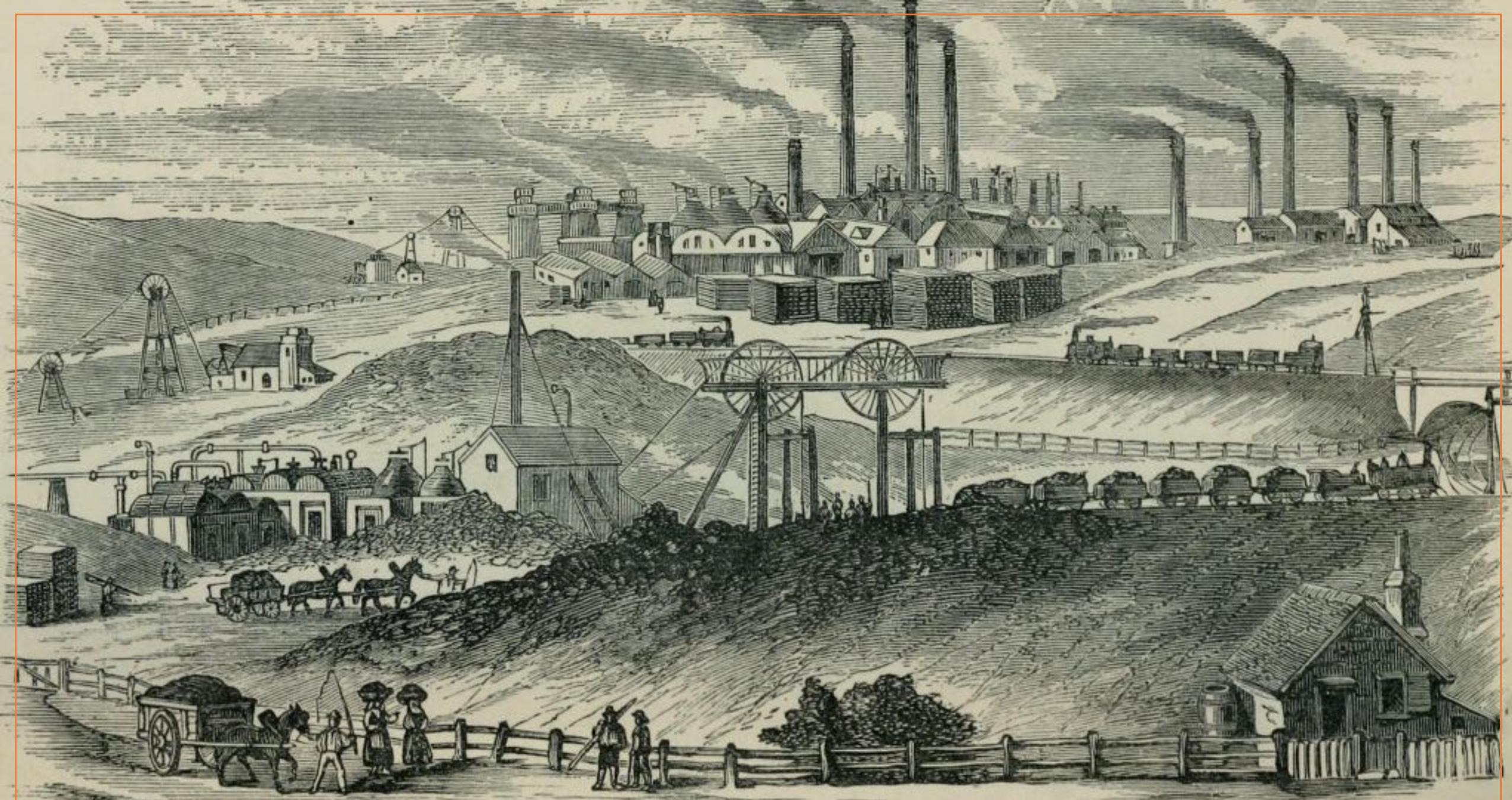
A Diversified Experience

- Diversity of Colonial Experience
 - European powers implemented distinct governance models, property regimes, and trading monopolies, driving divergent outcomes: some regions saw market integration and infrastructure development; others endured systemic resource drain and underdevelopment.
 - Colonial extractive models—such as India's land revenue systems—led to outflows of capital and enrichment of the colonisers, while new technologies like railways and cash crops amplified inequalities and dependence on global markets.
- Legacies for Growth and Inequality
 - Lack of promotion for localised manufacturing and businesses
 - Continued French financial dependence – Haiti and Sub-Saharan Africa
- Mixed and Contextual Consequences
- Environmental and Social Dynamics



American Civil War and Colonial Divergence

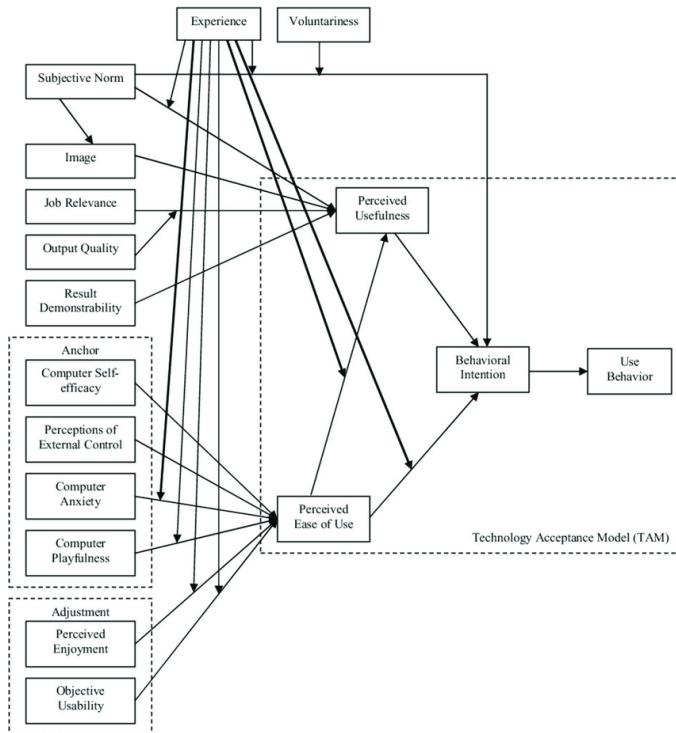




A PAIR OF THE EARL OF DUDLEY'S THICK COAL PITS IN THE BLACK COUNTRY

BUT Let's talk about technology

- Jahangir Aziz Model (2019)
- The productivity impact of new technology is contingent on the rate of assimilation, with differential effects on labour and capital productivity.
- Capital productivity was initially very low after the invention of “Newcomen” steam machine, it wasn’t until the invention of high pressure steam and other complementary institutions and technologies that things changed....(Crafts et al, 2022)



Period	Output Growth	Capital Growth	Labour Growth	TFP
1760–1800	0.6	0.25	0.35	0.0
1780–1831	1.7	0.60	0.80	0.3
1801–1831	0.5	0.30	-1.4	0.6

Late Industrialized Economies

- State-led Industrialization
 - Government Intervention and Strategic Planning
- Learning and Technology Transfer
 - Technology adoption and FDI
- Rapid Industrial Growth
 - Accelerated Development and Export-Oriented Growth
- Structural Transformation
 - Shift from Agriculture to Industry and Diversification of the Economy
- Human capital Development
 - Investment in Education and Workforce Upgrading
- Institutional Development
 - Institution building and copying and Strong bureaucracy
- Risks
 - Dependence on External markets
 - Debt and financial vulnerabilities
 - Environmental and social cost

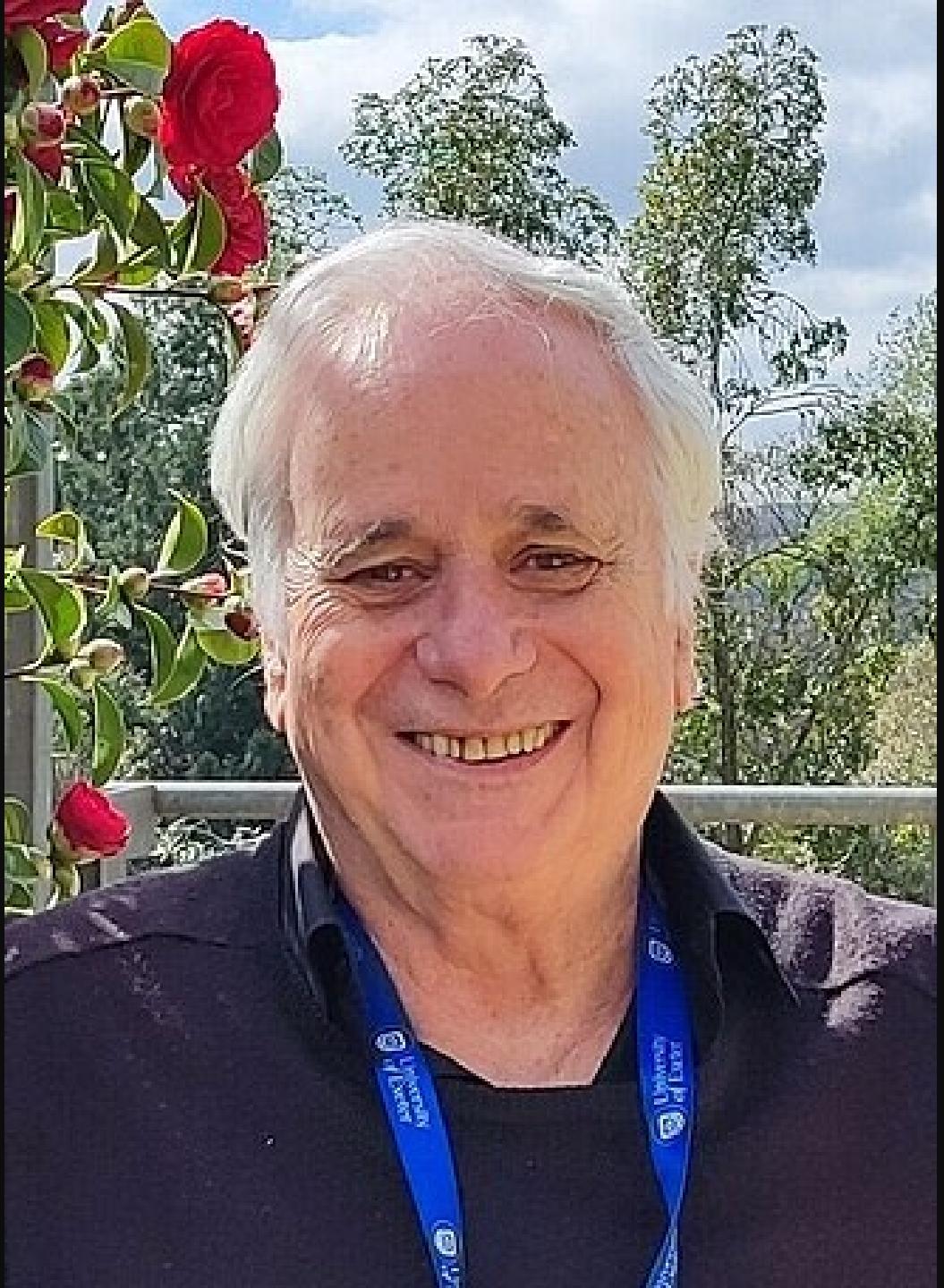


- “I do not admit...that a great wrong has been done to the Red Indians of America, or the black people of Australia. I do not admit that a wrong has been done to these people by the fact that a stronger race, a higher grade race, a more worldly wise race to put it that way, has come in and taken their place.”

Great thinkers in a time of racism

- ‘one of those wild savage beasts with whom men can have no society nor security’ and who ‘therefore may be destroyed as a lion or a tiger.’ –John Locke on Native American
- Black Africans were a ‘race of children that remain immersed in a state of naiveté’...Indigenous peoples lived in ‘a condition of savagery and unfreedom’.*The Philosophy of Right* (1821), “there is a ‘right of heroes’ to colonise these people in order to bring them into a progress of European enlightenment.” - Georg Wilhelm Friedrich Hegel
- “viewed people of different races as having been created separately by God. [He] played an important role in effecting the discursive shift from viewing Black people as ‘barbaric heathen[s]’.” - Voltaire





Reinforcement of Systems: Colonialism, Higher Education, and University Rankings

“We need to rethink the functions of our education systems, whether universities are places of business or free intellectual inquiries”

- Colonial Origins and Functions
 - **Imperial Centres of Knowledge:** Leading universities (Oxford, Cambridge, Paris, Berlin) grew in status and wealth as “nerve centres” of empire—training the administrators, scientists, and experts who sustained colonial rule.
 - **Colonial Institutions in the Periphery:** Universities in colonies (e.g., Mumbai, Singapore, Seoul) were established largely to create local elites loyal to the colonial administration—focusing on technical/professional skills rather than fostering independent thinkers and intellectuals.

University Rankings: Perpetuating Colonial Legacies

- **Wealth, Power, and Institutional Design**

- **Accumulation of Capital:** Imperial universities benefited financially from colonial exploitation—including profits from slavery, land expropriation, and resource extraction. University buildings themselves were often funded by colonial wealth.
- **Eurocentric Curricula and Methods:** Educational models privileged European epistemologies and paradigms, marginalising indigenous knowledge and traditional disciplines—a pattern still seen in architectural, historical, literary, and scientific curricula today.

Measurements

- **Systems of Hierarchy:** Global university rankings reinforce long-standing colonial hierarchies by consistently privileging universities in former imperial centres—the Anglosphere and Western Europe.
- **Measurement Bias:** Rankings use indicators (e.g., publication language, citation networks, research funding) that systematically advantage Global North institutions, while undervaluing those outside the colonial/imperial legacy.
- **Competition and Control:** Rankings create a zero-sum competition, driving universities worldwide to conform to Eurocentric standards and obscuring the value of alternative models, knowledge systems, and social responsibilities

In a matter of 300 years....

- New Global Hierarchies
 - Ascendancy of the United States
 - Globalisation of European Institutions
 - European World Order
 - Converging of norms in economic growth and development